PROGRESS IN INTERNATIONAL READING LITERACY STUDY

PIRLS

PIRLS 2011 Encyclopedia

Education Policy and Curriculum in Reading

Volume 2: L–Z and Benchmarking Participants

Edited by:

Ina V.S. Mullis, Michael O. Martin, Chad A. Minnich,
Kathleen T. Drucker, and Moira A. Ragan

TIMSS & PIRLS
International Study Center
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PIRLS 2011 Encyclopedia: Education Policy and Curriculum in Reading (Volumes 1 and 2)
Edited by Ina V.S. Mullis, Michael O. Martin, Chad A. Minnich, Kathleen T. Drucker, and Moira A. Ragan

Publisher: TIMSS & PIRLS International Study Center,
Lynch School of Education, Boston College

Library of Congress Catalog Card Number: 2012943869
ISBN-10: 1-889938-62-9
ISBN-13: 978-1-889938-62-2

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Boston College is an equal opportunity, affirmative action employer.
Printed and bound in the United States.

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Lithuania

Aistė Elijio
Vilnius University

Language and Literacy

In Lithuania, the official national language is Lithuanian, which together with Latvian forms the Baltic branch of the Indo-European family of languages. Lithuanian is considered to be one of the world's oldest living languages, having remarkably similar grammatical structures to Sanskrit. The main minority languages include Russian and Polish. In most schools, the language of instruction is Lithuanian, but there are still a considerable number of schools with a language of instruction other than Lithuanian—mainly Russian or Polish. All schools with a language of instruction other than Lithuanian teach Lithuanian as a national language in addition to the language of instruction as a mother tongue. Additional foreign languages taught include English, German, and French.

Overview of the Education System

In Lithuania, the parliament defines the basic principles, structure, and objectives of education, while the Ministry of Education and Science devises and implements education policy through its various institutions. The ministry defines the curriculum in use throughout the country, and also determines teacher salaries, requirements for teacher qualifications, priorities for qualification development, and the assignment of educational staff. Local municipalities are responsible for administering and financing most general education and vocational schools (except some national-level schools).

Preprimary education in Lithuania is optional for children ages 1–6. Primary school consists of Grades 1–4 and is followed by basic school, which comprises Grades 5–10. Education is compulsory for all students up to the age of 16. Primary and basic schools follow a national curriculum, which schools and teachers are expected to adapt to their needs.

Upper secondary school consists of Grades 11 and 12. Gymnasia form a parallel system of education lasting four years and corresponding to Grades 9–12. Currently, schools are being reorganized so that there will be

just three types of public schools: primary schools (Grades 1–4), pre-gymnasia (Grades 1–8 or 5–8), and gymnasia (Grades 9–12).

Language/Reading Curriculum in the Fourth Grade

Reading Policy

The education curricula for primary school shape policies regarding instructional time.[1] The school year in Lithuania begins on September 1st and usually ends at the end of May in primary school and the middle of June in lower- and upper-secondary school. Generally, schools in Lithuania hold classes five days per week, with instructional time typically consisting of 45-minute lessons. At the fourth grade, total instructional time is slightly more than 17 hours per week, with a maximum of 24 compulsory lessons per week. However, this does not include additional lessons that students are free to choose from, depending on availability at a particular school. The number of lessons allocated for mother tongue instruction is seven to eight per week in primary school (seven in Grade 4).

Lithuania's official reading policy is described in the *General Curriculum of Primary and Basic Education*.[2] According to this document, the main goals for primary school language teaching related to reading include the following:

- Helping students acquire basics of fundamental literacy, and develop elementary skills for creating and understanding text; and
- Creating prerequisites to acquire and widen intellectual capacity, as well as emotional, moral, social, and cultural experience.

The need to preserve and foster cultural traditions also is very much emphasized in all levels of education.

Summary of National Curriculum

The national curriculum integrates the teaching of reading in primary school into mother tongue instruction. The newest national curriculum, however, distinguishes the aspects of reading much more than prior curricula, and conceives of it as encompassing two major areas—reading technique and text comprehension (conscious reading), and basic knowledge of literature and culture—which are further divided into the following detailed sections: reading skills, reading functions, reading of literary and non-literary text, and attributes of a good reader.[3] It is expected that students, throughout Grades 3 and 4, will develop their knowledge and skills in these areas:

- Reading Skills—While reading literary and non-literary texts, as well as children's periodicals, students constantly improve their reading skills, including reading expressiveness and text comprehension. Based on the reading purpose and specific situation, students choose the type and tempo of reading—verbal or silent reading, and slow, medium, or fast rate.
- Reading Functions—While reading and analyzing study materials, students start to recognize cognitive, educational, and value-oriented or aesthetic functions of reading. The cognitive function refers to reading to know or to discover. The educational function refers to reading to learn to do or make something practically (e.g., to make a mask or to check if an essay is written without mistakes). The value-oriented or aesthetic function refers to reading because it is pleasant to read.
- Reading of Literary and Non-literary Text—While reading literary works or excerpts, students learn to evaluate, describing why they like (or dislike) a text; indicating what in the text makes them laugh, or feel happy or sad; admiring, getting angry, or experiencing other emotions; and identifying vivid words and expressions. While reading non-literary texts, students learn to find needed information, and to describe what is important in them and what new things they have learned. While completing tasks from textbooks, exercise books, or other texts, students learn to use explanations, suggestions, advice, and rules to carry out exercises for understanding language composition, learning writing, and creative tasks. After reading fairy tales, stories, or legends, students learn to perform and retell those works with proper intonation. They learn to guess riddles, to play children's folk games, and sing children's songs. After reading prose works, students learn to define themes, main ideas, characters, places, and time of action; explain what they like in the works and why; and identify vivid verbs, synonyms, and comparisons. Teachers help students discuss the imagery and mood of poems, and recite poems well. Students also learn to understand originality of dramas, and prepare and act out parts in dramatic works. Students purposefully read non-literary texts in books, periodicals, and on the Internet, to find necessary information and to distinguish main and secondary information. They purposefully read periodicals, watch children's TV programs, and are able to retell what they saw in them.
- Attributes of a Good Reader—By visiting school, city, or village libraries, students become active readers, develop aesthetic awareness, learn to choose valuable and needed books, and make use of informational

works. Students who have been learning to use the Internet since Grade 1 should be able to find needed information on the Internet independently by Grade 4. While reading, listening to, and analyzing texts, students are able to distinguish different types of writing (e.g., folk or contemporary stories), and they become familiar with the composition of a book and are able to name its different parts.

Reading Instruction in the Primary Grades

Instructional Materials

The national curriculum does not mandate any materials for reading instruction. However, the Ministry of Education and Science has approved a number of textbooks and other materials.

At the primary and lower-secondary school levels, students mainly use textbooks that include children's stories, excerpts from various books, and various exercises on reading comprehension. In most cases, teachers can choose from several types of textbooks to use in instruction. In addition, Lithuanian schools practice "independent reading" wherein students read children's books of their own choosing and, at times, present what they have read either orally or in writing. The higher grades introduce readers, which provide plain texts (excerpts) from various literature works, and textbooks, which include reading theory and information on the authors.

All textbooks and educational computer programs must receive official approval from expert panels at the Ministry of Education and Science. Other materials do not need approval.

Use of Technology

Despite the increase in the availability of literacy-related computer programs, their use is still very limited in Lithuanian schools. In general, however, students have much greater access to computers both for writing and reading than they had during the time of PIRLS 2006.

Role of Reading Specialists

The use of reading specialists is still virtually non-existent in Lithuania. Occasionally, teachers' assistants offer general help, usually by assisting students who have certain difficulties in grasping the standard educational program. However, these assistants generally do not have specialization in reading.

Second-language Instruction

All schools whose language of instruction is other than Lithuanian (primarily Russian, Polish, and some Belarusian) teach Lithuanian as a national language in addition to the language of instruction as a mother tongue. The syllabus for Lithuanian as a national language differs from that for Lithuanian as a mother tongue, but it includes a wide range of aims for speaking, writing, and reading in Lithuanian.

Students with Reading Difficulties

Unfortunately, there is still virtually no special attention paid to students' reading disabilities in Lithuania. There are no diagnostic measures to identify students with major problems in reading, nor are there any special materials or programs to help those students reach the desired level of reading. Some modified programs are offered to students whose overall level of understanding and ability is considerably lower than average, but none are related specifically to reading problems.

Teachers and Teacher Education

Teacher Education Specific to Reading

Primary school (Grades 1–4) teachers receive their education either at pedagogical universities, previously called pedagogical institutes, or at one of two teacher education colleges. Education lasts four years at a pedagogical university, and three years at a teacher training college. Courses of study include education in the subjects taught at the primary level as well as general courses in pedagogy and psychology.

The majority of teachers in primary and basic schools (almost 94%) have university level education, almost 5 percent have post-secondary tertiary education, and less than 2 percent have secondary level education.[4] About 97 percent of primary school teachers and 93 percent of basic school teachers have pedagogical qualifications.[5]

Since 2010, a new regulation for teacher education gave added emphasis and support for teacher preparation in various higher education institutions. However, during the administration of TIMSS 2011, teachers educated in the new system had not yet begun formal classroom practice.

There are no specific requirements to teach reading. Because reading is integrated in general language instruction, so is education for teaching reading.

Requirements for Ongoing Professional Development in Reading for Teachers

The Teachers' Professional Development Center and in-service training centers provide ongoing professional development for teachers, although there is no specific program for professional development in reading. Since 1993, teacher professional development in Lithuania is encouraged through the assignment of qualification categories: junior teacher, teacher, senior teacher, teacher-methodologist, and teacher-expert. Teachers' salaries in public schools primarily depend on their qualification category and length of service. Teachers must be recertified every five years, either to confirm their present category or to advance to a higher one.

Monitoring Student Progress in Reading

There are no national examinations at the primary level. Students take examinations at the end of basic school (Grade 10) and at the end of the secondary school (Grade 12). The examinations at the end of basic school comprise mother tongue and mathematics.

At the end of secondary school (Grade 12), the range of final examinations (the *Matura* or *Brandos* examinations) is much wider. Lithuanian language (either as a mother tongue or as a national language) is the only compulsory examination. Students are free to choose other examinations from a large list, including mathematics, biology, physics, chemistry, geography, history, foreign languages, art, music, informatics, and mother tongue (for language minorities). However, to receive the secondary school leaving (*Matura*) certificate, students must pass at least two examinations.

Lithuania also administers national sample surveys in mother tongue, mathematics, science, and social science at Grades 4, 6, 8, and 10, which provide national level information about the main areas of education. Sometimes, and in some districts, all students are tested to monitor school conditions and to make educational management decisions. After these surveys, example questions with scoring instructions and national level statistics are made available and can be used by teachers to gauge the relative achievement of their students.

Recently, a major project to develop standardized tests in Lithuania has been launched, because although a number of commercial tests are be available, their quality is doubtful and they are certainly not standardized. The project also aims to address another issue—the fact that diagnostic testing often is not used in Lithuania, although schools might use some tests to identify children

with mental disabilities or very gifted students, there are no tests for the general student body.

Primary school students (Grades 1–4) do not receive grades, but written detailed explanations of their achievements based on teacher observations. Beginning in Grade 5, after a transitory period lasting about a half a year, teachers begin giving grades on a scale from one to ten to measure student attainment, with four being the minimal "passing" grades and ten considered an "excellent" grade. The curriculum provides general directions for assigning grades to particular levels of attainment, but teachers generally use their professional discretion to determine them.

Teachers assess student reading achievement as a part of their overall assessment in the subject of mother tongue.

Impact and Use of PIRLS

Prior to PIRLS 2001, Lithuania already had participated in TIMSS 1995 and 1999, but PIRLS 2001 was the country's first large scale reading literacy study. The National Examinations Center, the institution responsible for the *Matura* and basic school leaving examinations, also was responsible for implementing PIRLS 2001. At the outset of PIRLS 2001, the examination system had just undergone reform, with the centralized national examinations having been introduced at the high school leaving or university entrance level; a culture of assessment was growing in the country, basic analysis of the results of the *Matura* examinations were beginning to be conducted and disseminated, and ideas about other assessment possibilities (e.g., diagnostic tests and national assessment) were being shared. Given the timing, PIRLS 2001 had both a direct and indirect impact on the development of these processes.

The results of PIRLS 2001 came as a pleasant surprise to the Lithuanian educational community, especially after poor TIMSS results in 1995 and 1999. Lithuania performed well (only Sweden, Netherlands, and England had significantly higher achievement), which may be one of the reasons people gladly listened to and disseminated the results. In 2006, the Lithuanian results in PIRLS were slightly lower, but again were discussed widely, and more extensive secondary analyses were carried out and conclusions disseminated. The results influenced changes both in the curriculum and in textbooks used for teaching reading, along with familiarizing language educational specialists with the PIRLS assessment framework.

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Malta

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Language and Literacy

Malta has two official languages: Maltese, the national language, and English.[1] The curriculum currently used in Malta, *Creating the Future Together: National Minimum Curriculum* (NMC), regards bilingualism as the basis of the educational system and mandates that the two languages be taught from the first grade (Year 1).[2] While children first develop their mother tongue, they have opportunities to interact in the second language before they are exposed to any formal teaching. Students learn both languages throughout primary and secondary schools, and NMC indicates that it is the school's responsibility "to develop a linguistic policy which reflects the particular linguistic needs of its students." [3] However, NMC also recommends that "equal importance should be given to the teaching of the first and second languages at all levels." A review of this recommendation after a ten-year period indicates that not all schools have followed this national language policy, thus the policy will undergo an in-depth review by all stakeholders in 2012.

The language of instruction in most state schools, which provide around 59 percent of compulsory education, tends to be Maltese, although the proposed *National Curriculum Framework* states that "textbooks, continuous assessment and examinations in most subjects of the curriculum are in English." [4] In independent schools, which provide about 11 percent of compulsory education in Malta, the English language receives more emphasis. The remaining 30 percent of compulsory education is provided by schools owned and run by the Catholic Church, where a more balanced importance is given to both languages. Nonetheless, by the end of secondary school, all children are expected to achieve adequate standards in Maltese and English and cannot proceed to post-secondary education without the required certification in both.

In recent years, literacy development has received more support through the *National Policy and Strategy for the Attainment of Core Competences in Primary Education.*[5] This policy stipulates that all children should develop the necessary basic competences by age seven to ensure full access to the curriculum.

Overview of the Education System

The Ministry of Education and Employment (MEDE) is responsible for education in Malta, and equity and quality underscore the government's education policy. Commitment to these principles is evidenced by inclusivity at all levels and the provision of free public school education to all, from kindergarten to the tertiary level. The government also subsidizes church schools that do not charge tuition fees, and gives tax rebates to parents who send their children to private schools.

The Education Act of 1988 is the legal framework regulating education provision in Malta.[6] A 2006 amendment to the Act established two directorates: the Directorate for Educational Services (DES) and the Directorate for Quality and Standards in Education (DQSE). DES plans, manages, and provides resources and services to state schools, while DQSE establishes and monitors standards as well as quality of programs and services provided in both state and non-state schools. The amended Education Act further decentralized decision-making by forming college networks in the state sector.[7] Currently, there are ten college networks in Malta, each with its own legal and distinct identity and consisting of multiple preprimary schools, primary schools, and at least two secondary schools.

DQSE also is responsible for formulating, implementing, and monitoring the curriculum. In 1999, the then Education Division published Malta's current *National Minimum Curriculum* (NMC). In 2008, a review of NMC began and the new draft, *Towards a Quality Education for All: The National Curriculum Framework,* was published in May 2011. The publication was subject to an eight-month consultation process that culminated in a national conference in December 2011. Currently, feedback is being analyzed and work is being carried out to finalize the *National Curriculum Framework* in 2012 for implementation beginning in the 2012–13 school year.

Compulsory education covers ages 5–16 and comprises two main cycles: primary education (ages 5–11) and secondary education (ages 11–16). Prior to the start of primary education, there is provision for child daycare (ages 0–3) and kindergarten (ages 3–4). Although preprimary education is not compulsory, approximately 93 percent of four-year-olds attend kindergarten.

Parallel to the public education sector there is a non-state sector (comprised of church and independent schools) that educates approximately 40.8 percent of students. The two sectors work in close partnership to provide a quality education to all students.

Following compulsory education, students can choose to follow either a general or vocational education path. Tertiary education is provided at the University of Malta and at the Malta College of Arts, Science, and Technology, with the latter specializing in vocational degrees. State educational institutions as well as private providers offer lifelong learning courses for adults during the day or in the evening. Some courses are run in collaboration with local councils to facilitate accessibility to adult learners. Courses cover a wide array of subjects and topics, and can be used to acquire formal qualifications or for personal self-development.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Reading forms an integral part of the language curriculum, which includes four main components: speaking, listening, reading, and writing. Schools have been encouraged to develop a language policy that suits the particular locality's needs while ensuring that both Maltese and English receive emphasis, although this varies according to school sector. In Grade 1 (Year 1), the state sector tends to expose children to oral language and literacy in the national language (Maltese), and focus on oral learning in English during the first term before introducing literacy in English in the second term. Many church and independent schools first teach students English and introduce Maltese later in the year.

The curriculum indicates that a main aim in teaching each of the two languages is to prepare students "linguistically, psychologically and culturally for language learning." [8] The curriculum considers that the development of a positive attitude to language learning is essential, as is encouraging students to appreciate and value reading as a "pleasurable and enriching experience and activity." Storytelling and communication in each of the two languages are greatly encouraged.

Reading instruction in Maltese and English occurs throughout the primary and secondary years. Each year's syllabus greatly encourages reinforcement and consolidation of work carried out in previous years to allow students to build on skills and information previously taught. A main thrust of the language curriculum is to enable students to communicate meaningfully and to use appropriate language for different purposes. The curriculum recommends that the four language skills be included in every lesson, using activities that promote listening and speaking in order to transition into reading and writing. Thus,

there is no specific independent reading policy because reading is integrated with the other language skills.

Nonetheless, there is continued concern that all students develop the required literacy skills from an early age; thus, the *National Policy and Strategy for the Attainment of Core Competences in Primary Education* was developed. This policy focuses on the development of literacy, numeracy, and e-learning skills to ensure students' holistic development. This document defines literacy as "the ability to express oneself confidently in Maltese and/or English, to read meaningfully and to use the written word for the purposes of communication so as to access the full curriculum and thus lead to the mastery of key competences for lifelong learning." [9] The policy also recommends, among other things, that students "are provided with up-to-date appropriate resources for the development of their full literacy potential." Even more important is the expectation that by "the end of Year 3 in primary schooling a learner will look positively upon reading and enjoy the reading and writing adventure." [10]

Summary of National Curriculum

In Malta, students who participated in the PIRLS assessment were in Grade 5 (Year 5), unlike participants in other countries who were in Grade 4. In PIRLS, the target population is the fourth year of formal schooling with the average age of students at least 9.5 years. Because students in Malta begin school at a relative young age (age 5), the average age of Maltese students in their fourth year (Year 4) is about nine years. Therefore Malta assessed students in Grade 5. At the time PIRLS was administered in Malta, students in Grade 5 were typically about ten years old.

The following summary focuses on the skills and competences that students are expected to develop during Grade 5, though it is necessary to point out that a number of these skills are introduced in Grade 2 (Year 2) and extended, developed, and enhanced over subsequent years. Moreover, schools now have considerable autonomy, and much depends on the reading programs selected—some schools might choose to develop shared and guided reading, while others might choose to introduce paired reading.

Teachers expose all students to reading in both languages. The various reading-related skills and teaching strategies that teachers are expected to consolidate or develop in Grade 5 are as follows: [11]

- Demonstrate awareness and knowledge of book conventions—Students are expected to develop positive and favorable attitudes towards reading from the first school year through the various activities organized by

the teacher and the school. Thematic or topic teaching is practiced and leads to extended oral and reading vocabulary. By Grade 5, students are expected to consolidate their knowledge of specific features in a text (e.g., title, author, use of contents page) and use the preface for information about the subject matter of a book.

- Demonstrate ability to access information from a range of sources—In the early years, students are exposed to storytelling, Big Books, and DVDs, and are made aware that reading can take a number of different formats. As they progress from one year to the next, their repertoire of sources to access information continues to increase. They are expected to independently select appropriate sources of information related to class topics or special interests. By Grade 5, students should be able to gather information from a wide range of different printed and electronic sources (e.g., messages, notices, books, magazines, newspapers, and encyclopedias). Additionally, students learn to differentiate between fiction and non-fiction texts.
- Use a range of strategies automatically when encountering difficult text—A number of strategies are recommended to encourage students to read texts that initially might appear challenging. Students are encouraged to develop the ability to self-correct, re-read, clarify, slow down and sub-vocalize, use context, and substitute unknown words with familiar ones.
- Apply knowledge and use word identification strategies appropriately and automatically when encountering an unfamiliar word—In the early years, students are encouraged to use graphophonic knowledge and to make use of their knowledge of commonly used letter patterns and word segmentation strategies. Awareness of homophones and homonyms is also a requisite. During Grade 5, such skills are further extended and developed.
- Demonstrate efficiency in using a variety of strategies to understand and maintain meaning of text—In the early stages of reading, students are encouraged to respond to direct, factual questions and to start developing familiarity with prediction. Prediction is initially for only minor aspects of a text, but students are gradually expected to respond to inferential questions. This ability is expected to continue to develop and, during Grade 5, students are required to relate to and empathize with the text, visualize situations, make and substantiate predictions, and generate questions about the text. During this year, students are expected

to make connections between what they read and what they know and experience.

- Participate in shared reading experience—According to the curriculum, students first encounter the concept of shared reading experiences during their second school year, and they are expected to read with teachers and peers using fiction and non-fiction texts, instructions, and other information. During Grade 5, students are required to read for different purposes (i.e., enjoyment, information, and instruction).
- Read confidently, with fluency, expression, and clear diction—Students are expected to gradually develop knowledge of common punctuation marks, which contribute to enhancing punctuation and intonation. During Grade 5, the consolidation of this knowledge should lead the student to read different genres for an audience and to read silently with sustained concentration.
- Read and understand unfamiliar text with support—Students must take the initiative to read unfamiliar texts, asking for support when required.
- Use a wide range of monitoring and adjusting strategies to aid comprehension with support—During their third school year, students are expected to begin identifying main ideas and key words, skimming and scanning texts, and identifying words that enhance meaning in a text. These skills are developed during Grade 4 and further developed and consolidated in Grade 5. At this stage, students also are expected to make inferences based on implicit information drawn from a text and, when necessary, provide justification for those inferences by returning purposefully to the text.

Reading Instruction in the Primary Grades

Instructional Materials

DQSE recommends using *Happy House* for students in Grades 1–2 (Years 1–2).[12] This story-based course allows students to exercise oral skills by listening to rhymes and participating in short conversations and dialogues. Later in Grade 2, students continue with *Happy House (2),* which offers an introduction to the written word and exposes students to basic vocabulary and structured sentences. Schools frequently supplement *Happy House* with other books at their discretion. In Grade 3 (Year 3), *The Way Ahead Foundation Course in English* is introduced, which includes a number of leveled teaching materials.[13] This course includes a student's book, a workbook, a practice book, a teacher's book,

and audio CDs. The student's book includes 18 units, each of which includes a "reading for pleasure" page. Reading, listening, and speaking skills are covered in a structured manner.

To encourage and contribute to the development of independent learners, DQSE recommends different strategies for reading instruction. For this purpose, a number of reading programs including both fiction and non-fiction reading materials have been reviewed and listed as supplementary reading material. Schools receive additional funding and guidelines that highlight relevant information about available reading programs. Heads of School, in collaboration with the Senior Management Team and teachers, are encouraged to select the reading program that best meets children's needs at their school.

Use of Technology

Use of technology very much depends on individual teachers. As of 2012, interactive white boards have been installed in each state primary and secondary classroom. All teachers have been trained in their use and further training is on going. In addition, all state schools are now networked via a virtual learning environment that enables teachers to access different kinds of resources.

Role of Reading Specialists

The Education Directorates have assembled a team of complementary teachers who offer further support to any identified struggling readers at the primary level and who are responsible for providing one-on-one or small group sessions either in or outside of class. Recently, following implementation of the *National Policy and Strategy for the Attainment of Core Competences in Primary Education,* literacy support teachers have been employed to support classroom teachers in developing reading strategies within the classroom and identifying children whose literacy skills are lagging behind. Literacy support teachers also support Senior Management Teams and classroom teachers in adapting teaching materials and devise individual and holistic school support for struggling students.

Second-language Instruction

As stated previously, students learn Maltese and English from the first year at school. The two languages are taught during timetabled slots, and their use as a means of instruction depends on the teacher. In recent years schools have recognized the need to develop programs for students who are completely

unfamiliar with Maltese or English. Such programs depend heavily on the school's locality, identified needs, and available resources.

Students with Reading Difficulties

Diagnostic Testing

Students with reading difficulties continue to be a serious concern. All early primary teachers have been trained to administer checklists in both Maltese and English when a student is not making sufficient progress or is lagging behind in the development of the required skills for literacy attainment. The results of this checklist enable the classroom teacher to identify the student's strengths and weaknesses and to determine the nature of support required. The complementary teacher and literacy support teacher together devise an intervention program addressing the specific needs of the student with literacy difficulties. Three levels of checklists are available:

- Level 1—Focuses on the development of early literacy and emphasizes phonological awareness;
- Level 2—Continues to focus on phonological awareness, but has higher levels of attainment regarding reading and spelling; and
- Level 3—Consolidates skills that allow children to read unfamiliar texts in both Maltese and English.

If students have not reached the expected levels by the end of Grade 3 (Year 3), they are referred for a full assessment of their literacy difficulties. Assessments typically administered include word reading, prose reading and comprehension, free writing, and other tests to investigate the possibility of dyslexia.

Instruction for Children with Reading Difficulties

Data gathered for the standardization of spelling and reading tests have shown that Grade 3 (Year 3) is a critical year in students' literacy development. Significant improvement takes place in both Maltese and English reading and spelling at this stage, especially between the ages of seven and seven and a half.[14] For this reason, the national effort to identify and support students who have not made the required progress by the age of seven is crucial. To ensure that all students reach the expected standards by the end of the primary cycle, children still experiencing literacy difficulties at the end of Grade 3 (Year 3) receive an statutory action plan developed by the school for Grade 4 (Year 4).

The *National Policy and Strategy for the Attainment of Core Competences in Primary Education* recommends that both phonics and whole language teaching methods be used skillfully to reach targeted levels of literacy in Maltese and English. Teachers are trained to use assessments to identify reading difficulties and to implement necessary interventions. This policy has been in place for two years; thus, students involved in the PIRLS assessment have not benefited from the possibility of more focused identification of and support for reading difficulties.

Following assessment, a meeting is held with parents and teachers who are instructed in the multisensory teaching interventions appropriate for the student. Until recently, only the classroom teacher, with support from the complementary teacher, addressed the needs of children with reading difficulties. Today, a team of literacy support teachers and dyslexia specialists support the classroom teacher in determining the appropriate programs for a student with reading difficulties. Students with more severe learning difficulties also can receive the services of a full-time or part-time learning support assistant during school hours. Support for children with reading difficulties also is available after school hours from the Foundation for Educational Services. This foundation runs a number of different initiatives based on the concept of family literacy and family learning that contribute to literacy development.

Teachers and Teacher Education

Teacher Education Specific to Reading

In Malta, undergraduate students following the four-year Bachelor of Education (Honors) program of study at the University of Malta cover such areas as pedagogy, psychology, language development, and special education. During their first undergraduate year, prospective teachers receive an overview of reading development and basic reading strategies. In the second year, children's literature is addressed, while students are given an overview of phonics teaching in their third year. Students also must attend a 28-hour course on Literacy Difficulties and Young Learners, which provides an overview of literacy development and the strategies that support students encountering difficulties in the early stages.

The University of Malta does not offer undergraduates specific courses solely related to reading. Five years ago, however, a post-graduate certificate in the teaching of dyslexic students was made available. This program includes training in understanding and identifying dyslexia, intensive exposure to

the multisensory teaching programs available, and focused evaluation of structured intervention for children with dyslexia. From February 2012, a similar post-graduate, master's degree course will be offered to teachers with a bachelor's degree.

Requirements for Ongoing Professional Development in Reading for Teachers

Teachers are required to attend one twelve-hour professional development course each year. Topics vary according to needs identified by the Training Section of the Curriculum and eLearning Department (CMeLD). In recent years, all teachers responsible for Grades 1–4 (Years 1–4) have been required to attend a course that familiarized them with the implementation of the *National Policy and Strategy for the Attainment of Core Competences in Primary Education*. Teachers responsible for Grades 5 and 6 (Years 5 and 6) have been invited to attend courses on differentiation and on the newly introduced national assessment procedures—particularly oral examinations. In 2012, training will focus on the introduction of the e-learning platform and the use of interactive white boards.

Monitoring Student Progress in Reading

Classroom teachers assess their students on a regular basis. Once a teacher begins to note that a student is lagging behind in literacy, the teacher conducts an informal assessment using the checklists previously described. The outcome of this informal assessment is used to determine whether the student requires the support of complementary teachers. Particular aspects of the checklists are reviewed at regular intervals and the complete checklist is re-administered at the end of the second term to monitor the student's progress.

Teachers also are encouraged to carry out their own regular formative assessments and testing to monitor overall student progress. The first summative assessment takes place in Grade 4 (Year 4), and is used for evaluating language attainment, as well as for formative purposes. A similar assessment also takes place at the end of Grade 5 (Year 5).

The National Benchmark Assessment is an important assessment held at the end of primary school in the three core subjects (mathematics, Maltese, and English) to determine students' strengths and weaknesses before they move to secondary school. For the Maltese and English assessment, students are tested in the four language components (listening, speaking, reading, and writing).

The results of the assessment help ensure that each student is placed in the appropriate class for each core subject.

Throughout secondary school, formal assessment occurs twice a year: mid-year and end-of-year. However, teachers can monitor progress through informal assessment or testing throughout the year, when necessary. Before completing secondary education, students take a number of examinations at the secondary education certificate level in order to continue with post-secondary education.

Impact and Use of PIRLS

This is the first time that PIRLS has been administered in Malta; thus, assessing its impact on the reading literacy of Maltese students is not possible at this time. In an effort to make the best use of Malta's first experience in PIRLS and the available information, scorers, who were mainly specialists in reading literacy, were invited to provide a seminar for literacy support and complementary teachers to start a dialogue prior to the release of final results. During this seminar, the strengths and weaknesses of Maltese students identified during the scoring process were discussed and possible enhanced reading strategies were outlined. The lessons learned from the scoring exercise are being addressed in literacy classes. Once the final results are published, there will be a clearer picture of what needs to be addressed and the necessary action plans will be put in place and implemented.

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The Kingdom of Morocco

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Language and Literacy

According to the 2011 Constitution, Arabic and Amazigh are the two official languages of the Kingdom of Morocco. The 1999 Charter for Education and Training stipulated that an open approach toward the Amazigh language would be endorsed.[1] To this end, the Royal Institute for the Amazigh Culture (IRCAM), which was created in 2001 under provisions of the Royal Dahir, has been designing various teaching materials and teacher training programs in Amazigh jointly with the Ministry of Education. Some 12,000 teachers, 300 inspectors, and 558 school principals have so far received Amazigh teacher training through IRCAM. The inclusion of Amazigh in the school curriculum was a remarkable event within Morocco's educational spheres.

The 2011 Constitution supports learning foreign languages and stipulates that the most widely used foreign languages shall be taught as means of communication, integration, and interaction with other societies in the spirit of openness to other cultures and civilizations.[2] French, which is taught in kindergartens and the first and second grades of public primary schools, is often used as the language of government, diplomacy, technology, and economics in Morocco. English also is gaining ground as the most popular foreign second language and is used as the medium of instruction in a small number of higher education institutes and engineering schools. Spanish, Italian, and German also are taught as foreign languages beginning in Grade 9.

Within the Moroccan educational context, reading literacy is viewed as an asset that allows students to further their knowledge, nurture their potential, and fully participate in society. Reading classes revolve around the acquisition of literacy skills and sub-skills and their various uses in a broad sense.[3] Educationalists are keenly aware that reading is an essential instrument for the teaching and learning of other components of language as well as a prerequisite

for developing student readiness to cope with knowledge and culture. In addition, early reading literacy helps students become aware of values inherent in other content areas and contributes to autonomous learning.

Overview of the Education System

Morocco's 2011 Constitution specifies that the state, public institutions, local authorities and families should work toward facilitating citizens', and in particular children's, equal access to education, vocational training, physical education, and art.[4]

The Ministry of National Education, Higher Education, Staff Training, and Scientific Research oversees all areas related to the provision of both public and private education. The ministry is run according to the National Charter for Education and Training adopted in 1999, which recommended decentralized education delivery and increased responsiveness to local needs and realities.[5] Accordingly, regional Academies for Education and Training in each of the 16 administrative regions of Morocco have been charged with, among other things, developing up to 30 percent of the curriculum for their respective regions to help ensure that these curricula are locally relevant. In addition, regional *Délégations* are charged with, among other things, providing services for education in their respective regions.

Since independence in 1956, the Moroccan education system has been subject to consecutive comprehensive reforms. In 1999, the latest reform was enacted and gained national consensus. The reform stipulates that education and training be a national priority, second only to territorial integrity. Significant progress towards reforming education and training had been made, despite challenges and delays encountered during ten-years of implementation.

In 2009, the government embarked upon the National Education Emergency Support Program to give fresh impetus to this reform. One of the distinguishing features of the 2009 program is that it uses a holistic approach to address the challenges still facing Morocco's education, such as performance, efficiency, and quality enhancement.[a, 6] The implicit aim of this program is to help Morocco make significant strides toward meeting some of its UN Millennium Development Goals by 2015. The components and goals of the National Education Emergency Support Program are as follows:

a The National Education Emergency Support Program (*Programme d'Urgence* (2009-2012)) strategically aims to place students at the forefront of education and training. Therefore, the program focuses on the improvement of learning through the acquisition of competencies and strategies necessary for student autonomy.

- Make education available to all—Raise compulsory education to age 15, eradicate gender disparities in schooling, and enhance capacity building of the Ministry of National Education staff.
- Improve the quality and performance of secondary and university education—Increase the availability of upper secondary education, and eradicate illiteracy.
- Resolve cross-cutting issues—Increase the availability of lower secondary school education, and enhance the education system performance.
- Strengthen governance and management of human resources—Modernize the administration of the ministry, further strengthen decentralization, and build the capacity of structures involved in the implementation of the program.

Morocco's education system is divided into preprimary, primary, secondary, and tertiary education.

The National Charter of Education and Training mandates that preprimary education be available to all children between four and six years of age. Preprimary education in Morocco is provided through two types of schools: kindergartens and Quranic schools. Kindergartens, which are generally privately owned, provide education primarily in cities and towns. Quranic schools prepare children for primary education by focusing on basic literacy and numeracy skills and have always been at the forefront in the battle against illiteracy, particularly in remote areas of the country.[7] Preprimary teachers develop their own curriculum according to a set of principles established by the Ministry of Education that take into account students' physical and cognitive development, needs, interests, and abilities.[8] Attempts have been made within the framework of the National Education Emergency Program to enable primary schools to host preprimary classes with the intention that this model could be expanded in the future.

Children generally attend primary school from ages 6–12. Over the last ten years, Morocco's gross enrollment rates within primary education have been consistently rising and dropout rates have been falling. According to the National Education Emergency Support Program, many school-age children in impoverished families stay out of school due to the high cost of schooling (e.g., expenses relating to textbooks, school materials, and other incidentals), and are therefore bound to work to supplement the family income.[9] To combat educational exclusion, Morocco's government launched *Tayssir*, a conditional

cash transfer program whose aim is to encourage higher primary school enrollment. *Tayssir* grants a stipend to impoverished families who enroll and keep their children in school. At the end of primary school, students must fulfill the requirements of the school leaving qualification, *Certificat d'Etudes Primaires,* to be eligible for admission to lower secondary schools.

Lower secondary school in Morocco is also compulsory. This stage lasts for three years (Grades 7–9) and is attended by children ages 13–15.[10]

Upper secondary school lasts three years. During the first year, all students follow a common core curriculum in arts or science and technology. Following the first year, students are streamed into one of two tracks: the general and technical track, leading to the Baccalaureate, or the vocational track, leading to professional qualifications. Within the general track, first-year students study arts, science, technology, mathematics, or Islamic disciplines. Second-year students study Earth and life sciences, physics, agricultural science, technical studies, or one of two mathematics tracks (Track A in which students study Earth and life sciences, or Track B in which students study engineering sciences).

Higher education in Morocco is offered at 16 universities (*grandes écoles)* and institutes, such as Hassan II Institute of Agronomy and Veterinary Sciences. Admission is open to students who have attained the upper secondary school Baccalaureate. Many higher education institutions also require that students have minimum grades in their proposed majors and pass an entrance examination.

Between 1999 and 2002, in addition to overseeing the formal education system, the Ministry of Education conducted a non-formal education program specifically designed for un-enrolled and out-of-school children. This program had three aims:

- Contribute to the implementation of the Education for All plan (EFA), with a view to eradicate illiteracy;
- Integrate participants into formal primary education and vocational education and, ultimately, the world of work; and
- Encourage program participation among non-governmental organizations within the field of education.

Since January 2002, the Ministry of Education has also been overseeing a non-formal education program that aims to integrate students with special needs into mainstream schools (after these students pass tests specifically designed for them).

Language/Reading Curriculum in the Fourth Grade

Reading Policy

The current competency-based curriculum for primary schools draws upon the principles articulated in the National Charter for Education and Training of 1999. The curriculum focuses on helping children develop the competencies required to fluently and confidently read different types of texts, such as informational and expository texts.

Ministerial circulars, textbooks, and guidelines outline the skills that students must be able to demonstrate by the end of fourth grade, with the aim of helping students acquire the skills necessary for independent language learning. These include the ability to do the following: [11]

- Recognize and understand rhyme and rhythm, letters, words, sentences, and punctuation marks;
- Read written texts aloud and silently at a reasonable speed;
- Recognize and understand the main and supporting ideas in texts;
- Infer word meanings using contextual clues, word analysis, multiple-meaning words, and word analogies;
- Recognize fiction and nonfiction text structure;
- Differentiate between fact and opinion; and
- Look up the spelling and definition of words in the dictionary.

Currently, a national curriculum renewal process is underway and will continue through 2012.[12]

Summary of National Curriculum

Drawing upon the pedagogy of integration, the reading curriculum is oriented towards developing student reading skills through the use of specific real-life situations, where students activate and integrate linguistic knowledge, strategies, and prior knowledge to solve real-life problems.[13] The teaching and assessment of oral communication, also termed oral competency, are prioritized through this pedagogy, reflecting the general tendency among Moroccan educators to integrate reading, writing, listening, and speaking skills to increase student language competence.[14] For example, by the end of the fourth grade, students must be able to produce oral narrative and descriptive texts, or dialogue using pictures, while using background knowledge and linguistic competence.

The aims of the reading curriculum can be summarized as follows: [15]

- Nurture interest in words and their meanings;
- Provide a wide range of opportunities for reading and emphasize the value of reading in everyday life situations and circumstances;
- Help students become independent readers through appropriate focus on word-, sentence-, and text-level knowledge;
- Develop confidence in reading through a range of independent strategies for self-monitoring and correction;
- Develop the skills to evaluate and justify individual preferences;
- Develop imagination, inventiveness, and associative thinking; and
- Make students aware that we learn to read by reading.

Reading Instruction in the Primary Grades

In the fourth grade, reading is granted the highest percentage of class time in Arabic and French language courses.[16] Fourth graders receive ten instruction sessions per week, which total 6.5 hours. Reading is only a part of the language syllabus, but more time is allocated to reading than to all the other language components,[17] as is shown in Exhibit 1 below.[18]

Exhibit 1: Language Component Instructional Time

Components	Number of Sessions	Time Per Session	Time Per Week
Reading	4	30 minutes	2 hours
Grammatical structures	1	45 minutes	45 minutes
Text transformation	1	45 minutes	45 minutes
Dictation	1	45 minutes	45 minutes
Vocalization	1	45 minutes	45 minutes
Essay writing	1	45 minutes	45 minutes
Writing reinforcement	1	45 minutes	45 minutes
Total	10		6.5 hours

Instructional Materials

Prior to 1999, textbooks had been designed by committees within the ministry. Following the National Charter for Education and Training of 1999, textbook writers have submitted manuscripts through private publishers for review and approval by a jury panel appointed by the ministry, who review them using

detailed book specifications. Since 2002, for example, three textbooks for teaching Arabic have been specifically designed for fourth graders. Accepted manuscripts appear in print prior to the beginning of the academic year, and regional inspectorates may choose which textbooks are used in which schools. With the newly adopted pedagogy of integration, supplementary materials and teaching guides also have been developed. Regionally, inspectors and teachers devise supplementary reading materials that are closely linked to students' everyday lives across the country.

Use of Technology

Since 1999, the Ministry of Education has been implementing a policy promoting information and communication technology (ICT) in education, in accordance with Article 10 of the Charter of Education and Training.[19] In March 2005, the ministry launched the Generalization of Information Technologies and Communication in Education (GENIE) initiative to improve the quality of teaching and learning through the use of ICT in all public schools.[20] Through GENIE, all Moroccan schools are being equipped with computer labs supported by ADSL Internet access and are providing training for teachers, headmasters, advisors, and inspectors.

Role of Reading Specialists

Reading specialists act as a resource for both teachers and students and help address reading difficulties. Although a great number of Moroccan educational professionals, teachers, and supervisors have gained expertise in teaching reading in primary schools, many cannot be considered reading specialists. However, many reading specialists are involved in curriculum development and textbook design. There is general consensus among educators that specific master's degree courses for reading specialists should be integrated into Morocco's teacher training colleges.

Second-language Instruction

French is the first foreign language in Moroccan schools. It is introduced at the start of the second year of the primary school. Primary school French reading courses follow the same guidelines as those that govern Arabic instruction and other subjects.

Students with Reading Difficulties

Diagnostic reading tests are administered on a regular basis as part of evaluating what students have learned after each three-week unit. This ongoing assessment is intended to determine how much remedial work is needed and how to help underachievers catch up with high achievers.

In June 1994, the Ministry of Education endorsed a national approach towards school integration that reflects the *Salamanca Statement* adopted at the UNESCO World Conference on Special Education.[21] Children with special needs attend regular classes and receive assistance from teachers trained in special needs based on children's diagnosed abilities, including reading abilities and their pace of learning how to read.

Teachers and Teacher Education

Teacher Education Specific to Reading

The Teacher Training Center for Primary School Teachers (*Centre de Formation des Instituteurs*) provide full-time courses and a practicum leading to a professional graduate certificate in education. In order to be admitted to this teacher college, applicants must hold a two-year General University Studies Diploma (*Diplôme d'Etudes Universitaires Générales*), pass an entrance exam, and participate in a background interview. The entrance exam tests candidates' general knowledge of culture with a particular focus on reading and writing.

Teacher education at the colleges consists of a practice-based, one-year course for primary school teachers, which includes a practicum and supervised class observations intended to provide hands-on experience in teaching. Courses also use a modular approach. Modules specific to teaching approaches for reading and reading theories are becoming more focused in order to comply with the new reading curriculum.

Requirements for Ongoing Professional Development in Reading for Teachers

The Ministry of Education has been making more substantial investments in in-service teacher professional development since the implementation of National Education Emergency Support Program. With the adoption of competency-based instruction and its offshoot, the pedagogy of integration, in-service training continues to be systematically incorporated within the education system. The aim is to enhance teachers' skills, including their skills for teaching and assessing reading.

Monitoring Student Progress in Reading

Formative assessment is an important source of feedback for teachers and is geared toward helping them to gauge the effectiveness of their teaching strategies in relation to the curriculum as well as to orient teaching style to student learning style. Teachers use formative assessment aligned with ministerial circulars and pedagogical guidelines as a source of information about student progress and reading ability.[22] Formative assessments are curriculum-based tests of student competencies, which provide opportunities for remediation.

The 1999 Charter for Education and Training stipulated that Morocco's assessment and certification system should be overhauled. In response, the National Center for Evaluation and Examinations has led significant reform of the assessment and certification system. In an effort to ensure uniformity and standardization in the evaluation process, the center developed frameworks and guides for the design, administration, and scoring of exam papers. Moreover, in collaboration with the Higher Council for Education, the center launched the National Program for the Evaluation of Acquired Learning Outcomes (*Programme National d'Evaluation des Acquis*, or PNEA) to implement a periodic assessment of student learning. The PNEA nationwide system of assessment makes it possible to gauge whether or not learning outcomes have been met, and to define a benchmark against which to systematically evaluate the quality of education being provided. The executive summary of PNEA 2008 includes a series of recommendations to improve the teaching and learning of languages, mathematics, and science.[23]

An in-depth diagnosis of the school exams and certification system is underway within the National Center for Evaluation and Examinations with the aim of redefining the system within a national policy framework for evaluating learning outcomes. The National Education Emergency Support Program is, in part, the outcome of a variety of studies and assessment endeavours, and aims to further build the credibility of the assessment and certification system.

In compliance with the new curriculum and the pedagogy of integration, monitoring student progress in reading will be carried out via simulating real life situations that require students to use linguistic knowledge and strategies. Student monitoring aims to gauge student progress and, from a formative perspective, diagnose areas for improvement and enact corrective action plans.[24]

Impact and Use of PIRLS

PIRLS has benefitted all parties concerned with education in Morocco; it provides reliable, valid, and detailed data about Moroccan student achievement in reading literacy and, no less importantly, the educational environment within which they learn to read. Through PIRLS, Moroccan educationalists have gained deeper insights into ways to further improve reading literacy among Moroccan students on the basis of an international perspective.

The National Center for Evaluation and Examinations, in collaboration with the Regional Academies of Education and Training, organized 16 nationwide seminars geared toward implementing the provisions of the National Education Emergency Support Program regarding student assessment. These seminars were an opportunity to disseminate data about Moroccan student achievement in reading and the areas that need further attention, such as the following: inferring word meanings using the immediate and wider context, expressing opinions, understanding the writer's mode or intent, and evaluating texts in terms of genre and content. The seminars also provided an occasion to urge those involved in education to develop projects to help students improve reading competency. Reading for pleasure was a major emphasis across these seminars. Within the framework of improvement projects, schools and parents were urged to set up libraries in schools to further foster reading literacy.

Since 2009, in light of Moroccan student achievement in both PIRLS and PNEA, the Ministry of National Education has launched the Evaluation of Prerequisites program (*L'Evaluation des Prérequis*). This program, administered nationwide at the very beginning of each school year, enables teachers to identify students' areas of strength or areas needing improvement during instruction and according to each students' individual learning pace.[25] The program has been designed to meet multiple purposes:

- Identify whether students master the key competencies and resources necessary to cope with the new language and reading curriculum;
- Enable teachers to identify student learning strengths and areas requiring improvement, with respect to instruction and individual learning pace;
- Help teachers implement remedial strategies on the basis of student results specifically geared towards students needing extra help, either as groups or individuals;

- Provide headmasters and school councils reliable data to use in the development of improvement plans;
- Provide inspectors data to direct teacher professional development sessions towards formative assessment and remediation; and
- Build and sustain a culture of reading assessment.

Within the framework of the assessment program, diagnostic tests are administered and scored at the very beginning of the school year. Students with similar learning difficulties are grouped and specific remedial work programs are designed and implemented for these student groups. One of the major benefits of this program is that when teachers cannot easily resolve students' difficulties on their own, headmasters, inspectors, pedagogical advisors, and school management councils are all called upon to develop a context-specific improvement plan to provide more extra-curricular student support.

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The Netherlands

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Language and Literacy

Dutch is the first official language in the Netherlands. Frisian, the second official language, is spoken by more than 350,000 people in the northern province of Friesland.[1] Dutch is the first language of instruction in schools, although Frisian or a regional dialect may be taught alongside Dutch. A minority of secondary schools offer Frisian as an optional final examination subject.

The ethnic composition of the people in the Netherlands is diverse, but the majority of the population is Dutch. In 2009, ethnic minorities comprised 20 percent of the total population. These minorities included people from Turkey, Morocco, Suriname, the Netherlands Antilles, Indonesia, Africa, Asia, and the 26 countries of the European Union.[2]

The goal of the National Center for Language Education (*Expertisecentrum Nederlands*) is to improve the teaching and learning of Dutch language arts in (pre)primary and secondary schools. By undertaking research and development projects, the center studies school conditions that help students become skilled and motivated communicators and readers. In this respect, interactive language instruction is the focus of teaching Dutch either as a first or second language. Interactive language instruction is intended to promote social, meaningful, and strategic learning.[3]

The Reading Foundation (*Stichting Lezen*) is an organization established to promote reading for pleasure, both in Dutch and in Frisian, and aims to foster a "strong reading culture." The foundation supports the reading policy of the Dutch Ministry of Education, Culture, and Science by allocating funds and stimulating projects that encourage and support reading. The foundation initiates projects and links these with existing activities that promote reading, supports the development of new reading instruction methods, and funds research. National Reading Aloud Days (*Nationale Voorleesdagen*) and the National Reading Aloud Competition (*Nationale Voorleeswedstrijd*) are examples of projects that the Reading Foundation organizes.[4]

Overview of the Education System

One of the key features of the Dutch education system is freedom of education, which is guaranteed by Article 23 of the Constitution. Different agencies therefore have freedom to establish a school, determine the principles on which the school is based, and organize instruction in that school.[5] Dutch schools, then, have significant autonomy.

The Dutch education system comprises several levels of responsibility: national government, provincial and municipal authorities, school boards, and school principals. The government, working through the Ministry of Education, Culture, and Science, sets the regulatory and legislative framework for educational provision while also structuring and funding the system.[6] Provincial and municipal authorities have jurisdiction over the education provided in their province or town.

Public schools are run by the municipal authorities or by a governing committee appointed by the municipality for this purpose. However, most children attend private schools founded on specific religious or pedagogical beliefs. Indeed, two-thirds of primary schools are privately run. The majority of private schools are Roman Catholic or Protestant, but The Netherlands has other religious schools and schools based on philosophical principles, such as Jewish, Islamic, Hindu, and Humanist schools, as well as nondenominational schools. The pedagogical approach of some schools is based on the ideas of educational reformers such as Maria Montessori, Helen Parkhurst, Peter Petersen, Célestin Freinet, and Rudolf Steiner. All schools have a school board, which is the legally recognized authority. Each school board administers and manages the school(s) for which it is responsible. School boards have autonomy with regard to the curriculum, budget allocations, in-service teacher education, and school policies (such as disciplinary actions and parental involvement). The principal handles the school's day-to-day management.[7]

The Dutch Inspectorate for Education monitors the quality of education and schools by periodically visiting schools (at least once every 4 years) to observe compliance with statutory regulations and by reporting its findings to the Ministry of Education and the individual schools.[8] These reports are publicly available. Schools that do not reach the expected quality of education are placed under close supervision, visited more frequently, and receive additional support and funding in order to help them raise the level of education provided.

Parents in the Netherlands can choose from a range of public and private schools, both of which are government-funded. Education is free of charge

for all students up to the age of 16, although some schools ask for a voluntary parental contribution for additional services such as class outings and school trips. Unlike public schools, which must admit all students, private schools may impose criteria for admission. In practice, however, most private schools pursue nonrestrictive admission policies.

Structure of the Education System

The education system in the Netherlands is separated into three levels: primary, secondary, and tertiary. The Netherlands has no provision for formal education for children under the age of four.

In the Netherlands, the same school offers preprimary and primary education. Most children start primary school at age 4, although compulsory schooling does not start until age 5. Preprimary and primary education together consists of eight grades, so most children are twelve years old when they enter secondary education.

Secondary education in the Netherlands involves tracking and includes schools for different age groups. Primary school recommendations determine the secondary school track that students enter. These recommendations are based on teacher observations and a test that children take at the end of their primary schooling in order to determine their scholastic proficiency.

Some secondary schools offer only one track, but most schools in the Netherlands offer more than one. Students in those schools enroll in one of the following three tracks after one or two years of basic education:

- Pre-vocational Secondary Education—This track lasts two additional years and offers four learning pathways: basic vocational; middle management vocational; combined vocational and theoretical; and theoretical. After completing pre-vocational secondary education, students may continue on to one of two secondary programs: vocational secondary education, or senior general secondary education.
- Senior General Secondary Education—This track lasts three additional years and offers general secondary education in four different programs: science and technology, science and health, culture and society, and economics and society. Upon completion of a program, students can continue on to an additional, pre-university secondary education program or to higher education in a higher vocational education program.
- Pre-university Secondary Education—This track lasts four additional years and offers the same four programs as senior general secondary

education. Upon completion, students may continue to higher education in a three-year bachelor's degree program.

Tertiary, or higher education, is divided into two programs: higher vocational education programs, and bachelor's degree programs. Higher vocational education programs lead to a four-year bachelor's degree. Bachelor's degree programs lead to a three-year degree, after which a master's degree can be earned in an additional one to three years.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

To ensure a high quality of education in primary schools, the Ministry of Education prescribes a number of core objectives that students are expected to master before entering secondary education at age 12.[9] These core objectives, which were established in 1993 and revised in 2006, describe what students should learn in school in order to continue on to secondary education. The 58 core objectives cover Dutch language, English language, Frisian language, arithmetic and mathematics, personal and world orientation, art education, and physical education. The freedom of education principle guaranteed by the Dutch Constitution affirms that schools are free to determine which curriculum subjects they will teach, the content of those subjects, how much time students will spend on each subject, and when and how the students will be assessed. Thus, the core objectives describe attainment targets only; they do not describe how these targets should be reached and do not prescribe any didactics.

Summary of National Curriculum

Core objectives describe the skills and knowledge a child must have acquired by the end of primary school in general terms. Since 2010, reference levels have accompanied core objectives in the areas of Dutch language and mathematics and specifically prescribe the degree of proficiency that must be attained in these subjects in any given year of schooling.[10, 11] This framework of desired learning results for literacy and numeracy is aimed at improving alignment across school types between primary education and secondary education, with specific basic knowledge and skills, to give an indication of the levels to be pursued.[12]

The twelve core objectives for the area of Dutch language are divided into three sections: oral education, written education, and linguistics.[13]

In the oral education section, students learn to do the following:

- Acquire information from spoken language, while simultaneously reproducing this information, orally or in writing, in a structured way;
- Express themselves in a meaningful and engaging manner when giving or requesting information, reporting, giving explanations, instructing, and participating in discussions; and
- Assess information in discussions and conversations that is informative or opinion forming in nature, and learn to respond with arguments.

In the written education section, students learn to do the following:

- Retrieve information from informative and instructive texts, including diagrams, tables, and digital sources;
- Write meaningful and appealing texts with different functions, including informative, instructive, convincing, or enjoyable texts;
- Structure information and opinions when reading educational, study-oriented, and other instructive texts, as well as systematically structured sources, including digital ones;
- Compare and assess information and opinions in different textual forms;
- Structure information and opinions when writing a letter, report, form, or paper, paying attention to syntax, correct spelling, legible writing, typed pages, as well as images and color in some cases; and
- Derive pleasure from reading and writing stories, poems, and informative texts.

In the linguistics section, students learn to do the following:

- Recognize, express, use, and assess strategies in the objectives for oral and written language education;
- Use linguistic principles and rules (e.g., distinguish between the subject, verbal predicate, and predicate components of a sentence; and know spelling rules for verbs and non-verbs, and usage rules for punctuation marks); and
- Acquire an adequate vocabulary as well as strategies for understanding unknown words, including terms that allow students to think and talk about language.

Formal reading and writing instruction begins at Grade 1 (Group 3, ISCED Level 1) when children are age 6. Preparatory instruction in Kindergarten

provides an introduction to phonemic awareness and graphemic identification, which is then used in instruction in the upper grades. The first year of reading instruction places a strong focus on the acquisition of decoding skills. Although instruction in first grade includes reading stories, only a few instructional activities are aimed at developing reading comprehension. Instruction in comprehension begins in Grade 2, when most schools adopt a curriculum for reading comprehension.

Students whose progress lags behind that of their classmates may be held back one year. No statutory rules determine when a student should repeat a grade, but grade repetition is avoided to the greatest extent possible.

At the primary level, schools must provide 7,520 teaching hours over the eight years of schooling, with at least 3,520 hours in the first four years and at least 3,760 hours in the last four years. Primary schools are free to determine the length of a school day, so timetables can be adjusted to the needs of the school, the students, or parents. The Ministry of Education determines the dates of the beginning and end of the school year and the length and dates of the summer holidays; all other vacations are decided by the schools.

Reading Instruction in the Primary Grades

Instructional Materials

Schools are free to choose the instructional materials they use with no government prescription. Several varieties of commercially developed instructional materials and teaching methods are available for schools, though some schools develop their own materials. The Dutch Institute for Curriculum Development advises schools about the appropriateness of available instructional materials and teaching methods for the Dutch curriculum. Textbooks are available for integrated, as well as separate, language and reading education. A considerable amount of additional material addresses spelling and grammar.

For reading instruction, approximately 75 percent of schools use an indirect phonics method called Learning to Read Safely (*Veilig Leren Lezen*).[14] Particularly in the first four months of reading instruction, there is a strong focus on the structure of written and spoken language. Students learn the relationship between graphemes and phonemes. Halfway through Grade 1, most children are able to decode simple Dutch words. In the second part of the year, there is increased emphasis on reading short texts to increase fluency and decoding skills.

Use of Technology

Research shows that information communications technology (ICT) figures prominently in schools in the Netherlands across subject areas. About 91 percent of teachers in primary education report using a computer during lessons, for an average of eight hours per week. There is approximately one computer available for every five students, and virtually all computers have Internet access.[15]

The ICT applications used most often in teaching are the Internet, practice programs, word processing software, and electronic learning environments. Use of digital teaching material and interactive whiteboards has increased in the last years. An average of one in every two classrooms in about 97 percent of primary schools now have an interactive whiteboard, and digital teaching material is used by 17 percent of primary school teachers.[16]

Knowledge Net (*Kennisnet*) is the main public support organization for educational ICT use in primary, secondary, and adult education in the Netherlands and is supported by the government. *Kennisnet* "provides independent advice and services to support and inspire educational institutions in the effective use of ICT towards the continued improvement in the quality of learning." [17] The organization annually publishes the *Four in Balance Monitor* about ICT in Dutch primary, secondary, and vocational education. This publication summarizes research in the field of ICT use and provides statistics about the use of ICT technologies in Dutch education.

Role of Reading Specialists

Although Dutch schools have no reading specialists, students with reading difficulties are often helped by a remedial teacher or speech therapist associated with the school or school advisory service. There is a trend in primary education toward employing coordinators who are responsible for a certain subject or age group (e.g., internal student counselors, junior department coordinators, senior department coordinators, language coordinators, and arithmetic coordinators). A language coordinator, someone with specialized knowledge of language teaching methods, implements and evaluates the primary school's language policy together with the school's management and teachers. If necessary, a language coordinator will coach and guide staff.

Second-language Instruction

Fifteen percent of students in primary and secondary education are of non-Dutch origin. The highest percentage of immigrant students are in the four largest cities in the Netherlands (Amsterdam, the Hague, Rotterdam,

and Utrecht), where half of schools have more than 50 percent immigrant students and 30 percent of schools have more than 80 percent immigrant students.[18] Because schools are free to determine their own curriculum, they are able to focus on topics that best meet student needs. Schools with a large minority student population devote more attention to vocabulary and verbal communication than schools whose student populations consist of mostly native Dutch-speaking students.

Several initiatives have been launched to enhance language proficiency for students lagging behind, such as "bridging classes" for primary school students who are disadvantaged because of poor Dutch language skills. These classes can be part-time or out-of-school classes or entirely separate from mainstream school, where students are required to spend a year learning Dutch before returning to regular classes.

In addition, Early Childhood Education Programs focus on Dutch language learning. These programs start in preschool (e.g., play groups, childcare) and aim to reduce the language and educational gap for minority groups before students enter primary education.[19] Despite these efforts, immigrant students still have lower achievement in both mathematics and language, more immigrant students enroll in lower levels of secondary education than native Dutch students do, and immigrant students have a high dropout rate.[20]

Students with Reading Difficulties

Diagnostic Testing

Approximately 10 percent of students in primary education in the Netherlands have difficulties with reading, and about 4 percent of students are diagnosed with dyslexia, which may have serious consequences for their cognitive and socio-emotional development.[21, 22] To better train primary school teachers to guide these students, the National Center for Language Education (*Expertisecentrum Nederlands*) has published the *Reading Problems and Dyslexia Protocol.*[23] This protocol is available for Grades 1–8 and is intended for teachers, including remedial teachers, internal counselors, and speech therapists. The protocol contains guidelines for a structured school-wide dyslexia policy whereby regular assessments facilitate early identification, prevention, and intervention of reading difficulties. In 2006, approximately 92 percent of all primary schools reported using the protocol for Grades 1–4.[24]

Teachers and Teacher Education

Teacher Education Specific to Reading

Primary school teacher education colleges provide preservice courses, over a total of four years, for students who have successfully finished secondary education. Most teacher education programs consist of practical work experience in primary or special education. After completion, students receive a bachelor's degree and are qualified to teach all subjects (except physical education) across the primary school curriculum.

Since 2006, students starting at a teacher education college have been tested on their Dutch language and mathematics skills in order to guarantee standards of competence.[25] If students fail the test, they have one school year to improve their language and mathematics skills. If such students are not capable of passing the test by the end of the year, they cannot continue to the next year.

Since 2008, academic teacher education courses at university level also have been available. These courses were created to increase the academic potential of the teacher workforce.[26]

Requirements for Ongoing Professional Development in Reading for Teachers

Teachers may receive additional training in various fields through teacher training colleges or other institutions, such as school advisory services, but these courses are not compulsory. Teachers can decide whether they want additional training and in what subject. Courses offered include implementing a student monitoring system, working with intervention plans, intercultural teaching, teaching aimed at decreasing gender stereotypes, and applying new teaching methods. In addition, training is provided for those entering new professions in primary education, such as internal student counselors, arithmetic and language coordinators, junior and senior department coordinators, and ICT coordinators.

Monitoring Student Progress in Reading

Schools are free to choose tests to monitor student progress. Schools often use "curriculum-embedded" tests that match the subject matter provided in the textbooks that are being used to teach various subjects. Most primary schools also use a student monitoring system called the Student Tracking System (*Leerling-en onderwijs volgsysteem*, or LOVS), which is used to assess the competence of students in Grades 1–8. LOVS allows teachers and schools to monitor and improve the development of individual students, as well as entire classes, throughout primary education and the first two years of secondary

education. This system, developed by Cito (the National Institute for Educational Measurement), also is used by the Dutch education inspectorate to assess the quality of education in each school. Parents receive a report detailing their child's progress, usually three times a year. Because tests are administered on a regular basis, problems are usually identified at an early stage and subsequently analyzed to devise a remedial action plan.

Primary schools are not obligated to participate in national standardized tests, although most schools administer an attainment test at the end of primary school. The vast majority of schools use tests developed by Cito; the remaining percentage use tests developed by other sources. Cito tests measure academic skills in four areas: language, arithmetic and mathematics, study skills (e.g., using different sources of information, schedules, tables, etc.), and world orientation (e.g., knowledge of history, science, and geography).[27] The results of these (or similar) tests, along with the recommendations from classroom teachers, are used to determine the most appropriate secondary school track for each student.

Impact and Use of PIRLS

The government has funded the Netherlands' participation in international studies since the 1960s. The Netherlands participated in the Reading Literacy Study in 1991, which was IEA's first international study of reading achievement, and has been involved in its successor, PIRLS, ever since.

Although the Dutch PIRLS 2006 results showed Dutch students performing well internationally, the Dutch students' overall performance declined between 2001 (average scale score of 554) and 2006 (average scale score of 547). TIMSS and PISA also have showed similar results, with an overall satisfactory performance internationally of Dutch students, but an ongoing decline in student performance over time.[28, 29]

To tackle the problem of declining student performance in both language and mathematics, the Ministry of Education, Culture, and Science launched the Quality Agenda, a reform program directed at primary education.[30] The decrease in average achievement between PIRLS 2001 and PIRLS 2006 was used as one justification for the agenda. The Quality Agenda outlines steps being taken to reinforce the Netherlands' commitment to ensuring that literacy and numeracy remain core focuses at all levels of the education system. In 2011, a second step was taken in the plan called Basis for Performance. The plan outlines specific goals for the end of primary school attainment test: the

number of underperforming schools, schools that are labeled excellent, and the percentage of schools with output-oriented education.[31] The ultimate target of The Netherlands is to be among the top five knowledge economies of the world.

Several policy initiatives have been launched regarding issues such as special education, teachers, and school leadership. Students reading at an advanced level receive special attention. This emphasis has a direct link to the PIRLS 2006 results, which showed that the percentage of Dutch students able to read at a level well beyond the national mean was small compared to the corresponding percentages in nearly all other PIRLS countries; students appear to reach a basic level of reading competency but are not given the chance to excel.[32] The Quality Agenda policy initiative aims to identify students who are in the top percentages of educational achievement and then provide them opportunities to fully develop their talents and potential.[33]

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New Zealand

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Ministry of Education

Language and Literacy

New Zealand has three official languages: Māori (the indigenous language), English (by virtue of its widespread use), and New Zealand Sign Language.[b] Māori, a *taonga* (treasure) recognized under the Treaty of Waitangi[c] and an official language since 1987, is a Malayo-Polynesian language closely related to the eastern Polynesian languages spoken in Tahiti, Hawaii, Rarotonga, and French Polynesia.[1] New Zealand Sign Language became the country's third official language in 2006. Other languages commonly spoken in New Zealand include western Polynesian languages such as Samoan and Tongan, and languages from eastern and western Asia.[2] New Zealand's population has become increasingly more diverse over the last 15 years, largely as a result of migration. These changes are reflected in both the diversity of languages spoken and relatively large increases in the numbers of people speaking languages such as Cantonese, Mandarin, and Hindi. However, most New Zealanders are monolingual with about three-quarters of the population speaking only English (75%).[3]

While most teaching and learning in New Zealand schools also is in English, an important feature of the education system is learning for either some or all of the time in Māori. Māori-medium education has stemmed from efforts of Māori to help ensure the survival of Māori language and Māori culture. It entails teaching and learning in Māori all or some of the time, from early childhood to tertiary (*wānanga*) education. It operates within a specific cultural framework and, in some instances, in the culture and language specific to a particular *iwi* (tribe).

Some schools, in partnership with their local communities, make provision to learn in a Pacific Islands language, most often Samoan, for all or some of the

a The author acknowledges the invaluable comments from her Ministry of Education colleagues: Denise Arnerich, (Manager, Curriculum and Priority Interventions); Lynne Whitney, (Senior Manager, Research Division); Fred Bishop, (Senior Research Analyst, Research Division); and Robyn Caygill, (Senior Research Analyst and National Research Coordinator for TIMSS).

b Only Māori and New Zealand Sign Language have been given official status under acts of Parliament. This has not been the case for English, and therefore regarded as a de facto official language.

c The Treaty of Waitangi is New Zealand's founding document. It takes its name from the place in New Zealand where it was first signed, on February 6, 1840. The Treaty is an agreement, in Māori and English, made between the British Crown and about 540 tribal chiefs.

time. Pasifika-medium education is viewed as way for Pasifika[d] communities to maintain their home language as English becomes the dominant language for many second or third generation migrants.[4]

Emphasis on Literacy

Since the late 1990s, the predominant view held by New Zealand educators and policy makers is that reading is intrinsically linked to writing and, as such, many official documents and education resources refer to them as "literacy." For much of the past decade a range of policies, programs, and projects across the education sector, all focusing on improving literacy achievement in English-medium settings were aligned under the overarching *Literacy and Numeracy Strategy*.[e] There were three major themes to the alignment: raising expectations for student achievement; improving teacher practice; and encouraging and supporting families to engage in their children's education.[5] A literacy strategy for Māori-medium education—*Te Reo Matatini*—released in May 2007, also sought to align literacy-related initiatives, as well as initiatives related to Māori-medium education in general.[6]

The intervening years between PIRLS 2006 and PIRLS 2011 have seen an increasingly stronger focus on foundation learning in literacy and numeracy, culminating in the introduction of national literacy and mathematics standards in both Māori- and English-medium primary school settings at the beginning of 2010. While national standards are a recent system-level initiative, a consolidation of New Zealand and international research evidence on school leadership has found a number of smaller-scale interventions where effective connections between schools and family (whānau), which help support learning at home, have led to improvements in educational outcomes.[7] Reading Together™ is an example of one family-based program that has been found to be very effective in raising student reading achievement.[f, 8]

Literacy has also become a priority area for secondary schools. The Secondary Literacy Project, which began in 2009, is an example of a professional development project, which focuses on engaging and raising the literacy achievement of low-achieving students who are in their first two years of secondary schooling.

A number of community-based organizations provide support for New Zealand adults to improve their literacy skills. Literacy Aotearoa, for

d Pasifika refers to the people, culture and languages pertaining to the Pacific Islands groups who now reside in New Zealand.

e This strategy is no longer active.

f From July 2011, the Government's budget for Education is providing additional funding to expand Reading Together™ to all schools with students from predominately low socio-economic backgrounds (deciles 1–3). Also visit http://home-schoolpartnerships.tki.org.nz/Initiatives-that-have-been-effective/Reading-Together

example, is a national organization of adult literacy providers; it also develops individual programs for employees and companies throughout New Zealand. The Literacy and Numeracy for Adults: Te Arapiki Ako website is example of an initiative stemming from ongoing efforts to raise the skills of New Zealanders in the workforce.

Overview of the Education System[9]

New Zealand's education system, characterized by a high level of decentralization, has three levels: early childhood education, schooling, and tertiary education. Delivery of education is devolved from central government directly to educational institutions where governance and accountability are assigned to boards of trustees or councils with elected or appointed members. Seven state sector or Crown[g] agencies are involved with developing and implementing national education policies and quality assurance processes to ensure consistency across the system. Four of these agencies have a key role in the early childhood and schooling sectors: the Ministry of Education, the Education Review Office, the New Zealand Teachers Council, and the New Zealand Qualifications Authority.[h]

- The Ministry of Education is the lead education agency, providing policy advice to government on all aspects of the education system and managing the implementation of government policy. It develops and supports the implementation of curriculum and professional development programs, has responsibility for all education property,[i] provides schools' operational funding, and develops national education and administrative guidelines. It collects, analyzes, and disseminates education statistics and conducts or commissions research to monitor the education system's overall effectiveness.
- The Education Review Office is responsible for evaluating and reporting on the quality of education, management, and governance provided by individual early childhood centers and schools. The reports from these evaluations provide assurance that schools are meeting their statutory obligations.
- The New Zealand Teachers Council (NZTC) is the professional and regulatory body for registered teachers who work in English- and Māori-medium settings in early childhood education and schools in

g A Crown agency is based on a corporate model where the governance of the agency is separate from the management. The word "Crown" relates to New Zealand being a constitutional monarchy and parliamentary democracy. Schools are considered small Crown entities as each are governed by boards of trustees that are legally accountable to Government.

h The other agencies are Careers New Zealand, the Tertiary Education Commission, and Education New Zealand.

i The education property portfolio is the second-largest state sector property portfolio in New Zealand, and thus, has a very high profile in the country.

New Zealand. NZTC provides professional leadership and support to teachers, establishes and maintains standards for qualifications that lead to teacher registration, approves and monitors initial teacher education programs, registers teachers, and exercises disciplinary functions relating to teacher misconduct and incompetence.

- The New Zealand Qualifications Authority oversees and coordinates all national qualifications including academic, professional trade qualifications, certificates, and awards. It also manages the assessment and reporting systems for New Zealand's national senior secondary school qualifications.

Governance, administration, and management of individual state or state-integrated schools are the responsibility of elected boards of trustees (BoTs).[j] Each BoT is comprised of parent and community volunteers, the school principal, a staff representative, and, if a secondary school, a student representative. The BoTs employ all school staff, manage school property, oversee school finances, and set the policies for school governance in accordance with the *National Education Guidelines* as defined by the Education Act 1989.[10] The BoT also develops and implements the school's curriculum, through the school principal and teaching staff, in a way that best fits the community it serves while reflecting the national intentions.[11]

Structure of the Education System

Exhibit 1 shows the structure of the early childhood and schooling sectors in New Zealand. Early childhood education (ECE) in New Zealand refers to the education and care of young infants to children of school-entry age. While ECE is not compulsory, the majority of children attend either a teacher- or parent-led early education service before starting primary school.[k] As of July 1, 2010, all three-, four-, and five-year-olds were entitled to attend an ECE service for six hours a day, up to a maximum of 20 hours per week at no charge (referred to as 20 Hours ECE).[12] Teacher-led services include kindergartens, education and care services, and home-based services.[l] Parent-led services include playcenters and playgroups, with some playgroups offering bilingual and total immersion

j State-integrated schools are schools that were registered private schools but have voluntarily integrated into the state education system Proprietors are responsible for capital works, while the state assumes responsibility for all recurrent costs. Schools are required to comply with curricular requirements.

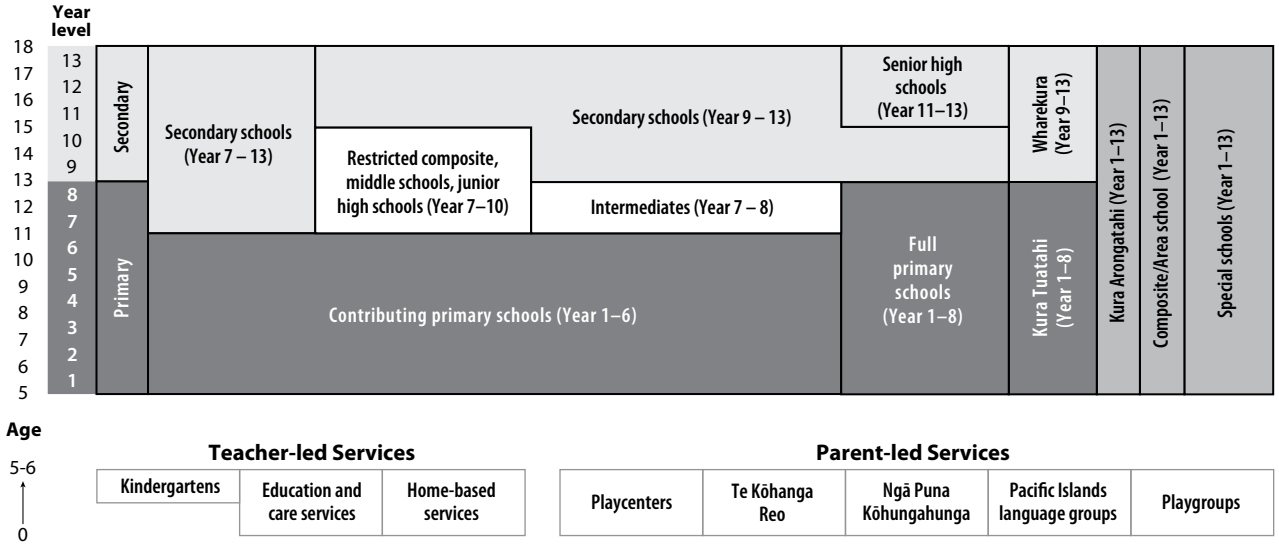
k Ninety-four percent of children who began primary school during the period July 1, 2009 to June 30, 2010 had been enrolled in some form of ECE program prior to them starting school. Ministry of Education. (2011). *Prior participation in early childhood education*. Retrieved from http://www.educationcounts.govt.nz/statistics/ece2/participation

l In Teacher-led services, 50% of adults educating and caring for children must be qualified, registered ECE teachers or, in the case of home-based education and care services, supported by coordinators who are registered ECE teachers.

programs in Māori or Pacific Islands languages.[m] Of note is *Te Kōhanga Reo*, a *whānau* (family) service for children from birth until school age based on total immersion in Māori language, culture, and values.

Te Whāriki is New Zealand's early childhood education curriculum, integrating both care and education goals. At the heart of the curriculum, are four broad principles that together with five strands form the framework. The strand called Communication-Mana Reo identifies five goals that recognize different aspects of early literacy skills. For example, goal three states, "Children experience an environment where they experience the stories and symbols of their own and other cultures." [13]

Exhibit 1: Structure of New Zealand's Early Childhood Education and Schooling Sectors[14]



Schooling in New Zealand spans a total of 13 years from entry at Year 1 to Year 13, with attendance compulsory from ages 6 to 16. Although the compulsory starting age is six, the vast majority of children begin their primary schooling on or soon after their fifth birthday.

Primary education spans eight years from entry at Year 1 to Year 8. Most children attend either a full primary school until the end of Year 8, or a contributing primary school until Year 6, at which point they move either to an intermediate school (Years 7–8) or to a composite secondary school (Years 7–13). The vast majority of students in primary school progress to each Year level automatically (i.e., social promotion), although in special

m Parent-led services are licensed (or certificated) and involve parents and family-caregivers as the educators and caregivers of their children. Playcenters are based on the philosophy of ideas of child-initiated play and parents as first educators. Playgroups are often less formal than other services.

circumstances (e.g., for academic or social reasons) students may be promoted or held back a year. The majority of primary schools are co-educational.

In PIRLS, the target class is the fourth year of formal schooling with the average age of students at least 9.5 years. The average age of New Zealand students in their fourth year—Year 4—is about nine years, therefore New Zealand assessed students in Year 5, who are typically about ten years old when PIRLS is administered in New Zealand.

Secondary education spans five years, beginning at Year 9, with most learners by now about 13 years of age. The majority of students attend the secondary school that is closest to where they reside and this is either a Year 9–13 or Year 7–13 secondary school.[n] There are some schools, most often in rural locations, which make provision for students from Year 1–13. In recent years, middle (or junior secondary) schools and senior secondary schools have been established to make provision for Years 7–10 and Years 11–13 students, respectively. New Zealand secondary schools are comprehensive schools in that they do not make a distinction between academic or vocational-technical programs. Single-sex education is more prevalent in secondary schools than in primary schools, although the majority of secondary school students are enrolled in co-educational schools.

Private or independent schools are run by religious or philosophical organizations, or by private individuals, and may be co-educational or single-sex. Fully registered independent schools receive partial funding from the central government. In 2010, about 4 percent of all primary and secondary school students were enrolled in independent schools, mostly at the secondary level.[15]

Māori-medium Education

Māori-medium education in the schooling sector is provided in a number of ways, including through full immersion (curriculum delivery is for 81–100% of instructional time) and bilingual programs (12–80% of instructional time).[o] Full immersion education is provided in *kura kaupapa Māori, wharekura*, and in designated-character schools.[p] Bilingual schools also provide various opportunities, depending on their level of immersion, for learning in the Māori language. Some English-medium schools also offer curriculum delivery in Māori, in either full immersion (*rumaki*) or bilingual (*reorua*) classes or units. In 2010, about 4 percent of all New Zealand's primary and secondary students

n Secondary schools are referred to as high schools or colleges.

o "Full immersion" programs are also referred to as Level 1 programs. "Bilingual" programs are: Level 2 immersion, 51–80%; Level 3, 31–50%; and Level 4a, 12–30%.

p *Kura kaupapa Māori* and *wharekura* are schools that adhere to Māori pedagogy and Māori worldview being integral to the delivery of the curriculum.

were enrolled in a Māori-medium education program. Most students in Māori-medium education are learning in their second language, with English their first. At Year 5, about 8 percent of Māori students (or 2% of all Year 5 students) were in full immersion settings; [q] just over 80 percent of Māori students (about 18% of all Year 5 students) were learning in English.[16]

Pasifika-medium Education

In Pasifika-medium education, the language of instruction is solely in a Pacific Islands language or with English as part of a bilingual learning program. The setting for both immersion units and bilingual classes are English-medium schools, and mostly primary schools. In 2010, about 0.2 percent of primary and secondary students received some instruction in a Pacific Islands language, most often Samoan, or in either Tongan or Cook Island Māori.[17]

Special Education

New Zealand's special education system is designed to support early childhood services and schools to teach students who have physical or psychological disabilities, vision or hearing impairment, or communication or behavior difficulties. Special education in New Zealand is an inclusive system with the majority of special education students learning in regular ("mainstream") school settings. Students with high and very high needs receive individualized funding and support for their education in either a regular school with specialist teaching or in a special education school.[18]

Language/Reading Curriculum in Primary School

The national curriculum is the official policy for teaching, learning, and assessment in New Zealand's state and state-integrated schools and is comprised of two documents. *The New Zealand Curriculum* (The NZC), the guide for English-medium teaching and learning, was introduced in late 2007 and fully implemented at the beginning of 2010. *Te Marautanga o Aotearoa* (TMoA), the partner document for Māori-medium teaching and learning, was introduced in late 2008 and fully implemented at the beginning of 2011.[r] The two documents were developed independently and are not translations of each other. However, they both share the same goals, with each document articulating a guiding vision for the educational outcomes for New Zealand's learners, followed by descriptions of the competencies and skills students need to develop from school

q This was the target group for administering the PIRLS assessment in Māori. (Almost one-quarter of all Year 5 students in PIRLS-2011 are Māori.)

r *The New Zealand Curriculum Framework* and *Te Anga Marautanga o Aotearoa* were the official policy frameworks for teaching and learning in New Zealand from 1993–2007. A series of national curriculum statements (for each subject/learning area) provided the details for learning described in the frameworks.

entry to Year 13. The documents both outline values and attitudes that schools are to encourage and model. TMoA also identifies the role Māori language has to play in accessing Māori culture, the Māori world, and living confidently as Māori.

Both documents set out broad objectives for each learning area (subject) throughout eight progressive levels of achievement; there are no specific objectives for students at a particular Year (grade). Many students, however, do not fit this pattern of learning (e.g., students with special learning needs and those who are gifted). When implementing the curriculum, schools are expected to choose achievement objectives that meet the learning needs of their individual students. The learning areas in The NZC are the following: English, mathematics and statistics, science, social sciences, the arts, health and physical education, and learning languages. In TMoA, the learning areas are as follows: Māori, *pāngarau* (mathematics), *pūtaiao* (science), *tikanga-ā-iwi* (social sciences), *ngā toi* (the arts), *hauora* (health and physical well-being), *te reo Pākehā* (English), and the optional learning strand *ngā reo* (learning languages).

Reading Policy

Literacy is fundamental to both The NZC and TMoA, and is viewed as crucial to meeting the reading and writing demands of *all* learning areas. For example, The NZC acknowledges that for each learning area, students need to learn the following:

- The specialist vocabulary associated with the area;
- How to read and understand its texts;
- How to communicate knowledge and ideas in appropriate ways; and
- How to listen and read critically, assessing the value of what they hear and read.[19]

During 2010 and 2011, national standards for literacy and mathematics for each year of primary schooling (Years 1–8) were introduced into English-medium and Māori-medium settings, to concur with full implementation of The NZC and TMoA, respectively.

The New Zealand Curriculum Reading and Writing Standards for Years 1–8 (the literacy standards for English-medium settings) address the overall purpose of reading (and writing) rather than students' specific skills and knowledge. The main purpose of the standards is to provide reference points for teachers that describe students' progress and achievement at each Year level. In order to

judge whether students are meeting a given standard, teachers must use a range of information on how well students read and write in all curriculum learning areas, not just within the English language learning area.

Three main aspects of literacy underpin both the reading and writing standards: learning the code of written language, making meaning, and thinking critically. The reading standards mention each aspect specifically because students are expected to demonstrate all three across the curriculum to be considered "successful" readers.

Year 5, this being the class level of interest in PIRLS, is regarded as a significant transition point for reading because students are expected to "step up" to read for learning by engaging with instructional materials from across the curriculum, in addition to texts from their literacy program. The reading standard for Year 5 students in English-medium settings thus reads as follows:

> "By the end of Year 5, students will read, respond to, and think critically about texts in order to meet the reading demands of *The New Zealand Curriculum* as they work towards Level 3. Students will locate, evaluate, and integrate information and ideas within and across a small range of texts appropriate to this level as they generate and answer questions to meet specific learning purposes across the curriculum." [20]

Associated with each reading standard are features of texts students must read to meet that standard. At Year 5, for example, students are expected to be reading fiction and non-fiction in electronic and print media, which have been published as junior novels, information texts, or as collections with the following features:

- Greater number of abstract ideas than texts used at earlier curriculum levels;
- Some ideas and information that are conveyed indirectly and require students to infer;
- Some information that is irrelevant to the identified purpose for reading, which students need to identify and reject;
- Mixed text types;
- Sentences that vary in length and structure;

- A significant amount of unfamiliar vocabulary that is explained in the text;
- Figurative or ambiguous language that the context helps students to understand; and
- Illustrations, photographs, text boxes, diagrams, maps, charts, and graphs.[21]

Te Marautanga o Aotearoa Whanaketanga Reo Kōrero, Pānui, Tuhituhi, describes the specific literacy standards for speaking (*kōrero*), reading (*pānui*), and writing (*tuhituhi*) for students learning in Māori-medium settings. Whereas the English-medium standards are specifically linked to a Year level, the reading (*pānui*) standards are described in relation to the curriculum levels of TMoA, reading *Ngā Kete Kōrero* (a series of sequential readers developed for children from emerging to fluency stages when reading in Māori), and reading material from across other curriculum areas.

Specifically the reading standard for Level 3 is as follows:

- "*Āheinga Reo* (Language Functions)—The student understands and analyzes the purposes of texts at mid-*Pīngao* (KPe) level and at Level 3 of the curriculum.
- *Puna Reo* (Linguistic Features)—The student understands and analyzes language features and structures in texts at mid-*Pīngao* (KPe) level and in texts used across the curriculum at Level 3.
- *Rautaki Reo* (Language Strategies)—The student analyzes and applies reading strategies in order to make meaning from texts at mid-*Pīngao* (KPe) level and from texts used across the curriculum at Level 3." [22]

Summary of National Curriculum

While the reading and writing national standards give explicit direction for literacy learning across the curriculum, the English and Māori language learning areas in each of The NZC and TMoA provide the setting for most literacy instruction at primary school.

English is structured around two inter-connected strands: Listening, Reading, and Viewing; and Speaking, Writing, and Presenting. Broad achievement objectives in each strand relate to the following:

- Text purposes and audiences;
- Ideas within language contexts;

- Language features that enhance text; and
- The structure and organization of texts.

The achievement objectives are formulated to show the "ideal" progress students make as they move from Level 1 after two years of primary school through to Level 8 at the end of secondary school. The expectation is that students will be at Level 4 at the end of primary school (Year 8). Specific indicators of success support each objective. Exhibit 2 provides a summary of the Ideas objectives along with examples of some of the indicators for meeting the objective.

Exhibit 2: Summary of *The New Zealand Curriculum* English Language Learning Area: *Ideas Within Language Contexts*, Levels 1 to 4[23]

English Language Learning Area: Ideas Within Language Contexts			
Level 1 Objective	**Level 2 Objective**	**Level 3 Objective**	**Level 4 Objective**
Students will recognize and identify ideas within and across texts.	Students will show some understanding of ideas within, across, and beyond texts.	Students will show a developing understanding of ideas within, across, and beyond texts.	Students will show an increasing understanding of ideas within, across, and beyond texts.
Some of the Indicators for Achieving the Objective			
Students: Understand that personal experience can influence the meaning gained from texts; and Make meaning of texts by identifying ideas in some texts.	Students: Use their personal experience and world and literacy knowledge to make meaning from texts; and Make meaning of increasingly complex texts by identifying main ideas.	Students: Use their personal experience and world and literacy knowledge confidently to make meaning from texts; Make meaning of increasingly complex ideas by identifying main and subsidiary ideas in them; and Start to make connections by think about underlying ideas in and between texts.	Students: Make meaning of increasingly complex texts by identifying and understanding main and subsidiary ideas and the links between them; Make connections by thinking about underlying ideas within and between texts from a range of contexts; and Make and support inferences from texts with increasing independence.

Underpinning the knowledge, skills, and understandings are processes and strategies that students demonstrate, as Exhibit 3 shows, which also highlight the learning progression.

Exhibit 3: Summary of *The New Zealand Curriculum* English Language Learning Area: *Processes and Strategies*, Levels 1 to 4

English Language Learning Area: Processes and Strategies			
Level 1 Objective	**Level 2 Objective**	**Level 3 Objective**	**Level 4 Objective**
Students will aquire and begin to use sources of information, processes, and strategies to identify, form, and express ideas.	Students select and use sources of information, processes, and strategies with some confidence to identify, form, and express ideas.	Students will integrate sources of information, processes, and strategies with developing confidence to identify, form, and express ideas.	Students will integrate sources of information, processes, and strategies confidently to identify, form, and express ideas.
Some of the Indicators for Determining Students' Acquisition of these Skills and Strategies			
Students: Have an awareness of the connections between oral, written, and visual language; Use sources of information (meaning, structure, visual and grapho-phonic information) and prior knowledge to make sense of a range of texts; Associate sounds with letter clusters as well as individual letters; use processing and some comprehension strategies with some confidence; and Are developing the ability to think critically about text.	Students: Recognize connections between oral, written, and visual language; Select and use sources of information (meaning, structure, visual and grapho-phonic information) and prior knowledge with growing confidence to make sense of increasingly varied and complex texts; Use an increasing knowledge of letter clusters, affixes, roots, and compound words to confirm predictions; Select and use processing and an increasing range of comprehension strategies with some understanding and confidence; and Think critically about texts with some confidence.	Students: Recognize and understand the connections between oral, written, and visual language; Integrate sources of information and prior knowledge with developing confidence to make sense of more complex texts; Select and use a range of processing and comprehension strategies with growing understanding and confidence; and Think critically about texts with developing confidence.	Students: Recognize and understand the connections between oral, written, and visual language; Integrate sources of information and prior knowledge confidently to make sense of increasingly varied and complex texts; Select and use appropriate processing and comprehension strategies with increasing understanding and confidence; and Think critically about texts with increasing understanding and confidence.

The indicators of progression are further elaborated upon, in *Literacy Learning Progressions* (LLP),[24] a professional tool for teachers to support the implementation of The NZC. Similar to the national standards for reading and writing, LLP describes the progression from one schooling year to the next (e.g., Year 5 to Year 6), by alerting teachers to what students need to know and should be able to do at each Year level if they are to engage with the texts and tasks from across the curriculum.

In TMoA, the Māori language learning area is structured around three strands: *ā-Waha* (Oral), *ā-Tā* (Written), and *ā-Tinana* (Body-Paralinguistic Language). Three overarching aims, as described for the reading standards, interweave across the three strands: *Āheinga Reo* (language functions, or the purposes for which language is used and understanding reasons for exchanging ideas); *Puna Reo* (language knowledge, or the expansion and use

of vocabulary, pronunciation, grammar, and phraseology); and *Rautaki Reo* (language strategies).

Because of the wide range of Māori language proficiency among children entering immersion settings, four proficiency levels at curriculum Level 1 are used to evaluate the appropriate starting point for each learner. Exhibit 4 shows the literacy characteristics of students at Level 1 and an indication of the progression to fluency at Level 4.

Exhibit 4: Summary of *Te Marautanga o Aotearoa* Māori Language Learning Area (English-language version), Levels 1 to 4[25]

***Te Marautanga o Aotearoa* Māori Language Strand Students' Characteristics at Level 1**			
He Pīpī (Limited Proficiency)	**He Kaha (Conversational Proficiency)**	**He Kaha Ake (Moderate Proficiency)**	**He Pakari (Higher Proficiency)**
The learner with *limited* proficiency can talk about different things within the context of their own knowledge base; has little, if any, speaking ability in Māori; their writing ability is limited to scribbling or making patterns; and has very little experience with books and written language.	The learner with *conversational* proficiency can use words and short sentences to meet his/her needs; is able to understand simple speech, but not yet very fluent speaking. He/she is becoming familiar with text but does not necessarily read the words, focusing instead on what the text may be about.	The learner with *moderate* proficiency uses simple sentences and asks simple questions; understands conversational language; and knows how to form words. He/she recognizes the relationships between sound and letters; can follow language examples; and understands that writing, letters, words, phrases, and sentences all have a purpose Can read to understand the main purpose of the text.	The learner with *higher* proficiency speaks Māori with ease and understands spoken Māori. He/she is able to link sounds to letters and words, and reads for understanding. The learner is able to write simple sentences, possibly with some errors. He/she interacts easily with others in Māori because of their strong language skills.
Reading-specific Outcomes by the End of Level 1			
Students: Understands that written and visual text is created by someone; Recognizes the relationship between sound and letters/words; and Understands the directional nature of text—left to right, top to bottom.	Students: Understands that a word can retain its meaning when written in various texts; Uses pictures and punctuation to gain meaning from text and is able to follow text correctly when reading for meaning; and Understands that punctuation and spacing between words serve a purpose meaning from text and is able to follow text correctly when reading for meaning.	Students: Knows why they like some stories and visual language; Can identify particular words when they are appear in different contexts; Uses letter and sound knowledge to read and spell common words; Re-reads in order to correct errors; and Links personal experiences to text and speech as a strategy for gaining meaning.	Students: Applies personal experiences to bring meaning to text; Understands that ideas and knowledge expressed in text are those of the writer or illustrator; Attempts to gain meaning from new words in a text; Self-corrects some reading and writing errors; and Uses their personal experience and knowledge of text characteristics to gain meaning.
By the end of Level 2: The student has an awareness of the purpose of a text and its audience. Their range of vocabulary is increasing along with understanding how are words are used. He or she uses language strategies and is able to explain these strategies to produce and understand language; and uses strategies to look for meaning in unfamiliar texts. The learner sometimes reads silently.			
By the end of Level 3: The student can identify features of many forms of written and visual language; the range of vocabulary is increasing, as well as usage, and understands some technical or specialist words. He or she reads silently or aloud according to their preference; uses a range of strategies to establish the meaning of various texts and visual language; and is starting to use research strategies.			
By the end of Level 4: The student will understand the differences between a reader›s perspective and a writer or illustrator›s perspectives; understands and uses descriptive and comparative phrases to enhance a topic; can spell new words correctly and follow the rules of grammar. He or she can use some research strategies for a range of purposes and is able to process and adapt information.			

Reading Instruction in the Primary Grades

While neither The NZC nor TMoA specifies time allocations for reading instruction, all schools are required to offer a balanced curriculum. School principals and teaching staff are responsible for interpreting the curriculum, determining the most appropriate approaches for teaching students, and selecting instructional materials, including those for reading. Results from PIRLS-2006 showed that the majority of New Zealand's Year 5 students (96%) attended schools that scheduled time explicitly for formal reading instruction, typically 3.2 hours per week.[26]

Instructional Materials

The Ministry of Education's *Effective Literacy Practice in Years 1 to 4* and *Effective Literacy Practice in Years 5 to 8* are the principal handbooks for teachers to use in developing their literacy programs in English-medium primary school settings.[27, 28] They set out the theoretical basis for effective literacy teaching practice in New Zealand and describe characteristics of instructional practice which have been found to work best to improving student outcomes in English-medium settings.[29] These handbooks also underpin three other key professional resources for use in literacy programs: *Literacy Language Progressions (LLP)*; *English Language Learning Progressions (ELLP) Years 1–4, Years 5–8*, which provide a nationally consistent set of progressions for learning the English language; and *Learning through Talk*, an oral English language resource for Years 1–3 and Years 4–8.

The Ministry of Education, through Learning Media Ltd (*Te Pou Taki Kōrero*), publishes and distributes an extensive range of reading materials and classroom resources in English, Māori, and Pacific Island languages free of charge to state and state-integrated schools.[s]

Ready to Read, published in English, is the core instructional series for students in their first three years of schooling (Years 1–3) and the basis for making judgments against the reading standards for these years. The series is published for three different stages of reading: emergent, early, and fluent. The content of the texts reflects the lives and interests of New Zealand children. Ready to Read books, which have purposely been designed to not look like a series, include single titles, big books, and poem cards, as well as tapes and CDs. Teacher support materials accompanying individual titles describe for example specific features of the texts, and give suggestions of specific teaching strategies.

s A number of private New Zealand publishers also produce a range of high-quality reading texts and supporting aids for teachers.

The *Junior Journal* is an instructional reading series for Year 3 students working at Level 2 of The NZC. It is designed for use alongside the Ready to Read texts for students at the upper fluency levels, bridging student reading from individual instructional books to the assortment of texts in the *School Journal.*

The *School Journal* is the main instructional material for reading at Years 4–8, and is aligned to curriculum Levels 2, 3, and 4. The magazine-style publication includes a mix of fiction and nonfiction material. Recently, the *School Journal* has featured longer texts for curriculum Levels 3 and 4 (Years 5–8), with more in-depth content for extending students' reading skills. The Teacher Support Materials that accompany selected issues describe how they can be used for different instructional purposes in at least two curriculum areas, provide suggestions for purposeful teaching, and show how the characteristics of selected pieces of text relate to the given reading standard.

Teachers also have access to a range of materials supporting learners with reading difficulties. The *Electronic Storybook*, for example, is an interactive resource using texts from the *School Journal* and other series designed to accelerate literacy achievement for students in Years 5–8 who are two or three years below the expected reading level.

A range of instructional material has been aligned to TMoA and *Ngā Whanaketanga Rūmaki Māori*, including: *Ngā Kete Kōrero*, the core program of sequential early readers and support materials designed for children, from emergent to fluency stages, who are learning to read in Māori; *He Purapura*, a series of graded readers available for Years 1–4; *He Kohikohinga*, a collection of traditional and contemporary stories designed for Years 4–6; and *Tāiki E!*, a take-home magazine for students in Years 3–6.

Use of Technology

Both The NZC and TMoA acknowledge the role of e-learning in supporting effective pedagogy. One way the use of technology in schools and classrooms is facilitated is the Laptops for Teachers (TELA), a scheme financially supported by the Ministry of Education that makes provision for all teachers in state and state-integrated schools to lease laptops for use in their teaching and administration.

Te Kete Ipurangi (TKI), a bilingual education portal, provides schools, teachers, and students with an extensive range of resources and information related to the curriculum, assessment, and school leadership,[30] in addition to *Down the Back of the Chair*,[t] the Ministry of Education's online catalogue of teaching and learning resources for schools. Schools may also choose to integrate commercially-developed materials with web-based investigative activities into

t See http:// www.thechair.minedu.govt.nz

their literacy programs. Specific technology such as audio versions (MP3 files) and Compact Discs (CDs) of all the Ready to Read student books and selected curriculum Level 2 School Journals can be used by teachers to help with build students' reading confidence and comprehension, using authentic New Zealand voices, often from a range of cultural backgrounds.

An example of an Internet site for children seven- to twelve-year-olds (Years 3–8) is *wickED*. The site has curriculum-based learning activities in English and Māori with a focus on literacy and numeracy that students can use independently or with a teacher.[31]

Role of Reading Specialists

Primary school teachers generally teach all curriculum areas, including reading. At many schools, particularly in the junior syndicate (Years 1–3), an experienced senior teacher is responsible for the leadership and organization of the school's literacy program.

Second-language Instruction

The Ministry of Education provides additional funding and resources to schools to meet the language needs of all students—students learning English as their second language (e.g., new immigrants and refugees), New Zealand-born students from non-English speaking backgrounds, and students learning in Māori-medium settings. Schools are responsible for the organizational arrangements for teaching students with language needs. For example, English language learners typically are in a regular class setting, although those with high English language learning needs may work separately with teachers with specialist training. Sometimes, in-class support such as a teacher's aide or a peer-support program supplements this arrangement. Immersion (Levels 1 and 2) settings are able to access the services of Resource Teachers of Māori, who work alongside classroom teachers of Years 1–8, providing professional support in both curriculum and Māori language.[32]

Students with Reading Difficulties

Diagnostic Testing

Currently there is no single, mandatory, comprehensive screening test schools use to identify students with reading disabilities. Schools decide on the appropriate assessment tools to examine and monitor students' reading progress, as well as the most appropriate remediation programs. One widely used test is *An Observation Survey of Early Literacy Achievement* (Six-year-Net),

administered to children at age six after they have completed one year of schooling.[33] The survey is a comprehensive assessment that includes a dictation exercise to see how students write and hear sounds in words, as well as word tests to check students' letter identification and concepts about print. A reconstructed version, though not a literal translation—*He Mātai Āta Titiro Ki Te Tūtukitanga Mātātupu Pānui, Tuhi*—is available for use in Māori-medium settings.[u]

Instruction for Children with Reading Difficulties

Reading Recovery® is a key early intervention program that English-medium schools may use with children identified as making only limited progress in reading after one year of schooling.[v] Students entering the program undergo intensive one-on-one sessions with trained Reading Recovery® teachers. The main goal of the program is to bring students to the same reading level as their peers within a 20-week period.

Resource Teachers of Literacy, employed by the Ministry of Education, also provide support for schools that have identified students with reading and writing difficulties. These specialists work with clusters of schools to provide advice and support to underachieving students and their teachers.

Teacher resources and other interventions also are available, including the services of teachers' aides, and organizations that provide assistance to people such as children who have a specific learning disability like dyslexia.[w] A number of successful home-school research-based initiatives such as Pause, Prompt, Praise (PPP) are also used for improving children's reading at home.[x]

TATA is an intervention in Māori immersion settings focusing on developing oral language and phonological awareness of children who are in the pre-reading stage. Underpinning this intervention is the fact that, unlike English, Māori is phonologically regular, which means learners can rely on using letter-sound relationships for most words. *The Tatari, Tautoko, Tauawhi* reading tutoring procedures based on PPP are also used in junior Māori immersion settings but its success is dependent on children having relatively strong oral language skills.[34]

u Developed by Dame Professor Marie Clay with Cath Rau (Kia Ata Mai Educational Trust) (published in 1998).

v Developed by Dame Professor Marie Clay and colleagues at University of Auckland during the 1970s and 1980s.

w Examples of organizations from which schools and individuals can access support include SPELD New Zealand and the Dyslexia Foundation of New Zealand.

x A set of strategies developed by New Zealand reading researchers for parents or peer tutors to use to help children whose reading progress is slow. See McNaughton, S., Glynn, T., & Robinson, V. (1987). *Pause, prompt and praise: Effective tutoring of remedial reading.* Birmingham: Positive Products.

Teachers and Teacher Education

There are effectively two stages to becoming a teacher in New Zealand: obtaining an approved teacher education qualification and, upon graduation, registration to become a teacher. Universities, *wānanga* (Māori-based tertiary institutions), and accredited private training establishments offer initial teacher education programs that have been approved by the New Zealand Teachers Council (NZTC),[35] for early childhood, primary, and secondary teaching.

Typically for primary school teaching, the qualifications take three or four years to complete and lead to a bachelor's degree of teaching (primary school), with a one-year intensive graduate diploma of teaching program open to candidates who already hold a university degree. Prospective secondary school teachers usually complete a three- or four-year bachelor or masters degree majoring in a subject appropriate for teaching in secondary schools (e.g., mathematics, English) followed by a one-year graduate teacher education program. A number of teacher education providers offer degree programs for prospective teachers wishing to teach in bilingual or Māori immersion settings.[36]

All initial teacher education programs include a compulsory practicum from 14 weeks for one-year post-graduate teacher education programs to about 26 weeks for three- or four-year degree programs. The practicum requires teachers to work under the supervision of experienced teachers in a range of schools. While there are no specific requirements for time spent on particular learning areas (subjects), initial teacher education programs must be designed to enable graduates to meet seven Graduating Teacher Standards, implemented in 2008. The standards relate to professional knowledge, professional practice, and professional values and relationships.[37]

After graduating from an initial teacher education program, graduates are entitled to seek provisional registration from the NZTC. Beginning teachers then must undergo further supervision for a minimum of two years. Schools are required to provide high quality induction and mentoring programs for any provisionally registered teachers they employ to enable them to gain full registration.[38]

Teacher Education Specific to Reading

While varying in content, philosophy, pedagogy, and number of core hours spent on content areas, teacher education programs cover the national curriculum, the foundations of education, learning processes, and teaching practices. In many programs, student teachers may elect to either focus on a curriculum area

(e.g., reading, science) or a stage of schooling (e.g., New Entrants or Years 7–8). There are no requirements specific to the teaching of reading other than what is taught in the core requirements.

Requirements for Ongoing Professional Development in Reading for Teachers

Upon registration, teachers are expected to comply with the Registered Teacher Criteria,[39] introduced in 2011.[y] One criterion requires teachers to demonstrate a commitment to ongoing professional learning and development of personal professional practice. A professional leader must testify that a teacher has undertaken satisfactory professional development at each certificate renewal (required every three years). Schools are responsible for ensuring that teachers participate regularly in some form of professional development, the majority of which occurs in school contexts.

Practicing teachers have various professional development opportunities, ranging from one-day seminars and workshops, to part-time masters degree programs. Under the state teachers' employment contract, 50 study awards are available for teachers per year. In 2010, eleven of these awards were related to reading research.[40]

Monitoring Student Progress in Reading

State and state-integrated schools are required to have assessment policies in place, in accordance with the National Administration Guidelines. Specifically, the guidelines require schools to monitor student progress and achievement using a range of assessment practices giving priority to literacy and numeracy, especially in Years 1–8. They are also required to report to students and their parents on the student's progress and achievement in relation to national standards.[41]

Although national standards have been introduced for use in state and state-integrated primary schools, there is no national testing or additional assessments over and above those that are used as a part of normal classroom practice.[z] *National Standards* (for English-medium settings) and *Ngā Whanaketanga Rūmaki Māori* (for Māori-medium settings) are underpinned by assessment for learning principles and practice, and rely on teachers making overall professional judgments about their students in relation to the standards, using multiple sources of both formal and informal information.[42] Furthermore, the Ministry of Education does not mandate the use of any particular assessment

y Prior to 2011, the *Satisfactory Teacher Dimensions* were used for registration purposes.

z The first nationally administered common assessments are in Year 11 for the school qualifications *National Certificates of Educational Achievment* (NCEAs).

tool, although a number are available to teachers including norm-referenced tools. Exhibit 5 summarizes the range of assessment tools and tasks available to teachers as part of their assessment practice.

Exhibit 5: Examples of Classroom Assessment Tools for Monitoring (Individual) Student Progress in Reading

Assessment tool/task	Year Level	Description
Running Records[aa] *(Pūkete Pānui Haere* provides a running record assessment in Māori)	1–3	Standardized procedures for recording students' oral reading performance; diagnostic tool. Data collected on running word error rate, accuracy, and self-correction across a range of text difficulty levels.
Burt Word Reading Test (New Zealand Revision) [43]	2–9	Standardized; individually administered, recognition test. Best used in conjunction with other reading assessments.
The STAR Reading Test [ab]	3–9	Standardized; either individual or groups of students; pencil-and-paper, norm-reference diagnostic tool, to examine students' progress in several aspects of reading (including word recognition, sentence comprehension, paragraph comprehension, and vocabulary range).
Progressive Achievement Tests (PATs)[44] (Reading)	4–10	Standardized; individual or groups of students; assesses reading comprehension; pencil-and-paper (manual or on-line marking). All tests are norm-referenced, enabling teachers to make valid and reliable comparisons between their students and samples of students. Test scores convert to scale scores.
e-Assessment Tools for Teaching and Learning (e-AsTTLe)[ac]	4–12	Standardized; usually with groups of students; web-based or pencil-and-paper, available in English and Māori, reading comprehension aligned to The NZC or TMoA. The results are analyzed using norm-referenced and nationally moderated criteria**.** Student scores reported as scale scores
Assessment Resource Banks (ARBs)[ad]	4–10	Developed and trialed with samples of students; group or individual; online collection of assessment tasks organized to match The NZC learning strands; includes reading tasks.

An evaluation of Māori-medium assessment resources in 2008 and the development of *Ngā Whanaketanga Rūmaki Māori* highlighted the need for quality assessment resources in Māori-medium settings. The announcement of *Mātaiako* (Māori Medium Assessment Tools and Items Programme) in June 2011 addressed this need as part of a wider work program to support the Māori-medium education sector.

While there is no form of national testing in New Zealand, system-level monitoring has been used to provide an overview of achievement at two points of schooling: Year 4 and Year 8. The National Education Monitoring Project (NEMP), which ran from 1995 to 2009 assessed reading comprehension and writing as part of its program of assessment. A new national monitoring project aligned to The NZC is scheduled for implementation in the second half of 2012,

aa The first nationally administered common assessments are in Year 11 for the school qualifications National Certificates of Educational Achievment (NCEAs).

ab Released in 2012, this is an extensive revision of Elley, W. (2000, 2003). Supplementary Test of Achievement in Reading Years 3, 4–6, and 7–9. Wellington: New Zealand Council for Educational Research.

ac Developed by the University of Auckland for the Ministry of Education. (See http://e-asttle.tki.org.nz/)

ad Developed by New Zealand Council for Educational Research for the Ministry of Education. (See http://arb.nzcer.org.nz/)

and will also involve Years 4 and 8. A national monitoring study aligned to TMoA is currently under development.

Impact and Use of PIRLS[45]

Participation in international assessments has been a key feature of New Zealand's system-level evaluation framework since the early 1970s, when it took part in the IEA's Six Subject Survey, followed by the Second International Mathematics Study (SIMS) in the early 1980s. However, the cyclical nature of more recent studies beginning with the Trends in International Mathematics and Science Study (TIMSS) in 1995, followed by the Programme for International Student Assessment (PISA) in 2000, and then PIRLS in 2001, has highlighted their value for monitoring the "health" of the New Zealand education system in an international context,[46] as well as for informing education policy and practice.[ae]

In the recent Ministry of Education's *Statement of Intent 2011/12–2016/17*, which identifies the strategic direction for the agency, the second priority states: "Every child achieves literacy and numeracy levels that enable their success," particularly students in Years 1–8.[47] Both PIRLS 2016 and TIMSS 2015 will be used to determine if this goal has been realized. The international studies also are invaluable for examining equity in New Zealand's educational provision. For example, PIRLS has contributed to a greater understanding of achievement and inequitable outcomes for two groups of New Zealand's student populations: Māori and Pasifika students.[48]

As well as being able to benchmark student performance, PIRLS has informed the Ministry of Education's policy work in English-medium settings. For example, the PIRLS 2006 framework was used to inform the work for developing the *Literacy Learning Progressions* and *National Standards*. To date, PIRLS' utility for informing literacy learning in Māori-medium settings has been minimal. At Year 5, the language proficiency of Māori-medium students' (who are mostly second language learners) generally is not at a stage where an assessment with the reading demands of PIRLS provides meaningful information about their achievement.

The Ministry of Education's Iterative Best Evidence Synthesis (BES) program, a series of syntheses that draw national and international research together for the purpose of informing education policy and practice, has used findings from PIRLS. Specifically, the BES program focusing on school

ae See for example: *Chamberlain, M. & van Aalst, I. (2000).* New Zealand. *In D. F. Robitaille, A. E. Beaton, & T. Plomp.* (Eds.), *The impact of TIMSS on the teaching and learning of mathematics and science (pp. 98–103). Vancouver: Pacific Educational Press.*

leadership incorporated PIRLS 2006 achievement information and findings on student safety, school administration, and leadership.[49]

One of the challenges of working with the international studies is to disseminate the findings in such a way for them to be relevant to teachers. After the release of each cycle of PIRLS, the *New Zealand Educational Institute Te Riu Roa* (NZEI), the primary school teachers' professional institute and union, has run symposia for researchers, professional development providers, and representatives of the teaching profession to discuss the PIRLS findings from a New Zealand perspective. To make the findings more accessible and relevant to teachers, NZEI, with the support of the Ministry of Education, also has initiated and funded a number of focus group discussions with teachers about PIRLS-2006 throughout New Zealand during 2008–09.

On a final note, while participation in PIRLS is integral to New Zealand's system level evaluation framework and has made a significant contribution to the Ministry of Education's policy work on literacy in recent years, the challenge has been to make greater use of the rich contextual information that is generated from PIRLS.[50]

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Northern Ireland

Department of Education, Northern Ireland

Language and Literacy

English is the official language and the language of instruction in the vast majority of schools in Northern Ireland, although a small but growing group of schools operates through the medium of Irish. Many primary schools also offer a modern foreign language such as French, Spanish, Italian, or German.

In the 2011–12 school census, a total of 8,418 students were deemed "newcomers," defined as

> …one who has enrolled in a school but who does not have the satisfactory language skills to participate fully in the school curriculum, and the wider environment, and does not have a language in common with the teacher, whether that is English or Irish.[1]

The main minority ethnic groups in Northern Ireland, in which English would not be the first language spoken in the home, are, in order of size, Polish, Lithuanian, Slovakian, Latvian, Portuguese, Chinese, people from the Indian sub-continent of Pakistan and India, Hungarian, and Romanian.

In Northern Ireland, literacy is emphasized as one of the fundamental components of primary education. Literacy objectives for schools are set out in the Minister for Education's policy documents, most recently *Count, Read: Succeed—A Strategy to Improve Outcomes in Literacy and Numeracy*.

Literacy is defined as the ability to read and use written information and to write appropriately and legibly, taking account of different purposes, contexts, conventions and audiences. Specifically, it involves the development of the following: [2]

- An integrated approach to the acquisition of speaking, listening, reading, and writing skills across the curriculum;
- Knowledge that allows a speaker, writer, and reader to use language appropriate to different social situations;
- Formal and informal language across all areas of social interaction; and,

- The ability to read, understand, and use information in multiple formats and platforms, including traditional print and on-screen material.

While emphasis on the development of literacy (and numeracy) is core to the work of all schools, there are also initiatives designed to develop and promote a love of books and reading. One such example is the Bookstart program, which provides a free pack of books for all preschool children to help stimulate their reading and encourage parental involvement.[3]

Overview of the Education System

Following devolution and the establishment of a local Assembly of Northern Ireland in 1999, legislative responsibility for education in Northern Ireland was devolved to the Assembly and to a locally elected Minister for Education. The Minister was responsible for a budget of £1.8 billion in 2011–12 to deliver high-quality education to 350,000 students in full-time education and other services, including early years education and youth services.

The Minister for Education sets policy direction and allocates resources, sets targets for the education system, and is accountable to the Assembly for outcomes. The Department of Education (DE) provides the central governance and management of education in Northern Ireland and is responsible for ensuring the effective execution of policies relating to the provision of education and youth services. The Minister's key priorities include raising educational standards for all and tackling underachievement wherever it occurs, with a particular focus on narrowing differences in outcomes between the most and least socioeconomically advantaged students.

The Minister for Education has a coherent set of policies in place designed to improve educational outcomes for young people and to address the root causes when students are not achieving to their full potential. These policies include the following:

- *Every School a Good School—A Policy for School Improvement*;
- *Count, Read: Succeed—A Strategy to Improve Outcomes in Literacy and Numeracy*;
- The revised curriculum and entitlement framework;
- The ending of academic selection;
- The Extended and Full Service Schools programs; and

- The Special Educational Needs and Early Years strategies (under development).

Every School a Good School—A Policy for School Improvement, published in April 2009, is based on a vision of schools as self-improving communities of good practice.[4] School self-evaluation and self-improvement (with support and, where necessary, challenge) are at the heart of the policy. The belief is that schools themselves, through honest and open engagement in self-evaluation and effective use of data available to them, are best positioned to identify and implement changes that lead to improvements for students. There is a particular focus on achievement in literacy and numeracy.

Count, Read: Succeed—A Strategy to Improve Outcomes in Literacy and Numeracy, published in March 2011, aims to support teachers and school leaders in their work to raise overall levels of attainment in literacy and numeracy among young people and to narrow the current gaps in educational outcomes.[5] The strategy includes milestone and long-term targets for improving outcomes in literacy and numeracy.

The Education and Training Inspectorate, under the DE, inspects and reports on the quality of education in preschool, school, and youth settings, and provides inspection services for other government departments. Inspection findings are available to parents and published on the Internet.

Over the last five years, educational standards achieved by students leaving school have improved. As of 2012, 43 percent of students now leave school with three or more grades A*–C at advanced level (A level) or equivalent qualifications (level 3 qualifications); and 59.5 percent now leave with at least five A*–C passing grades at the General Certificate of Secondary Education (GCSE) level or equivalent level qualifications, including GCSEs in English and mathematics (level 2 qualifications). The number of students leaving school with no formal qualifications has been reduced from 27 percent in 1980 to 2 percent in 2011.[6] Comparisons with other OECD countries via PISA show that 15-year-olds in Northern Ireland perform above average in science, and at the OECD average in literacy and mathematics.

Currently in Northern Ireland, 322,891 students attend education full-time.[7] In 2011–12, over 98 percent of students attended grant-aided schools (not including special schools), 1.4 percent attended special schools, and 0.2 percent attended non grant-aided independent schools.[8]

There are different types of grant-aided schools, with minor administrative differences, but all are funded through a Common Funding Formula. All grant-

aided schools must provide the same curriculum, and parents can choose to apply to any school under open enrollment arrangements. Because of this parental choice, the majority of students are educated mainly with others of the same religious background (i.e., Protestant or Catholic). Spending decisions are delegated as much as possible to each school's Board of Governors in collaboration with the principal. There are also a very small number of independent schools that are not grant-aided by the DE.

The Department of Education also has a specific responsibility to encourage and facilitate the provision of integrated education, which aims to achieve a minimum percentage of both Catholic and Protestant students in each school, and Irish-medium education, where students learn through the medium of Irish.

Presently, five regional education bodies, known as Education and Library Boards (ELBs), are responsible for the effective provision of education in their local areas. The Education and Skills Authority, a single educational authority, will soon replace these bodies. In addition to providing education across all sectors and phases, the ELBs also act as the employing authority for all staff in managed schools and for all non-teaching staff in Catholic maintained schools. The Council for Catholic Maintained Schools promotes the effective governance and management of schools in the Catholic Maintained sector and is the employing authority for all teaching staff in these schools. Its functions also will be incorporated into the new Education and Skills Authority when it is established. Additionally, the *Comhairle na Gaelscolaíochta* and the Northern Ireland Council for Integrated Education receive funding from the Department of Education to support and provide a voice for the Irish-medium and integrated sectors.

Northern Ireland Executive's Programme for Government is committed to "ensure that at least one year of pre-school education is available to every family that wants it." [9] Funded preschool education is available in statutory nursery schools and units as well as in voluntary and private settings participating in the Pre-School Education Expansion Programme (PSEEP). This program incorporates a number of feature s designed to promote high quality preschool education provision in all settings, including a common curriculum for all those involved in preschool education, minimum accommodation requirements, minimum standards for staff qualifications and staffing levels, and support from a qualified teacher or early years specialist. All centers are subject to regular inspection.

Compulsory education extends from ages 4–16, covering twelve years of schooling. This period of schooling is broken into phases, known as Key Stages, as illustrated in Exhibit 1.

Exhibit 1: Phases of Schooling, Ages 4–18

Level of Education	Stage	Years	Ages
Primary	Foundation Stage	1–2	4–6
	Key Stage 1	3–4	6–8
	Key Stage 2	5–7	8–11
Post-primary	Key Stage 3	8–10	11–14
	Key Stage 4	11–12	14–16
	Post-16 Provision (sometimes called Key Stage 5)	13–14	16–18

At the end of Year 7 (age 11), students in the Northern Ireland education system transfer from primary to post-primary school. Post-primary education consists of five years of compulsory education (Years 8–12, ages 11–16) and two further years if students wish to remain in school to pursue post-GCSE or Level 2 courses to Level 3.

As in the primary phase, post-primary students have a legal entitlement to a common curriculum. While the Minister's policy is that transfer should be on the basis of non-academic criteria, the law still allows for post-primary schools to admit students based on academic performance. Where there is oversubscription, each school sets its own criteria to select students, such as proximity of home to school, whether a sibling already attends the school, and ranking in the unregulated tests if they engage in academic selection.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

In 1998, the then Secretary of State for Northern Ireland initiated and published the *Strategy for the Promotion of Literacy and Numeracy in Primary and Secondary Schools*.[10] In 2006, the Public Accounts Committee criticized the effectiveness of this strategy—*Improving Literacy and Numeracy in Schools (Northern Ireland)*—leading to a renewed emphasis on the effective implementation of the Minister's priority to improve standards of literacy (and numeracy).[11]

Current government policy on reading is outlined in the Education (Northern Ireland) Order 2006 and regularly updated in improvement strategy

documents. A 2008 report, stated that the acquisition of good literacy skills influences personal and social development in almost every aspect of a child's life, including, for example, the ability to participate fully as a member of a school and the community it serves.[12] More recently, the Minister's strategy *Count, Read: Succeed—A Strategy to Improve Outcomes in Literacy and Numeracy* emphasizes

> a renewed focus to the importance of literacy and numeracy and…the centrality of teachers. […] The skills of literacy and numeracy are so essential to delivering the curriculum that helping children and young people to develop and improve them can never be seen as something additional, rather it is at the heart of what good teachers do every day.[13]

In 2011–12, 82.4 percent of primary school students reached the expected level of literacy.[14]

Summary of National Curriculum

Legislation in Northern Ireland requires the provision of a statutory curriculum for all students that

> promotes the spiritual, moral, cultural, intellectual and physical development of all pupils at the school and thereby society: and prepares such pupils for the opportunities and experiences of adult life…[15]

From 2007, a revised statutory curriculum was introduced into all grant-aided schools on a phased basis with the following three key aims:

- To ensure that the core curriculum delivered in all grant-aided schools was relevant to the needs, aspirations, and career prospects of all young people;
- To promote a greater focus on skills and their applications as well as knowledge, and on connecting learning across the curriculum; and
- To reduce the prescription that had applied since 1989 and give teachers much more flexibility to exercise their professional judgment in planning and delivering lessons that were connected, relevant, and enjoyable, and which supported students in achieving their full educational potential.

All key stages, from Foundation to Key Stage 4, have statutory minimum content that must be covered in schools. Beyond that, schools have much greater freedom in what they cover and when it is covered.

The revised curriculum also has a particular focus on the core cross-curricular skills of communication (literacy), using mathematics (numeracy), and using ICT, as well as whole curriculum skills focusing on thinking skills and personal capabilities (often referred to as the "other skills"). Specifically, thinking skills and personal capabilities include the following:

- Being creative;
- Working with others;
- Self-management;
- Managing information; and
- Thinking, problem solving, and decision-making.

Religious education also is a compulsory part of the curriculum in all grant-aided schools, although all schools must have arrangements in place for students whose parents do not wish them to receive religious education.

In primary schools, the curriculum includes the following six areas of learning:

- Language and Literacy—Focusing on speaking and listening, reading and writing, and opportunities to incorporate drama;
- Mathematics and Numeracy—Developing mathematical concepts and numeracy across the curriculum;
- The Arts—Focusing on art and design, music, and drama;
- The World Around Us—Developing skills and knowledge in geography, history and science and technology;
- Personal Development and Mutual Understanding—Focusing on personal understanding and health, and mutual understanding in the local and wider community; and
- Physical Education—Developing knowledge, skills, and understanding in a range of physical activities (athletics, dance, games, gymnastics, and swimming).

The Northern Ireland curriculum sets out the minimum requirement that should be taught at each key stage in six areas of learning. Language and literacy should be considered in a holistic way, taking account of the integral nature of

talking and listening, and reading and writing, all of which extend across all areas of learning; schools also are encouraged to teach an additional language.[16]

Students should develop the ability to express and communicate meaning in spoken language, listening to and interpreting what others say, and matching style of response to audience, context, and purpose. Students unable to communicate orally may use other means including the use of technology, signing, symbols, or lip-reading as alternatives to talking and listening.[17] Students should develop the ability to read, understand, and engage with various types of text for enjoyment and learning. Students who need to may use non-sight methods of reading such as Braille. Students physically unable to read aloud may use other means such as signing.[18] Students should develop the ability to make and shape text to communicate meaning in written language that is appropriate to the text, purpose, reader, and audience. At each level, it is acceptable for students to use technological aids, if the students depend on them physically to produce their written work.[19]

The minimum content for language and literacy is set out by statute.[20] At Key Stage 2 (ages 5–7), teachers should assist students in developing knowledge, understanding, and skills in reading, by enabling them to do the following:

- Participate in modeled, shared, paired, and guided reading experiences;
- Read, explore, understand, and make use of a wide range of traditional and digital texts;
- Engage in sustained, independent, and silent reading for enjoyment and information;
- Extend the range of their reading and develop their own preferences;
- Use traditional and digital sources to locate, select, evaluate, and communicate information relevant for a particular task;
- Represent their understanding of texts in a range of ways, including visual, oral, dramatic, and digital;
- Consider, interpret, and discuss texts, exploring the ways in which language can be manipulated to affect the reader or engage attention;
- Begin to recognize how different media present information, ideas, and events in different ways;
- Justify their responses logically, by inference, deduction, and/or reference to evidence within the text;

- Reconsider their initial responses to texts in the light of insight and information that emerge subsequent to their reading;
- Read aloud to the class or teacher from prepared texts, including those they have themselves composed, using inflection to assist meaning;
- Use a range of cross-checking strategies to read unfamiliar words in texts; and
- Use a variety of reading skills for different reading purposes.

In short, there is no "silver bullet" for teaching reading and developing literacy, and there is a danger that over-emphasis on a single approach could lead to the under-use of other options that might help the widest possible spectrum of students. *Count, Read: Succeed* delineates the clear position on the role of phonics that students who have not yet fully developed their phonological awareness should receive a systematic and time-bound program of high-quality phonics work. However, a range of other strategies also should be deployed and phonics work is not required for students who have successfully developed their phonological awareness and whose teachers do not think it would be necessary or beneficial. The choice of approach to phonics is a matter for the school. In the early years of language development, phonics work should be reinforced by careful assessment and monitoring as students move from learning to read towards reading to learn and as they engage with a diverse range of texts for specific purposes and for pleasure.[21] Initial teacher training (ITT) also emphasizes that teaching phonics should become an integral part of all programs for beginning teachers.

Reading Instruction in the Primary Grades

Northern Ireland's Curriculum outlines the minimum requirement that should be taught at each key stage, and schools have a responsibility to provide a broad and balanced curriculum for all students. Schools have a statutory responsibility to set targets for literacy and numeracy; all schools are expected to include these as part of their School Development Plan, and principals are advised to include these as one of their three annual Performance Related Staff Development objectives.[22]

Teachers have considerable flexibility about how best to interpret the requirements and the amount of time allocated to the teaching of reading has not been prescribed. Though study topics have been laid out in six discrete areas (language and literacy, mathematics and numeracy, the arts, the world around

us, personal development and mutual understanding, and physical education), teachers are encouraged to be flexible in selection and to integrate learning across these areas. *Count, Read: Succeed* emphasizes that pedagogical decisions are a matter for teaching professionals and that teachers must be free to use a range of teaching strategies to meet the needs of every child. However, literacy occupies a significant proportion of the curriculum's time, and teachers devote much effort to reading strategies.

Over a number of years, ELBs have had literacy teams as part of their extensive INSET (in-service) programs. In 2008, the Education and Training Inspectorate identified the following elements of effective practice found in Northern Ireland primary schools promoting literacy: [23]

- A supportive literacy environment within which reading is valued, promoted, and enjoyed by children and teachers;
- Whole-school and individual teacher planning for teaching reading which is detailed and coherent, and clearly indicates progression;
- A wide range of appropriate resources, including ICT applications and suitable collections of non-fiction and fiction;
- Texts to promote and support learning and teaching;
- Student learning in reading is integrated well with writing, talking, and listening activities, and is supported by learning in other curricular areas; and
- Regular monitoring and evaluation of children's learning experiences and the standards that they attain, and outcomes are used to track and plan for further improvement.

Instructional Materials

There are no specified programs or texts which schools must follow in teaching literacy in the primary curriculum. Schools are free to choose their own resources, but are expected to do so by taking a school-wide approach to developing literacy that is linked to their School Development Plan. Teachers work with a variety of textbooks from various publishers. Generally, schools purchase sets of graded readers for use within a key stage.

Use of Technology

There has been a very significant investment in Information and Computer Technology (ICT) in all schools in Northern Ireland. C2k provides all grant-

aided schools with a core-managed service, including hardware, local area network services, wide area services, and management information systems.[24] Schools can add to the core provision by purchasing additional equipment using their delegated budgets.

A new five-year contract for C2k's service was put in place from April 2012. This new service takes account of developments in technology, such as the increasing use of personal smart mobile devices, the need for increased broadband width to accommodate bandwidth-hungry functions, and the move to central hosting (the "cloud"). As a result, major improvements in the use of digital technologies will be delivered to all grant-aided schools. The effective use of ICT in learning and teaching, while offering schools greater flexibility and choice, will have a positive impact on education standards and will help prepare students for the world of work.

There is a growing trend in schools to buy systems and software packages that can help diagnose reading difficulties, including word recognition. This allows students to find their appropriate level(s) of reading and can identify progress and/or the lack of it.[25]

Students in Years 4–7 (ages 7–11) of primary school complete computer-based assessments in reading. These diagnostic assessments provide age-equivalent outcomes to support schools in identifying students' strengths and areas for improvement.

Role of Reading Specialists

Schools normally have a middle manager as a subject leader or coordinator for literacy who contributes to and helps implement school policy for promoting the strands of reading and language. In larger schools, it is possible to have a subject leader in each key stage.[26] The current policy encourages the use of a wide range of pedagogical approaches based on the professional judgment of teachers, within the whole school literacy policy.

Second-language Instruction

Teaching is conducted in English in the vast majority of cases. In Irish-medium schools, instruction is provided in Irish with English as a separate subject. Although numbers have increased over previous years, the need for second language instruction (other than Irish) is still relatively small. Some schools have obtained the support of advisory personnel with bilingual skills in languages such as Polish and Portuguese. Many schools also have successfully adopted

ICT translation strategies to assist in communicating with such students and their parents.

Students with Reading Difficulties

Diagnostic Testing

Count, Read: Succeed recognizes the important role of assessment for improvement. Formative or diagnostic assessment allows schools to plan for improvement in individual students, classes, and year groups, as well as at the school level. Teachers, informed by assessment information, plan how best to meet each student's needs. To identify underachievement, teachers draw on their professional judgment and data they consider relevant. It is expected that teachers mainly will use existing assessment information already routinely collected or generated by the teacher or school. Teachers may, of course, seek additional data where they consider it necessary or useful. The emphasis is on the use made of assessment information, rather than the process of collecting it.

In primary and post-primary schools, the Education Inspectorate for Northern Ireland has identified that there is evidence of good practice in the use of formative and summative assessments in literacy, including standardized tests, where schools wish to use them. Through the use of teachers' professional judgment, informed by the available information, children who need additional educational support are identified at an early stage.[27]

Instruction for Children with Reading Difficulties

According to recommendations of the Department of Education, primary schools should have systems in place to identify children who need additional intervention as soon as possible.[28] Emphasis is on the need to make effective use of comparative performance data to identify priorities and actions with respect to provision and outcomes in literacy and numeracy, and to track and improve the attainment of individual students—particularly boys and other under-performing groups.

The Education and Library Boards operate specialist "outreach" support services for children with literacy difficulties. Schools are responsible for identifying the interventions they will use within their whole-school approach to raise standards in literature, drawing on advice from the ELBs.

Teachers and Teacher Education

Teacher Education Specific to Reading

There are approximately 20,000 teachers employed in grant-aided schools in Northern Ireland. Teaching is an all-graduate profession, and teacher education is accessed at five higher education institutions (HEIs): Stranmillis and St Mary's University Colleges mainly cater to the primary sector through their Bachelor of Education (BEd) courses; and Queen's University Belfast, the University of Ulster, and the Open University cater to the post-primary sector through their Postgraduate Certificate in Education (PGCE) courses.[a, b]

A Bachelor of Education takes four years to complete, involving professional tuition and academic study in one or more specialist subjects. Alternately, students who have completed a three- or four-year Bachelor of Arts (BA) or Bachelor of Science (BSc) degree may then apply to attend the PGCE course of study. Bachelor of Education courses of study normally consist of academic studies, professional tuition, and classroom-based teaching practice. Upon successful completion of an initial teacher education degree, teachers are granted "eligibility to teach" status and are eligible for registration with the General Teaching Council for Northern Ireland. A newly qualified teacher must undertake an induction program, normally lasting one year, followed by a two-year program of Early Professional Development. The arrangements for initial teacher education and continuing professional development in Northern Ireland are currently under review.

All teachers must be registered with the General Teaching Council for Northern Ireland (GTCNI), which publishes the professional competences required of practicing teachers. Exemplars are provided for each phase of education (initial teacher education, induction, early professional development, and continuing professional development).[29]

Requirements for Ongoing Professional Development in Reading for Teachers

Schools, in line with the *Every School a Good School* improvement policy, are expected to identify and implement improvements in the interest of better student outcomes. Currently, in-service training may be center- or school-based depending on school and teacher needs. Education initiatives arising from the Department of Education or the Curriculum Council are normally delivered by the Regional Training Unit or by the Curriculum Advisory

a Details of course provision in each of the HEIs can be found in the Department of Education leaflet, retrieved from http://www.deni.gov.uk/index/school-staff/teachers-teachinginnorthernireland_pg/10_teaching_in_northern_ireland-initial_teacher_education-pg.htm

b Entry requirements for ITE programs are detailed in the DE Circular 2010/03, *Initial Teacher Education: Approval of Programmes*, retrieved from http://www.deni.gov.uk/ite_approval_of_programmes_circular_-_english_version-2.pdf

Support Service teams of the five Education and Library Boards. A single School Development Service is currently in development; it is envisaged that, in the future, professional development will be facilitated and commissioned through this support structure. School managers also may initiate school-based professional development on education issues, with or without the assistance of Curriculum Advisory Support Service advisory officers. Generally, this professional development will be for issues pertinent to individual staff groups and normally is paid for from the individual school budget. Many small rural schools arrange cluster groups to disseminate information, provide staff training, and share good practice.

Monitoring Student Progress in Reading

Teacher professional judgment is central to monitoring student progress. There is an extensive structure of formal assessment in Northern Ireland starting with the mandatory assessment of students at the end of Key Stage 1 (Year 4). Students are assessed in English (speaking and listening, reading and writing), Irish (in Irish medium schools/units), and mathematics at ages 8, 11, and 14. Teachers assess students, informed by the outcomes of a series of tasks and classroom observations. At age 14, optional formal written tests also are available. Aggregated results are published at a national level. In Years 4–7 (ages 7–11), teachers also must assess students using computer-based assessments during the first term. This assessment tool is designed to support schools in identifying student strengths and areas for improvement early in the academic year. Teachers are required to report student results in reading to their parents, and must offer parents a meeting to discuss the results. Commercial publishers also publish a range of standardized reading tests schools can purchase, if they wish, with their delegated budgets. Nevertheless, *Count, Read: Succeed* emphasizes the importance of effective use of data to support teachers' professional judgment.

From the 2012–13 school year, the cross-curricular skills of communication and using mathematics (and using ICT from 2013–14) will be assessed with reference to new levels of progression, which focus on skills as well as knowledge. This assessment will be via a robust model of moderated teacher-led assessment.

Impact and Use of PIRLS

Participation in PIRLS 2011 will allow Northern Ireland to make international comparisons at the primary phase. As one of the constituent nations of the United Kingdom, Northern Ireland also participates in the Programme for International Student Assessment (PISA) and, therefore, participation in PIRLS, and in TIMSS at Grade 4, will complement the information available from PISA.

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Norway

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Language and Literacy

Norwegian, the main language spoken in Norway, has a variety of dialects. Two forms of written Norwegian—Bokmaal and Nynorsk—have been official languages of Norway for nearly 100 years. In primary and upper secondary school, 87 percent of students write Bokmaal, and 13 percent Nynorsk. Both languages are taught in school; therefore, textbooks and other instructional materials must be available in both languages

Also in Norway, the Sámi population speaks and writes three distinctive Sámi languages, with most people speaking North Sámi. Sámi students represent 0.4 percent of students in primary school, with 940 having Sámi as their first language, and 1470 having Sámi as a second language. By law, Sámi students have the right to be educated in their own language in compulsory school.

Beginning in the first grade of primary school, all Norwegian students also learn English.

Overview of the Education System

The Ministry of Education and Research is responsible for the Norwegian education system, providing guidelines and monitoring outcomes. The Norwegian Directorate for Education and Training is the executive agency for the Ministry of Education and Research. The directorate is responsible for developing preprimary, primary, and secondary education, for supervising and governing the education sector (public and private), and for implementing acts of Parliament and regulations in public and private schools. The directorate also is responsible for managing the Norwegian Support System for Special Education, state-owned schools, and the educational direction of the National Education Centers.

Within the framework of statutes and national curricula, municipalities, schools, and teachers decide which learning materials and teaching methods to use and adopt. Municipalities manage kindergartens and primary and lower secondary schools, while county authorities are responsible for upper secondary schools.

Preschool education in Norway is voluntary, but the government's goal is that all preschool-age children attend kindergarten. Consequently, the individual legal right to kindergarten enrollment was introduced in 2009. In 2010, 79 percent of children ages 1–2 and 97 percent of children ages 3–5 attended preprimary education within 6579 childcare institutions in Norway; of these institutions, 3046 were public and 3533 were private.[1]

The Framework Plan for the Content and Tasks of Kindergartens is a product of the Kindergarten Act of 2005. The Framework Plan has seven learning areas with which children should be acquainted in kindergartens:

- Communication, language, and text;
- Body, movement, and health;
- Art, culture, and creativity;
- Nature, environment, and technology;
- Ethics, religion, and philosophy;
- Local community and society; and
- Numbers, spaces, and shapes.

There is a clear connection between the Framework Plan at the preprimary level and the curricula for Norwegian primary schools; these learning areas are, to a great extent, the same as the subjects that students will encounter at school.[2]

Compulsory education in Norway consists of primary and lower secondary education, which together constitute Basic School. Children start school in the calendar year they become six and finish their compulsory education in the calendar year they turn 16. The primary level consists of Grades 1–7, and the lower secondary level consists of Grades 8–10.

In the autumn of 2010, there were 2,957 mainstream primary and lower secondary schools in Norway; of these, 31 percent of schools had less than 100 students, whereas 28 percent had 300 or more students. In recent years, the percentage of students who attend schools with 300 or more students has increased, while the percentage of students in small and medium-sized schools has decreased. In the 2010–11 school year, 54 percent of students attended schools with 300 or more students, while only 7 percent attended schools with less than 100 students.[3]

Because of Norway's scattered population, primary and lower secondary schools can be so small that the school combines the two levels and teaches children of different ages in the same classroom. Private schools are considered

a supplement to public education, and just 2.5 percent of students attend private schools at the primary and lower secondary level.

All municipalities in Norway are legally obliged to provide daycare facilities before and after school for children attending the first four grades. Daycare facilities must provide cultural and recreational activities that are age appropriate as well as conditions that also support children with physical disabilities. As of 2010, all students in Grades 1–4 have the right to assistance with their homework, which is usually incorporated into daycare facilities.

After lower secondary school, almost all students attend upper secondary school, typically for three or four additional years. In 2010, 64,000 students graduated from lower secondary school, and 97 percent of these students continued on to upper secondary school the same year.[4]

A high proportion of the Norwegian population has completed higher education (tertiary education), and currently 31 percent of the 19–24 age group is enrolled in higher education.

Language/Reading Curriculum in the Fourth Grade

In 2006, a new national curriculum—Knowledge Promotion—replaced the 1997 curriculum. Implementation of the reform began in autumn 2006, and students participating in PIRLS 2011 received their education in accordance with this 2006 curriculum.[5]

The 2006 curriculum outlines the collective objectives and principles for teaching in primary and lower secondary schools, and includes the following: [6]

- Core curriculum for primary and lower secondary, upper secondary, and adult education;
- Principles and guidelines for primary and lower secondary education; and
- Curricula for individual subjects.

Subject curricula provide all students with common learning content, which increases in scope throughout the school years and is greatest at the lower secondary stage. Schools expand upon and supplement this common learning content, adapting it to local conditions and to the needs of individual students.

The 2006 curriculum contains clear competency aims (skill targets) for what students should attain in different grades.[7] It is expected that all students reach these aims, to varying degrees, through differentiated education. If a student is not benefiting properly from regular education, he or she is entitled

to special or remedial instruction. Similarly, individual subject curricula include competency aims for students at the end of certain grades. All subjects have competency aims after Grades 4, 7, and 10, and after each level in upper secondary education and training. Some subjects also have competency aims after Grade 2. The subject curricula integrate the following five basic skills that provide the foundation for learning across all subjects:

- Read;
- Express oneself orally;
- Express oneself in writing;
- Develop numeracy; and
- Use digital tools (i.e., information and communications technology).

Summary of National Curriculum

Under the new curriculum, schools are expected to cultivate the (above mentioned) five basic skills. These basic skills have been incorporated into the syllabi for all subjects, and there are clear competency aims for what students should attain. All teachers are responsible for enabling students and apprentices to develop these basic skills through their work in various subjects.

Reading Instruction in the Primary Grades

Instructional Materials

In principle, each teacher can select his or her own textbook for classroom instruction, though for practical reasons, and depending on availability of resources, most teachers in the same school use the same textbooks. The curriculum does not require or recommend methods or materials for reading instruction; therefore, each teacher is, in principle, free to choose a pedagogical approach and appropriate materials as long as students attain the competencies outlined by the curriculum. However, while a number of different textbooks (readers) that comply with the (recently revised 2010) curriculum are available for teaching reading, four or five of these account for almost all textbooks presently used for reading instruction.

Use of Technology

The ability to use information communications technology (ICT) is one of the (above mentioned) five basic skills in all subjects. Even so, using ICT for beginning reading and writing instruction is not widespread. When used, it typically supplements more traditional methods.

Role of Reading Specialists

While most schools have special teachers engaged in teaching students with special education needs, these teachers do not necessarily act as reading specialists. Classroom teachers are responsible for teaching reading and writing in primary school. As such, classroom teachers receive instruction and practice in teaching reading as part of their general teacher education and are expected to handle the instructional needs of most students. There are numerous in-service courses in teaching reading available to teachers to improve their knowledge and expertise.

Second-language Instruction

Proficiency in the mother tongue is considered essential for the acquisition of a second language. Therefore, students with a foreign language background may choose Norwegian as a second language and will receive instruction in their mother tongue. Students with a foreign language background will receive additional training in Norwegian so that eventually they will have sufficient mastery of and can receive instruction in Norwegian. Sámi-speaking students have the right to receive all primary and lower secondary education in Sámi. A separate curriculum has been designed for the Sámi Knowledge Promotion reform, which is used in all Sámi administrative districts.

Students with Reading Difficulties

Diagnostic Testing

In 1993–95, the first screening tests in reading were developed to identify students performing at or below the 20th percentile in reading. In 2000, all schools started using a screening test in reading for Grades 2 and 7 over a four-year trial period. Following this trial period, the Norwegian Directorate for Education and Training commissioned the National Center for Reading Education and Research to revise the screening tests for Grades 1, 2 and 3. These new tests comply with the new standards set by the Knowledge Promotion curriculum.

Instruction for Children with Reading Difficulties

Students who lag behind in reading first receive special attention from the classroom teacher. Many schools also have a teacher or a team of teachers engaged in special education who can assist the classroom teacher when necessary. If a student's reading difficulty is more severe, municipal educational-psychological services will diagnose the problem.

Students diagnosed with dyslexia or requiring special assistance for other reasons are entitled to special education. Special education can be organized in the classroom by incorporating an additional reading and writing teacher, or outside of class through individual or small group tutoring sessions.

Teachers and Teacher Education

At the time of the PIRLS 2011 assessment, most teachers working in Norwegian primary schools were trained in a four-year general teacher education program at a teacher college, with one year of full-time study equal to 60 academic credits.[8] Another way of qualifying as a teacher is to complete a non-education university degree (a minimum of four years), followed by an additional year of teacher training and practice. General teacher education is typical for teachers in primary school, but teachers with general teacher education also may teach in lower secondary school. Teachers qualified to teach in preprimary education may teach primary Grades 1–4 if they complete an additional year of teacher training. Teachers with a non-education university degree may teach only the subjects they have studied, primarily as subject teachers in lower secondary school. In upper secondary schools, all teachers are subject specialists. The academic or vocational subject(s) a teacher is qualified to teach will determine the school and type of class where he or she will teach.

In 2010, a new differentiated teacher education program was introduced and prospective teachers of compulsory grades now can choose between two programs: one that qualifies them to teach Grades 1–7, and another that qualifies them to teach Grades 5–10. This new program will replace the old general teacher education.[7]

Requirements for Ongoing Professional Development In Reading for Teachers

In-service training for teacher professional development is encouraged and is part of an additional week (the 39th week) of the school year. Universities, state teacher colleges, and a number of public and private institutions offer a wide range of courses and seminars.

Monitoring Student Progress in Reading

Progression from year to year throughout compulsory education is automatic, and at no point are students required to pass examinations before moving to the next grade. In September 2007, fifth- and eighth-grade students began participating in national reading tests in Norwegian and English, as well as tests

in mathematics. The test results determine whether student skills are consistent with the five basic skills to be achieved at the end of fourth and seventh grades. Results are intended to serve as a platform for qualitative development at the teacher and school administrator levels, as well as at the regional and national levels.[8] Test results are not used for ranking schools.

In addition to the national reading tests in Grades 5 and 8, all students participate in screening tests developed for Grades 2 and 3 (see Diagnostic Testing). The screening tests are intended to identify poor readers in need of special attention, and teachers use the results when planning reading instruction. There is no national reporting of these screening tests.

Assessment in Grades 1–7 does not involve the awarding of grades. Grades are introduced in lower secondary school on a scale of 1 to 6, with 6 being the highest grade. Provisions in the syllabi stipulate when assessments are to be administered, with and without grades. Graded assessments include both standard grades (i.e., regular classroom assessments) and examination grades. Subject syllabuses have provisions for standard grades and for determining which rules apply for examinations in any given subject.

At the end of lower secondary school (Grade 10), students take a written examination in one of three subjects: Norwegian, mathematics, or English. Examinations are prepared centrally, and students are notified of their examination subject only a few days beforehand. For subjects in which students have not taken an examination, the final grade is based on teacher assessment throughout the year.

Impact and Use of PIRLS

It is difficult to isolate the impact of PIRLS from the impact of other international studies (e.g., TIMSS and PISA). The following, therefore, is an attempt to summarize some possible consequences of Norway's participation in a number of international studies.

From 2003 through 2007, when national and international studies indicated that Norwegian students' reading skills were unsatisfactory, the Ministry of Education developed and initiated a national action plan for improving reading—Make Space for Reading! [9] The Norwegian Directorate for Education and Training managed the plan, which had the following three goals:

- Improve reading skills and the motivation to read among children and youth;

- Improve teachers' skills in teaching reading, communication of literature, and use of school libraries; and
- Increase society's awareness of reading as a basis for other learning, cultural skills, quality of life, and participation in working life and a democratic society.

The action plan had specific proposals for projects in primary, lower, and upper secondary schools, as well as in libraries and colleges. These projects included activities directed at students as well as current and prospective teachers. Activities at the system level included school strategic planning, curricula development, and reading skills and behavior assessment through participation in national and international surveys. The plan also encouraged extensive collaboration and network building among schools, between schools and colleges or research environments, and with communities and organizations outside of schools that were committed to the promotion of reading, such as librarians, publishers, and authors.

In January 2004, the Center for Reading Research at the University of Stavanger was designated the National Center for Reading Education, and subsequently changed its name to the National Center for Reading Education and Research. This center offers support and guidance to local authorities, libraries, and schools. It also is responsible for a number of the measures in the action plan, including development of screening tests in reading, teacher professional development (regular courses or distance learning), and annual national conferences on reading.

Norwegian results in several international surveys have indicated the need for a national quality assessment system. As a result, the Ministry of Education began developing a national assessment in reading (in addition to mathematics and English), and the theoretical foundation of this assessment relies heavily on PIRLS and PISA frameworks. In 2004, assessments for several grades were developed and, beginning in 2007, all students take the national reading tests (and mathematics and English, described above in Monitoring Student Progress in Reading) in Grades 5 and 8.

The Norwegian Directorate for Education and Training is responsible for a new plan focusing on reading education in schools. The National Center for Reading Education and Research plays an important role in implementing this plan. The plan runs from 2010 through 2014 and focuses on providing the following four areas of continuing education to teachers and school administrators: [10]

- Reading instruction;
- How to work with reading across subjects in upper secondary school;
- Reading as a basic skill in all subjects; and
- Reading as part of the school's responsibility to provide assistance with homework.

As part of the plan, all students receive a book of their choice (from among many titles in Bokmaal, Nynorsk, and Sámi) at the end of primary school. In upper secondary school, students receive an anthology containing texts in both forms of Norwegian, as well as texts in Danish and Swedish.

In addition to the areas mentioned above, there seems to be a growing awareness in schools and in the general population of the importance of having functional reading skills. Many attribute some of this awareness to the discussions following the publication of how Norwegian students perform in international surveys.

Suggested Readings

The following websites contain relevant information about education in Norway, most of which also is available in English:

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Utdanningsdirektoratet [Directorate for Education and Training]. (n.d.). Retrieved from http://www.udir.no

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9 Directorate for Education and Training. (n.d.). *Make space for reading!* Retrieved from http://www.regjeringen.no/en/dep/kd/Selected-topics/compulsory-education/strategic-plans/make-space-for-reading.html?id=279655

10 Directorate for Education and Training. (n.d.). *Plan for lesesatsing 2010–2014* [Reading initiative plan, 2010–2014]. Unpublished plan.

Oman

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Ministry of Education

Language and Literacy

Classical Arabic is the official language of the Sultanate of Oman and is the language of teaching and learning in all government schools. In everyday communication, different dialects of Arabic are used. English is taught as a subject starting from first grade, and is used as the language of instruction in some private/bilingual schools. Other spoken languages in Oman include Swahili, Balochi, Lawati, and Mehri.[1]

The Ministry of Education (MoE) has adopted several initiatives to enhance literacy and spread a culture of reading among students:

- *Discover the Pleasure of Reading—L*aunched in 2006–07, this project targets first grade students in General Education schools, and aims to inform teachers about the importance of reading stories and ways to teaching stories to students in an engaging way.
- *Stories and Tales Supporting the Syllabus*—A program that aims to develop teachers' skills in creating stories and tales of their own to enrich instruction.
- *Reading Enrichment*—A weekly project implemented in Grades 2–12 in which students choose stories or magazines to read and then complete worksheet tasks related to what they have read.
- *Speaking in Classical Arabic*—Started in 2008–09, this program encourages teachers and students to speak Classical Arabic inside the school, and aims to decrease the gap between spoken and written language.
- The *Integrated Curriculum (IC)*—First piloted in four Cycle One schools (Grades 1–4) in 2006–07, this project provides children with the necessary skills and knowledge using an integrated approach to learning, using one book and the classroom teacher. The IC project aims to develop the child as a whole—cognitively, physically, emotionally, linguistically and socially. It also aims to develop children's literacy skills in both Arabic and English.

Because Oman's mission is to eradicate illiteracy, different projects have been adopted to accomplish this mission. *No to Illiteracy* is one such initiative currently offering free evening classes to adults regionally. The initiative has a specially designed syllabus for Level 1 (first and second grades combined) and Level 2 (third and fourth grades combined). After Level 2, learners follow the common curriculum for fifth grade onwards.

Overview of the Education System

Historically, Oman's education system has been highly centralized, with MoE making the majority of decisions affecting the country's schools. However, the ministry is currently attempting to decentralize by granting authority to the eleven regional offices of education to handle most administrative functions. Since 1998, a paradigm shift in the philosophy of Oman's education has led to the adoption of a reformed education system, now called "Basic Education." [2, 3] The system follows a child-centered approach to teaching and learning, where students play an active role in their own learning and the teacher is more of a facilitator in the learning process. In this system, continuous assessment plays a major part in determining students' level of achievement, as opposed to a largely exam-based system. Additionally, activity-based learning has become central; resources for hands-on activities are incorporated into Arabic, English, Mathematics, and Science curricula to provide for active learning classrooms.

Each level of Basic Education provides 180 school days and 1,600 minutes of instruction per week, although, due to special circumstances and holidays, the aim of having 180 actual instruction days is never actually met. The structure of the Basic Education system is as follows:

- Cycle One (Grades 1–4)—Co-educational;
- Cycle Two (Grades 5–10)—Separate boys' and girls' schools; and
- Post Basic (Grades 11–12)—Separate boys' and girls' schools.[4]

In Oman, there are separate schools for each cycle and for Post Basic. The majority of schools (1,040) are government schools, which were attended by 523,255 students in the 2010–11 school year.[5] Oman also has three special education government schools, which were attended by 577 students in 2010–11, and 387 private schools, which were attended by 1,266 students in 2010–11. Some private schools are bilingual, with students following international programs in Mathematics, Science, English, IT, Arts, and Physical Education, while others are Arabic monolingual. In addition, international

schools provide education for nationals of other countries (e.g., British schools, Indian schools, Pakistani schools).

Conversion to Basic Education is more than 79 percent complete. However, the old general education system continues to operate in Grades 5–8 while the transition continues. The popularity of the Basic Education pedagogy has resulted in many general education schools adopting Basic Education resources and teaching techniques. The ministry also has planned a reorganized program for Grades 11 and 12, called "Post Basic Education," which was first implemented in the 2007–08 school year. This program offers a set of mandatory courses and a selection of courses as electives, providing students with a choice of pathways. To assist students in choosing among the pathways, the ministry established a Center for Career Guidance and provided Career Counselors at all schools teaching Grade 10 and above.

Preprimary education is provided only at private schools (i.e., kindergartens, nurseries and Quranic schools). Such schools are few, however, and most are located in the capital area of Muscat. These schools also tend to be expensive and most families cannot afford them. Exhibit 1 provides an overview of private preprimary schools.

Exhibit 1: Types and Quantity of Private Preprimary Schools in Oman[6]

Type of school	Number of schools
Quranic	87
Kindergarten	80
Private schools	212
Private schools with international program	8
Total	387

Quranic schools tend to concentrate mostly on the reading of Quran and the teaching of Arabic. Private schools and kindergartens tend to emphasize early literacy skills, especially if the school follows an international program. Basic reading and writing skills do play a role in preprimary education, but children learn these skills through playing, exploration, and by visiting different classroom learning. In upper kindergarten, children are introduced to print and phonics.

Language/Reading Curriculum in the Fourth Grade

Oman has a national curriculum based on learning outcomes established by the Curriculum General Directorate.[7] Learning outcomes for each subject are determined through a system of committees, each consisting of consultants, experts, curriculum officers, assessment officers, supervisors, and experienced teachers. The Writing Committee for each subject area prepares student and teacher resources for distribution to all schools, ensuring that all students use a common set of resources (government schools and Arabic medium private schools) to achieve learning outcomes.

The ministry also is responsible for approving the curricula of all private schools in Oman. The source of the curriculum and learning resources varies among different schools. Each curriculum must be submitted to MoE for approval, and students are required to participate in standardized testing as requested.

Reading Policy

All schools (government, private, and international) are overseen by MoE and follow its rules and regulations. All government and private schools follow a National Curriculum in Arabic, Islamic Studies, and Social Studies, though the ministry is not involved in curriculum decisions at international schools.

Given the low frequency of private kindergarten attendance in Oman, teaching reading generally begins in the first grade (6 years old) for the majority of children. The first few months of instruction are dedicated to raising phonemic awareness and teaching phonics. First grade students are initially taught the alphabet, letter formation (initial, middle, and final letter, because in Arabic letter formation and shape depends on the position of the letter), and sounds. Letters are studied for seven months, which includes learning sounds and prolonged sounds of letters and the association of sounds with letters. Students are taught to link pictures to words before studying sentences containing such sounds and letters. At the end of this period, students apply this basic knowledge to reading simple stories, which are kept in the school library and are available to students.

Summary of National Curriculum

Reading is part of the Arabic language curriculum that focuses on reading and writing skills as well as other language skills, including listening, speaking, handwriting, dictation and spelling, vocabulary, and grammar. In 2009 and 2010, the Arabic language curriculum and its learning outcomes were revised and

implemented for the first and second grades, respectively.[8] In 2011, revision has continued with third grade materials, to be followed by revisions to the fourth grade curriculum. In Cycle 1, the curriculum progresses to meet student needs.

By the end of fourth grade, students are expected to achieve the following:

- Read all letters aloud and fluently, as well as words and sentences, using vocalization of the last letters of words, and the correct uses of pauses and successions;
- Read suitable texts properly, with comprehension of meaning;
- Use language patterns learned while performing reading;
- Start using suitable dictionaries to find meanings of words;
- Distinguish between different types of writing (e.g., realistic, imaginative, narrative, descriptive, and dialogue);
- Identify the relationship between words within the indicative (semantic) domain;
- Distinguish between various meanings of the same word;
- Read texts silently with general understanding;
- Infer general and specific ideas;
- Organize ideas and events logically, according to their order in texts;
- Consider different punctuation while reading;
- Paraphrase text;
- Figure out the content of texts using titles, pictures, and attached figures;
- Link previous knowledge and experiences to information included in texts;
- Pose questions to enrich understanding of texts;
- Answer questions (e.g., why, how, what if) on texts;
- Complete stories by writing logical and justified endings;
- Identify elements of stories in terms of characters, time and place frameworks, and formational and ethical features;
- Express and justify opinions about texts;
- Enjoy the beauty of phrases; and
- Infer values and attitudes embedded in texts.

In Cycle One of Basic Education, the reading curriculum deals with topics related to children's surroundings to develop their schemata. These texts include various concepts and facts, such as names of pictures reflecting students' lives, colors, volumes, lengths, shapes, directions, and places. Initially, students are asked to read pictures and then describe them orally and spontaneously. Students then start decoding letters and sounds, and eventually engage in meaningful reading. Such learning is conducted within a linguistic context, and selected verses from the Holy Quran are related to the needs of the children, their families, societies and environments. Other religious texts also are used, such as various stories and the sayings of the Prophet. Further texts from the Holy Quran are gradually introduced in subsequent grades of Basic Education.

Reading passages and texts in the fourth grade are about 200 words long, and are balanced across a number of text types. Most texts tend to be literary, though some informational texts are used. Included are some recreational types of texts (stories and jokes), as well as texts intended to build language literacy. The curriculum also allows "reading for pleasure" as a way of developing and enhancing reading abilities and skills. The Arabic language textbooks for Cycle One include sets of units, each consisting of a number of lessons targeting different language skills.[9, 10] These lessons cover a range of topics also designed to instill certain principles and values, such as the following:

- Commitment to the mother and Omani society;
- Appreciation of the value of work, commitment to Omani heritage;
- Open-mindedness towards the world and human achievements;
- Appreciation of science; and
- Connectedness with the animal world.

However, teaching reading is not only limited to texts included in textbooks. During a period allocated to "enrichment reading," students read books of individual interest, using books found in learning resource centers. Sets of tales and stories are distributed to all schools, introducing different genres at an early age to help students develop reading skills and build their interest in reading. In addition, students practice reading when they study other school subjects, such as Islamic Education, Social Studies, and Life Skills.

The school year is 36 weeks, with approximately 32 weeks of instructional time. Each class is 40 minutes long. At the fourth grade, seven instructional periods (17% of instructional time) are devoted to Arabic language instruction per week. Of these lessons, three are devoted to reading (aloud and silently), while one lesson each is devoted to language patterns, dictation, handwriting, and written composition. At earlier grades, up to twelve lessons are devoted to Arabic language instruction per week. The gradual decrease in number of periods of Arabic language across grade levels is intentional, because children learn the basics of reading and writing in the first and second grades before moving to other skills and topics in following grades. A substantial amount of time (five lessons per week) is also devoted to second-language instruction in English, with greater amounts specified at earlier grades.[11]

Instructional Materials

MoE provides common curricula, syllabi, and textbooks for all subjects. The curriculum framework prescribes teaching methods as well as the different modes and tools of assessment. The ministry produces instructional materials by itself, forming teams to translate the curriculum goals and learning outcomes into lessons and activities in the form of textbooks. Textbook development teams consist of specialists in each subject, including a supervisor, a curriculum officer, an assessment officer, and a teacher trainer. After the materials have been written, they are reviewed by focus groups, then again by a higher committee headed by the Ministry of Education Undersecretary. Special committees are formed to check the suitability of commercially produced materials before they are purchased.

Every teacher receives a teacher's guide that suggests ways of teaching different lessons of the textbook.[12] The guide also suggests activities to enhance certain skills or concepts. Schools also receive all educational aids, sets of materials, devices, and instructional tools to facilitate skill development. These aids are considered an integral part of the reading curriculum in Cycle One of Basic Education and include cards, audio tapes, compact discs, videos, conversation and self-expression charts, stories, and enrichment reading publications.

Use of Technology

Information technology is an integral part of the teaching of the Arabic language to make learning concrete and meaningful, especially in Cycle One grades. In Omani schools, computers, multimedia players, and projectors have become essential teaching aids. Computers are currently used to provide individualized learning for children in areas such as phonics, reading, and writing simple sentences.

Role of Reading Specialists

The Arabic language teacher is responsible for teaching all Arabic language skills. Thus, there are no reading specialists in Omani schools; the classroom teacher provides additional support when needed.

Students with Reading Difficulties

Diagnostic Testing

Students with learning difficulties initially are identified by special committees in schools through surveys. The students are sent to learning difficulties teachers, and parents are contacted to discuss the enrollment of their children in learning difficulties programs. Additional tests, including diagnostic tests, approved by the College of Princess Tharwat in Jordan, are then conducted for these students.

Instruction for Children with Reading Difficulties

Students with learning difficulties receive assistance based on their specific difficulty. Reading difficulties are usually addressed using one of two methods. The first is the neural effect method, which uses a simultaneous reading approach in which both the teacher and student practice reading aloud and at a rapid pace at the same time. The second is the Visual-Auditory-Kinesthetic-Tactile method, which uses multiple senses to teach reading. Difficulties in writing may be addressed using the participatory writing method, in which students exchange ideas on a writing subject with colleagues who have highly expressive writing skills, or with their teachers. Students also may be encouraged to suggest topics according to their interests and experiences in order to enhance their writing skills.

Teachers and Teacher Education

As of 2009, a bachelor's degree is the minimum requirement for teaching. In the past, teachers of students through Grade 6 earned diplomas at teacher education colleges, but these institutions have now been converted into Applied

Sciences Colleges. Teacher education is now a four- or five-year program that is only offered at one college and at Sultan Qaboos University, as well as four private universities. The first cohort of students attending these universities will graduate in 2011.

All English language teachers who previously held diplomas from teacher education colleges have earned a bachelor's degree through a project with Leeds University. There are plans to implement similar programs for other subject teachers, but for the time being there are still diploma holders teaching students in Grades 1–4.

Teachers in Cycle I (Grades 1–4) are "field teachers." "First field" teachers are teachers of Arabic, Islamic and Social studies, while "second field" teachers are teachers of Mathematics and Science. Subject specialists teach all other subjects. However, owing to a surplus of available first and second field teachers in Oman, this specialization has currently been stopped.

Teacher education courses aim to help future teachers understand, analyze, evaluate the teaching process, and comprehend its elements, to encourage a very high standard of professionalism. The specialized and professional components of teacher education programs are integrated to prepare students and qualify them to teach. This integration is apparent during teaching practice (practicum) in schools; student teachers are expected to demonstrate a high level of capability in addressing specialized knowledge and skills and present them according to learner abilities. Student teachers are also expected to take part in practicum inside the college (i.e., micro teaching or peer teaching) from their fifth to seventh semesters. They also participate in a teaching practicum outside the college for two days per week during the seventh and eighth semesters.

Requirements for Ongoing Professional Development In Reading for Teachers

When a new syllabus is introduced or major amendments have taken place in an existing syllabus, teachers are trained accordingly. Oman follows the Trainer of Trainers (TOT) and the cascade model for professional development. Teachers also are provided with professional development in matters such as thinking questions, teaching methodologies, employment of educational games in teaching, and how to deal with students who are facing difficulties in learning.

Monitoring Student Progress in Reading

Throughout the year, teachers conduct continuous assessment with quizzes, projects, participation, presentation, and oral and written work to assess

learning outcomes or goals. Examinations are also used as means of assessment and they increase in weight at the higher grades. In Cycle One, assessment is 100 percent classroom-based. In Grades 5–8, 30 percent of students' grades are based on school-developed tests, and 70 percent is based on formative classroom assessment.[13] All examinations are developed at the school and regional level, with the exception of Grades 10 and 12. Grade 10 marks the end of the Basic Education; therefore, core exams (Mathematics, Science, Arabic Language and English Language) are prepared by MoE and administered regionally. The Grade 12 matriculation examination marks the end of schooling. Upon passing the examination, students receive a Diploma, which is the basis of entry to the University and different colleges, and also is the means by which scholarships are awarded.

In Cycle One (Grades 1–4), students receive four report cards per year—three descriptive reports pertaining to individual achievement in each subject, including strengths and weaknesses, and a final report card. The final report card is issued at the end of the school year and shows only letter grades (A–E) for each subject. In Grades 5–8, students also receive four report cards per year, but two are descriptive (one mid-semester) and two have letter grades for each subject (one at the end of each semester).

There is no grade retention in Cycle One, except in exceptional cases. Students who receive a failing grade (E) continue to the next grade with planned remedial assistance and an individual progress plan. In Grades 5–8, a student failing one subject continues to the next grade, although students failing more than one subject may be retained. An Attainment Follow-Up Committee within the school is responsible for determining whether retention is in the best interests of the student, the class, and the school. This committee consists of the subject teacher, the head teacher, a social worker, and a parent of the child in question, who help the child at school and at home. Whether the child is retained or promoted to the next grade, a special progress plan has to be designed.

Suggested Readings

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Poland

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Language and Literacy

Polish, the official language of Poland, belongs to the Western Slavic group of Indo-European languages. German, Ukrainian, Belarusian, and Kashubian are among the languages spoken by national and ethnic minorities in Poland. Polish is the language of instruction in all schools. Children from national and ethnic minorities (1.6% of primary school students) also attend mother-tongue-and-culture classes.[1] In addition, bilingual secondary schools, attended by 1.5 percent of students, provide instruction in some subjects in a foreign language.[2]

Since the publication of the Organisation for Economic Cooperation and Development's (OECD) Adult Literacy Survey in 1995,[3] which showed that the study sample of Polish citizens were at the bottom of the achievement distribution in understanding written texts, improving literacy has remained the center of attention in Poland. In 2001, the ABCXXI All of Poland Reads to Kids Foundation was established and initiated a national mass media campaign encouraging parents to read to their children for 20 minutes every day. The foundation also promotes reading aloud for pleasure to children in kindergarten and primary schools. In 2012, the Jubilee 10th Finale of the national campaign will be celebrated. PISA 2000,[4] which showed that Polish 15-year-old students read significantly below the OECD average, provided another impetus for the improvement of reading. In subsequent assessments, Polish students have made marked progress, which may be due in part to the increased emphasis on teaching reading in lower secondary schools.

Overview of the Education System

Since 1989, the Polish education system, much like the country's government, has gradually become decentralized. Between 1991 and 1999, local governments, which receive subsidized funding from the state, became responsible for the provision of education.

The Polish education system consists of four levels: preprimary (*Przedszkola*, or Grade 0), primary (*Klasy 1–6,* or Grades 1–6), lower secondary (*Klasy 1–3,* or Grades 7–9), upper secondary (*Klasy 1–3 lub 4*, or Grades 10–12 or 13), and postsecondary (1–3 semesters). Preprimary education is available for children beginning at age three and participation is voluntary and decided by parents. However, all six-year-old children must attend Grade 0 prior to beginning primary school.

Primary school consists of two periods: integrated teaching (Grades 1–3) and teaching subjects (Grades 4–6). In the integrated teaching period, one teacher covers most of the content across all subjects and assesses student achievement descriptively. The PIRLS 2011 assessment was administered to students in Grade 3, which is the final grade of this period, the fourth year of compulsory education, and was attended by children ten years of age, on average, at the time of testing. In the subject teaching period, students have separate teachers for the major subject areas (Polish, history and society, mathematics, science, arts, physical education, and religion) and students are assessed using grades.

The lower secondary level (*gimnazjum*) enrolls all students who graduated from primary school and does not employ tracking. In the last grade of lower secondary (Grade 9), students take a battery of five or six external examinations.

The upper secondary level comprises three types of schools: general education (*liceum*), general vocational (*liceum profilowane*), and vocational (*technikum*). Each type of school offers a final external examination (*matura*), which entitles students with passing scores to apply to an institution of higher education. Typically, general education graduates achieve the highest examination test results of all upper secondary school students, thereby earning a greater chance than others to study at prestigious universities. The postsecondary level is available to upper secondary school graduates who wish to gain vocational qualifications for a trade or occupation.

Two- or three-year basic vocational schools, which prepare students for skilled industrial or trade vocations, are exceptions to the structure of Poland's education system. About 20 percent of lower secondary school graduates attend these schools. Upon completion, students receive a certificate that may not be used for entry into institutions of higher education.

The 2009 Education Act lowered the obligatory age to begin primary education from seven to six. Between 2009 and 2011, the decision of whether or not to send a six-year-old to school rested with the child's parents. The plan set

out by the act was to make primary education for six-year-olds compulsory from 2012. However, there were many obstacles to introducing the change and, by September 2011, only slightly more than 20 percent of six-year-olds had begun their education in primary school. Considering the somewhat unenthusiastic public response to the reform, and in view of the fact that sending all six-year-olds to school in September 2012 would almost double the number of first graders, the government decided early in 2012 to postpone the introduction of obligatory education for all six-year-olds to September 2014.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Although a new curriculum is now in place, the students that participated in PIRLS 2011 received instruction under the former National Curriculum enacted in 1999,which summarized the official policy on reading literacy.[5] For Grades 0–3, the 1999 National Curriculum described three major areas: teaching objectives, school responsibilities, and educational content. The document declared the development of reading, writing, and arithmetic skills as the main teaching objectives, emphasizing their fundamental contribution to student development. The school managed monitoring student achievement in reading and providing remedial teaching to slow learners.

Reading instruction focused on syllables, words, sentences, and texts, including Polish and foreign classical children's literature. Students learned to read aloud and silently with an emphasis on understanding. The National Curriculum did not recommend particular methods of reading instruction nor did it formulate expectations of student reading levels in consecutive grades.

For Grades 4–6, the context in which the 1999 National Curriculum addressed reading was enriched with a description of expected student achievement. Teaching objectives included those geared towards supporting student communication skills and introducing them to the world of culture through the following:

- Developing speaking, listening, reading, and writing skills in diverse private and public situations;
- Discovering interests, capabilities, and needs, as well linguistic and literacy skills; and
- Enhancing motivation to read.

Schools were responsible for motivating students to discover literature and cultural texts (including regional ones). Schools also provided students with the opportunity to improve their speaking, listening, reading, and writing skills, with an emphasis on understanding texts and works of art.

At the end of primary school, students were expected to be able to read aloud, respecting the principles of the culture of speech, and read silently with understanding. Student understanding was expected to span across diverse text types and to consider author's intentions, such as conveying information or expressing an opinion or argument.

Presently, a new National Curriculum is being implemented beginning with the student cohort that entered Grade 0 in the 2009–10 academic year.[6] The major difference between the new National Curriculum and the previous one is that the new curriculum provides more specific descriptions of learning outcomes. Under the new curriculum, at the end of Grade 3, a student should be able to do the following:

- Make Use of Information—Listen carefully to utterances; read and understand appropriate texts and draw conclusions from them; search for information in texts; be familiar with such genres as greetings, invitations, announcements, letters, and notes.
- Analyze and Interpret Cultural Texts—Show an aesthetic appreciation of literature and use literature to enrich vocabulary; identify time and place of the action and its main figures; read prose and poems aloud, using proper punctuation and intonation; feel the need for literary and artistic experience; read books chosen by oneself or selected by the teacher and comment on them; and use textbooks and workbooks under teacher guidance.

Reading Instruction in the Primary Grades

Reading is part of language instruction. Because teaching in Grades 0–3 is integrated (i.e., not divided into subjects), the 1999 National Curriculum does not specify the amount of time assigned to language instruction or to reading. Each teacher must elaborate upon the National Curriculum in his or her own grade-specific curriculum. Teachers also may choose to incorporate one of the commercial curricula already accepted by the Ministry of National Education.

Most of the curricula in use assign one-fourth of the total instruction time to reading instruction, and define the objectives of the instruction in the following way:

- Grade 0 (age 6)—Students prepare to read (i.e., teachers develop visual and aural readiness, and introduce letters, syllables, short and simple words, and sentences).
- Grade 1 (ages 7–8)—Students perform aural and visual analysis and synthesis; read words, sentences, and short texts aloud; and understand short rhymes and stories for children.
- Grade 2 (ages 8–9)—Students read fluently, correctly, and at the right pace; understand longer, simple texts; and read texts with dialogue.
- Grade 3 (ages 9–10)—Students read fluently, vary the pitch and tone of their voices, and keep the right pace of reading. They understand longer and more difficult texts and are able to perform excerpts of their favorite literary works.

Instructional Materials

There are no regulations governing the use of materials for reading instruction. Teachers are solely responsible for selecting classroom reading materials. Students in all grades listen to recorded fairy tales, poems, and other literary works, and teachers read stories aloud. Students in Grades 1–3 read texts in their textbooks and workbooks, as well as in children's books and magazines of increasing difficulty. Workbooks typically include exercises that ask students to demonstrate their understanding and evaluation of texts. In Grade 3, students are expected to read a children's story or a short novel of the teacher's choice at home.

Use of Technology

Most classrooms in Polish primary schools have audiovisual equipment available. However, few computers are available to children in Grades 0–3. In primary schools, there is one computer for every ten students, on average.[7] Computer rooms are used primarily by students in Grades 4–6 during information technology classes.

Role of Reading Specialists

There are no trained reading specialists in Poland. Schools employ speech therapists and educational therapists to assist students with special needs or

learning disabilities. On average, there are 33 teacher-therapists for every 100 primary schools.[8]

Second-language Instruction

A modern foreign language is a mandatory subject in Grades 4–6 of primary school, with English learned by 89 percent of students.[9] Before the 2009–10 school year, foreign language instruction in Grades 0–3 was offered by a few schools as an extracurricular activity, usually at the parents' expense. Since 2009–10, according to the new National Curriculum, teaching a foreign language is also mandatory in Grades 1–3.

Students with Reading Difficulties

Diagnostic Testing

In Poland, there are no standardized screening tests for reading disabilities. It is the teacher's duty to identify students with reading and writing difficulties and recommend a proper course of action, such as remedial teaching.

Instruction for Children with Reading Difficulties

Students with reading disabilities take remedial classes within their schools, usually following their regular classes. In the majority of schools, remedial classes are managed by a primary grade teacher who often also teaches students in the regular classes.

Teachers and Teacher Education

Teacher Education Specific to Reading

Every teacher must successfully complete a university or college course of study comprising a three-year bachelor's (first) and a two-year master's (second) degree, in addition to a one-year practicum in a school. A lower primary school teacher must have a degree in elementary education. Reading instruction is an integral component of teachers' responsibilities in these grades. There are no separate requirements for teaching reading.

Requirements for Ongoing Professional Development in Reading for Teachers

Polish teachers have ample opportunities for professional development. Universities offer postgraduate courses for teachers wanting to qualify to teach additional subjects. In every province, there is a public in-service education center. Commercial educational firms also offer shorter or longer courses, such as "I'm good at reading" and "Play and read." Attendance in professional

development courses counts towards promotion, though teachers are not obligated to attend.

Monitoring Student Progress in Reading

Primary grade teachers are required by law to assess every student's achievement twice a year. The assessment is descriptive in nature and specifies the student's academic and social achievements, as well as his or her strengths and weaknesses. The law does not permit the use of conventional grades.

During the academic year, a teacher collects information on student achievement in the form that he or she finds appropriate, such as conventional grades (1 being the lowest, 6 the highest) or other forms devised by the teacher, including short comments or student portfolios.

Students in Grades 0–3 do not take national examinations. Commercial achievement tests available on the educational market compete for teacher use and usually consist of a few items that assess students' understanding of short, informative texts. In 2011, for the first time Grade 3 teachers were offered a battery of two tests that they could administer to their students: one for Polish (including reading), and the other for mathematics. The tests were developed by the Central Examination Board with the intention of calculating a value-added measure in primary schools. Three-fourths of schools in Poland have eagerly participated in administering these tests.

Impact and Use of PIRLS

Poland has participated in PIRLS since 2006. The results of PIRLS 2006 showed that, while Polish students read above the international average, they were outperformed by students from the majority of European countries, including neighboring countries such as Russia, Lithuania, Slovakia, and Germany. The Polish research report was widely discussed in the press; however, no steps have been taken to improve reading instruction in primary school grades.

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Portugal

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Language and Literacy

Portuguese is the language of instruction in all public schools. In some private schools that do not use the Portuguese curriculum, the language of instruction is not Portuguese. In 2008–09, one-third (3,590,585) of Portugal's total population comprised young people under the age of 30, and 32 percent of this age group (1,155,757) were enrolled in compulsory education.[1]

Literacy is a very important issue in Portuguese education. In 2007, a National Reading Plan was launched with the primary objectives of raising the literacy level of the Portuguese people and placing the country on par with its European partners.[2] This government initiative, under the joint responsibility of the Ministry of Education, Ministry of Culture, and Minister of Parliamentary Affairs, has received political priority. It aims to create conditions for Portuguese citizens to feel fully capable of dealing with written words under any life circumstances, interpret information made available by the media, access scientific knowledge, and enjoy great literature.

Overview of the Education System[3, 4]

Education is guaranteed to all citizens in Portugal, and the Portuguese education system provides access to continuous learning and promotes the development of individual personality, social progress, and a more democratic society.

In Portugal, public education is non-denominational. The national government is responsible for ensuring democracy in education, and as such may not govern education and culture based on any particular philosophical, aesthetic, political, or religious principles. The government also safeguards the right to establish private or cooperative schools; authorities from the Ministry of Education conduct administrative and financial inspections of these schools, and specific laws in the Education Act (1986) regulate and determine their status.[5, 6]

The Ministry of Education determines the curriculum at the national level. The ministry also defines teaching method guidelines, which are adapted by teachers to align with each school's education plan. The national government finances public schools in addition to supporting those private schools and institutions associated with the Ministry of Education in areas where there are public school shortages. Schools conduct student assessment, and students must take final examination as in public schools. The curriculum is determined at the national level.

In 1986, the Education Act established nine years of compulsory schooling (Grades 1–9, or up to age 15). In 2009, compulsory education was extended to twelve years of schooling (or up to age 18).

Public preprimary education is for children ages 3–5 and can be provided in facilities where one or more levels of compulsory education are taught or in separate nursery schools. Classes are formed based on pedagogical criteria and depend on the methods and principles defined by each school's pedagogical council; schools must organize these classes according to age whenever the school structure permits. Nursery school teachers are responsible for curriculum development, which must take into account the general goals of preprimary education—the organization of the educational environment, curriculum targets, and content areas (personal and social education, expression and communication, knowledge of the world). Preprimary education is not compulsory, but about 99 percent of five-year-olds attend.

Basic education (*ensino básico*) includes three cycles: first cycle, lasting four years (Grades 1–4); second cycle, lasting two years (Grades 5–6); and third cycle, lasting three years (Grades 7–9). Children progressively move from one cycle to another, completing and adding knowledge learned in each previous cycle. Children are admitted to basic education if they reach the age of six before September 15th or, if requested by the child's legal guardian, between September 16th and December 31st.

In the first cycle of basic education (Grades 1–4), teaching is the responsibility of a generalist teacher who may receive assistance from other teachers in specialist areas (e.g., music, foreign language, and physical education). The second cycle of basic education (Grades 5–6) is organized into multidisciplinary areas of study, each ideally having one or two, semi-specialist teachers. The study plan for this cycle includes the following curriculum subject areas:

- Languages and Social Studies—Portuguese language, foreign language (French, German or English), history, and geography of Portugal;
- Mathematics and Sciences—Mathematics and natural sciences;
- Artistic and Technological Education—Visual and technological education, music, and physical education; and
- Personal and Social Education—Religious and moral education (optional).

Other non-subject-specific curriculum areas include projects, directed studies, and civics. Education for citizenship is cross-curricular. Compulsory foreign language learning also begins in the second cycle, with the aim of giving students command of a language in a structured and sequential way.

In the third cycle of basic education (Grades 7–9), teaching is organized into multidisciplinary areas of study taught by specialist teachers. The curriculum in this cycle includes the following subject areas: Portuguese language, foreign language, human and social sciences, mathematics, physical and natural sciences, visual arts, an elective subject (e.g., music, theatre, or dance), technological education, physical education, introduction to ICT (Grade 9), personal and social education, and religious and moral education (optional). Learning a second foreign language is compulsory in this cycle, and students can choose from French, English, German, and Spanish. The non-subject-based curriculum areas in the third cycle also include projects, directed studies, and civics.

In upper secondary education (Grades 10–12), each school provides courses from a list of courses proposed nationally. Schools may choose appropriate courses based on local or regional socioeconomic conditions, or based on the types of qualifications needed in the work force. General upper secondary education is structured around differentiated tracks comprising two branches: courses geared primarily toward the pursuit of further education, and courses geared toward working life. Students may change from one branch or course of study to another. All general education courses have a common education component that includes Portuguese language, foreign language, philosophy, and physical education.

In the scope of the Global Strategy for the National Curriculum Development, the Ministry of Education has defined learning goals (*Metas de Aprendizagem*) as a tool to support curriculum management by teachers and

schools, and to inform students and families of expected student achievement in each cycle of education.[7]

Emphasis on Portuguese Language

A set of measures has been developed to improve teaching and learning conditions in the first cycle of compulsory education, and to promote the effective integration of the first four years of schooling. Some of these measures involve mathematics, science, and Portuguese language, such as the following:

- Programs for in-service training for teachers of mathematics, Portuguese language, and experimental science; and
- The definition of curriculum orientations and the establishment of minimum hours dedicated to teaching core curriculum subject areas.

Other measures relevant to these subjects are in development for all cycles of basic education. Measures include increasing the number of teaching hours per week, improving teacher education, and implementing a national plan for reading. This national plan seeks to involve schools, families, and local libraries in promoting reading and is primarily aimed at students in Grades 1–9, though there are efforts to include Grades 10–12 as well.

Language/Reading Curriculum in the Fourth Grade[8]

The Portuguese language curriculum is divided into cycles and includes general educational targets, planning instruction and teaching methods, subject matters and competencies, and general assessment guidelines for all basic education (Grades 1–9).[9] The following describes some characteristics of the first cycle curriculum for PIRLS 2011 students.

The primary focus of the first cycle of Portuguese language learning are understanding and writing different kinds of texts, retrieving information, recognizing the varieties and nuances of the Portuguese language and its contexts of use, speaking and writing using proper structure and rules of spelling and punctuation, and finding pleasure in writing and reading. The content of the first cycle Portuguese language curriculum has five domains: oral comprehension, oral communication, reading, writing, and language knowledge. Learning targets are combined for in Grades 1–2 and Grades 3–4, and Exhibit 1 presents the learning expectations for students in both grade ranges.

Exhibit 1: Portuguese Language Learning Expectations, Grades 1–2 and 3–4

Grades 1–2	Grades 3–4
Domain: Oral Comprehension	
Listen to and reproduce small messages, carry out directions, pay attention to information about several subjects, and understand the essential point of a story or a poem.	Listen to, organize, and retrieve essential information from short speeches with some formality; and Distinguish between fact and opinion, explicit and implicit information, and essential and unnecessary details.
Domain: Oral Communication	
Speak clearly and audibly, wait for one's turn and ask permission to speak, formulate requests, and ask questions concerning situations and other speakers; and Describe experienced or imagined situations.	Speak in class and show respect when other students are speaking; and Plan and present themes, and make short speeches using proper vocabulary and grammatical structure.
Domain: Reading	
Read texts of appropriate length and vocabulary with clarity, and understand the essential point of what is read; and Read various types of texts for enjoyment.	Expand use of different kinds of texts to retrieve information, and organize knowledge and read texts of appropriate length and vocabulary, aloud and with fluency; and Comment on several kinds of texts read in these grades, and distinguish fact from opinion, explicit from implicit information, and essential from unnecessary details.
Domain: Writing	
Write short texts on a given subject, maintaining elementary rules of orthography and punctuation and keeping a continuous reference from beginning to end.	Develop more complex writing skills, such as using techniques to record, organize, and communicate information; and plan, write, and revise text using tools in word processing software; and Write for pleasure in a personal and creative way, and write different kinds of texts with proper Portuguese wording, with regard for paragraph structure, an opening theme and ending, and with respect for the rules of orthography and punctuation.
Domain: Language Knowledge	
Manipulate and compare information to discover rules and regularities of the Portuguese language; and Relate the rules of spelling and punctuation, and knowledge gathered in text writing and reading comprehension.	Continue to manipulate and compare information to discover rules and regularities of the Portuguese language, and relate rules and procedures concerning different sectors of language understanding; and Respect different varieties of Portuguese and recognize standard Portuguese as the language learned in school and which must be used in formal contexts; recognize different ways of using the Portuguese language and in what contexts these ways are appropriate; and recall language knowledge to improve one's own writing and speaking.

Reading Instruction in the Primary Grades

Primary school teachers (Grades 1–4) are generalists who teach all subjects of the primary school curriculum (i.e., they teach Portuguese language and all other subjects). In Grades 5–12, teachers are able to teach one or more subjects, depending on their qualifications.

The total amount of instructional time in first cycle is 25 hours per week, as prescribed by the national curriculum. Of this total time, eight hours are intended for Portuguese language, seven hours for mathematics, five hours for arts, and five hours for social and natural science subjects.

Because many schools are organized in clusters that include all levels of education (i.e., from preprimary to upper secondary), teachers from different levels can cooperate to implement the national curriculum for Portuguese language vertically, from Grade 1–12.

Instructional Materials

The main target of reading instruction, as a component of Portuguese language instruction, is to provide children learning opportunities that help them derive pleasure and information from reading. Students in Grades 1–4 engage in a large number of activities involving different types of texts in different media, such as books, newspapers, the Internet, and texts they have written.

Teachers are free to choose their own instructional materials and generally work with other teachers in the same cycle teaching department to prepare lessons and agree on curriculum management. The curriculum includes example lesson suggestions, lists of books, and non-compulsory materials. A ministry committee approves textbooks, verifying adherence to the national curriculum; teachers then choose those textbooks that best suit their teaching purposes and students.

Use of Technology

In the first cycle (Grades 1–4), technology assists reading instruction, providing support for reading, writing, and correcting student work. Due to a national effort to make technology available to every child in Portuguese schools—the national Technological Plan for Education—teachers and students have their own computers to work on in class and can access the Internet at school.[10] Curriculum recommendations invite teachers to use computers in the classroom.

Role of Reading Specialists

Reading specialists are mainly involved in teacher education, although they also work with the ministry to develop curricula and define standards for reading.

Second-language Instruction[11]

To respond to the current increase in linguistic and cultural diversity in Portuguese society stemming from migration, the Ministry of Education has launched a Portuguese as a Second Language (*Português Língua Não Materna*) program for basic and secondary education.[12] The program aims to assess a student's previous formal education and then integrate each student into school at a grade that is equivalent to that of the student's education level in their country of origin. The student attends classes with other Portuguese students but, not being a native speaker of Portuguese, also will benefit from targeted instruction in Portuguese language. This program favors the integration of students at both an educational and socio-emotional level.

Students with Reading Difficulties

Diagnostic Testing

Primary school teachers in Grades 1–4 are responsible for the initial diagnosis of reading difficulties in their students. Once a teacher identifies a situation and explains it to the first cycle teaching department, the teacher then presents the issue to a school pedagogical board that decides the best way to provide support to the student.[13]

Instruction for Children with Reading Difficulties

Different courses of action are available based on different sources of difficulty. If the situation requires a major intervention due to a physical or cognitive condition, the child is designated as having special education needs (SEN). Other situations involve remediation or temporary support. In all cases, the student's teacher is involved in the chosen program to provide assistance or special instruction.

The concept of SEN applies to every child showing permanent difficulties at different levels in communication, learning, mobility, autonomy, interpersonal relationship, or social participation.[14] Special education aims to promote educational and social inclusion, equal opportunity of access to education and school achievement, and student autonomy and emotional stability, as well as to prepare for further studies and professional life.

To adapt the learning process to the needs of SEN students, schools can implement different measures, including the following: personalized pedagogic support; individual curricular adaptations, enrollment procedures, and assessment procedures; individualized curricula; and support technologies. SEN students follow an individualized education program that records their educational history and defines the necessary supports. In an effort to combine knowledge and resources, schools can establish partnerships with private institutions and specialized resource center to best meet the needs of these students.

Teachers and Teacher Education[15]

Teacher Education Specific to Reading

Teachers in preprimary, primary, and secondary education receive initial and specialized education, and continuous professional development. Higher education institutions, polytechnic institutes, and universities provide initial teacher education. Prospective preprimary and primary teachers enroll in teacher education programs at colleges (*Escolas Superiores de Educação*) that are part of polytechnic institutes or universities. Universities provide teacher education programs for prospective lower- and upper-secondary teachers. Teaching diplomas designate the subjects, subject areas, or groups of subjects that a teacher can teach.

To enter the profession, teachers must possess a professional qualification conferred by a polytechnic institute or a university for the relevant education cycle. Currently, a master's degree is the minimum academic qualification for the teaching profession, according to the changes introduced within the Bologna Process.[16] In addition, prospective teachers must pass a knowledge and competencies test.[a] They also must obtain a grade of "Good" or better in their performance assessment of pedagogic and didactic competencies during their probationary period.

Teachers apply to work in the public sector via a national application and are selected based on academic qualification and professional experience. Teachers working in the public sector are civil servants.

Requirements for Ongoing Professional Development in Reading for Teachers

Continuous professional development is the same for all non-higher education teachers. It aims to improve the quality of teaching and learning in core curricular areas of Portuguese Language, mathematics, and experimental

a This test is a recent requirement; first application is assigned for 2013.

science, in light of PISA outcomes and the need to invest in system-wide human capital as preparation for the knowledge economy of tomorrow's world. In 2005, the Ministry of Education launched programs of in-service teacher education for first cycle teachers in Portuguese language, mathematics, and experimental teaching of science. These programs also are part of a broader strategy to develop professional practice among teachers to equip them to meet the challenges of wider structural and organizational reforms in the education system.

The basic model of professional development in Portugal includes one year of training followed by a year serving as a resident trainer in the school cluster. The use of trainers who remain at the school is becoming more common in programs at other cycles as well. The language, mathematics, and science, are based on the same principles and share the following features:

- They are supervised by higher education establishments responsible for initial teacher training;
- They include individual support, education, and monitoring of teachers in the classroom, and include workshops with teachers from the higher education institutions;
- They are related to career progress, via the credit for participating in professional development; and
- They require teachers to produce specific didactic resources to support first cycle work.

Monitoring Students Progress in Reading[17]

Schools define assessment criteria for each cycle and year of schooling, in agreement with guidelines outlined in the national curriculum. In Grades 1–4, the teachers' council proposes the criteria, while in Grades 5–12, curricular departments and cycle coordinators propose the criteria. Student assessment includes diagnostic assessment, as well as formative and summative assessment. Teachers are responsible for assessing students and awarding grades, and internal assessment of students takes place at the end of each term and school year.

National examinations take place at Grade 9 for Portuguese language and mathematics, and at Grades 11 and 12 for a variety of subjects (depending on which subjects the student is enrolled in). Results on national examinations affect a student's assessment and certification.

At Grades 4 and 6, national tests in Portuguese language and mathematics monitor and evaluate the effectiveness of the education system in implementing the national curriculum. Results are not used to assess student progress. However, in 2011–12, Portugal will introduce national examinations for Portuguese language and mathematics at Grade 6 that will have consequences for individual students.[b]

In the first year of school (Grade 1), no student is retained except due to unjustified absences. In the following three years (Grades 2–4), student progress depends on whether they achieve the essential competencies outlined in the National Curriculum of Basic Education.[18]

Student promotion is decided by grade and by cycle. National policy allows schools to decide if a student can progress to the next grade within the same cycle, even if he or she did not achieve the standards in all subjects. At the end of the second and third cycles (Grade 6 and Grade 9), the Class Council makes student promotion decisions, according to school assessment criteria and national guidelines.

In order to complete secondary-level studies (Grades 10–12), students attending technological, specialist artistic, and vocational courses of study are promoted upon achieving a final grade of at least ten out of 20 on the school summative assessment. Students from scientific-humanistic courses of study undergo additional external summative assessment through national examinations in certain subjects defined by specific legislation.

By the end Grade 9, students complete basic education and receive either a diploma that certifies academic qualifications or a diploma that certifies both academic and vocational qualifications, depending on the course of study students attended during basic education. By the end of Grade 12, students completing secondary education receive one of two kinds of diplomas, depending on the course of study attended: a diploma that certifies academic qualifications, or a diploma that certifies both academic and vocational qualifications.

b A 2013 national examination will be introduced for the same subjects at Grade 4.

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Qatar

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Language and Literacy

According to the 2010 census, the total population of Qatar was 1,699,435.[1] Arabic is the official language and the language of instruction, although a few years ago some schools started teaching mathematics and science in English to predominantly native Arabic-speaking students. Farsi, Balochi, Pashto, and Urdu are among the many languages and dialects spoken by Qatar's large expatriate community. English is the common language spoken among Western expatriates, although bilingualism and language switching between Arabic and English are commonplace among Qataris and expatriates.

The importance of literacy in Qatari society is evident in a variety of contexts. The Qatari National Library, *Dar Al Kutub*, is among the oldest libraries in the Gulf region and one of Qatar's most prominent cultural landmarks. The library manages a number of initiatives, such as book fairs, that support literacy and will soon encourage electronic literacy in its new building.

In conjunction with Qatar's participation in PIRLS 2006, the Ministry of Education organized a contest at the primary grades for outstanding performance in Arabic language literacy. The main objective was to improve third-grade student performance in basic reading competencies in Arabic. The contest also attempted to identify reading skills needing improvement and develop a culture among primary school staff and students that values achievement.

In combination with Qatar's participation in PIRLS 2011, the Evaluation Institute of the Supreme Education Council, along with many schools, launched book exhibitions, reading projects, and activities to encourage reading fluency, such as the Reading Assistance Program. These initiatives are intended to highlight the importance of reading, enhance reading aptitude, and encourage students to read, tell, and write stories. A cultural forum was held for many days to show the importance of reading. During the event, libraries featured a number of workshops, reading competitions, and lectures. Students narrated

stories, performed plays, and sang songs that showed the importance of reading. One school for girls hosted a workshop for mothers on developing children's reading skills through reading aloud.[2]

In December 2010, the Supreme Education Council and Bloomsbury Qatar Foundation Publishing collaborated on a book festival for the children of Qatar—the first Doha International Children's Book Festival. The festival introduced children to the book industry and allowed them to spend time reading, painting, and discussing books with their authors. Authors that attended discussed children's engagement at the festival as an asset to the children's reading campaign.[3]

Another tradition that promotes literacy is parents reading the Quran to their children at an early age and having them repeat short and, very often, long verses. When children begin reading on their own, this activity becomes a daily practice that is monitored by parents or tutors in the home.

Overview of the Education System

The opening of Qatar Elementary School, for boys in 1950 signaled the beginning of formal education in Qatar. In 1952, official curricula were introduced, with textbooks imported from other Arab countries, followed by the opening of the first girl's elementary school in 1956. Since then, the country has developed a comprehensive educational policy, guided by the nation's Islamic heritage and moderate character, as well as a commitment to the development of educational curricula and systems informed by modern technological achievements and new educational research.[4] From 1960 to 2005, the education budget increased from 25 million Qatari riyal ($6.9 million USD) to 3,093 million ($849 million USD). In 2010, approximately 15 percent of Qatar's national budget was allocated to the education sector, with substantial funds being set apart for creating new facilities and constructing academic buildings.[5]

Prior to 2003, Qatar's Ministry of Education oversaw the nations' schools. After 2003, the Qatari government began defining and implementing educational policy via the Supreme Education Council. Since 2003, oversight

of Qatari schools has transitioned gradually from the Minstry of Education to the Supreme Education Council.

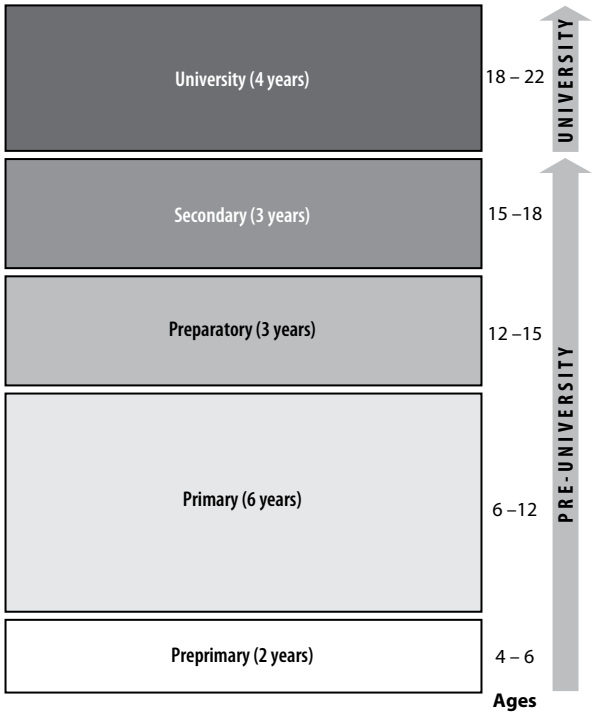
The state provides every Qatari child a free education from kindergarten through university, including textbooks, stationery, transportation, sport kits, and gear for all students at all levels of education. The state also offers financial incentives for Qatari students and organizes religious and cultural events and competitions.

Nearly 80 percent of Qataris under the age of 15 are currently enrolled in public schools, which are separate for girls and boys. In each type of school, teachers are the same gender as their students. Public schools also provide free education for the children of non-Qatari residents who work in the public sector.[6] Despite an initial discrepancy between the number of boys and girls attending school in the 1950s, attendance by gender has been nearly equal since the late 1970s, with girls outperforming boys academically. As of 2009, however, there has been a discrepancy between the number of boys and the number of girls attending private Arabic schools.[7]

In addition to a number of private schools, Qatar has schools for different Arab communities (such as Tunisian, Lebanese, Jordanian, and Sudanese schools) and non-Arab communities (such as Indian, American, French, German, and others). The state of Qatar supports the establishment of various types of private educational institutions and provides continuous legal and supervisory support.[8, 9]

The education system in Qatar consists of three stages—primary (six years), preparatory (three years), and secondary (three years). Education is compulsory through the preparatory (intermediate) level. Education at the preparatory level is predominantly in general education public schools; preparatory religious schools enroll only a very small percentage (0.5%) of students. At the secondary level, 98 percent of students are enrolled in general education, 1.7 percent in vocational education, and 0.5 percent in religious education. The stages of Qatar's education system are shown in Exhibit 1.

Exhibit 1: Education System in Qatar



Until 2003, the Qatari education system, under the Ministry of Education, was highly centralized, hierarchical, and uniform in its organization and operation. For schools governed by the Ministry of Education, the curricular unit of the Arab Bureau of Education for the Gulf States (ABEGS) determined what should be taught and the objectives to be included in textbooks. The bureau relied heavily on curriculum experts and designers with both previous teaching experience and external expertise in designing curricula consistent with the culture of each state.

To assist in the development and implementation of educational reform, the Supreme Education Council was established by emiri decree in 2003. The council consists of three institutes: the Higher Education Institute, the Evaluation Institute, and the Education Institute. The Higher Education Institute advises individuals about career options and opportunities for higher education in Qatar and abroad, and administers scholarships and grants. The Evaluation Institute oversees a highly innovative evaluation component to ensure that decision makers have access to high quality, objective information. Operating under the Supreme Education Council, the institute is responsible for determining whether students are learning and schools are educating. Consequently, the

institute has two primary roles: informing schools, teachers and students about their performance, thus stimulating reflection and improvement; and supplying information to parents and other decision makers on the extent to which schools are fulfilling their roles. This information will assist parents in selecting the best schools for their children and allow school systems to assess the effectiveness of each school. Lastly, the Education Institute develops curriculum standards, provides professional development opportunities to teachers and principals, and monitors schools' financial management through periodic reports and audits.

In 2004, the government began the Education for a New Era initiative to develop general education in Qatar. The Supreme Education Council is the main decision maker in this initiative, which aims to provide the best education for Qataris, preparing them to meet the demands related to economic and social development. Although Qatar's system of public education is centralized at the national level, under the Education for a New Era initiative schools are allowed their own school boards that make decisions regarding appropriate educational measures.[10]

A major emphasis of the initiative is the founding of new "independent schools," which are a type of charter school. Independent schools are government-funded schools that are granted autonomy to carry out their educational mission and objectives while being held accountable to the Supreme Education Council, which designates them as independent. These schools foster the kind of creativity and critical thinking the 21st century demands by offering new models for curriculum design, teaching methods, and collaboration, and they are granted more freedom in choosing teaching techniques and methods used to apply the national standards, compared to schools governed by the Ministry of Education.[11]

Since 2004, the transition of governance of Qatari schools has been gradual. By the end of the 2010–11 academic year, all Ministry of Education schools had become independent schools, overseen by the Supreme Education Council, at which point the Ministry of Education ceased to exist. For these schools, the Curriculum Standards Office is now responsible for establishing rigorous curriculum standards in Arabic, English, mathematics, and science—the subjects deemed essential for Qatari citizens.

In order to support and guide the implementation of the Education for a New Era initiative, Qatar has developed a state-of-the-art education management information system called the Qatar National Educational Data System. This system includes an assessment component, the Qatar Comprehensive

Educational Assessment program, and the Qatar Comprehensive Survey System, which is a set of surveys of key educational stakeholders.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

In Qatar, reading is taught as a part of the Arabic language curriculum throughout compulsory school. Arabic language is taught as an integrated curriculum to assure the unity of the language and achieve balance across various language skills. Formal reading instruction begins at the age of six in the first grade of compulsory education.

Summary of National Curriculum

The Supreme Education Council manages the public independent schools and the private Arabic schools that follow the Qatar Curriculum, that together comprise the majority of schools in Qatar.[12] Curriculum standards are an important part of the education reform effort. The standards describe what Qatari students should know, understand, and be able to do at each grade level. They are intended to help each independent school plan its curriculum, guide writers of teaching and learning materials, and inform the design of tests and examinations.

Four strands constitute the Arabic Standards in fourth grade: word knowledge, listening, speaking, and reading. Within each strand, the curriculum standards are grouped into topics. However, national tests do not necessarily give equal emphasis to strands and topics for a given subject. For example, in the Arabic standards the emphasis given to reading strategies and comprehension is approximately 25 percent.

In independent schools, the subject of Arabic is divided into three major domains: words and sentences, listening and speaking, and reading and writing. The reading and writing domain aims for students to develop silent and oral reading abilities, allowing them to read freely and correctly, and thus develop their minds and fluently express their ideas.

The Qatar Curriculum Standards for reading and writing performance for students in independent schools state that, by the end of Grade 4, students will be able to do the following:

- Scan texts to identify key sections, paragraphs, and words;
- Identify connectives that signal time and indicate sequence;

- Read correctly, adding or deleting words, or changing the emphasis on letters of a word;
- Read a variety of texts comprehensively and fluently, using a clear voice when reading aloud and at a reasonable speed when reading silently, and using the rules of Arabic phonetics;
- Perform tasks that promote the acquisition of a broader vocabulary and linguistic understanding;
- Recognize and understand the roles of theme, plot, setting, dialogue, direct and reported speech, rhyme, rhythm, assonance, emotive language, and similes in prose and poetry;
- Identify instructions or procedures, and identify typical language and organizational features;
- Read, understand, and discuss a variety of non-fiction texts;
- Retell stories or relate information from reading;
- Write continuous texts, linking purpose to form, and write story openings, portraits of characters, short sequences of dialogue, and longer stories;
- Locate, extract, evaluate, and synthesize information; and
- Identify the main, salient point of texts, whether in hard copy or on screen.

Reading Instruction in the Primary Grades

Instructional Materials

Prior to 2005, the Ministry of Education published and distributed official schoolbooks. Since 2005, independent schools also have used newspapers, magazines, tape recorders, and television in instruction.

In September 2011, the Supreme Education Council began providing independent schools with a list of selected instructional materials for all academic subjects and all stages, so that each school could choose learning resources that best suited their students' needs. Private publishers from other Arabic countries also produce a range of reading texts, story workbooks, educational materials for instructional use, and other supporting aids for teachers. The books recommended by the Supreme Education Council are selected according to their adherence to the curriculum standards. Teachers

provide guidance and support in how to use these books effectively, such as teaching students how to use books to obtain information and increase their knowledge or to deduce and analyze results. In addition, teachers use secondary sources to expand student perceptions and enrich student knowledge, including electronic resources.

The Supreme Education Council also expects parents to provide further support for student knowledge development by doing the following:

- Becoming familiar with the learning resources for each subject, reviewing them with their children, and pointing out the advantages and benefits of their use, especially in the elementary and preparatory stages;
- Encouraging their children to read the textbook when they study at home and to do the exercises and the various activities included in the book even if they were not assigned by the teacher;
- Reviewing the reading passages and the pages that have been assigned for homework; and
- Participating with their children in reading and reviewing various texts, providing an environment that encourages reading at home.

Use of Technology

In addition to reading books in school, students have opportunities to read and view texts through modern means of communication. One of the major benefits of the educational reform currently taking place in Qatar is the emphasis on schools providing Internet technology tools. Televisions and computers are available in all schools, and the Internet currently is used as an aid for reading instruction. Many schools have been able to make technological advances because of a project coordinated by the Supreme Council of Communications and the Supreme Education Council.[13] This project aims to make ICT an integral part of education, and includes a number of events to promote ICT integration. The success of this project can be attributed to the support of the two councils, the dedication of schools and educational staff, and student motivation to participate in the project.

Role of Reading Specialists

Qatari schools have no reading specialists. Classroom teachers regularly assess students to diagnose reading difficulties. Depending on the severity of the problem, those identified with reading difficulties receive support from a special educator or teacher.

Second-language Instruction

English is the first foreign language taught, starting in first grade in all independent schools in Qatar. Some independent schools have also chosen to teach mathematics and science in English. In many international schools, English is frequently the first language of instruction.

Students with Reading Difficulties

Diagnostic Testing

No diagnostic testing specifically identifies reading disabilities in Ministry of Education primary schools. Independent schools do not have a common prescriptive reading disabilities screening test available, thus diagnostic screening varies from school to school. The Qatar Individual Needs Program is working to identify valid and reliable individual reading assessments designed to inform professionals and parents of students' potential reading difficulties, and has recently tested a screening inventory in some pilot schools.

Instruction for Children with Reading Difficulties

In 2008, the Supreme Education Council (SEC) launched a new program to provide additional learning assistance for students who need it, ensuring that all students can find their place in Independent Schools.

Underlying the Individual Needs Program are the beliefs that Independent Schools must provide the education that meets the needs of students, and that SEC curriculum standards should be taught in such a way as to be accessible to all students.[14] The program is not restricted to functional disability, but includes learning difficulties and behavioral problems as well. It aims to improve both the teaching and learning processes of students with special needs, and to ensure parents' engagement in that learning.

The Individual Needs Program is oriented to school administrators, individual needs specialists, school social workers, and all the educational partners at Independent Schools. The program provides technical assistance to Independent Schools in addition to fostering cooperation among parents, education stakeholders, students, and the broader community. At the same time, the program introduces teachers and educational specialists to a more appropriate means of teaching students of individual needs.

In the first phase, conducted during the 2006-07 academic year, four Independent Schools participated in the program. Additional schools have since adopted the program following assessment of these initial four. Selection

of the first four Independent Schools was based on the availability of qualified teachers and special needs students in the four schools. In addition, the schools have previous experience in dealing with children with individual needs and are piloting a variety of programs that the SEC is developing in cooperation with the Academy for Educational Development (AED). AED is an international organization the SEC is working with to boost and develop a systematic program to provide educational services for individual needs children.

The Individual Needs Program is also working with pilot schools to build an information-based system containing data on the range, nature, and severity of students' functional and behavioral issues. This inventory is considered a groundbreaking tool for classifying individual needs students.

The Qatar Inventory of Student Functioning (QISF) is built on the World Health Organization's International Classification for Functioning, Disability, and Health. Careful analysis of the pilot QISF data will allow the schools' student case study teams to make more informed decisions about the student and provide information to design a student's individual education plan. QISF data will also inform the Evaluation Institute as it works to build an assessment system designed to best determine an individual student's knowledge and skills needs.

The Education Institute's Curriculum Standards Office has held a number of training workshops and programs about QISF and classroom functioning behavior for Individual Needs and Professional Development Coordinators and a broad group of teachers and parents. The workshops helped to inform individual needs stakeholders and individual needs coordinators in the four schools about their roles and responsibilities.

The four selected schools implemented the program gradually at the beginning of the school year and are now continuing to fully apply it.

The Awsaj Institute of Education, a private, nonprofit organization, assists students with learning difficulties or attention deficit hyperactivity disorder (ADHD) who otherwise have average or above average aptitude.[15] The institute works closely with over 30 schools, providing children a variety of services and conducting weekly workshops for parents and teachers.

Independent schools employ teachers specifically to teach children with reading disabilities, because teachers with special education training are not likely to be trained as reading disabilities specialists. In independent schools, special education teachers are expected to work collaboratively and cooperatively with students' primary teachers to best meet student needs.

Students with reading disabilities are identified as individual needs students in independent schools. For schools that administer individualized diagnostic reading assessments, general classroom teachers collaborate with the school-based individual needs coordinator to implement the primary service delivery system, which identifies strategies for differentiating reading instruction. If this system does not meet a student's needs, the level of services or intervention is increased so the student receives more targeted attention, usually from an intervention specialist. In this case, an individual education plan specifically describes the services or intervention to be provided.

Teachers and Teacher Education

Teacher Education Specific to Reading

Qatar has no specific requirements or preparation regarding the teaching of the reading curriculum as part of pre-service education for teachers in independent schools. Professional development includes courses on how to teach reading in the framework of the Qatar curriculum standards.

Requirements for Ongoing Professional Development in Reading for Teachers

The Office of Professional Development, housed in the Education Institute, plays a major role in designing professional development workshops for teachers in independent schools. In 2007, the institute launched an online teacher's network in an effort to improve the quality of teaching in independent schools and promote professional development. The network provides a meeting place for all teachers in Qatar to exchange views and information on teaching issues, and encourages teachers to exchange ideas on curricula, best practices, teaching resources, lesson plans, and pedagogy. It also enables teachers to discuss and learn about the latest trends in education through regularly scheduled online interviews with leading education experts. New, aspiring, and experienced teachers can exchange learning resources, gain broader insight into all aspects of teaching, and apply or search for jobs online.

The Supreme Education Council (SEC) in Qatar believes that teachers and school leaders are the two cornerstones of success in the education system. With this in mind, in 2008 the SEC established the Office of Professional Licenses for teachers, senior leadership, and middle schools within the Evaluation Institute. Teachers are required to obtain a professional license from this office in order to practice the profession of teaching in all school types in Qatar, and the office maintains a continuously updated comprehensive database of all licensed

teachers and school leaders. The office has an advisory board composed of local members and foreign nationals who work together to face challenges and find long- and short-term solutions.

Monitoring Student Progress in Reading

At the end of every semester, parents of children enrolled in Grades 1–11 in independent schools receive report cards with their children's oral and written examination scores in every subject. Grades 1 and 2 primarily use verbal assessments, while the upper grades use verbal and written assessments along with homework grades. These reports are intended to keep parents up to date on their children's performance, as well as the level of knowledge acquired. Parents may choose to enroll their children in enrichment lessons if performance levels do not meet expectations.

Starting with the administration of the Qatar Comprehensive Educational Assessment in 2006, individual Qatari student performance in all subject areas (and strands) tested has been reported in customized reports to students and parents.[16] The reports include information about overall performance in the subject area of Arabic as well as the reading strand, and indicates whether students have met the Qatar Curriculum Standards. Student performance is categorized into three levels of performance benchmarks—meet standard, approach standard, and below standard.

Impact and Use of PIRLS

The main contributions of PIRLS to Qatari education have been a focus on an early start for reading instruction, early actions for weak learners, and a continued focus on reading throughout the primary level. Analyzing student performance in PIRLS 2006 informed Qatar about the reading abilities of Qatari students in the fourth grade, as well as of sub-groups (e.g., boys vs. girls, and differences by school type). The results have been reported to various personnel, committees of the government, and universities. PIRLS findings have also been reported in the press and disseminated to schools, which has encouraged some to include the reading skills measured in PIRLS in their curriculum. In some schools, talks and workshops have been provided to parents about how to provide a positive home reading environment.

Because PIRLS is conducted every five years, Qatar's participation in PIRLS 2006 represents a baseline from which the country can track its progress in fourth-grade reading performance over time. The comparison of the 2006

and 2011 cycles of PIRLS will present Qatar with unbiased indicators that provide perspective on the status of the education system in Qatar compared to international standards. Specifically, PIRLS 2011 results will help Qatar gauge the impact of its educational reform efforts on the reading comprehension skills of fourth-grade students, in addition to the internal Qatar Comprehension Educational Assessment.

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Romania

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Language and Literacy

Romanian is the official language in Romania and the medium of instruction in the majority of schools. In multicultural communities, the language of instruction can be the language of the linguistic minorities, the most common being Bulgarian, Czech, German, Hungarian, Serbian, Slovak, Turkish, and Ukrainian. Schools situated in multicultural settings also have the option to offer the minority group's mother tongue as a subject, even if all other subjects are taught in Romanian.

Overview of the Education System

According to Education Act 1 of 2011, the Ministry of Education coordinates the national education system in Romania. The ministry manages curriculum development and implementation, certification and distribution of diplomas, teacher training, and assessment and examination at the national level.[1] At the regional level, county inspectorates function as regional authorities, implementing policy developed by the ministry. At the local level, schools have the autonomy to decide on 20–30 percent of the intended curriculum. This school-based curriculum is a part of the national curriculum and should be adapted to each local community profile as well as to student interests and aspirations.

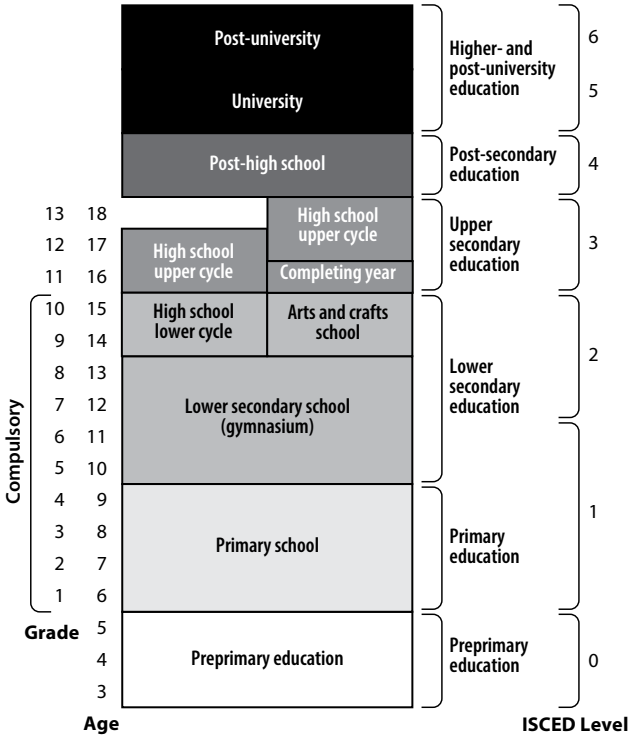
At the time of the PIRLS 2011 assessment, the main components of the Romanian education system were the following:

- Preprimary education (ages 3–5 or 6)—Most Romanian children are enrolled in public or private kindergarten;
- Primary education (ages 6–11; Grades 1–4);
- Lower secondary education (ages 11–16; Grades 5–10);

- Upper secondary education (ages 16–19; Grades 11–12 or 13);
- Technical and vocational education and training;
- Post-secondary or non-tertiary education; and
- Tertiary or higher education.

Upper secondary education is divided into two cycles: high school lower cycle (Grades 9–10), and high school upper cycle (Grades 11–12 or 13). At the time of the PIRLS 2011 assessment, the first cycle of upper secondary was compulsory. Exhibit 1 presents the structure of the education system that was in place during the 2011–12 school year—the year in which PIRLS 2011 was assessed.

Exhibit 1: Romanian Education System at the Time of the PIRLS 2011 Assessment



Education Act 1 of 2011 also made some major changes to the structure of the system, including increasing the duration of primary education from four years to five (Grades 0-4) by introducing a preparatory grade, and decreasing the duration of lower-secondary education from six years to five (Grades 5–9). These changes will be implemented as of September 2012.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Primary education in Romania has the following goals:

- Provide basic literacy to each child;
- Develop each child's personality; and
- Support each child's knowledge, skills, and acquisition of attitudes, to stimulate integration in the social and natural environment and make further education possible.

According to Education Act 1 of 2011, all students need to develop the eight key competencies for lifelong learning stipulated by the European framework.[2] One of these competencies—communication in the mother tongue—includes reading, among other issues.

Summary of National Curriculum

The national curriculum for primary schools includes the following curricular areas: language and communication, mathematics and science, social studies, arts, physical education, and technology and counseling.

Within the language and communication area, students study their mother tongue for seven hours per week at the beginning of primary school, and for five hours per week in Grades 3 and 4. At the end of Grade 4, students are expected to reach the standards presented in Exhibit 2.[3]

Exhibit 2: Achievement Standards for Romanian Language and Literature, Grades 1–4

Attainment Targets	Achievement Standards (End of Grade 4)
1. Listening	Understand the overall meaning and some details from an oral message; and
	Comprehend the meaning of a new word by relating to the context of the oral message.
2. Speaking	Adapt an oral message to a dialogue partner;
	Develop grammatically correct sentences; and
	Tell a known narrative orally, making use of a given narrative structure.
3. Reading	Read a text aloud correctly;
	Grasp main ideas in a narrative;
	Identify narrative, dialogue, and descriptive sequences in a written text;
	Identify physical and moral features of characters; and
	Develop a simple outline summarizing a narrative.
4. Writing	Develop a short narrative starting from a simple outline;
	Write short functional texts (e.g., a note, greeting, card, or invitation);
	Observe hyphenation, spelling, punctuation, and presentation rules when writing a text; and
	Write grammatically correct texts.

At the end of each specified grade level, students are expected to demonstrate the skills presented in Exhibit 3, below.

Exhibit 3: Skills Developed in Romanian Language and Literature, Grades 1–4

Grade Level	Skills
Grade 1	Identify letters, groups of letters, syllables, words, and sentences in a printed or handwritten text; Observe the connection between text and accompanying images; Comprehend the overall meaning of a text; Read a familiar text at his or her own rhythm; and Develop curiosity for reading.
Grade 2	Identify the main elements of text presented on a page; Identify essential information of a text; Read a short familiar text fluently, correctly, and expressively; Read an unfamiliar short text at his or her own rhythm; and Develop interest in reading.
Grade 3	Identify the main elements of a fiction or non-fiction text presented on a page; Comprehend the main ideas from a text; Correctly read an unfamiliar text; Identify narrative sequences and dialogues in a text; Identify various grammar issues in a text; and Develop interest in reading a variety of fiction and non-fiction texts.
Grade 4	Observe the role of images that accompany a text; Identify main ideas and detailed information from fiction or nonfiction texts; Read a short unfamiliar text correctly and with full awareness; Identify narrative and descriptive sequences as well as dialogues in a text; Identify various grammar problems in a text; and Develop interest and initiative for reading a variety of fiction and non-fiction texts.

Reading Instruction in the Primary Grades

Instructional Materials

As part of compulsory education, primary schools receive free textbooks for all subjects offered. Textbooks are selected from a list of manuscripts in a national competition, which includes judging content using several criteria in addition to a cost bid. The Ministry of Education officially approves textbooks that win the contest, and teachers select a mother tongue textbook from this list of books. The mother tongue textbook includes literary and non-literary texts as well as visual information and tasks for students to perform. Many other materials on the market also support children's reading, and are available for parents to purchase.

Use of Technology

There is a range of digital resources for reading, but they are not provided free in schools because they have been developed by private enterprises. These can be used if parents can afford them and if parents consider them useful for their children.

Some national programs focus on technology integration as well as educational software for teaching reading. Primary schools usually have a computer infrastructure. However, typical schools do not have enough equipment for one-to-one instruction. Consequently, computer use in teaching, learning, and assessment depends on the local resources. The majority of primary teachers still use printed materials instead of software.

Role of Reading Specialists

Reading specialists from various universities are responsible for the development of the mother tongue curriculum, including reading, and for the implementation of teacher training in this field.

Second-language Instruction

Children from a minority group study their mother tongue along with the official language (Romanian). In communities where the minority group is the majority, children study all subjects in the curriculum in their mother tongue.

Students with Reading Difficulties

Diagnostic Testing

Primary education teachers are responsible for assessing all students in their class. When there are students with special education needs, a visiting specialist teacher is invited to diagnose the learning difficulty.

Instruction for Children with Reading Difficulties

For children with special education needs, a visiting specialized teacher provides individual support for basic acquisition of skills, including reading competence.

Teachers and Teacher Education

Teacher Education Specific to Reading

Prospective primary education teachers take several courses in mother tongue didactics, which prepare them to teach the mother tongue curriculum. At the national level, standards for primary education teachers require certification of either a bachelor's degree in preprimary and primary education, or a

pedagogical high school diploma followed by compulsory in-service teacher education equivalent to a bachelor's degree (in terms of transferable credits). The latter applies for primary teachers still working in schools and who have not received higher education. For both groups of teachers, teaching competency in mother tongue, including reading competency, is mandatory and is included in the diploma supplements for their training certificates.

Requirements for Ongoing Professional Development in Reading for Teachers

There is no specific requirement for ongoing professional development in reading. After graduation, primary school teachers must attain various stages in their career: confirmation as a teacher (first stage), second-degree teacher (the second stage), and first-degree teacher (the third stage). Each stage involves assessment and certification in all teaching competencies, including mother tongue and reading.

Currently, this system is in the process of changing. According to the new education law, teachers will be required to obtain a master's degree.

Monitoring Student Progress in Reading

Classroom teachers assess students on a regular basis in all subjects, compulsory and elective. Teachers establish assessment methods and instruments, which can include oral questioning, written papers, practical activities, reports and projects, interviews, and portfolios.

In primary education, each assessment of student performance in mother tongue is graded using qualitative descriptors (i.e., insufficient, sufficient, good, very good, and excellent), according to the curricular standards and descriptors established at the national level for reading. In order to progress from one grade to the next, students must achieve at least "sufficient" as their final average qualitative descriptor.

Impact and Use of PIRLS

Education Act 1 of 2011 stipulates that assessments must refer to international studies as examples of good practice.

One endeavor explicitly using PIRLS data and resources is a project of the Ministry of Education, conducted in partnership with IEA and the Institute for Educational Sciences in Romania. In the first component of the project, IEA experts offer support to Romanian experts in conducting secondary analyses of PIRLS data and, thus, communicate ways of improving the

overall performance of Romanian students to educational policymakers. In the second component of the project, analyses of student misconceptions in reading are conducted to design methodological guides that support reading comprehension development. In the project's third component, teachers use these methodological guides in blended-learning training courses to improve teaching of reading at primary levels. An additional component of the project aims at promoting TIMSS and PIRLS public instruments, findings, and research based on these data via the Internet and printed materials.

Suggested Readings

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The Russian Federation

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Language and Literacy

Russian is the official language of the Russian Federation, which comprises 83 administrative regions including autonomous districts that each have their own regional culture and community identity. According to the 2010 population census, representatives of more than 200 nationalities and ethnic groups live in Russia, and Russia's population speaks 239 languages and dialects. Most students are taught in Russian, although some study one of 89 languages of Russian Federation's national ethnic groups. Native language can be studied as a separate subject or used as the language of instruction; today, 39 languages are used as languages of instruction. In recent years, the number of schools with instruction in their native language has grown significantly in some regions of Russia.

Overview of the Education System

Under the current Law on Education passed in 1992, the Russian education system has become more decentralized in its decision-making and funding practices. According to the law, the government guarantees citizens of the Russian Federation free general education and, on a competitive basis, free vocational education at state and municipal educational institutions.

Education policy is developed at the national level and implemented at regional and local levels under the oversight of the national authorities. Legislation attempts to establish a balance between national, state, and provincial oversight of education as well as autonomy of educational providers. In 2006, the federal law On Autonomous Establishments introduced a new type of educational institution that has a greater degree of freedom in managing its resources. This law aimed to increase the effectiveness of education and support for institutions from state budgets in order to implement more effective and innovative learning technologies.

In the field of education, federal education authorities create federal policy, oversee its implementation, and develop the legislative basis for the functioning of the education system. Furthermore, federal authorities establish federal

and state educational standards, elaborating on model curricula and model programs of study for different school subjects on the basis of these standards. The authorities also oversee expert review of textbooks and supplementary literature for schools.[1]

The public system of education includes general education—preprimary, primary, basic, and upper secondary—and vocational education—initial, secondary, higher, and postgraduate. General education (Grades 1–11) is compulsory for all students.

Preprimary education is for children ages 3–6, and is not compulsory. In 2010, preprimary education included 45,100 preprimary institutions serving 5,388 million children.[2] Because of the significant increase in the birth rate during the last five years and the lack of necessary kindergartens, new types of institutions, including family kindergartens, have been established.

Primary general education consists of Grades 1–4 and may be provided in primary schools, in basic schools that include the primary stage, and in secondary education institutions that include all three stages. Primary education's priorities include maintaining and strengthening the health of children (both physical and mental), supporting each child's individuality, developing children's interest in learning and skills to learn, using an integrative approach to teaching, introducing new qualitative classroom assessments to measure the dynamics of child achievement, and increasing attention to gifted and advanced students. There are more than 14 different primary education models, each with its own set of textbooks and supplementary materials. Although all these models are based on the education standards, each model has its own conceptual framework.

Basic general education or lower secondary education consists of Grades 5–9, while secondary general (or upper secondary) education covers Grades 10–11. If a student finishes basic school (Grade 9) and wishes to attend vocational school, he or she will study general education subjects (equivalent to Grades 10–11, but at a basic level) as well as vocational education subjects and training.

Several types of schools provide general education: general schools, schools specializing in specific disciplines, gymnasia, lyceums, evening schools, boarding schools, and schools for children with special needs. Schools with higher educational standards, such as gymnasiums, offer a broad, humanities-based education, while lyceums are mainly oriented to university preparation. Some schools also offer in-depth education in specific subjects.

Approximately 99 percent of all primary, basic, and secondary schools in Russia are public-municipal, meaning that the municipal budget is the school's main source of financing and that many decisions are made at the regional level. In the 2010–11 school year, there were 50,100 public-municipal schools with 13,569,000 students.[3, 4] In 2011, there were 687 non-public general education institutions that catered to only 0.62 percent of students.[5]

The 1992 Law on Education gave greater autonomy and responsibility to schools. Educational institutions themselves determine programs independently based on documents recommended by central authorities. These educational programs include the curriculum, annual calendar, study plan, and timetable of classes. Federal authorities, managerial entities, and local government bodies may not change the curriculum or study schedules once they have been approved, except in special cases stipulated by the Russian legislature.

Despite the fact that the 2004 national curriculum has not yet been fully implemented, new strategic goals were formulated in 2006. These goals seek to provide innovative, long-term development and include new requirements for young people's preparation to assume professional and social roles. The new educational standards emphasize key competencies, personal creative development, and interdisciplinary outcomes.

Beginning with primary schools in 2011, the new standards of general education, based on the goals introduced in 2006, are being developed and introduced gradually in schools. The structure of the new education standards is outlined in federal law, and it includes three types of requirements: [a]

- The structure of the main curriculum and programs;
- Requirements for the conditions of program realization; and
- Requirements for achievement results.

In January 2010, the president of the Russian Federation approved the Our New School initiative, which includes the following five main goals:

- New federal standards to provide higher quality of education;
- Activities for gifted children;
- Development of teacher potential (including new teacher professional development models, new certifications for teachers, and new initial teacher education centers based in existing pedagogical universities and institutes);
- Improvements in the infrastructure of school networks; and

a The federal law on the new education standards, Law #309, was introduced December 1, 2007.

- Improvement of student health.

The Russian education system reform shares the following five features with other countries in the world:

- The transition to competence-based standards;
- The creation of a national system of independent school examinations;
- The use of school self-evaluations and increased understanding of their importance;
- Public involvement in school management at different levels (municipal, regional, and national); and
- Changes in the nature of evaluation from a quality control to a quality assurance focus.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

The contemporary approach to reading instruction in the Russian Federation may be characterized as literary reading. Schools implement Russian reading and writing instruction as part of a program of study in philology. The literary reading program of study became possible through an increase in the use of different kinds of texts (e.g., official or scientific) in the following main subject areas: the surrounding world, mathematics, Russian, and history. Literary reading is part of continuous literary education from Grades 1–11.

In the 1960s, Daniil Elkonin, a famous psychologist, developed the method now widely used to teach reading. This method is based on the premise that, before studying the letters of the Russian alphabet, preparatory instruction is necessary for children to orient themselves in the phonetic system of the Russian language. Students learn to define the sequence of sounds in a word and characterize each sound, such as vowels and consonants, or hardness and softness of consonants. By acquiring the knowledge of the phonetic system at an early stage, children become more familiar with the skills of reading.

The program of literary reading taught in all primary schools includes the following mandatory components:

- The techniques of reading and understanding texts, including reading of literary and scientific texts silently and aloud, understanding the content and main idea of texts, answering questions regarding the content of texts, and making a simple outline from which to retell texts;

- A reader's view and orientation to the world of books, including folklore, fairy tales, myths, and legends of the people of Russia and the world; Russian classics (from the list of children's reading) and modern Russian literature; foreign literature; children's newspapers and magazines; bibliographic information (e.g., author, title, annotation, and contents); and dictionaries and reference books;
- Special literature knowledge, such as the different genres of works (e.g., story or fairy tale, fable, poem or rhyme, novel, and play), the specific forms of folklore (e.g., riddles, patters, songs, and proverbs), the topic of texts (e.g., main idea, subject, and the character and behavior of the hero), and means of expression in texts (e.g., epithets, comparisons, and sound and rhyme in poetry); and
- Language development, including activities in listening, speaking, reading, and writing; knowledge of text purposes (e.g., narration, description, or reasoning); etymology of the Russian language; emotional and stylistic coloring of speech (e.g., expressive reading and storytelling, and speech etiquette); and demonstrating understanding by retelling, creating a connected story about the main characters, and summarizing students' own impressions of texts.

Summary of National Curriculum

A broad goal of literary reading in primary school is to introduce students to literature as the art of writing and expose them to the world of human relations and moral values. Literary reading aims to develop students' skills of conscious reading and understanding texts, as well as skills in oral and written speech. Reading also aims to foster students' creative abilities and develop of a sense of self.

PIRLS 2011 students learned literary reading according to the State Education Standard of primary education issued in 2004. According to these standards for literary reading learning, students should know the titles and authors of literary texts they have studied, and understand their basic content. To meet achievement requirements, students should be able to do the following: [6]

- Perform the conscious reading of literary texts (silently, at their own pace);
- Determine the topic and main idea of texts;
- Retell texts (of approximately 1½ pages in length);
- Divide texts into main parts to make simple outlines;

- Create small stories with their own impressions of texts, providing evaluations of events or character and behavior of heroes;
- Memorize and recite selected poems;
- Create small oral stories on given topics;
- Give examples of forms of folklore (e.g., proverbs, riddles, and fairy tales);
- Describe the difference between different genres of works (e.g., fairy tales, stories, and fables), and distinguish folk from literary fairy tales;
- Give examples of literary texts on different subjects or themes from studied materials; and
- Recognize distinctions between the elements of a book (e.g., cover, table of contents, title page, illustration, and annotation).

Students should use acquired knowledge and skills from literary reading in practical activities and everyday life, such as selecting and reading a variety of sources to find information about a topic and reading for enjoyment.

In 2009, Russia adopted the new Federal State Education Standards of primary education. Since September 2011, primary schools have begun using the new standards, which identify the following priorities in the field of literary reading:

- Understanding literature as a phenomenon of national and world culture, and as a means of preservation and transmission of moral values and traditions;
- Recognizing the importance of reading for personal development, for the formation of ideas about the world of Russian history and culture, original ethical ideas, concepts of good and evil, morality, successful learning in all academic subjects, and the need for systematic reading;
- Understanding the role of the reader and the use of different types of reading (e.g., introduction, studying, sampling, and searching) to be able to consciously perceive and evaluate the content and specificity of various texts, to participate in discussions, and to give and justify moral assessment of characters;
- Achieving required continuing education for the reader's level of competence in common speech development (i.e., to master the reading aloud and to him or herself, elementary methods of interpretation, and

analysis and transformation of the artistic, scientific, and popular and academic texts using basic concepts of literary criticism); and

- Being able to choose interesting books and use reference sources to understand and obtain more information.

Within the area of literary reading, the new 2009 standards have four sections of expected results: types of speech and reading activities, terminology of children's literature, introduction to literary texts (literary propedeutics), and creative activity (for literary texts). Significantly, the new standards pay more attention to reading to acquire information.

Reading Instruction in the Primary Grades

Class sizes in primary school, according to the Ministry recommendations, should not exceed 25 students. The average class size for primary school is 24 but some schools, particularly the rural schools, have very small classes with fewer than five students.

In primary schools, there is no specialized reading teacher. The classroom teacher usually teaches all subjects except music; an experienced teacher, such as the deputy principal, is responsible for providing instructional assistance to other teachers in all subjects including literary reading. Teachers typically work with the whole class during reading instruction, wherein students or the teacher read aloud to the class and the teacher then organizes class discussion about what was read. In Grade 1, when not all students can read, instruction may focus on individual or group activities. Sometimes, students who can read when they begin Grade 1 are grouped for advanced learning.

The school year begins on September 1 and has 170 or 240 instructional days, depending on whether the school week is five or six days. Typically, schools operate on a six-day schedule. During the school year, students have three holiday periods, including one week in the beginning of November, two weeks from the end of December through the beginning of January, and one week at the end of March.

In 2004, the Ministry of Education established by special order the maximum instructional load for different grades. For Grade 1, the maximum instructional time is 20 hours for a five-day week. For Grades 2–4, the maximum instructional time is 22 hours for a five-day week and 25 for a six-day week. Each instructional period lasts 40 or 45 minutes, except in the beginning of Grade 1 when lessons are somewhat shorter (35 minutes).

Nearly half of the total instructional time (9 of 20 hours per week) in Grade 1 is devoted to language instruction—five hours for Russian language and four hours for literary reading. Forty-one percent of the total instructional time (9 of 22 hours per week) in Grade 2 is devoted to language instruction—five hours for Russian language and four hours for literary reading. Thirty-six percent of the total instructional time (8 of 22 hours per week) in Grades 3–4 is devoted to language instruction—five hours for Russian language and three hours for literary reading.

Instructional Materials

Teachers choose instructional materials according to professional preference, recommendations of the regional authorities, children's characteristics and interests, and parental opinion.

The growing number of textbooks by different authors available for school subjects illustrates the current tendency towards increasing variability in educational programs. During the past decade, the Ministry of Education developed and approved fourteen different sets of programs and instructional materials for use in primary education. The sets of materials are intended to develop the core learning skills necessary for studying all school subjects. Each set of materials consists of a reader with a collection of texts, a textbook that supplements the reader, student work booklets for answering oral and written questions, a collection of guides for analyzing the texts, books for family reading, and a teacher's guide. Materials for family reading reflect the integrated goals of reading in and outside of school. All sets of instructional materials for literary reading include Russian classical literature, foreign children's classics, children's literature of different ethnic groups in Russia, and modern children's literature. All sets have a common core of classical literature and authors.

To help teachers select the appropriate program of study and accompanying instructional materials, the Ministry of Education releases a list of recommended textbooks.

Almost every classroom in Russian primary schools has a class library with enough books and magazines to accommodate independent reading according to children's interests during lessons and for children to take home.

Use of Technology

In the last decade, Russia introduced information and communication technology (ICT) into general education. Federal and regional projects, such as the Development of Common Educational Information Environment,

Electronic Russia, and the Informatization of the Educational System, aim to develop a technology infrastructure and electronic educational resources, provide professional development for teachers in technology, and introduce ICT into the learning process and school management. These activities have produced, among other results, a national Internet portal, electronic textbooks, and a nationally distributed electronic library of information resources. Consequently, all schools in Russia now have ICT for use in the classroom and Internet access.

Because of the introduction of the new 2009 standards, the role of ICT is changing considerably from a means of communication and obtaining information to a means of learning and personal development. Standards define three levels of requirement for using ICT in general education: ICT in the curriculum and school resources, real teacher practice, and student achievement in ICT use in learning.

Currently, three models exist for using ICT in primary education:

- Using ICT without transformation or working with the objects for illustration or manipulation (e.g., working with text, sorting or grouping words, drawings, or photos, and comparing video with the models):
- Using the technical possibilities of ICT as a means of problem solving for increased effectiveness of the learning process (e.g., searching for information, modeling transformation of objects, and presenting results); and
- Using ICT to create new products (e.g., creating new texts, such as fairy tales, multimedia presentations, products of art (e.g., simple melody) or construction (e.g., a robot), and interactive games, with hypermedia support.

Second-language Instruction

As a rule, students whose native language is not Russian receive instruction in Russian as a national language. Some children for whom Russian is not a native language come to school without spoken Russian, which creates a challenge. This group includes the indigenous as well as immigrant populations. Currently, the organization of instruction in Russian for students who do not come to school speaking Russian is under consideration.

In recent years, the number of immigrants in Russia has sharply increased and many children from immigrant families begin school not speaking Russian, but this issue has only lately received attention. Some schools provide special

lessons with such children, but so far, this has been only due to the initiative of the schools; there are no government programs to work with immigrant children.

Students with Reading Difficulties

Instruction for Children with Reading Difficulties

There are no reading specialists at schools to assist students who have difficulty with reading. Regular classroom teachers use different materials with students at different reading levels, especially for children with reading disabilities. Some sets of instructional materials for primary school include supplementary materials for use with students with reading disabilities within the regular classroom.

The school speech therapist may provide additional special lessons two to three times per week for children with reading disabilities. The speech therapist organizes lessons for two different groups: one for children with dysgraphia and dyslexia, and the second for children with general speech deficiencies. To identify students in need of special instruction, speech therapists use different diagnostic techniques, of which most are qualitative and not supported by statistical evidence. Over the past few years, the number of schools with speech therapists has, unfortunately, dramatically decreased.

Through the 1990s, there were special classes for students with low school readiness, but the creation of such classes has been abandoned and students now attend heterogeneous classes. Nevertheless, other special classes and schools exist for children with mental deficiencies, mental retardation, and severe dyslexia. Referral of students to these classes and schools is carried out only after the deliberation and decision of a medical-psychological-pedagogical commission, and with parent consent.

Teachers and Teacher Education

There are several ways to train to be a primary school teacher. Teachers may receive education from a higher education institution either through a four-year bachelor's program with a specialization in pedagogy or a five-year program with a specialization in pedagogy, methodology, and primary education instruction. Pedagogical colleges offer two-year programs following graduation from secondary school or four-year programs following graduation from basic school. In recent years, earning a diploma from a higher education institution has become more widespread among primary teacher candidates.

Even those who received their primary teacher qualification from a pedagogical college typically continue their education in a higher education institution. The program of study for five-year higher education programs covers about 9,000 hours, which includes theoretical, practical, and research work, with more than 24 weeks of teaching in school. Theoretical and practical work comprises 60 percent of all instruction time. To receive a higher education diploma, a student must complete the program of study specified in the curriculum, prepare and defend his or her graduate qualification work, and pass the state examination.

The teacher education curriculum for each higher education institution, which is developed based on the State Education Standards for higher professional education, includes a study plan, programs of study for all subjects and courses, and programs for teaching practice in school. The curriculum includes federal, regional or institutional, and student components. The federal component, covering 70 percent of instructional time, ensures that all students across the country studying the same specialization at higher education institutions have 70 percent of educational content in common. Individual institutions decide how to distribute the remaining time between institutional and student components.

The teacher education curriculum includes four cycles of subjects and elective courses. There is no specialization in teaching reading; instruction for teaching reading is included in the methodology and instruction of the teaching Russian language and literature course. Each cycle includes federal, regional or institutional, and student components. The first cycle, accounting for about 17 percent of instructional time and consisting of general humanitarian and social-economic subjects, is relatively the same for all higher education institutions regardless of specialization. The following subjects, only four of which are compulsory for all higher education institutions, are included in the first cycle: foreign language, physical education, history of the fatherland, philosophy, culture, politics, jurisprudence, Russian language and the culture of speech, sociology, philosophy, and economics. The second cycle consists of general mathematics and general science subjects (5% of instructional time). The third cycle consists of general professional subjects for primary education (18% of instructional time) and includes psychology (492 hours), pedagogy (500 hours), age anatomy, physiology and hygiene, and the basics of medicine. Finally, the professional cycle accounts for the largest block of time (55% of instructional time) and includes Russian language, children's literature,

introduction to the history of literature, methodology and instruction in teaching Russian language and literature (570 hours), mathematics (250 hours), science, technology, fine arts, and music. Elective courses represent the smallest proportion in the curriculum (5% of instructional time).

Requirements for Ongoing Professional Development in Reading for Teachers

Primary education teachers take part in in-service professional development every five years. In-service teacher professional development is no longer compulsory and is being adapted to align with the new goals of education. Emphasis has switched from subject content to student development, so that teachers will receive more training in active learning strategies and child development.

According to the state education policy, teachers' performance will be evaluated by the main developmental indicators of their students rather than by knowledge level. Accordingly, some in-service professional development focuses on new ways of assessing student achievement and development.

Monitoring Student Progress in Reading

Students take national examinations in Grades 9 and 11, but national examinations are not conducted in primary school. To be awarded the basic and secondary school certificates, students must pass two compulsory national external examinations in mathematics and Russian: the State Summative Attestation for basic school, and the Unified State Examination for secondary school. For the State Summative Attestation, examination papers are developed centrally and results are marked and graded at the regional level. For the Unified State Examination, examination papers are developed centrally, and results are marked at the regional level and scaled centrally at the federal level. To earn the basic school certificate, students also must pass two additional examinations in subjects they select according to their future educational plans. Tests in Russian language include text-related tasks that assess different reading skills.

In addition to the national examinations, schools may administer examinations in every subject at any grade of basic or secondary school. Examinations may be oral or written, and include short-answer questions, essay questions, and sometimes multiple-choice questions.

Reading literacy assessment of primary school students is part of the monitoring system in many regions of Russia. Primary school reading tests

(Grades 1–4) were developed using PIRLS approaches to assessing the processes of reading comprehension.

Schools administer formative and summative assessments to ensure compliance of student achievement with the curriculum requirements and to diagnose student progress, and schools also choose the timing and form of these assessments. Assessment results sometimes are used for teacher or school accreditation. Generally, summative assessment takes place at the end of each school year in each school subject. Assessment formats include oral examinations, short-answer, extended-response or essay questions, and multiple-choice tests. Schools usually use individual teacher-made tests, locally developed tests, or tests developed centrally and published as special supplementary materials.

Innovations in assessment arising from general education reform include the introduction of a qualitative system of assessment without grades or marks in primary school and a shift in the orientation of assessment from absolute achievement to the dynamics of student achievement throughout primary school.

Impact and Use of PIRLS

Russia participated in PIRLS 2001, PIRLS 2006, and PIRLS 2011, and participation has had a significant impact not only on teaching reading but also on the assessment of reading literacy. Previously, oral forms of reading literacy assessment in primary school dominated in Russia. A child read the text, then the teacher asked this child a few questions on its content and the child answered orally. From this interaction, the teacher drew qualitative conclusions about the student's reading ability. Following Russia's participation in PIRLS 2001, written tests similar to the PIRLS instruments that allowed for both quantitative and qualitative assessment of reading literacy began being actively used at the regional and federal levels.

Analysis of the results of PIRLS 2006 revealed problems with reading informational texts. As a result, the section of the curriculum with information texts has been strengthened in the literary reading program. Also, the interdisciplinary program, Reading—Working with Information, was developed as part of the new 2009 Federal Education Standard.

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Saudi Arabia

Saleh Alshaya

International Studies & Testing Center
Ministry of Education

Language and Literacy

The official language of the country and education is Arabic.

Overview of the Education System[1]

The Kingdom of Saudi Arabia believes that it is essential to prepare good and productive citizens who can meet the needs of this era and the future. To this end, the government considers investment in education and human resources to be a basic element in the comprehensive development of the country and the advancement of its policies and programs.

Since the founding of the nation in 1932, the public education system in Saudi Arabia has accomplished the following:

- Free education available to all throughout the country;
- Near complete (99%) enrollment of targeted children in primary education;
- Educational opportunities equally available to men and women; and
- A radical decrease in illiteracy among men and women.

In addition to these, other achievements related to developing curricula and adopting student evaluation policies have focused on satisfying basic needs, providing and developing the learning environment, and improving procedures for hiring and integrating teachers and for reviewing teachers' employment status.

The Ministry of Education administers the education system in Saudi Arabia and currently aims to achieve the following:

- Differentiate teaching for all students, based on individual abilities, by placing students at the center of the education process;
- Plan and direct the learning process by developing standards and requirements and new systems of quality control and motivation;

- Avoid centralization in managing learning processes by granting independence to both educational directorates and schools;
- Provide facilities and equipment to schools, and focus school plans and programs on learning processes; and
- Build capabilities, human and technical, to manage education; lead the process of developing schools and achieving quality performance; grant suitable administrative authority; define goals for students; and establish schools that can accomplish these goals.

The ministry oversees educational directorates and has refined their missions and processes to help schools concentrate on student learning and commit to nurturing personal development. This refinement also has put in place mechanisms to aid directorates and schools in meeting learning outcomes and organizing supervision. Currently, school and directorate competence is assessed according to administrative effectiveness, ability to implement education, and effective follow up and monitoring. The Educational Department Council and its secretariat develop plans for courses of study and requisite educational infrastructure; approve plans and policies for educational development, training, educational research, computer projects, learning technology, and assessment; develop curricula; and prepare teacher education and professional development programs. The Ministry of Education supervises these plans via its educational directorates and offices in all parts of the country.

General education in Saudi Arabia is divided into public (government-funded) education, private education, special education (under the supervision of the ministry), vocational education (related to the Technical and Vocational Training Corporation), and foreign education. There are also many specialized institutes under the supervision of different departments, such as the Ministry of Health and telecommunications and security departments. There are 30 universities (six of which are private) in addition to many colleges offering varied courses of study.

Basic compulsory education in Saudi Arabia is for all children ages 6–15. Saudi Arabia's public education system is organized according to the following structure:

- Primary education—This level is six years and covers Grades 1–6.
- Intermediate education—This level is three years and covers Grades 7–9.
- Secondary education—This level is three years and covers Grades 10–12.

Language/Reading Curriculum in the Fourth Grade[2]

Reading Policy

Three main goals of Saudi education policy focus on Arabic language:

- Developing reading skills, and making reading a habit and gateway to knowledge;
- Acquiring the ability to express oneself fluently (i.e., speaking and writing, using proper language and organizing one's thoughts); and
- Developing linguistic ability in ways that enrich Arabic, and recognizing the beauty of Arabic phrases and words.

In the process of curriculum development, the Ministry of Education has adopted an educational philosophy of educating teachers in the skills of communication, conversation, presentation, thinking, self-learning, and problem solving. Language instruction is encouraged to focus on linguistic methods and types of conjugation, in addition to grammatical functions.

Linguistic methods and types of conjugation are first presented in the first stage of primary education (Grades 1–3), again in the second stage (Grades 4–6), and repeated in the intermediate grades (Grades 7–9). Student goals differ between stages. In the first primary stage, students should learn the names of linguistic features. In the second primary stage, students should be able to name, imitate, categorize, and recognize textual features. In the intermediate stage, students should have mastered the skills from the first two stages and be able to produce different types of text, identify component parts of sentences (e.g., subject, verb, and object), define conjugated types of text, and draw mind maps for various text styles.

Teachers present grammatical functions from fourth primary grade until the third intermediate grade (Grade 9). Teachers present these functions as grammatical topics (e.g., subject or direct object), taking into consideration that there is no single way to describe a text, and allowing time during instruction for students to write notes and summarize learning.

Summary of National Curriculum

The structure of the reading curriculum includes topics and units.[3] General topics are developed throughout each grade, and each unit has a subjective pivot (theme) that is explored through reading. The topics and pivots in the reading curriculum for the second stage of primary education (Grades 4–6) are presented in Exhibit 1.

Exhibit 1: Students' Book Unit Topics, Grades 4–6

	Pivots		
Topics	**4th Grade**	**5th Grade**	**6th Grade**
Values		Morals and virtues	Ideas and examples
The Nation	My village My city	My country Loyalty and sacrifice	Hunting and nature reserve
The Environment	Weather and the four seasons Birds and insects	Environment around us	
Science	Automobiles and accidents	Inventors and discoverers	Science and technology
Health	Health and food	Human health	Health awareness
Society	Eid (Muslim Festival) Sports and games	Children's rights	Social communications
Professions	Professions and jobs		
Culture			Reading awareness

Reading Instruction in the Primary Grades

Exhibit 2 presents the various materials for Arabic reading instruction and how they are used.

Exhibit 2: Content of the Arabic Reading Curriculum

Source	Content	Expectations
Student's Book[4]	Organization	Know the parts of each unit; Demonstrate the competencies which are expected to be achieved; and Know the contents of each unit.
Exercise Book[5]	Introduction Achieving my project	Complete activities with illustrations, pictures, and texts and which provide explanations; Complete the contents of each unit as assigned, across groups of students; and Write paragraphs about the content.
Student's Book	Reading comprehension texts	Develop language (dealing with words and phrases mentioned in that text); Answer literal, reasoning, and critical comprehension questions; Read aloud, expressively; Identify structures of texts and methods of textual composition; and Complete dictation accurately (of a paragraph extracted from the text).
Student's Book	Reading strategy texts	Learn about reading strategies through a seminar.

Source	Content	Expectations
Student's Book	Listening texts	Complete partial exercises on that strategy; and Answer literal and critical questions about a text and draw conclusions.
Student's Book	Reading for enjoyment	Enjoy reading and gain enjoyment through reading.
Student's Book	Text structure	Produce mind maps illustrating text structures.

The major competencies in reading that students are expected to have by fourth grade include reading written symbols (letters and words) and knowing how to pronounce them, reading written symbols to build meaning, understanding and analyzing texts, appreciating and criticizing text, and the ability to use search strategies.

Reading written symbols to build meaning includes targeted skills such as practicing reading (e.g., reading songs and lyrics, reading texts aloud with correct pronunciation, reading three-line texts silently and reading short stories) and memorizing texts (e.g., verses of the *Holy Qur'an*, *Hadith,* and poems).

Understanding and analyzing texts requires the following skills:

- Learning new vocabulary and using strategies to find the meanings of new words—Discovering the meaning of new vocabulary via synonyms, antonyms, and contexts; and using words appropriately, and categorizing words grammatically and semantically.
- Comprehending details and drawing conclusions—Paraphrasing text in a few lines and answering comprehensive questions about the text.
- Analyzing the context of written texts—Extracting the main and secondary ideas and themes, suggesting suitable titles for the text, and specifying the moral of the story or text.
- Analyzing texts according to their structures—Analyzing the structure of simple recitative texts, drawing cognitive mind maps of narrative texts, drawing cognitive mind maps of texts based on comparisons, and distinguishing between different genres (e.g., poetry, short story, and speech).

Within appreciating and criticizing text, targeted skills include being able to critically reflect on a text (i.e., expressing a point of view on the text's values) and describe the text. This latter skill includes the following: specifying the main features of prominent characters; comparing synonymous words; differentiating between real and fictional expressions; recognizing similes (e.g., as brave as a lion); defining verses and phrases about specific ideas; eliciting images and

prospects from texts; identifying the plot and major event of narrative texts; defining the elements of motion, sound, and color in texts; and explaining verses or stanzas in poems.

Within search strategies, targeted skills include searching for and obtaining information using paper sources and electronic media. When using paper sources, students should use the book title, author, contents, and chapter titles to recognize and place information in books, in addition to using a dictionary to learn the meaning of words, and differentiate between a lexicon and a dictionary. Students also should use CDs with dictionaries, lexicons, textbooks, and teachers' books.

Teachers and Teacher Education

The Ministry of Education guarantees certain teacher rights, some of which require the ministry to develop teacher job performance levels, secure teaching positions for those with contract renewals, and equally and fairly assign and transfer teachers. Teachers also have the right to study or practice abroad, and to present their needs and ideas through a number of teacher consultative councils. Currently, the ministry is planning a new recommendation system that will encourage teachers to improve their performance. In addition, the ministry is planning to implement a new system for teacher licensure to clarify the status of teacher positions and also to ensure improvements in teacher performance.

During the present teacher recruitment process, university graduates from every discipline are screened. Regardless of the level they intend to teach, prospective teachers are required to meet the following requirements:

- Hold a bachelor's degree in a teaching major;
- Pass a proficiency test in their major and a test of general educational proficiency;
- Pass a medical examination; and
- Pass a background interview that assesses the candidate's personality and character.

The Ministry of Education seeks to develop qualified teachers by helping those with teaching diplomas complete their studies and obtain bachelor's degrees in their disciplines. Currently, the ministry is planning a new program, Preparing and Training Teachers, to educate approximately 15,000 new male and female teachers throughout the year. Specifically, the program aims to aims to accomplish the following:

- Build a comprehensive system for preparing new teachers;
- Build positive trends and enhance loyalty to teaching;
- Qualify new teachers and enrich their performance through education;
- Make teachers aware of the educational environment and its various systems; and
- Guarantee a specific level of job performance.

The Ministry of Education cooperates with the National Center for Assessment in Higher Education (*Qiyas*) to develop general teaching standards in all teaching disciplines and to determine whether new teachers have met these standards. The Ministry of Education also collaborates with the Ministry of Higher Education to develop additional standards for new teachers, and some of these efforts include the following:

- Preparing standards for general teacher education levels in cooperation with Colleges of Education and Teachers' Colleges, guided by the international standards applied to every subject for all levels of the general curriculum;
- Preparing professional development programs for teachers based on education and professional standards; and
- Reviewing the courses of study of Colleges of Education and Teachers' Colleges to ensure they meet the requirements of the new curricula.

Apart from collaborating with the Ministry of Education, the Ministry of Higher Education is charged with the following missions:

- Ensuring that Colleges of Education and Teachers' Colleges are able to fulfill the Kingdom's future needs for teachers in all fields;
- Coordinating with international recommendation committees to develop a set of recommendations for educational colleges nationally and internationally, and urging universities to fulfill academic recommendations; and
- Developing the Colleges of Education and Teachers' Colleges, using best standards and practices and through cooperation with distinguished international colleges and universities.

Requirements for Ongoing Professional Development in Reading for Teachers

The Ministry of Education sends some teachers and administrators to national universities or abroad to obtain master's or doctoral degrees. The ministry

further seeks to train qualified teachers with extensive professional development courses and programs throughout the year to enhance teacher performance, according to the needs of curricular projects, some of which are developed in cooperation with specialized private sector corporations.

Teachers receive professional development and supervision throughout their careers through a number of means. For example, computerized supervision allows for rapid idea exchange and information access that helps to develop teacher knowledge, teaching environments, and quality teaching outputs. Presently, the ministry is launching an electronic gateway for communication within the education sector to contribute to knowledge building and assist teachers in publishing educational research. Additionally, a new project known as Teach Me How to Learn aims to develop teaching strategies and techniques for use in and out of the classroom.

The ministry also is preparing a project for teacher assessment to improve practical and educational outputs to build knowledge. Another program aims to implement changes to educational programs based on analyses of teacher evaluations and educational trends.

Impact and Use of PIRLS

Saudi Arabia's participation in PIRLS aims to assess the singular performance of students, teachers, and principals as well as to use data collected in order to help develop the educational system and provide information related to learning policies. Through participation in PIRLS, Saudi Arabia hopes to build a distinctive educational system in the future—with reading and writing as central a central component—by concentrating on four major processes of comprehension:

- Identifying specific ideas and ways of restating them;
- Drawing conclusions and explaining information and ideas in texts;
- Expounding on and merging information; and
- Studying and assessing content, language, and elements of a given text.

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Singapore

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Ministry of Education

Language and Literacy

Singapore has a multi-ethnic population with a diverse language environment. There are four official languages: Malay, Chinese (Mandarin), Tamil, and English. Malay is the national language, while English is the language of administration and the language commonly spoken by Singaporeans. Mandarin is widely used among the Chinese population in place of other Chinese dialects, such as Hokkien, Teochew, Cantonese, Hakka, Hainanese, and Foochow. Besides Tamil, other languages spoken by the Indian population include Malayalam, Punjabi, Telegu, Hindi, and Bengali. The proportion of the resident population age 15 and older who are literate in one or more languages increased from 93 percent in 2000 to 96 percent in 2010.[1] The proportion of the resident population age 15 and older who are literate in English increased from 71 percent in 2000 to 80 percent in 2010.[2]

English is the medium of instruction for all school subjects, except civics and moral education, and mother tongue. Mastery of English is therefore important to students in Singapore. In school, they are exposed to different standard varieties of English spoken in other parts of the world with a focus on grammar, fluency, as well as appropriate purpose, audience, context, and culture. Between 2000 and 2010, the proportion of the resident population who speak English predominantly at home increased from 23 to 32 percent.[3] This is concurrent with the rise in the level of English literacy.

A cornerstone of Singapore's education is its bilingual policy. Students are encouraged to be proficient in both English, the *lingua franca* of the Internet, of science and technology, and of world trade, and their own mother tongue language, which could be Malay, Chinese, or Tamil, to as high a level as they are able. As a result of the bilingual education policy, among the literate resident population, the proportion of residents who are literate in two or more languages increased from 56 percent in 2000 to 71 percent in 2010.[4]

Since 2008, the Ministry of Education has been working collaboratively with the National Library Board (NLB) to raise parents' awareness of the

importance of reading with their children in order to promote reading for pleasure and to cultivate reading habits from a young age. Every school has a media resource library to further develop and sustain these early reading habits. Library programs include enriching activities to attract users, increase borrowing, and, consequently, raise readership. Training is also conducted for school library coordinators to equip them with the skills and knowledge to promote reading.

The ministry supports two nationwide reading programs in collaboration with NLB: kidsREAD and READ! Singapore. The aim of kidsREAD is to reach out to children between the ages of four and eight from low-income families in order to promote a love of reading and cultivate good reading habits. Under this program, NLB forms reading clubs and trains volunteers to read stories aloud and conduct activities for children. Each year, the program has enabled NLB to train an average of two reading facilitators in every school. The key objective of READ! Singapore is to promote a culture of reading among all Singaporeans.

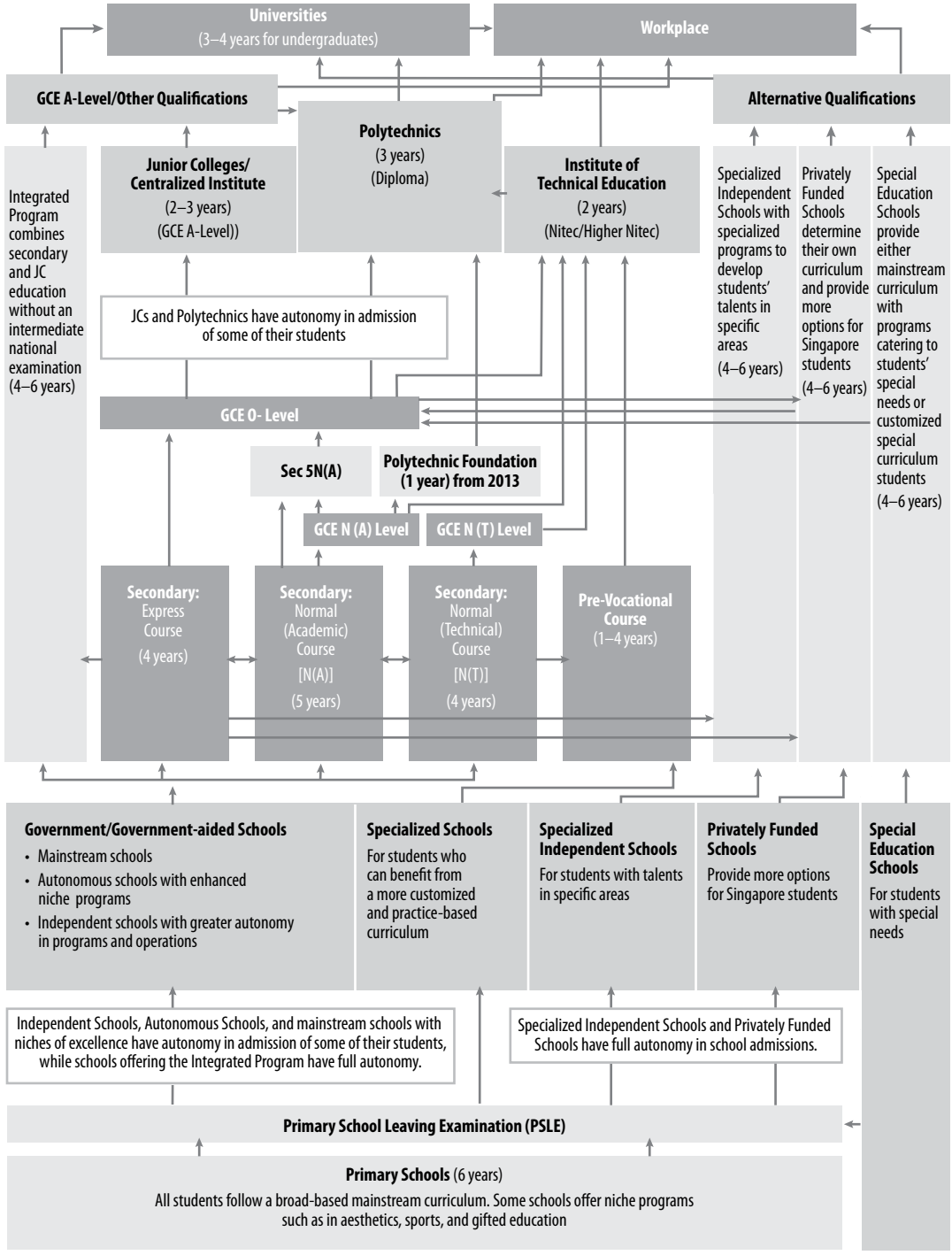
Overview of the Education System

As a small nation with no natural resources, Singapore has always placed a high value on education. The mission of the Ministry of Education is to mold the future of the nation by nurturing the people who will determine the future of the nation. Singapore's education system aims to help every child realize his or her full potential, develop a passion for learning, and be a good citizen, committed to country and community. Virtually all Singaporean students attend publicly funded schools where they receive a broad and holistic education, and are equipped with skills and knowledge to participate effectively and productively in life.[5]

In 1997, the launch of "Thinking Schools, Learning Nation" (TSLN) marked an important milestone in transforming Singapore's education system from one that was efficiency-driven and more centrally controlled to one that is ability-driven and characterized by flexibility, diversity, and greater school autonomy.[6] New education pathways and curricular options have been introduced that recognize different student abilities, learning styles, and interests, and give students flexibility to progress along the most suitable educational pathways to reach their fullest potential. Exhibit 1 illustrates the diversity of pathways, including avenues for lateral transfers between courses of study available to students. TSLN also gives school leaders and teachers greater autonomy to drive change at the local level with financial, policy, and research support from the ministry.

Preschool education is not compulsory in Singapore, but there is a high participation rate (98% for the 2010 Grade 1, or Primary 1, cohort). Preschoolers have access to diverse programs and curricula through private and community-based schools.

Exhibit 1: Education Pathways in Singapore[7]



Primary education is compulsory and formal schooling starts with Grade 1 (Primary 1) at age six. All primary school students are taught a common national curriculum. English (the language of instruction), mother tongue (Malay, Chinese, or Tamil), depending on the ethnicity of the student), and mathematics are emphasized in the primary school years to build a strong foundation in literacy and numeracy. Science is introduced from Grade 3 (Primary 3). The curriculum also includes art, music, civics and moral education, social studies, and physical education, as well as a wide range of co-curricular activities to impart values and build life skills and character.

At the end of Grade 6 (Primary 6), all students take the Primary School Leaving Examination (PSLE), which assesses students in four subjects: English, mother tongue, mathematics, and science. Most students use their PSLE scores to guide their secondary school application decisions. Some students use their achievements in other areas (such as in academic subjects, sports, music, or leadership) to gain direct admission to a secondary school of their choice.

Secondary school education is not compulsory, but is almost universal. In 2009, less than 2 percent of the Grade 1 (Primary 1) cohort[a] did not complete secondary education. At the secondary level, students participate in an Express, Normal (Academic), or Normal (Technical) course of study. The differentiated curricula are designed to match student aptitudes, abilities, and interests. Currently, about 60 percent of students are enrolled in the Express course, about 25 percent in the Normal (Academic) course, and around 15 percent in the Normal (Technical) course. Students can transfer laterally between courses of study. The four- to five-year academic programs lead to the Singapore-Cambridge General Certificate of Education (GCE) Ordinary or Normal Level (O-Level Or N-Level) qualifications. Recognizing that students' strengths vary across subjects, students from one course also can take some subjects from a more demanding course; for example, Normal (Technical) students can take Normal (Academic) subjects and Normal (Academic) students can take O-level subjects from the Express course of study.

Co-curricular activities are an integral part of secondary school education. Depending on their interests, students can choose from a variety of activities ranging from uniformed groups (Boy Scouts, Girl Guides, and Band, etc.) to sports and the arts. Students with special talents in the arts, sports, mathematics, and science, can enroll in specialized independent schools that offer customized curricula to develop these talents. There also are specialized schools that cater to those who would benefit from a more customized and practice-oriented

a The term "cohort" will be used to refer to the "Grade 1 (Primary 1) cohort" in subsequent paragraphs.

curriculum. Some schools offer the Integrated Program, which combines secondary and pre-university education without an intermediate national examination. Students in these schools experience an enriched curriculum and pedagogical approaches that broaden and deepen their thinking skills, leadership, teamwork, and communication skills.

After secondary education, students matriculate to a course of study at a pre-university, the Institute of Technical Education (ITE), or a polytechnic. Approximately 30 percent of a cohort enrolls in the pre-university course of study, offered by a junior college or an Integrated Program school, which prepares students for university education by deepening their knowledge and skill sets. Besides content knowledge, life skills are an integral part of pre-university education. Students are given ample opportunities to engage in activities, both within and beyond the formal curriculum, that help them cultivate important qualities such as initiative, leadership, social responsibility, and strength of character. Students graduate with a Singapore-Cambridge General Certificate of Education (GCE), Advanced Level (A-Level), or an International Baccalaureate (IB) qualification.

About 20 percent of each cohort enrolls in ITE, which offers industry-relevant vocational training that enables 90 percent of its graduates to find employment within six months of graduation. It offers a broad, multi-disciplinary curriculum that ranges from engineering to technical, business, and service skills. ITE students who perform well can progress to polytechnics.

Slightly more than 40 percent of each cohort enrolls in polytechnic education. The five polytechnics in Singapore offer three-year diploma courses in diverse disciplines, such as business, chemical and biological science, communication, design, digital media, engineering, and manufacturing. Polytechnic education is designed around a practice-oriented curriculum that prepares graduates to join industry. Polytechnic students who do well may progress to university.

About 25 percent of students from each cohort enroll in government-funded, autonomous, local universities. Another 20 percent enroll in overseas universities and privately funded local universities. Singapore currently has three autonomous universities: the National University of Singapore, Nanyang Technological University, and Singapore Management University. A fourth university, the Singapore University of Technology and Design, will begin enrolling students in 2012.

Besides the institutions offering full-time courses, part-time skill- and knowledge-building programs for working adults are offered by the continuing education and training sector.

Language/Reading Curriculum in the Primary Grades

Reading Policy

Literacy development is at the heart of schools' English instructional program. The objective of teaching English is to help students achieve a level of competency that will enable them to use English effectively and appropriately based on purpose, audience, context, and culture. This objective is achieved through the integrated teaching of listening, speaking, reading, and writing skills, and student engagement. All students should be able to speak, read, and write in English by the time they leave primary school.

Summary of National Curriculum

In 2001, the current national syllabus, English Language Syllabus 2001,[8] was implemented at Grades 1, 2, and 7 (Primary 1 and 2, and Secondary 1). This syllabus is organized around areas of language use and focuses on language use through exposure to, and study of, a wide range of text types. These lessons focus on language for information, language for literary response and expression, and language for social interaction. The 2001 syllabus also specifies learning outcomes at two-year intervals for listening, speaking, viewing, reading, and writing.

In the initial primary school years, students learn to read; later, at the middle and upper primary levels, they read to learn. At all levels, significant attention is given to promoting reading for enjoyment. Given the widespread availability of print and electronic reading materials, students are encouraged to read widely, to learn to analyze and evaluate language and the media, as well as to respond creatively to problems and new technology. In school, they receive guidance through activities that involve skills and meaning-based instruction, incorporating phonics, word recognition, whole text, and inter-textual comprehension.

The 2001 syllabus emphasizes an integrated approach to language learning and literacy development. This syllabus aims to help students become independent lifelong learners, creative thinkers, and problem solvers who can communicate effectively in English. Throughout the primary and secondary levels, students have opportunities to listen, speak, view, read, and write to

become competent and critical listeners and readers, as well as confident and expressive speakers and writers of English. Curricular and co-curricular activities encourage students to use English in a variety of situations and contexts.

The English Language Syllabus 2001 includes the following learning outcomes of primary school education for reading. Students should:

- Read and respond to a variety of texts and demonstrate a positive attitude towards reading and language;
- Demonstrate knowledge about language and text types from print, non-print, and electronic sources;
- Use reading strategies to construct meaning; and
- Listen to, read, and view a variety of texts and demonstrate, in oral and written form, understanding and the ability to acquire and use knowledge for a variety of purposes.

In line with the regular cycle of syllabus revision, the English Language Syllabus 2010 replaced the English Language Syllabus 2001. In 2010, the revised syllabus was implemented at Grades 1, 2, and 7 (Primary 1 and 2, and Secondary 1). The 2010 syllabus was not in effect for the majority of the Grade 4 (Primary 4) students assessed in PIRLS2011.

Reading Instruction in the Primary Grades

Instructional Materials

There are no mandatory materials for reading instruction at the primary level. The Ministry of Education provides an approved list of instructional materials as a guide for schools. The list includes textbooks, workbooks, and audio-visual or multimedia instructional materials for teaching reading and the English language. These materials were published by educational publishing companies who were required to adhere to the English Language Syllabus 2001. Prior to publication, the ministry conducted a comprehensive review of the materials.

Fiction and non-fiction passages in approved textbooks and workbooks are used to teach reading comprehension. Schools can autonomously select books, magazines, or other types of reading material for their extensive reading programs. In addition, schools receive funds to purchase age-appropriate books and multimedia materials for their school and class libraries to improve student access to high-quality reading materials.

Use of Technology

Technology is being used to improve learning outcomes by promoting self-directed learning among students. The curriculum includes the use of a variety of media in the teaching and learning of language and literacy.

Schools have the autonomy to decide on the level and type of technology used to enhance the learning environment. Technology is used to bring about greater interactivity and engagement in the learning process. In 2007, baseline Info-comm Technology (ICT) standards were introduced that define specific student competencies.[9] The standards guide schools on the integration of technology into the curriculum. Schools decide on the appropriate technology-based materials and pedagogy that best meet student learning needs with funding from the ministry.

Role of Reading Specialists

Reading specialists play a key role in supporting students with special education needs in schools, particularly for students with literacy difficulties. These specialists support schools by designing a systematic process for early identification of and intervention for students with dyslexia

Reading specialists designed an early literacy intervention curriculum known as the Learning Support Program (LSP) based on research about reading difficulties. The LSP provides additional literacy support in all primary schools to students that enter Grade 1 (Primary 1) with very weak English language and basic literacy skills. Reading specialists train and support learning support coordinators in schools to teach the LSP. These specialists work closely with educational psychologists to assess and diagnose students with dyslexia and advise allied educators, professionals who assist teachers in counseling, teaching and learning, and behavioral support, in the provision of school-based support for such students.[10]

Reading specialists also help teachers with the identification, profiling, and provision of intervention support for students in other grade levels with reading difficulties.

Second-Language Instruction

The Singapore education system requires all students to learn both English and their mother tongue. The bilingual policy runs from Grade 1 (Primary 1) to the pre-university level. English, as the medium of instruction, enables students to connect with a globalized world while the learning of a mother tongue links them to their cultural heritage.

In 2004–05 and, more recently, in 2010, the teaching and learning of mother tongue has undergone major reviews. These reviews have taken into account new ways of engaging students in language learning, such as through the use of technology and new media. Schools also receive resources for this purpose, such as teaching guides and instructional and reading materials. Emphasis on learning one's mother tongue enables students to enjoy learning and become proficient in using the language in a variety of real-life settings.

Students with Reading Difficulties

Diagnostic Testing

At the beginning of Grade 1 (Primary 1), a screening test identifies children with very weak English language and basic early literacy skills for the English LSP.

Instruction for Children with Reading Difficulties

Students in LSP for English attend specially-tailored lessons conducted daily by learning support coordinators during English classes. Teaching in small groups of eight to ten students, the coordinators focus on the development of oral and literacy skills. Students leave the program upon achieving age-appropriate reading competency and passing the school's English assessment at the end of the year. Those who still require support will continue in the program in Grade 2 (Primary 2).

Children with specific reading disabilities, such as dyslexia, also have access to additional support in school from special needs officers trained in specific interventions. In addition, 10 percent of teachers in schools have been trained in special needs support so that they are able to cater to the needs of children with reading disabilities.

For visually impaired children who are unable to benefit from mainstream schooling, special education schools provide customized educational programs, rehabilitation, and therapy services to develop children's potential and help them to integrate well into society.

Teachers and Teacher Education

Teacher Education Specific to Reading

The ministry recruits teachers from the top one-third of each grade cohort. A panel, including experienced principals, interviews and carefully selects applicants. Teachers are mainly recruited from among university graduates, as well as from the A-Level and polytechnic graduate pools. Competitive terms of

employment also attract mid-career professionals from other industries who are able to inject real-world experiences into their teaching. One in eight teachers is now a mid-career professional.

All prospective teachers are required to undergo pre-service teacher education conducted by the National Institute of Education (NIE), an institute at the Nanyang Technological University.[11] The majority of prospective teachers are university graduates in their chosen discipline. They further undergo a one-year Postgraduate Diploma in Education program at NIE to prepare them for teaching in the classroom. NIE also offers a four-year full-time program leading to a Bachelor of Arts or Science degree with a Diploma in Education. Non-degree programs include a two-year Diploma in Education offered to A-Level graduates and polytechnic diploma holders, and four-year diploma programs offered to O-Level holders (for specialized areas such as home economics, art, and music).

Prospective teachers may be required to pass an entrance proficiency test in English. For those who wish to become mother tongue teachers, a similar test is required in the respective mother tongue, if the language requirements for teaching the target language have not been met.

The teacher education program at NIE is aligned with the national curriculum and is relevant to local classroom practices. Prospective teachers in the program hone their skills in schools through teaching practica guided by experienced teachers. Beginning teachers receive structured induction and mentoring in schools, and teaching hours are reduced (by 20%) to ease them into their roles. Support for novice teachers continues after graduation.

Requirements for Ongoing Professional Development in Reading for Teachers

The ministry places great emphasis on teacher development and recognition. It is committed to ensuring that teachers remain current in terms of skills and knowledge, and are well positioned for the future. All teachers are entitled to 100 hours of professional development per year. NIE works closely with the ministry to provide training courses and advanced programs, including master's and doctoral degrees. The ministry also provides specialized professional development courses to update teacher's content knowledge, and to update teachers on pedagogical innovations and new assessment modes in the teaching of English and mother tongue languages. Since 2003, teachers also can benefit from experiential learning in the business and community sectors through the Teacher Work Attachment program in addition to formal professional

development courses. Through these local or overseas attachments, teachers gain new experiences that, in turn, benefit students through the fresh perspectives they bring back to their classrooms. The ministry also encourages the growth of a teacher-led culture of professional excellence and innovation among the teaching fraternity. In 2010, the establishment of the Academy of Singapore Teachers was a significant step toward achieving this aim. This teacher-led academy fosters pedagogical leadership focused on teacher collaboration in learning communities within schools and professional networks. It aims to strengthen the culture of teaching excellence and raise the standards of practice in the classroom and across Singapore's education system. In 2011, the English Language Institute of Singapore[12] was also launched to drive excellence in the teaching and learning of the English language in Singapore schools.

Monitoring Student Progress in Reading

National Assessments

Reading is assessed in the national examination, the Primary School Leaving Examination,[13] at the end of Grade 6 (Primary 6). This assessment includes listening comprehension, oral communication, grammar, vocabulary, reading comprehension, and writing. Performance in the individual language components is not reported separately.

The use of standardized tests in reading is not common in Singapore schools. A variety of standardized reading tests exist, but these are used mainly for identifying reading disabilities and are administered by educational psychologists and reading specialists from the ministry.

Monitoring Individual Student Progress

Schools assess students both formally and informally. From Grade 3 (Primary 3), schools generally conduct at least two summative assessments each year—one at the end of each semester. For formative assessment, teachers adopt a variety of assessment methods, such as oral presentations, written tests, and portfolios. Formative assessments provide useful information for teachers to monitor student progress, identify strengths and weaknesses, and provide meaningful and immediate feedback. They also provide a more holistic approach to reporting student learning and enable teachers to modify teaching methods and materials to suit student needs and abilities.

Homework is used to provide feedback on student learning, though schools and teachers decide homework policies autonomously based on student needs.

Schools closely monitor each student's progress and work closely with parents to support student learning. Parents are advised regularly of their children's performance through progress reports, personal calls, home visits by teachers, and school-organized parent-teacher meetings.

Impact and Use of PIRLS

Findings from PIRLS provide valuable benchmarking information about the Singapore English curriculum and student learning in reading literacy. PIRLS data on changes in students' reading habits and attitudes were used to help policy-makers better understand the impact of reading and library programs on reading behavior. Information on student performance was also used to guide the development of teacher training materials and other resources to enhance students' meta-cognition and self-monitoring skills.

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The Slovak Republic

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National Institute for Certified Educational Measurements

Language and Literacy

The official state language of the Slovak Republic is Slovak, which is one of the Slavonic languages from the Indo-European family. For centuries Slovak was the language of the common people and its development has been established through historical documents and rich folklore. In the 18th and 19th centuries, there were several attempts to standardize the official form of the language when the Slovak Republic was part of the Kingdom of Hungary. The Slovak language, however, was not officially recognized nor was its use allowed in schools until an independent Czechoslovakia was established in 1918.

Most students receive their education and training in Slovak. In certain regions, instruction is also in the language of minority groups, the largest of which is Hungarian. Other languages of instruction are Ukrainian, Rutheanian, German, and Bulgarian, but few schools use these languages.[1] In schools where a minority language is the language of instruction, Slovak is included among the other subjects taught.

The Slovak Republic has a long tradition of various literary projects or contests organized at the national or regional level, which aim to form positive attitudes towards literature and develop the literary interests of students. These projects have been focused mainly on recitation (e.g., *Hviezdoslavov Kubín*) or creative writing development (e.g., Why I like the Slovak Language, Why I Like Slovakia).

Projects specifically targeting reading activities often are supported by nonprofit organizations. One such project is the Week of Reading Aloud, organized nationally by the Orava Association for Democratic Education. The project has been conducted since 2002 and involves adults reading aloud to children with the goal of developing young readers' interest in reading. Many parents, schools, and libraries participate each year.[2] Another well-known project is Reading with Osmijanko, which the nonprofit organization *Osmijanko* established in 2004. Reading with Osmijanko is a reading contest designed for seven- to twelve-year-olds who are given eight literary riddles. To solve the

riddles, students must read several important works from Slovak and world literature over six months.[3]

Libraries also play an important role in supporting reading activities. In cooperation with schools and the Slovak Board of UNICEF, libraries annually organize a national project called Let's Read, a reading marathon in which participating children assemble in their local library and each child reads aloud one page of a chosen book. In 2011, the fourth year of the reading marathon, 30,480 children participated.[4] Many libraries develop their own local projects in addition to participating in these national projects or adopting international projects (e.g., An Evening with Hans Christian Andersen).

Overview of the Education System

Since January 2004, a new act has regulated the state administration and regional self-government of primary and secondary school education in the Slovak Republic.[5] This act decentralized the national education system ontp eight autonomous, self-governing regions (*samosprávny kraj*). At the national level, the Ministry of Education, Science, Research, and Sport oversees the administration of the public school system.

Federal oversight is exercised through the State School Inspection, which conducts independent school inspections to monitor and evaluate achievement in education and training in schools.The majority of schools in the Slovak Republic are public schools, operated, and funded by the government. Non-public schools are private or church schools that are run by an individual, legal entity, or officially approved church. Private schools receive contributions from parents as well as state subsidies. The school year lasts approximately 180 days, beginning in September. Official teaching ends on June 30, followed by holidays in July and August.

The ministry also is responsible for developing educational concepts and a unified educational policy, as well as for creating laws, general binding regulations, and documents related to education (such as curriculum documents). In each of the eight self-governing regions, the ministry has a school regional office (*Krajský školský úrad*) that provides professional counseling and supervision for schools and also oversees special schools and facilities. Each municipality administers its own primary schools, preschools, and school facilities, while each self-governing region administers its own secondary schools.

A principal manages each primary and secondary school. Principals are primarily responsible for curricular implementation, integration of professional and pedagogical standards into the teaching process, evaluation and ongoing education of the teaching staff, budget management and effective use of school financial resources, and the first level of state administration for individual students (e.g., admission, exclusion, delay of enrollment, permission to follow an individual study plan). The principal cooperates with a school board, which functions as a public monitor and comprises pedagogical and non-pedagogical school employees, parents, students (at secondary schools), and representatives of the municipality or self-governing region.[7]

Structure of the Education System

There are four main levels in the education system: preprimary, primary, secondary, and higher education.

Preprimary education (ISCED level 0) is voluntary, but it is considered part of the education system and is organized according to official documents approved by the ministry. It is designed for children ages 2–6 and includes general kindergartens (*materská škola*) and special kindergartens for children with special education needs. The goal of preprimary education is to help and encourage children to interact socially with peers, develop a relationship to knowledge and learning through play, prepare for primary education, and develop their personalities. An important aspect of preprimary education is close cooperation with the child's family. Children are considered to have graduated from preprimary education if they attended at least the last grade prior to primary school. In the 2009–10 school year, the gross enrollment ratio in preprimary education was 85.9 percent.[8]

Compulsory education in Slovakia lasts 10 years (ages 6–16) and begins in primary school (*základná škola*). Primary school consists of two stages: the first stage (Grades 1–4) provides primary education (ISCED level 1); the second stage (Grades 5–9) provides lower secondary education (ISCED level 2). Children from socially disadvantaged backgrounds who have not reached the maturity level necessary for primary school by the age of six have the option to attend an additional Grade 0. Students with special education needs can attend special primary schools.

After completing the fifth grade, students with special talents in academic subjects or art can apply for enrollment in an eight-year grammar school or the eight-year conservatory, both of which have entrance exams. In the ninth grade,

students take the national examination, Testing 9, in both mathematics and their language of instruction (in addition to Slovak, if the student has studied in a minority language). Students may then apply to a secondary school, which may require them to pass an additional entrance examination.

There are three types of secondary schools: grammar schools (gymnázium), secondary specialized schools (stredná odborná škola), and conservatories (konzervatórium). Grammar schools offer academic courses in a variety of subjects and prepare students primarily to study at higher education institutions. Secondary specialized schools prepare students for a range of professions, from manual vocations to professional careers in such areas as business and technical fields. Conservatories prepare students for careers in the arts or for higher education study.[9, 10]

Exhibit 1 presents the duration of study, acquired level of education, corresponding ISCED level, and type of final exam required for successful completion of each type of secondary education school.

Exhibit 1: School Types in the Slovak Republic, Preprimary Through Secondary Education

School Type	Duration of Study	Acquired Level of Education	ISCED Level	Type of Graduation
Preprimary Education				
Kindergarten	Up to 4 years	Preprimary education	0	None
Grade 0	1 year	Preprimary education (optional extension)	0	None
Primary Education				
Primary—First Stage	4 years	Primary education	1	None
Primary—Second Stage	5 years	Lower secondary education	2	National examination
Secondary Education				
Grammar School	4 or 8 years	Upper secondary general education	3A	School-leaving examination certificate
Specialized Secondary School	4 or 5 years	Upper secondary specialized education	3A-3B	School-leaving examination certificate
	3 or 4 years	Secondary specialized education	3C	Vocational certificate
	2 or 3 years	Lower secondary specialized education	2A-3C	Final examination
Conservatory	6 years	Higher professional education	5B	Graduate diploma

On the basis of the type of secondary education completed, students may continue their studies via post-secondary education (ISCED level 4),

higher professional education (ISCED level 5B), or university education (ISCED level 5A).

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Reading instruction is an integral part of language and literature instruction, which is considered the most important school subject at the beginning of school. By the end of second grade, children are expected to have mastered basic reading skills. In the grades that follow, reading comprehension is closely connected with literature instruction through emphasis on reading for pleasure, forming good reading habits, and having a positive attitude towards reading in general.

Summary of National Curriculum

In 2008, the National Council of the Slovak Republic passed Act No. 245/2008 (the School Act), which addresses upbringing and education.[11] As mandated by this Act, education in schools is conducted according to the State Education Program (*Štátny Vzdelávací Program—ŠVP*) and the School Education Program (*Školský vzdelávací program—ŠkVP*). The State Education Program defines the compulsory content of education in schools, while the School Education Program is a curricular document unique to each school that describes how that particular school will attain the general achievement and content standards required by the State Educational Program. In the 2008–09 school year, this reform was introduced and applied to Grades 1, 5, and 10 (i.e., the first grades of ISCED levels 1, 2, and 3). Since then, the act has been implemented in the remaining grades. The State Educational Program, in the framework of the national curricula, states that reading comprehension should be the emphasis during reading and literature instruction.[12] However, students tested in PIRLS 2011 belong to the last fourth-grade cohort educated according to the previous policy, which is summarized below.

Students tested in PIRLS 2011 were educated according to the *Syllabi of Slovak Language and Literature for the 1st Stage of Primary School (Grades 1–4)*,[13] *Content and Achievement Standards from Reading and Literature Education for the 1st Stage of Primary School*,[14] and *Study Pans for Grades 1–9 of Primary School*.[15] These students were the last fourth-grade cohort educated according to these documents. These curricular documents prescribed the number of annual

obligatory lessons, goals to achieve, thematic units, and compulsory genres for each grade.

Previously, in the first stage of primary school, nine lessons per week were devoted to teaching Slovak language and literature. The subject consisted of two main parts: writing, language (orthography, morphology, lexicology, and syntax), and written composition; and reading and literature. Reading was not taught as a separate subject, although the number of lessons devoted to reading and literature was prescribed: five lessons per week (165 per school year) in Grades 1 and 2, and four lessons per week (132 per school year) in Grades 3 and 4. Teachers had the right to choose the actual structure of lessons, time allocated for each thematic unit, use of particular texts from literature, and forms and methods of instruction to achieve the required objectives.[16]

At the end of the first grade, students are supposed to recognize all letters of the alphabet, read words and short sentences fluently with proper articulation, and respond to questions based on texts. In addition to learning to read, students are also educated in literature from Grade 1. According to the content and achievement standards, students learn to listen to children's literature texts, reproduce short fairy tales and stories, recite short poems and understand basic terms from literary theory, such as writer, book, poet, poem, heading, or illustration.

At the end of the fourth grade, students were expected to be able to do the following as a result of reading and writing education:

- Read grade-level texts properly, fluently, silently, and aloud at a reasonable speed, with comprehension;
- Use proper stress, rhythm, and intonation; and
- Use suitable articulation, pronunciation, and proper linguistic terms when speaking or writing.

Literature education also enhances aesthetic perception, experience, and evaluation of literary texts. At the end of the fourth grade, students were expected to be able to the following as a result of literature education:

- Perform (recite) a part of a story or poem;
- Reproduce (retell) the story following the time and casual sequence;
- Dramatize excerpts (role play);
- Perceive the rhythm of poems and distinguish poetry from prose;
- Identify the main idea of text;

- Finish an incomplete story; and
- Evaluate the main characters, and find connections and relationships among them.[17]

Through reading and analyzing various types of texts, students learned to distinguish among genres and learn certain linguistic terms and expressions.

In schools with a minority language of instruction, students begin learning to read and write in their respective language. For instance, in schools where Hungarian is the language of instruction, students in Grade 1 receive eight language lessons per week (five of which are reading and literature), and, in Grades 2–4, seven language lessons per week (three of which are reading and literature).[18]

Reading Instruction in the Primary Grades

Reading instruction in the Slovak Republic officially starts in the first grade of primary school, although preprimary education gives children opportunities to develop some basic reading skills. Initial reading instruction is conducted using the analytic-synthetic method and is closely connected with writing instruction. Students are first taught to distinguish phonemes in a word, segment and merge syllables and words, and later practice letter-sound connections by writing and reading letters and simple syllables. Instruction in the first grade continues with linking syllables and words, proper articulation, and basic concepts of rhyme and rhythm.

During the second and third grades, more attention is given to the improvement of reading techniques and literary text comprehension. Special attention is given to developing various ways of reading, reciting poetry and prose, using and comprehending visual materials (pictures), note taking, and using reference materials such as dictionaries and library references. In higher grades, more attention is paid to the analysis and evaluation of texts read in class, which are primarily fiction. Literature education is also intended to stimulate interest in reading and enjoyment of literature, stress the ethical and aesthetical function of reading and literature, and create positive personal attitudes and values.

Instructional Materials

Teachers are encouraged to use textbooks that are approved by the ministry. Approved textbooks are free and available for all students. It is also possible

to use alternative textbooks that are recommended by the ministry, but those textbooks must be purchased.[19]

When the students tested in PIRLS 2011 were in the first grade, teachers could choose from two approved basal readers, though today there are three choices. Subsequent grades had a textbook for language instruction and a reader for literature instruction with excerpts mainly from fiction (national and international). Apart from the official textbooks and readers, teachers have been encouraged to use other instructional resources, such as children's magazines and books, encyclopedias, film and video, as well as audio tapes with book adaptations. Additional materials used in the classroom depend on teacher choice, and thus are dependent on the teaching method.

Children are supposed to read a particular number of books per year, beginning with two books per school year in the first stage of primary school. This is referred to as the obligatory reading. Students should read these books in their free time and sometimes must write a summary of what they have read.

Use of Technology

In the past decade, the availability and use of technology in schools has changed extensively. In 1999, a project called Infovek was introduced with the aim of equipping all schools with computers, multimedia classrooms, and an Internet connection. An important part of the project has been to train teachers in the basics of working with information and communications technology (ICT) and its practical application in the education process. Since the initiation of Infovek, 3,288 schools have taken part in the project and have received free Internet connections, free antivirus software, and training. Participating schools also are equipped with educational and technical software, ICT textbooks, laptops, and interactive whiteboards.[20, 21]

Apart from Infovek, numerous smaller projects provide ICT equipment for schools. Schools can also receive support from various donors, create their own projects and obtain money from EU funds or from national organizations, or purchase ICT equipment using their own financial resources. In 2010, according to the Institute of Information and Prognosis of Education System, there was one computer for every five students, on average, in primary schools.

Students can work with computers within the subject of informatics, although this subject was not obligatory when students tested in PIRLS 2011 attended the first stage of primary school. In addition, teachers can use computers while teaching any other subject—this decision depends on individual teachers and the possibilities with particular schools.

Role of Reading Specialists

A single class teacher usually teaches all subjects to students attending the first stage of primary school (Grades 1–4), including language and reading. There is generally no special training provided for reading teachers beyond the basic teacher education and practice offered during university study. However, various training institutions offer opportunities for further education and professional development for teachers. Numerous optional courses aim at introducing innovative ways of teaching, including modern methods in reading instruction.

In 2009, a new act regarding pedagogical staff and professional employees was introduced, defining the roles and responsibilities of school psychologists, school speech therapists, school special pedagogues, remedial pedagogues, and social pedagogues.[22] However, schools are not required to employ these specialists and many schools cannot afford it.

Second-language Instruction

For students whose language of instruction is not Slovak, Slovak is introduced as a second language. The official document in effect for students tested in PIRLS 2011, *Study Plans for Grades 1–9 of Primary Schools,* delineates the obligatory number of lessons of Slovak language and literature to be taught weekly at such schools. For example, students attending primary schools where the language of instruction is Hungarian received instruction in the Slovak language and literature four or five lessons per week (132–165 per school year) in Grade 1, and five lessons per week (165 per school year) in Grades 2–4.

Students with Reading Difficulties

Diagnostic Testing

No general screening test for reading difficulties is given to all students. If a teacher notices that a student has problems developing reading skills, the teacher or a school psychologist recommends the child for evaluation. Such evaluations are conducted at special diagnostic centers, called centers for pedagogical-psychological counseling and prevention. At the center, a psychologist assesses the student's intellectual ability and a specialist, called a special pedagogue, assesses the severity of the student's reading difficulties, or, generally, learning disorder. If dyslexia or another learning disorder is detected, a special pedagogue recommends a course of action.

Instruction for Children with Reading Difficulties

Based on the recommendations of a special pedagogue, a teacher (or teachers) prepares an individual study plan for the student, which then must be approved by the student's parents. For a student with reading disabilities, such a plan usually assures that the student not be required to read aloud in the class, that the student work with individually adapted materials, and that the reading disability be taken into account during assessment. Students with learning difficulties can receive additional lessons in the subject causing difficulty and be taught by a school psychologist, a school special pedagogue, or a school educational counselor. In addition, students may regularly visit the center for pedagogical-psychological counseling and prevention and be taught by a specialist there. Every few years the student is reassessed to determine if there is still a need to continue with the individual study plan.

In case of more severe difficulties, such as visual impairment, there are several possible solutions. Such a student may be integrated into a regular class and be educated according to an individual study plan, or may attend a special class with similar students established within a regular school. Another possibility is to attend a special school devoted only to students with physical or mental impairment.

Teachers and Teacher Education

Teacher Education Specific to Reading

There are three stages of university education for teachers: the first stage usually lasts three years and results in a bachelor's degree; the second stage usually lasts two years and results in a master's degree; and the third stage lasts three to four years and results in a doctoral degree. All primary and secondary teachers are required to complete a master's degree. Preprimary teachers are required to complete either the first stage of university education or graduate from a secondary pedagogical school or pedagogical and social academy.

Education for teachers wanting to teach the first stage of primary school (Grades 1–4) is organized within the autonomous field of preprimary and primary education and usually takes place at Faculties of Pedagogy (university departments of education). Prospective teachers study to teach all subjects at ISCED level 1 (Grades 1–4) except for foreign languages. The particular subjects taught vary among academic departments, but students generally take several courses related to language and literature instruction. These may include courses dealing with orthography, phonetics and phonology, the official form of the

language, grammar, didactics of the language and literature education, theory and history of literature, and orthographical reading. Optional subjects also may be devoted specifically to enhancing reading literacy of students.

Second-stage (Grades 5–9) primary school teachers and secondary school teachers typically choose to specialize in a combination of two subjects. Besides the Faculties of Pedagogy, students also can attend other faculties within the subject area.

Teacher education and training concludes when students complete a thesis and pass state examinations.

Requirements for Ongoing Professional Development In Reading for Teachers

A 2009 National Council act regarding pedagogical staff and professional employees establishes the rules of professional development for teachers.[23] This act divides teachers into four main categories: novice teachers, independent teachers, teachers with first authentication, and teachers with second authentication. In the course of their professional career, teachers are encouraged to proceed through these levels. There are several ways teachers can earn the credits necessary to proceed to a higher level: attending certified professional development courses; authoring approved or recommended textbooks or other study materials; or engaging in other creative activities, such as conducting research in education.

Certified professional development courses are available at various institutions, including schools, universities, educational organizations of the ministry and other government administrative bodies, the church, and other education-related entities. For example, methodological-pedagogical centers currently offer about 180 certified courses covering a wide range of topics, some of which relate to reading instruction (e.g., "How to develop texts and tasks to enhance reading literacy first stage of primary school students," "Improvement of reading literacy during Slovak language and literature instruction," "Improvement of reading literacy in primary education," and "Test development and possible uses in the subject Slovak language and literature"). The courses mainly deal with theory of reading literacy, processes of reading comprehension, teaching methods to enhance reading literacy, and development of tests and tasks to measure reading literacy. Some courses are inspired by the theoretical background and reading literacy concepts of studies such as PIRLS and PISA.[24]

Monitoring Student Progress in Reading

Currently, two national examinations are centrally prepared and administered on the same date throughout the country by the National Institute for Certified Educational Measurements. The first examination, Testing 9, assesses students in the ninth grade (the last grade of primary school and the final grade of ISCED level 2). Testing 9 assesses student language abilities and and knowledge in literature in the language of instruction as well as mathematics, and the results from this assessment can be a decisive criterion of admission to secondary schools.[25] Students attending schools with minority languages of instruction are also tested in Slovak literature and Slovak language.

The second national examination is administered to students in the last grade of those secondary schools (last grade of ISCED level 3) that end with the school-leaving examination. The school-leaving examination includes internal and external sections. The National Institute for Certified Educational Measurements is responsible for the written portion of the internal examination (i.e., topics for writing composition that are evaluated within schools) and the entire external section. The external section of the assessment tests the subjects of language and literature and one foreign language. There also is an optional test in mathematics for those students who choose mathematics as a school-leaving examination subject.[26] The results of this examination contribute to the final results of the school-leaving examination.

In both national examinations, the test of language and literature includes text excerpts and tasks that assess reading comprehension. Beginning with the 2007–08 school year, Testing 9 also has included tests in mathematics and reading literacy for a representative sample of schools. National statistics regarding reading literacy are also supplemented by participation in IEA's and OECD's international surveys (PIRLS and PISA).

Teachers conduct ongoing assessments of student progress using grades (5-point marking scale), verbal assessment, and a combination of both. Verbal assessment as the sole means of assessment can be used only up to the fourth grade. Continuous assessment is conducted throughout the school year and is based on observations, student activities, oral examinations, written examinations, and other assignments (e.g., projects). Twice each school year (at the end of January and the end of June), students receive evaluation feedback based on this assessment. The final evaluation in June is presented as a report card.

Impact and Use of PIRLS

The Slovak Republic has taken part in PIRLS since its first cycle in 2001. After both the PIRLS 2001 and PIRLS 2006 assessments, a national report was released describing Slovak students' achievement compared to their international peers, as well as important findings concerning the effects of home and school environments on students' reading literacy. These results and findings can serve as inspiration and motivation for parents, teachers, and higher authorities.

The PIRLS national center, the National Institute for Certified Educational Measurements, published electronic versions of released item blocks accompanied with related excerpts from scoring guides translated to Slovak and Hungarian on its website. Making the texts publicly available for use by teachers or parents was an effort to enhance students' reading literacy.

Within the continuous professional development available to teachers, several courses inspired by PIRLS have aimed to help teachers support and enhance student reading literacy. The courses provide basic information on reading literacy (e.g., what it entails, which key competencies it includes, which strategies and methods can be used to support reading comprehension, and how to evaluate and assess reading comprehension). In addition, teachers are trained to develop their own literary and informational texts and tests to supplement standard instruction and assessment methods.

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Slovenia

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Language and Literacy

The official language in Slovenia is Slovene (also referred to as Slovenian). In areas where members of the Hungarian and Italian minorities live, Hungarian and Italian also are official languages.[1] According to the 2002 Census, Slovene was the mother tongue for 88 percent of inhabitants, Hungarian for 0.5 percent, and Italian for 0.2 percent.[2] In addition, 0.1 percent of Slovene inhabitants spoke Romany. The Constitution of Slovenia protects the minority rights of Hungarians and Italians. However, it does not protect the rights of the Roma as a minority people because there is no consensus regarding whether the Roma are indigenous inhabitants of Slovenia.[3]

Many additional languages are spoken by people living in Slovenia. Predominantly these are Slavic languages (Croatian, Bosnian, Serbian, and Macedonian) spoken by immigrants from other parts of the former Yugoslavia. Some immigrants also speak Albanian.

The Slovene language has roughly 2 million speakers but there are at least 35 main dialects, with some of them quite different from standard Slovene.[4] In fact, in PIRLS 2001 and 2006, some fourth grade students had difficulty answering the question: "How often do you speak Slovene at home?" [5, 6]

Slovene is the language of instruction in nearly all schools in Slovenia. In areas where constitutional minorities live, there also are Italian or bilingual Hungarian-Slovene schools.

Public libraries are the main promoters of literacy in Slovenia. There are 58 public libraries in the country with 270 locations (including twelve biblio-buses) where people can borrow books, although 8.5 percent of the population live in municipalities without a library.[7, 8] One quarter of the inhabitants of Slovenia are active members of public libraries and each person typically borrows eleven library materials per year, of which 83 percent are books.[9] The popularity of libraries may be connected to the high prices of books in Slovenia, which are two to three times higher than the same titles in English.[a]

a For comparison, see the web pages for Slovene publisher *Mladinska knjiga* (www.emka.si) and Amazon (www.amazon.com).

Overview of the Education System

There are four levels within the educational system in Slovenia: preprimary, primary (elementary), upper secondary, and higher education.

Preprimary school is non-compulsory, and is intended for children ages 1–6. The preprimary curriculum dates from 1999 and consists of six main areas: physical activity, language, art, society, the natural world, and mathematics.[10] The curriculum consists of two cycles: the first for ages 1–3 and the second for ages 3–6. The curriculum promotes full day, half-day, and short programs; children attending full day programs may remain in kindergarten for up to nine hours per day.

Primary (elementary) school is compulsory for all children ages 6–15 living permanently or temporarily in the territory of Slovenia.[11] Children enter primary school in the autumn of the year they are six years old. Beginning in the 1999–2000 school year, a new system with a nine-year elementary school was gradually introduced. In PIRLS 2011, the assessment target population consisted completely of fourth graders for the first time; whereas in 2006, approximately half were third graders from the previous eight-year primary school system.[12]

Primary school consists of three cycles, each three years long. The first and second cycles (Grades 1–3 and 4–6, respectively) are comprehensive. In the third cycle (Grades 7–9), there is generally some form of streaming, or forming separate subclasses within selected subjects (mathematics, the Slovene language, and foreign languages) based on students' knowledge and teacher or parent preferences. Streaming had been compulsory in all schools for many years, but now schools can choose whether to stream.[13]

Foreign language instruction usually begins in fourth grade with two lessons per week, but schools may introduce foreign language lessons as early as Grade 1. The majority of schools offer English. A second foreign language may be introduced in Grade 4.

Upper secondary education consists of four-year *gymnasia* (general upper-secondary schools), technical and professional schools, and two- to three-year vocational and lower vocational schools. Students who plan to study further at a university must pass the *Matura* exam at the end of general upper secondary education in *gymnasia*.

The first level of higher education is undergraduate study, with the second and third levels being postgraduate studies. Programs of study within the first level must correspond to European Union undergraduate programs and are limited to three or four years and 180–240 credits. The second level is a master's,

which encompasses 60–120 credits and takes a period of one or two years to complete. Doctoral programs comprise the third level of higher education.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

The main objectives of primary education align with the ends of each of the three cycles—at Grades 3, 6, and 9. Reading is not a separate school subject but is included within the Slovene language subject. There are no separate hours prescribed for teaching reading, but there is a ratio prescribing time spent on language teaching (e.g., grammar) versus literature teaching.

Because awareness of the importance of reading is becoming more widespread, teachers of all subjects now are responsible for teaching reading and writing to their students. Indeed, the development of reading ability is one of the most important operational objectives in the new 2011 curriculum, although this was not explicitly stated in the 2002 curriculum guides that were in effect for children tested in PIRLS 2011.[14, 15]

The *National Curriculum Guide* from 2002 specifies that reading and writing instruction begin at age six with an introduction to the written world. The goal of the first cycle of primary school is for students to reach a basic level in reading and writing. A more elaborate literacy program begins in the second cycle (fourth grade and upwards) once these basic skills have been attained.

Summary of National Curriculum

Students must achieve basic reading skills during the first cycle (first, second, and third grades). When students complete the first cycle of primary school (i.e., after third grade), they should be able to do the following:

- Read quietly and semi-quietly, or read aloud if they prepare in advance;
- Identify the main and supporting characters in a story they have read, and compare fictional persons or experiences to themselves or their own personal experiences;
- Answer general questions after reading a text, such as recognizing the narrator and target audience, identifying the narrator's intention, and recognizing basic facts;
- Distinguish between real and imaginary worlds, and explain the distinction between both;
- Describe characters and their positive and negative qualities; and

- Begin to identify with character traits in terms of students' own experiences.

Once students gain the basic ability to read and write they are ready to read literature texts by themselves. The national curriculum describes the abilities that students develop at the fourth grade: listening, reading, understanding, and evaluating given literature. Thus, by the end of the fourth grade students learn to do the following:

- Read short texts independently;
- After the first reading of a text, identify the speaker and addressee; recognize the intention of the message; evaluate whether its manner is polite; and amend the text with appropriate words and expressions when needed;
- After the second reading of a text, answer teacher questions about the possible or expected reaction of a character, and justify their opinions;
- Give their opinions about the context of texts they have read on their own, and discuss these opinions in class;
- Read short informative passages (e.g., descriptions of their peers' lifestyles, instructions for games, descriptions of places, descriptions of the functions of the human body, and simple definitions);
- Read and complete forms, and read public announcements (e.g., prices on a list);
- Write short informative passages by themselves, such as descriptions of animals or their own experiences, by first writing a draft, adding detail, and finally writing a passage; and
- Read their own written work and compare it with their peers'.

The fourth grade curriculum also describes reading abilities with respect to literature. By the end of the fourth grade, students are expected to read many literature genres on their own, including longer books (e.g., novels) Students also read poems, identify poetic rhythm, and interpret poems learned by heart. Realistic short stories and novels play an integral part at this first stage, when students have learned to read and are proceeding and encouraged to read independently. Other important genres include fantasy fiction and magical literature, fairytales, and folk tales. Family, childhood, and the world of animals are basic topics of the texts fourth-grade students analyze. Generally, young readers at this level are able to do the following:

- Understand the plot of the story, even if the time perspective fluctuates (e.g., interchanging the past and present, chronological, or retrospective mood);
- Draw conclusions about the outcome if something is missing from or untold in the story; and
- Recognize topics, and relate and compare texts with a common topic.

Specifically, young readers are expected to be able to do the following by the end of fourth grade:

- Read texts aloud and interpret content orally;
- Connect fictional worlds with the real world and their own experience;
- Identify with fictional characters, specific character traits (when concrete), or the circumstances in which characters' lives are similar to their own experiences;
- Take into account the author's point of view and perceive the various perspectives of fictional characters, even if the students do not identify with these perspectives; and
- Detect different character traits (when consistent), and identify and explain character reactions, even if a character's behavior is different from their own.

At this stage, however, students do not yet seek an explanation for character behavior beyond the literary passage (i.e., they do not need to rationalize and anticipate hidden or unsaid trait(s) of a given character). Similarly, students are expected to detect the presence of the storyteller only if it is explicitly stated in the text (i.e., they are not yet expected to detect the implicit storyteller that is implied by the use of literary techniques).

Students also learn to distinguish between similar words by reflecting on context of usage. In addition, students are encouraged to encounter and understand unusual phrases not extensively explored until fifth grade or above.

Reading Instruction in the Primary Grades

Instructional Materials

Textbooks and workbooks are important sources within the Slovene school culture, and teachers are required to use only textbooks and workbooks approved by the Council of General Education.[16] However, teachers are free to use a variety of additional materials in teaching students how to read and

write, both within the prescribed hours set aside for the Slovene language and for other school subjects. In the first grades particularly, teachers use everyday material to engage children in reading.

Leveled readers written in Slovene are not available; therefore, teachers often use various children's books and children's magazines as additional reading materials in the primary grades. Financial constraints of students' families affect the choices of instructional materials in classrooms. Although primary school is compulsory and free of charge, parents are required to purchase all materials their children will need in school, including all textbooks. Computer-based programs for learning to read and write are not widely used in schools

By law, all schools must have a school library; however, some schools consist of multiple school buildings which are not treated as separate schools. In remote areas, students in such schools do not have access to the school library at all times, though classroom libraries may be available.

Use of Technology

Information Communication Technology (ICT) is not widely used for teaching literacy during the first years of primary school. Schools are quite well equipped with ICT and the use of e-materials is encouraged by the National Institute of Education,[17] which promotes and implements the development of educational strategies. In general, students are encouraged to seek information on the Internet, thereby practicing reading for informational purposes. However, while ICT availability and Internet access have spread rapidly, these technologies are not readily available to all students and schools due to lack of financial resources and, at times, lack of interest by teachers and school authorities. Most classrooms have smart tables and Internet connections, but ICT use varies a greatly across the country.

A significant obstacle in using ICT for reading is the lack of electronic books in the Slovene language; as of January 2012, for example, no modern literature titles in electronic form were available in Slovene. Publishers have indicated interest in publishing some titles but have not released any yet. A project from the Digital Library of Slovenia has put books into electronic format, though these have been only old books without copyright protection.[18]

Role of Reading Specialists

Every school in Slovenia has a (so-called) counseling service, which is usually a team of two to four specialists, including psychologists, a pedagogy specialist, and special education specialists, that offer specific assistance to children in

need. Although there are no professionals with a specialty in teaching how to read and write, there is a huge demand for dyslexia specialists all over the country, especially in smaller towns and villages where access to the appropriate specialist is sadly overlooked.

Classroom teachers in the first cycle of primary school are responsible for reading and writing instruction. In their university teacher preparation courses, these prospective teachers learn the basic approaches for teaching reading, which suffice for the majority of students. Individual teachers decide if they want to learn any additional approaches or strategies.

Second-language Instruction

Slovene as a second language is taught in Italian schools (in the areas where Italian is an official language) and in a small number of English (i.e., international) schools. In regular Slovene-speaking schools, there are no Slovene language courses for children who do not speak Slovene as their first language. Although remedial Slovene language instruction is available, it does not function as a second-language course. Some schools offer courses in Slovene, especially if they have immigrants or children of immigrants in the classroom, but they are not obliged to do so.

Students with Reading Difficulties

Diagnostic Testing

There are no widespread and standardized modern diagnostic tests available to all students in Slovenia. There is only one standardized test for dyslexia—the "*Šalijev* test" (*Šali's* test) from 1973.[19] Systematic screening is not available for dyslexia or other reading difficulties.

There are few professionals in Slovenia who deal with dyslexia, and access to them is often left to the ingenuity and persistence of the child's parents or, in some cases, teachers.

Instruction for Children with Reading Difficulties

For the last 15 years, many students with special needs have been included in regular schools. Pedagogical approaches depend on school policy, the quality of the individual school's team of specialists, the school principal, and the individual teacher of the child with special needs. Some students receive assistance in the classroom from a member of the school's team of specialists during regular classes, some attend special lessons outside of their regular classes but still within the school, and others receive assistance outside of

school after their regular classes. Students with dyslexia can receive some form of accommodation but only in cases when dyslexia has been officially diagnosed, which is quite rare.

Students with physical handicaps are entitled to have companions. Visually impaired students can sometimes take advantage of computers, but this depends highly on the school team. Regular schools have the least support for deaf children, because sign language is not accepted equally across the country and teachers are not appropriately trained to teach reading and writing skills to deaf children. Although reading in the Slovene language is almost entirely phonetically based, deaf students require a completely different approach because they are not able to connect phonemes with letters.

Teachers and Teacher Education

Teacher Education Specific to Reading

First- and second-cycle primary school teachers obtain basic education through a bachelor's degree program from a university. University departments of education offer programs for classroom teaching.

Programs of study take four years to complete and require a thesis to obtain a diploma. Teaching certificates are available only through university departments of education; no alternate means of obtaining a certificate exist. After one year of teaching, teachers are required to take an external examination, which certifies teachers as formally competent or independent. With this examination, teachers demonstrate their teaching knowledge and familiarity with Slovene education legislation.

There are no courses that train reading specialists. There was an attempt to set up such a program at the Faculty of Arts (as a post-graduate course), but it has not officially begun.

Requirements for Ongoing Professional Development in Reading for Teachers

In-service education is not mandatory for primary school teachers. However, because teachers have the right to continuing education, school principals are required to help teachers pursue further education. In fact, the great majority of teachers exercise this right, which allows them to gain additional credits toward promotion.

Monitoring Student Progress in Reading

The grading system is a strong institution inside Slovenia's education system, and grades are perceived as a strong motivational factor. However, there is dispute whether earning high grades has become students' primary goal, as opposed to gaining knowledge.

There are no rules regarding how to assess student progress in reading, and no standardized tests for teacher use. Teachers often use reading aloud to assess student performance in reading, but this is extremely challenging (and potentially problematic) for assessing understanding. Every grade has prescribed books that students must read on their own, and teachers create tests to check their understanding.

Teachers assess students based on objectives written into the curriculum and the assessment procedure regulations. Teachers continuously assess student achievement in written, oral, and applied forms, as well as through written tests. Rules define how many times per year a student must demonstrate his or her knowledge in both written and oral forms. However, these rules vary across grades and are quite stringent, leaving teachers with a very limited scope for decision-making and authority in terms of classroom assessment.

A significant handicap in assessing student knowledge (including reading) lies in the rule that a practice assessment (*preverjanje*, literally "verification") must precede every formal graded assessment (*ocenjevanje*). Several days prior to a graded assessment, a student completes a test with questions similar or identical to ones that will appear on the graded assessment. In effect, when assessing reading literacy, students might receive questions about content that enable them to learn the correct answers for the actual graded assessment, even without having read the material. In addition, teachers ask questions primarily about explicitly stated information, or demand straightforward inferences; few questions demand higher order thinking (e.g., integrating and interpreting information across a passage, as in PIRLS).

Upon request, usually once a month, parents can learn about their child's knowledge and overall performance from teachers or school specialists. However, reporting on a child's progress in reading literacy almost seems like an impossible task for now.

Impact and Use of PIRLS

The awareness of the importance of reading has become quite prevalent in recent years. Among other activities, PIRLS has raised numerous questions regarding

the quality of teaching how to read and write. One issue of concern in Slovenia seems to be the large difference in reading performance across various social groups. PIRLS has played an important role in highlighting this, though more must be done to find a solution.

The Educational Research Institute has organized many regional conferences on reading literacy and teachers, school counselors, and school principals have warmly welcomed the PIRLS framework. These conferences have exposed the need to train teachers properly in assessing reading literacy and have called for far greater support from the Educational Research Institute and National Institute for Education.

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South Africa

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Language and Literacy

South Africa is a diverse, multilingual society. Since the writing of the Interim Constitution in 1993, eleven official spoken languages have been recognized. (Prior to 1993, English and Afrikaans were the only two official languages in the country.) Based on the 2001 census,[a] the most commonly spoken language in South Africa is isiZulu (spoken by 24% of the population), followed by isiXhosa (18%), and Afrikaans (13%). The remaining languages are English (spoken by fewer than 10% of the population), isiNdebele, Sepedi, Sesotho, Setswana, SiSwati, Tshivenda, and Xitsonga.[1] In addition to the eleven official spoken languages, sign language, Kwedam Arabic, and the languages associated with the Khoisan population, such as !Xun, are recognized. International languages such as Arabic, French, German, Greek, Gujarati, Hebrew, Hindi, Italian, Portuguese, Spanish, Tamil, Telegu, and Urdu are found across the country and also are examined nationally in secondary school exit examinations.

The Constitution of 1996 stipulates that all children in South Africa have the right to be educated in their own language. The Department of Education's Language-in-Education Policy recommends that, wherever possible, the student's first language[b] be used for teaching and learning, especially in the Foundation Phase (Grades R–3).[2] A policy of multilingual education underpins the country's education philosophy and, from Grade 3 onwards, all students are expected to have one additional approved language as a subject. An additive bilingual model has been adopted with the underlying principle of maintaining home language(s) while providing access to and the effective acquisition of additional language(s). However, particularly in schools where the dominant first language is an African language, it is not standard practice that every student is educated in his or her first language. This is particularly difficult in high-density urban areas where many languages co-exist. By contrast, students may have a greater likelihood of being educated in their first language in rural areas, where a more monolingual environment exists.

a Reference is made to the South African 2001 Census results; census results for October 2011 were not available at the time of publication.

b A student's first language also is referred to as home language or mother tongue.

Language of instruction issues are further complicated at the end of the Foundation Phase, because the current Language-in-Education Policy requires that English be the language of curriculum and instruction from Grade 4 onwards. Planned alterations to the current policy include a proposed amendment to extend home language education for another two years, to the end of Grade 5.[3]

Overview of the Education System

The National Department of Basic Education oversees the South African schooling system.[c] The Minister of Basic Education and her Deputy-Minister head the department and are supported by the Director General, who oversees departmental management. In addition, each of South Africa's nine provinces has a provincial head of education. Each province, in turn, is divided into districts, and district managers report to these provincial heads, while school principals report to the district managers. Education provision and delivery is largely a provincial responsibility and district offices provide support and advice directly to schools, particularly regarding curriculum. Following the official adoption of the Interim Constitution in 1994, attempts were made to decentralize education decision-making. However, problems were encountered with education standards and examination quality when managed provincially; consequently, the government decided to centralize the examination system, including all school exit examinations.

Under the South African Schools Act of 1996, schooling is compulsory between ages seven and fifteen. Most primary schools comprise Grades 1–7 (ages 7–13), and secondary schools include Grades 8–12 (ages 14–18). However, in some provinces, middle schools offer Grades 7–9 and, in some isolated areas, lower-primary schools provide education from Grades 1–3 only. Preprimary education is available for three years but most children only attend one year due to cost and access issues. This is set to change, though; as of 2012, the Department of Basic Education aims to include all children in a Grade R (Reception Year) program before entering Grade 1. The structure of schooling provision in South Africa is presented in Exhibit 1.

c In 2009, the Department of Basic Education was created, separate from the Department of Higher Education.

Exhibit 1: Structure of Compulsory Education in South Africa, Through 2011

Phase	Grades	Ages	Status of Education	School Level
Preprimary	000, 00, 0 (also called Reception Year or Grade R)	4–6	Not compulsory	Preprimary
Foundation	1–3	7–9	Compulsory	Primary
Intermediate	4–6	10–12	Compulsory	Primary
Senior	7–9	13–15	Compulsory	Primary (to Grade 7) Secondary (Grades 8–9)

In 2009, there were 12 million students taught by 386,587 teachers in 24,693 South African public schools. In addition, there were 386,098 students taught by 24,557 teachers in 1,174 private schools.[4]

Language/Reading Curriculum in the Fourth Grade

Up to and including 2011, when PIRLS and prePIRLS data were collected in South Africa, the *Revised National Curriculum Statement Grades R–9* (commonly known as Curriculum 2005) was in place. In September 1997, an initial form of this curriculum was approved as three separate policy documents for the Foundation Phase (Grades R–3), the Intermediate Phase (Grades 4–6), and the Senior Phase (Grades 7–9). The curriculum was revised during 2001 and released as the *Revised National Curriculum Statement* in 2002. A further revision took place in 2010–11 for gradual implementation beginning in 2012, and these changes are described later in this chapter.

In the *Revised National Curriculum Statement Grades R–9*, the Foundation Phase has three learning programs—Literacy, Numeracy, and Life Skills—while the Intermediate Phase (which includes Grade 4) has two—Languages and Mathematics. Learning programs ensured that the prescribed outcomes for each learning area were covered effectively and comprehensively. Schools could decide on the number and nature of other learning programs based on the organizational imperatives of the school, provided that the national priorities and developmental needs of students in a given phase are taken into account.

Language Policy and Reading in the Curriculum Through 2011

In a multilingual country like South Africa, the curriculum emphasized the importance of students reaching high levels of proficiency in at least two languages and being able to communicate in others. The language learning area statement followed an additive or incremental approach to multilingualism—namely, all students learn their home language and at least one additional official

language, and become competent in their additional language while this home language is maintained and developed.

The language learning area statement covered all official languages as home languages, first additional languages, and second additional languages. The policy stated that the students' home languages should be used for learning and teaching whenever possible, particularly in the Foundation Phase where children learn to read and write. When students are required to make the transition from their home language to an additional language for learning and teaching, careful planning is necessary. Among the six specified outcomes of the reading curriculum in the General Education and Training Phase (Grades R–9), one specific "reading and viewing" outcome aimed for students to be able to read and view for information and enjoyment, and respond critically to the aesthetic, cultural, and emotional values in texts.[5] The other five expected language outcomes were associated with overall language competency, and included listening, speaking, writing, thinking and reasoning, and language structure and use. All of the expected language outcomes were interrelated.[6]

In the Foundation Phase (Grades R–3), the curriculum reflected the guiding principle that language development involves a gradual process of improving literacy teaching and learning.[7] The curriculum advocated a "balanced approach" to literacy development, beginning with emergent literacy and involving children in reading "real" books and writing for genuine purposes. Attention also was given to phonics. In the Foundation Phase, the main purpose was "reading for meaning," which was supported by techniques and strategies that helped students do this with increasing accuracy. The policy reflected that reading (including visual and multimedia texts) is essential for language development, learning to write, enjoyment, personal growth, and learning about the world.[8]

The *Revised National Curriculum Statement Grades R–9* also highlighted that the focus of the Foundation Phase teacher was to ensure that all students learn to read.[9] In this regard, the curriculum recognized that all students must be taught strategies that help them to decode written text and to read with understanding. Students also should learn to interpret pictures and other graphics that will help them make sense of visual and multimedia texts. Furthermore, they should know how to locate and use information, follow a process or argument, summarize, develop their own understanding, and adapt and demonstrate what they learn from their reading. The curriculum also recommended that classroom be a "print rich" environment.

Exhibit 2 presents the assessment standards for the "reading and viewing" learning outcome that are specified at Grades R–3.[10]

Exhibit 2: Assessment Standards for Reading and Viewing, Grades R–3

Assessment Standards	Grades
Use visual clues to make meaning	R–3
Be able to role-play reading	R–1
Make meaning of written text	R–3
Start recognizing and making meaning of letters and words	R
Begin to develop phonic awareness	R
Develop phonic awareness	1–2
Consolidate phonic awareness	3
Recognize letters and words and make meaning of written text	1
Read for information and enjoyment	1–3
Recognize and make meaning of words in longer texts	2
Read texts alone, and use a variety of strategies to make meaning	3

At Grade 4, attainment of the "reading and viewing" outcome was achieved if the student was able to "understand in a simple way some elements of stories" and "understand in a very simple way, some elements of poetry etc. on social issues." [11]

While reading time was not specified in the curriculum, 26 hours and 30 minutes per week was allocated for formal teaching in the Intermediate Phase (Grades 4–6). One-quarter of this time was spent on languages.

Reading Policy as of 2012

As mentioned earlier, South Africa's curriculum has been recently revised and, as of 2012, the *National Curriculum and Assessment Policy Statement* of 2010 will be implemented gradually, beginning with the Foundation Phase (Grades R–3).[12] In this phase, the main skills of the curriculum include listening and speaking, reading and phonics, and writing and handwriting. Underlying these skills are thinking and reasoning, and language structure and use. In the Intermediate Phase (Grades 4–6), listening, speaking, and language usage skills are further developed and refined but with an emphasis on reading and writing skills, which are considered central to successful learning across the curriculum.[13] During the Intermediate Phase, students are expected to further develop their proficiency in reading and viewing a wide range of literary and non-literary texts, including visual texts. The reading policy envisages students

who are able to recognize genre, and reflect on the purpose, audience, and context of texts. Through classroom and independent reading, students in this phase learn to become critical and creative thinkers.

Summary of New National Curriculum

In January 2012, the *National Curriculum Statement Grades R–12* of 2011 was put in place nationally. A single comprehensive curriculum and assessment policy document was developed for each subject, replacing the subject statements, learning program guidelines, and subject assessment guidelines in Grades R–12 that had been part of the former outcomes-based curricula.[14] The *National Curriculum Statement Grades R–12* aims to produce students that are able to do the following: collect, analyze, organize, and critically evaluate information; and communicate effectively using visual, symbolic, and language skills in various modes. Language learning in the Intermediate Phase (Grades 4–6), encompasses all the official languages in South Africa, as well as non-official languages, which can be offered at different language levels.

In the new curriculum, the first language acquired by students is called the home language. The home language level of language proficiency ideally reflects the basic interpersonal communication skills required in social situations, as well as the cognitive skills essential for learning across the curriculum. However, many South African schools do not offer the home languages of some or all of the enrolled students, and instead can offer only one or two languages. As a result, the curricula for home language and first additional language[d] refer to the proficiency level at which the language is offered—native (home) or acquired (additional) language.[e]

In South Africa, many children start using their additional language, English, as the language of learning in Grade 4. This means that they must reach a high level of competence in reading and writing in English by the end of Grade 3. To enable this, all children must be taught an additional language from Grade 1 onwards; for most schools offering tuition in Grades 1–3 in an African language, this effectively means that English is implemented from Grade 1 as the additional language.[15] Emphasis is placed on the teaching of the listening, speaking, reading, and writing skills at the additional language level. This level also provides students with literary, aesthetic, and imaginative competencies that will enable them to recreate, imagine, and empower their understandings

d The first additional language refers to a language which is not a mother tongue but which is used for certain communicative functions in a society (i.e., medium of learning and teaching in education). The curriculum provides strong support for those learners who will use their first additional language as a language of learning and teaching.

e For the purposes of this policy, any reference to home language should be understood to refer to the level and not the language itself.

of the world in which they live. Listening and speaking receive less emphasis than reading and writing skills from Grade 7 onwards.[f]

The new curriculum places the responsibility on teachers to differentiate reading levels and to select appropriate reading materials that will effectively support students. Course readers are considered important for reading instruction, while authentic reading material (library books and other real-life texts) are used to develop higher levels of reading (i.e., independent reading). The new curriculum is much more specific in providing teachers with instructional plans that contain the minimum content that should be covered over two week blocks.

Lastly, the *National Curriculum Statement Grades R–12* provides teacher guidelines on the development of a language lesson. It suggests that pre-reading activities should be used to prepare students for reading. Typical pre-reading activities include discussions of the text title, predictions about story content, and using keywords from the text to engage students even before starting to read. The curriculum encourages teachers to interrupt reading sessions by "looking back" at the text in order to verify whether predictions were accurate, or to discuss why things did not develop the way in which students predicted. At the same time, further predictions could be made about the story.[16] Teachers are advised to engage students in reflection following reading. Literal questions could be asked, leading to more complex and abstract answers based on inferences made from the text. Students could be asked to re-tell, dramatize, or critically discuss the text by focusing on values, messages, or cultural or moral issues conveyed in the text. Other activities include comparing the current text to other texts they read independently, or showing differences and similarities between texts.

Reading Instruction in the Primary Grades

Before 2012, policy guidelines for the Grade 4 language learning area program advocated using newspaper clippings, books, brochures, magazines, and poems, and indicated that the level of vocabulary and concepts in the texts had to be age and grade appropriate.[17] Specifically, textual content had to be understandable while also providing a level of challenge to the students in terms of vocabulary, level of sophistication, and ideas. Reading was meant to assist students in developing their language abilities and help them experience

f In the Intermediate and Senior Phases, learners continue to strengthen their listening, speaking, reading and writing skills. At this stage the majority of children are learning through the medium of their first additional language, English, and should be getting more exposure to it. Therefore, greater emphasis is placed on using the first additional language for the purposes of thinking and reasoning. This enables learners to develop their cognitive academic skills, which they need to study subjects like science in English. Students also engage more with literary texts and begin to develop aesthetic and imaginative ability in their additional language.

"a wider world" than the context in which they themselves lived. As part of this reading, students would encounter and explore relevant social issues. As students progressed through the Intermediate Phase (Grades 4–6) into the Senior Phase (Grades 7–9), an increasing level of complexity was introduced via this content. Recommended texts varied from short written pieces to "full-length literary works." All literary genres (e.g., novels, poems, plays, and folklore) were considered relevant, and features such as character, plot, style, and language were considered important. In the Intermediate Phase, shorter texts were chosen for both the student's home language and additional languages.[18]

Instructional Materials

The *National Curriculum Statement Grades R–12*, implemented in 2012, mandates using core materials, literature genres, and media materials at Grade 4: core materials include the prescribed language textbook and a dictionary; literature genres include folklore, short stories, novels, dramas, and poetry; and media materials include newspapers and magazines.

Use of Technology

In 2004, the Ministry of Education published a report outlining the strategic, pedagogical, and developmental aspects of implementing e-Education in South Africa. The strategic objective of the e-Education policy regarding ICT is as follows:

> Every South African manager, educator, and student in the general and further education training bands will be ICT capable (that is, use ICT confidently and creatively to help develop the skills and knowledge they need as lifelong students to achieve personal goals and to be full participants in the global community) by 2013.[19]

Schools with ICT are expected to use it to enhance student learning—teachers are encouraged to use ICT to enhance instruction, while management and administration are encouraged to access ICT resources that support curriculum delivery. The policy also stipulates community involvement, entrusting communities with responsibility for supporting, sustaining, and maintaining school computer facilities and allowing after-hours community access to these facilities. The implementation of these policy goals has necessitated a multi-year implementation strategy, to be executed in the following three phases:

- Phase 1—System-wide institutional readiness for ICT use in instruction and administration;
- Phase 2—System-wide integration of ICT into instruction; and
- Phase 3—ICT integration at all levels of the education system.

The extent of ICT use still varies between schools. For example, the provinces of Gauteng and the Western Cape already have established policies and have begun implementing ICT into schools. However, outside these provinces, ICT in schools is rather limited due in part to theft and burglary, not always because of lack of provision. In most cases, schools with ICT are either well-resourced schools or under-resourced schools that have received ICT from donors.

Role of Reading Specialists

South Africa has no official policy regarding reading specialists. Occupational therapists, remedial teachers, and speech therapists are employed in some of the more affluent schools or have established links with well-resourced schools, particularly in urban areas. Private services exist, but these also are largely available for students from middle- and upper-middle class backgrounds. The majority of children in South African schools do not have access to remedial assistance in reading.

Second-language Instruction

The *National Curriculum Statement Grades R–12* of 2011 specifically advocates an additive approach to multilingualism in schools. English must be introduced as an additional subject in Grade 1 for students who must transition from another language to English as the main language of instruction in Grade 4. Thereafter, students' mother tongue should be continued for as long as possible. This policy is based on a transitional bilingual education model in which students make the transition from a bilingual program to English monolingual education.

Students with Reading Difficulties

Diagnostic Testing

No official policy exists on the use of diagnostic tests. Occupational therapists and educational psychologists are employed in some of the more affluent schools or have established links with well-resourced schools, particularly in urban

areas. The majority of children in South African schools do not have access to services that can provide diagnostic information.

Instruction for Children with Reading Difficulties

Although mainstream schools are the norm in South Africa, a limited number of special education schools exist, especially in the independent school sector. These include schools for students with special education needs, such as those with learning disabilities, hearing or sight impairments, and certain cognitive or developmental disorders. There is a trend, however, toward the gradual implementation of inclusive educational practices in all schools in South Africa. As of 2012, provision has been made in the new curriculum for students who experience barriers to learning.

Teachers and Teacher Education

Teacher Education Specific to Reading

Currently, there are two possible routes to qualify as a professional teacher in South Africa: either a four-year Bachelor of Education degree, or a Postgraduate Certificate in Education; both are university qualifications. Bachelor's degree programs require at least four years (eight academic semesters) of university study in either early childhood development or primary level (i.e., Foundation or Intermediate Phase) teaching. The Postgraduate Certificate in Education, either at the primary or secondary level, is undertaken after obtaining a bachelor's degree (3 years) in science, arts, or commerce, provided the major is a recognized teaching subject.

Requirements for teacher education specific to reading include courses in language across the curriculum, classroom literacies, early literacy, literacy practices, and cross-curricula reading skills. Registration with the South African Council of Teachers is mandatory to apply for a teaching position. However, there are teachers currently practicing without this registration.

Requirements for Ongoing Professional Development in Reading for Teachers

Recently, the National Policy Framework for Teacher Education and Development was implemented. Its provision addresses the issue of poor teacher development, brought to light by studies such as PIRLS 2006. Its positioning in South Africa's in-service and continuing education programs should ensure that teachers are now being trained to teach effectively.

Non-governmental organizations are working to promote literacy and provide teachers with opportunities for ongoing professional development. Prior

to 1994, these organizations were the primary supporters of in-service teacher professional development; currently, most donor funding passes through the government and many of these organizations have closed. Presently, some organizations (e.g., international agencies, universities, corporate business initiatives, and teacher unions) collaborate with the Department of Basic Education, which now offers much of the in-service professional development to public school teachers. The Department of Basic Education also is moving toward a model of Continued Professional Development Points, thereby requiring teachers to enroll and attend courses in order to accumulate a set number of points.

Monitoring Student Progress in Reading

In February 2010, President Jacob Zuma announced new measures to boost the country's education system. As of 2010, all students in Grades 1–6, and a sample in Grade 9 take Annual National Assessments (ANAs) that are independently administered. In 2011, more than 19,000 schools participated nationally. However, in 2012, all students in Grades 1–6 and 9 in all public schools and in Grade 3 or 6 in all independent primary schools that are eligible for government subsidy will take the Annual National Assessments. Over 7 million learners will write tests in languages and mathematics. There has been widespread criticism of the content and level of the ANAs; however, testing of this nature is still in its infancy in South Africa. In addition, while the effort currently is underfunded, strategies are being implemented to expand the capacity and investment in ANAs.

Apart from national efforts to monitor student progress in reading, teachers are encouraged to report learning progress regularly to students and parents. Subject record sheets, which include the topic area assessed, are used to record the performance of students. A combination of grades, codes, and comments is used for both recording and reporting purposes. Until 2011, a four-point scale was used to record student performance, with the Department of Education specifying the following rating codes and percentages for Grades R–6: Code 4—Outstanding or Excellent (70–100%); Code 3—Satisfactory (50–69%); Code 2—Partial Achievement (35–49%); and Code 1—Not Achieved (1–34%). As of 2012, teachers will use a seven-point scale to rate student performance.

The overall level of student performance is reflected on report cards, which form one of the main communication channels between the school and parents. In public schools, report cards are distributed at the end of each of the four

yearly terms (three in the case of private schools). The Department of Basic Education mandates that teachers report regularly to students and parents in the form of report cards, as well as at parent meetings, during school visitation days, and through parent-teacher conferences or phone calls. Schools determine which reporting strategies to use.

Impact and Use of PIRLS

Minister Naledi Pandor, South Africa's third Minister of Education since 1994, has publicly recognized the value of South Africa's participation in large-scale assessments, whether conducted regionally, nationally, or internationally. She not only lent her support to these assessments, but also recognized the difficulties associated with implementation and the generally negative publicity that participation has received. However, Minister Pandor's approach has brought about positive changes with respect to the implementation of the international studies and the use of the resulting data. The National Department of Basic Education now directly manages the Southern and Eastern Africa Consortium for Monitoring Educational Quality studies, in addition to supporting the PIRLS 2006 and 2011 assessments.

South Africa's much-worse-than-predicted results from PIRLS 2006 prompted Minister Pandor to introduce important changes to the education system, with a particular focus on reading literacy. These changes will need to be monitored to determine if they are achieving their aims, and PIRLS 2006 data now serve as a critical external baseline for reading literacy achievement at Grades 4 and 5.

The Drop All and Read Campaign is among the government-led initiatives put in place in South Africa to improve students' reading literacy. Beginning in 2008, the campaign has welcomed Grade R and Grade 1 students into education by providing the children with their own branded bags. Each bag contains a selection of books which the children can read by themselves or which parents and caregivers can read to them. Another program, launched in 2010, is the Foundation for Learning Campaign, a four-year program designed to improve the reading, writing, and numeracy skills and abilities of all South African children. The campaign, which has provided teachers and schools with directives on expected levels of student performance, has centered its efforts on the Foundation and Intermediate Phases of primary schooling in order to ensure that students acquire and sustain a solid foundation for learning.

PIRLS 2006 data also revealed that more than half of the primary schools assessed in 2005 had no school or classroom libraries, and that just over 50 percent of children had no access to books at home. In the first quarter of 2008, the government announced that it was doubling the public library budget. Meanwhile, the Department of Basic Education focused on providing schools with literacy resources. Over the last four years, for example, the department has sent storybooks, written in all official languages of South Africa, to over 11,000 primary schools. The distribution of these books allowed many schools to establish classroom libraries for the first time. In addition, since 2008, the Ithuba Writing Project distributed 2.3 million books in all eleven languages to schools. Also, in 2009, a national weekly newspaper launched another large-scale national initiative to collect and distribute books to children in need. Other resources and documents that the Department of Basic Education distributed to schools in recent years include the following:

- The National Reading Strategy document, which outlines activities and approaches to promote and develop the reading skills of students;
- A handbook for teachers to develop methods, approaches, and activities that will improve their teaching of reading;
- A "toolkit" for teachers that contains both reading resources and guidelines; and
- An early grade reading assessment which teachers currently use in selected districts as part of a program to monitor progress across different schools. By 2010, the assessment had been written in five languages.

The extent to which PIRLS 2006 findings contributed to these developments is uncertain, but the coincidence of the timing of these initiatives suggests PIRLS did have a considerable influence.

To monitor whether student competencies are improving, the Department of Basic Education is establishing baseline data on student achievement in literacy and numeracy in the early grades. As part of the Foundations for Learning Campaign, primary school students have been assessed annually via standardized tests, and the resulting data are being compared against established baselines.

In 2008, Responding to Parliamentary questions regarding the poor quality of literacy and numeracy of primary school students, Minister Pandor alluded to the initiatives that she had implemented to address these matters.[20] She implied

that the initiatives could be viewed as a direct or indirect consequence of South Africa's participation in PIRLS 2006. However, whether directly or indirectly, PIRLS certainly has contributed to a heightened awareness throughout South Africa of the country's current status, problems, and needs regarding literacy.

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Spain

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Language and Literacy

Spain is a country historically characterized by rich cultural and linguistic diversity. This diversity is reflected legally in the Spanish Constitution of 1978[1] and in the Statutes of Autonomy of the 17 autonomous communities and the cities of Ceuta and Melilla, across which the authority in Spain is territorially distributed.

The official language in Spain is Castilian Spanish, although four other official languages are used in different autonomous communities: Catalan, Galician, Valencian, and Basque. The language of instruction is Castilian except in communities with another official language, where schools use two official languages in education.

In Galicia, both Castilian and Galician are used, with the mother tongue used predominantly in preprimary and both languages used in primary and secondary education, so that students acquire a good command of the two languages. In the Valencian Community, Castilian or Valencian is used in schools, depending largely on the geographical location of the school as well as family choice. There are different models of instructional organization, but most schools offer a bilingual program. In Catalonia, Catalan is the language of instruction. In the Balearic Islands, both Catalan and Castilian can be used, but Catalan is the language of instruction in primary education. In Navarre and the Basque country, both Castilian and Basque are used, with variations based on the linguistic model chosen by the schools: language of instruction in Castilian or Basque and the other official language as a subject, or an intermediate option with different weight assigned to each language.[2, 3, 4, 5, 6, 7, 8]

As in other European countries, the number of schools in Spain that have adopted a "Content and Language Integrated Learning" (CLIL) curriculum, in which some of the curriculum subjects are taught in English, has grown

considerably in the past decade. All the autonomous communities, with the help of the central authorities, are introducing CLIL programs in schools.[9]

In the past decade, the Ministry of Education and the autonomous education authorities have placed great emphasis on competencies, and particularly on reading literacy. Since the Organic Law on Education introduced key competencies to the curriculum in 2006, in accordance with European Union recommendations, the cross-curricular nature of these competencies has been emphasized, as well as the need for all subjects to contribute to their acquisition. Moreover, this law made it mandatory to devote at least 30 minutes per day to reading activities in primary education, and recommends that secondary schools continue paying close attention to language activities.

Educational authorities have also sponsored numerous promotional activities to encourage reading and to use school libraries as dynamic spaces for teaching and integrating information services, especially using new technologies.

Overview of the Education System[10, 11]

The Spanish Constitution of 1978 created a highly decentralized education system. The Spanish Government oversees legislation, basic structure, and cooperative initiatives with other nations, but the autonomous communities are responsible for all other aspects of education, including schools, curriculum, and financial and personnel management in their respective territories. Current educational regulations, including the Organic Law on Education, guarantee the uniformity and unity of the education system, while also allowing autonomous communities to make individual decisions.[12] This law includes a proposal for regional cooperation among the education authorities to develop projects and programs of general interest, share information, and benefit from best practices. Thus, the curriculum has a centralized common framework that is developed and implemented by the autonomous communities and schools.[13, 14]

Schools are classified according to whether they are state or private. State schools are owned by a public authority, while private schools are not. However, the vast majority of private schools also are publicly funded; the state finances their operational costs, under the general system for grant-maintained schools, in return for the public education service they provide to society.

Structure of the Education System

In 2006, the Organic Law on Education legally validated the current basic structure of the Spanish education system, though this law did not modify the organization already established in 1990. The system is organized into school years (grades), cycles, and levels of education. The levels of education comprise preprimary education (ages 0–6), primary education (ages 6–12), and secondary education (ages 12–18).

The preprimary level of education is not compulsory. It is organized into two cycles—one for ages 0–3, and a second for ages 3–6—with the second cycle being free of charge.

Primary education (Grades 1–6) and compulsory secondary education (Grades 7–10) comprise Spain's basic education—ten years of schooling (generally ages 6–16) that is compulsory and free of charge.

Primary education (Grades 1–6) consists of three cycles of two academic years each. The Organic Law on Education established objectives that describe what student competencies should be developed at the primary level. The goal of the primary level is to provide all students with an education that allows them to concentrate on their personal development and their own well-being, as well as to acquire basic cultural skills related to oral expression and comprehension, reading, writing, and numeracy. Primary education also focuses on the development of social skills, work and study habits, and creative and emotional growth. The education provided in this level integrates different experiences and knowledge, and it adapts the instructional pace to individual student needs.

Secondary education is divided into two stages: compulsory secondary and post-compulsory secondary education. Compulsory secondary education comprises four years that generally correspond to students ages 12–16 (Grades 7–10). This stage of secondary education aims to provide students with the basic elements of culture (humanistic, artistic, scientific, and technological) that will make them conscientious citizens and allow them either to pursue subsequent studies or directly enter the job market.

The compulsory secondary education stage is organized with the goal of providing a common core education for all students while also paying attention to student diversity. Schools can organize the curriculum in a flexible way and adopt measures necessary to cater to the diversity of their students. In doing so, however, every school must ensure that all its students can reach the targets set for compulsory secondary education without any discrimination that might prevent them from achieving the final qualification.

The mandatory curriculum, both in primary education and compulsory secondary education, is organized into subject areas regulated by law. Each subject area contains objectives, content, assessment criteria, and a particular contribution to eight common basic competencies, recommended by the European Union.

Post-compulsory secondary education (Grades 11–12) includes the Baccalaureate and Vocational Education Intermediate Level.

Lastly, higher education includes university (ISCED 5A and above); and higher-level vocational education, higher level arts and design, and higher level sports education (ISCED 5B).

Language/Reading Curriculum in the Fourth Grade

Reading Policy

In general, reading instruction begins at the preprimary level of education, and reading abilities are strengthened at the end of the first cycle in primary education. The fact that Castilian is written as it is pronounced greatly facilitates the learning process of reading and writing.

Over the course of primary education, students develop a general awareness of the communication practices necessary to live in 21st century society. The main goal of instruction in the area of Castilian Language and Literature is for students to achieve competence in the linguistic skills of speaking, listening, interacting, reading, and writing. The language curriculum also introduces students to reading and understanding literary texts, as well as reflecting on the language itself. The starting point for linguistic education is the use of language that students have already acquired at the beginning of the primary level. Primary education aims to broaden this linguistic and communicative competence so that students are able to participate in the different social spheres in which they will become involved.

Summary of National Curriculum

The law defines "curriculum" as all the objectives, key competencies, content, assessment criteria, and pedagogical methods for each type of education. The law mandates that the basic content of the core curriculum comprise 55 percent of total instructional time for autonomous communities that have two official languages, and 65 percent of instructional time for those that do not. Each autonomous community must develop and implement the curriculum for its region. The *National Core Curriculum for Primary Education*[15] was published

in December 2006 and implemented in the fourth grade in the 2008–09 school year. The core curriculum of Castilian Language and Literature focuses on the social use of language in different contexts—private, public, family, and school. Around this common thread, the content is organized in sections that try to bring order to the complexity of language learning. These sections or blocks, developed throughout the three cycles of primary education, are as follows:

- Listening, speaking, and interacting;
- Reading and writing;
- Literary education (e.g., promoting reading for enjoyment, introducing students to acting and role playing, reading for personal and group experiences, and fostering positive reading habits); and
- Knowledge of language and linguistic features, including content related to reflection on language, which traditionally has had a strong presence in the language curriculum.

Once each autonomous community has defined the general curriculum, school teaching teams arrange the sequence of content throughout the cycles and select the instructional materials and activities. Teachers then receive manuals, instructional materials, and resources for illustrative purposes.

The national curriculum details the blocks outlined for each cycle. Content related to reading is included in Blocks 2 and 3. In these blocks, the content covered in Grades 3 and 4 (second cycle) of primary education is described below.

Block 2, "Reading and Writing," consists of two parts: understanding written texts and writing. Only the former deals with reading and includes the following skills:

- Understanding specific information in texts appropriate to the child's everyday experiences, such as school correspondence, class rules, or rules of games;
- Understanding general information about facts and events in texts from the social media (including children's websites) that are close to the child's experiences, especially news items and letters to the editor, and finding information highlighted in headings, sub-headings, and front pages;
- Understanding relevant information in educational and informational texts, including those with a teaching purpose and those from everyday life (e.g., leaflets, descriptions, instructions and explanations);

- Integrating knowledge and information from different learning media and contrasting pieces of information (e.g., identify, classify, compare, interpret);
- Using ICT and libraries (with guidance) to obtain information and models for written composition; and
- Showing an interest in written texts as sources of learning and a means of communicating experiences and regulating coexistence.

Block 3, "Literary Education," includes the following content related to reading:

- Independently reading texts (silently and aloud) that are appropriate to the child's age and interests;
- Reading narrative texts with guidance from the oral tradition, children's literature, adaptations of classic works, and contemporary literature in different formats;
- Developing autonomous reading, the ability to select themes and texts, and the expression of personal preferences;
- Valuing and appreciating literary texts as a means of communication, a source of knowledge about other worlds, times and cultures, and as a vehicle of personal enjoyment; and
- Knowing the system of the school library and participating in literary activities.

Reading Instruction in the Primary Grades

Effective instruction is intended to encourage reading and introduce students to books and is systematic and ongoing. It includes reading books (preferably complete texts), participating in oral or written activities for reading comprehension, and exchanging meanings, opinions, and ideas about texts. Occasional activities (e.g., exhibitions, meetings with authors, reading promotion campaigns) reinforce daily instruction but do not themselves guarantee good reading habits.

The Ministry of Education and the autonomous communities develop specific plans for the promotion of reading and the development of reading comprehension to support schools, especially schools with students from disadvantaged backgrounds.

Article 19 of the Organic Law on Education states that time should be devoted each day to reading instruction to enforce positive reading habits. The total amount of instructional time in primary education is 25 hours per week, 25 percent of which is devoted to language instruction. This increases to 36 percent in autonomous communities that have their own language. In addition, the law also states that 30 minutes per day must be devoted to reading across the curriculum.

Instructional Materials

Teacher teams in individual schools can choose the textbooks and other teaching resources needed for instruction, according to their school programs. In addition to textbooks, it is common practice for schools to use books that include reading comprehension activities. Also, classrooms usually have sets of children's literature anthologies. All books made available for the teaching staff (e.g., textbooks and teachers' manuals) are for reference purposes and are not prescribed.

Article 113 of the Organic Law on Education states that every school must have a school library.

Use of Technology

In primary education, one of the competencies specified in language and literature instruction is to use the media of everyday communication and information communications technology to obtain, interpret, and value different opinions and information. The content specified in each block for all cycles includes references to new technologies, either for support or as a source of information to develop comprehension and expression, and as a way to reinforce significant learning activities and peer learning settings.

In 2009, the Virtual Center[16] was created, which promotes reading as a basic learning tool in a range of learning fields. This website is for teachers, students, and families of all ages, and includes an interactive map with the programs and activities offered by the different autonomous communities.

Role of Reading Specialists

There are no reading specialists in primary education. The language and literature teacher, usually the classroom teacher, is responsible for reading instruction, even though other subject teachers also cover reading comprehension.

Second-language Instruction

Students entering education without sufficient command of the instructional language are sent to special linkage classes (*aulas de enlace*) in certain schools with specialized teachers, where students may stay up to several months until they are able to attend normal classes in their school. If their command of the instructional language allows them to attend normal classes with some difficulty, they may attend remedial classes at their school where they may stay for a large portion of their learning time.

Students with Reading Difficulties

Diagnostic Testing

The classroom teacher handles assessment and makes initial diagnoses of reading difficulties based on observations and specific tests. An educational psychologist intervenes when reading disabilities are considered serious.

Instruction for Children with Reading Difficulties

Some autonomous communities provide specific guidance to improve reading comprehension. Students with disabilities receive specialist support in specific classrooms, in accordance with the school's schedule.

As stipulated by the Organic Law on Education, education authorities must provide the necessary resources for students who require specialized education due to specific learning disabilities, high intellectual abilities, delayed integration into the education system, personal problems, and weak academic records. The goal is for these students to achieve the maximum possible development of their personal abilities and the general objectives established for all students. From the time their needs are identified, students with special needs receive comprehensive support governed by the principles of standardization and social inclusion. Furthermore, these students are guaranteed equality of access to education and continuance in the education system, as necessary, in the different levels of education.

Teachers and Teacher Education[a]

Teacher Education Specific to Reading[17, 18, 19, 20]

In primary education, generalist teachers teach language and literature subjects. Beginning in 2010, the Primary School Teacher university degree was extended from three to four academic years, following the European process of convergence. The curriculum includes language and literature fundamentals and their pedagogy among the core subjects, as well as other optional courses related to these disciplines, and a compulsory practicum.

Since the 1990s, most primary school teachers have followed a generalist education program, with the exception of specialist teachers in foreign language, music, physical education, and special needs. However, some current primary school teachers followed the previous teacher education programs established in the 1970s. At that time, General Basic Education (EGB) covered Grades 1–8, and teachers chose between generalist and specialized education programs. To teach in Grades 6–8, teachers could choose to specialize in language.

Teachers obtain a teaching position through either an open competition at public schools (both primary and secondary) or a private contract at private schools.

Requirements for Ongoing Professional Development in Reading for Teachers

According to educational legislation, teachers have both a right and a duty to participate in professional development. Apart from postgraduate courses, education-training centers offer both classroom and online courses, as well as support for teacher-initiated seminars and working groups, though these options vary by autonomous community. Every six years, teachers in public education can receive financial incentives for participating in professional development activities.

Monitoring Student Progress in Reading[21]

External large-scale evaluation studies are well established in Spain. These studies focus on key competencies and have a diagnostic purpose. There are two different levels: the General Diagnostic Evaluation is conducted at the national level and administered to a national sample of students, and the Diagnostic

a For recent legislative changes affecting the university training of teachers of Primary and Secondary education, refer to the following: *Ley Orgánica 2/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades* (Organic Law 2/2007 that modifies the Organic Law 6/2001 about Universities); *Real Decreto 1393/2007, de 29 de octubre, por el que se establece la ordenación de las enseñanzas universitaria oficiales* (Royal Decree 1393/2007 that orders University studies); *Orden ECI/3857/2007, de 27 de diciembre, por la que se establecen (…) titulos universitarios oficiales (…) de Maestro en Educación Primaria* (Order ECI/3857/2007 that states the curriculum and organization of the University Grade for Primary Teacher). Retrieved from http://www.boe.es/boe/dias/2007/12/29/pdfs/A53747-53750.pdf; and *Orden ECI/3858/2007, de 27 de diciembre, por la que se establecen los requisitos para (…) títulos universitarios oficiales (…) Profesor de Educación Secundaria (…)* (Order ECI/3858/2007 that states the curriculum and organization of the University Master for Secondary Teacher). Retrieved from http://www.boe.es/boe/dias/2007/12/29/pdfs/A53751-53753.pdf

Evaluation is conducted by the autonomous communities and administered to a census of students. The General Diagnostic Evaluation provides important data used to evaluate the educational system and compare results among communities, while the Diagnostic Evaluation aims to evaluate individual schools and provide them with feedback. Both diagnostic evaluations on the acquisition of key competencies are carried out in Grades 4 and 8, though some autonomous communities also administer external assessments at other grades.

Primary school teachers are responsible for evaluating individual student progress. The evaluation of student achievement in reading, as well as other subjects, is ongoing and global and takes into account student progress in all areas and elements of the curriculum. Teachers use the evaluation criteria specified for a content area as the basis for determining the level(s) of competence that the student has attained. Primary schools use qualitative grades to inform students and their parents about student learning progress at the end of each term. When a student's progress is inadequate, schools must adopt remedial measures as soon as the difficulties are detected. These measures are designed to guarantee the acquisition of essential skills so that the student can progress within the education system.

Schools use assessment results to plan interventions to guarantee student achievement in key competencies during the third cycle of primary education (Grades 5–6). These results allow schools both to evaluate instruction and teacher performance and also (where appropriate) to analyze, evaluate, and redirect the actions they developed for the first two cycles of this level. At the end of the primary level, the school prepares a report evaluating the degree to which a student has achieved the expected learning skills, particularly those that most affect their educational progress.

Impact and Use of PIRLS

Spain participated in PIRLS 2006 and has launched a national goal to promote reading and the use of libraries in response to results from PIRLS, PISA reading literacy, and national reading assessments.[22] The Ministry of Education has directed that some time be dedicated to reading in the teaching of all subjects. One initiative, Project Leer, promotes reading among children and offers activities and resources for teachers of all subjects and grades, including reading in traditional and digital formats. School libraries also have a major role in the Reading Promotion Plan to help students acquire and develop strong reading habits.

Although the Ministry of Education's Institute of Evaluation published a Spanish report of the 2006 results, and some discussion of the results at university conferences and seminars has offered rich evidence to suggest that reading difficulties displayed by adolescent Spanish students stem from the early years of primary education.

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Sweden

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Language and Literacy

Swedish is the main language in Sweden and therefore is spoken in all areas of society and taught in all schools. All students also have the opportunity to learn a foreign language in addition to their mother tongue or minority language. There are five official minority languages in Sweden: Sami, Finnish, Meänkieli, Romani Chib, and Yiddish. Nearly 1.8 million of Sweden's total population (9.4 million) are immigrants or have at least one immigrant parent.[1] Other languages of significance are Arabic, Persian, Spanish, and the languages of the former Yugoslavia. Also, the use of English is widespread in both business and academia.

A variety of government initiatives throughout the country aim to promote reading literacy. During the past five years, a campaign by the Swedish government called "reading-writing-counting" (*läsa-skriva-räkna*) has directed all schools to increase basic skills in reading literacy and mathematics.[2] The National Agency of Education (*Skolverket*) supports school literary improvement in a number of ways. For example, it hosts the National Center for Literacy (*Nationellt centrum för språk-, läs- och skrivutveckling*), which works to stimulate schools and school authorities to work actively with language and literacy. In response to gender differences in school achievement, with boys generally performing at a significantly lower level, the center has included literacy as part of a larger campaign to promote equal education for all children regardless of gender or social and cultural background.[3] Another government organization, the Swedish Arts Council (*Kulturrådet*), encourages creative activities outside the standard curriculum in Grades 1–9 by offering grants to schools for teaching literature, writing, theater, storytelling, dancing, and more.[4]

To promote reading and enhance the quality and diversity of available books, the Swedish government subsidizes the publication of literature and charges lower taxes on books and magazines. In 2011, the government appointed a committee to propose ideas for how to improve reading literacy and the state of literature in Swedish schools and society. The committee also is responsible

for suggesting what the government should do to meet the challenges of new technologies and new ways of purchasing and distributing books.[5]

Overview of the Education System

A fundamental principle of the Swedish education system is that all children and young persons shall have equal access to education, irrespective of gender, geographic residence, or financial circumstances.[6] Excluding preprimary education for children up to the age of six, for which parents pay a subsidized fee, all education in Sweden is free of charge and available to all.[7]

On July 1, 2011, the Swedish school system underwent a profound reform. This reform includes a new syllabus, a new school law, a new system for grading and national tests. As a part of the reform, teacher education also changed in several ways, such as a new requirement that teachers, including preprimary teachers, must be certified to obtain permanent employment. However, because these reforms were introduced after the PIRLS 2011 assessment, this chapter describes the conditions and contexts that were in effect under the previous curriculum and regulations.[a]

The Swedish education system is highly decentralized. The parliament and government define national goals, curriculum, and syllabus, while central authorities, municipalities, and various institutions ensure that educational activities are implemented in line with the legislative framework and that these activities address the national education goals. All municipalities are required to set general objectives for their schools in a school plan based on the national Education Act, curricula, and syllabi. Adopted by the municipal council, this school plan must clearly state the measures the municipality intends to take to meet the national education goals. Every municipality is required to present an annual quality report and to evaluate and update its school plan on a regular basis. The national budget includes grants to the municipalities for their various functions in regard to education. Each municipality decides how to distribute the grants between schools. The government only have a small amount of grants (about 4 percent of the total schools budget) that they direct to specific educational campaigns.[8]

In addition, each school is required to establish a local work plan based on the national goals and the municipal school plan. This work plan should define content that is not determined by the national steering documents, such as course content, organization, and teaching methods. The work plan should be

a For more information about the new (2011) curriculum and regulations, please see http://www.skolverket.se/ and http://www.sweden.se/eng/Home/Education/Basic-education/Facts/Education-in-Sweden/

developed by the head of each school in consultation with the teachers, other school personnel, and student and parent representatives.

The Swedish National Agency for Education (*Skolverket*) monitors, evaluates, follows up on, and supports the local development of the quality of preschools, schools, and adult education centers, while the Swedish Schools Inspectorate (*Skolinspektionen*) provides supervision. The National Agency for Higher Education (*Högskoleverket*) is responsible for monitoring, evaluating, following up on, and supervising higher education institutes. The National Agency for Special Needs Education and Schools (*Specialpedagogiska skolmyndigheten*) coordinates government support for special needs education. The Child and School Student Representative (*Barn- och elevombudet*) supervises the section of the Education Act that relates to protecting students from degrading treatment.[9]

There are only a few strictly private national schools, although there are a growing number of grant-aided independent schools at the lower- and upper-secondary level. Independent schools must be approved by the Swedish Schools Inspectorate but anyone is free to apply and the schools are allowed to make a profit. These schools receive municipal grants based on the number of enrolled students per academic year. All schools follow the same goals, but independent schools may have a distinct profile.

Preprimary education and care are provided at preschools (*förskola*), family daycare centers (*familjedaghem*), and open preschools (*öppen förskola*). The aim of preprimary education is to create favorable learning conditions that stimulate a child's physical and mental development. In Sweden, 83 percent of all children ages 1–5 attended some form of preprimary education in 2010.[10] In addition, six-year-olds may attend preschool classes (*förskoleklass*), which aim to provide a sound base for the first grade of compulsory schooling.[11] Preschool classes are usually organized within compulsory schools and are free of charge. Although attendance is voluntary, 96 percent of children attend preschool classes.[12] Until the age of twelve, children may also attend leisure-time centers (afterschool programs) after the regular school day at preschool or compulsory school.

Compulsory education is carried out in a nine-year comprehensive school for children ages 7–16 (Grades 1–9), though if parents prefer, children may start school at age six. This education system comprises compulsory school (*grundskola*), Sami school (*sameskola*) for Sami-speaking children in Grades 1–6, special schools designed for children and adolescents who are deaf or hearing impaired and can not attend compulsory school (*specialskola*),

and schools for children with learning disabilities (*grundsärskola*).[13] About 12 percent of students attended independent compulsory schools in 2010–11.[14]

A Compulsory School Leaving Certificate qualifies students to apply for upper secondary school, which comprises Grades 10–12. Passing grades in Swedish, English, and mathematics are required for admission to a national program, and nearly all students (99 percent) who attend compulsory school continue on to upper secondary school.[15] The majority of these students attend public upper secondary schools, and about 24 percent attend independent upper secondary schools.[16] Upper secondary school is divided into 18 different three-year national programs, all of which are intended to provide a broad-based education and result in general eligibility for further studies in higher education. In addition to the national programs, there also are specially designed individual study programs.

Universities and university colleges are also free of charge, and admission is either based on grades, a university admission test (*högskoleprovet*), or a combination of interviews and tests. Students also may attend post-secondary vocational schools to prepare for a specific trade or occupation.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Reading is not taught as a separate subject, although reading and writing constitute a major part of Swedish instruction in the early grades. In teaching Swedish, language and literature are treated as a whole. The curriculum states that, "the school is responsible for ensuring that all pupils completing compulsory school have a mastery of Swedish and can actively listen and read as well as express ideas and thoughts in the spoken and written language." [17] The syllabus for Swedish and Swedish as a second language states that literacy ability is of great importance for all kinds of schoolwork and for students' future lives and activities.

The written word is also of immense importance, and society requires that one be able to use, synthesize, and evaluate texts. Language and culture are connected, and language reflects the diversity of cultures that form and enrich society. Consequently, language and literature are of great importance in developing a sense of personal identity, communicating with others, and understanding and respecting different forms of oral and written expression. The subject of Swedish provides students with opportunities to use and develop their ability to speak, listen, see, read, and write, as well as to experience and

learn from literature, film, and theater. Literacy ability in general, and reading ability in particular, are essential both for students' school success and for their future ability to contribute to society. For this reason, the syllabus states that, "one of the school's most important tasks is to create good opportunities for pupils' language development." [18]

Summary of National Curriculum

The aim of Sweden's national curriculum (Lpo94) is to support the integration of activities to reach the goals of compulsory school. It delineates the following:

- Fundamental values and tasks for the school;
- Goals and guidelines regarding norms and values;
- Knowledge to be attained;
- Students' responsibilities and roles;
- Schools' responsibilities toward parents or guardians;
- Cooperation between schools, leisure-time centers, and the surrounding world;
- Assessment and grading; and
- Responsibilities of the school principal.

Regarding reading literacy, the curriculum states that, "by providing a wealth of opportunities for discussion, reading, and writing, all pupils should be able to develop their ability to communicate and thus enhance confidence in their own language abilities." [19]

The various subject-specific syllabuses are presented in a supplementary document. Similar to the national curriculum, the national syllabus for Swedish and Swedish as a second language is a rather brief and concentrated document. The syllabus delineates two basic sets of objectives: goals to aim for and goals to be attained. The goals to aim for indicate the orientation of the school's activities, while the goals to be attained state the minimum levels to be achieved by the students by the end of the third, fifth and ninth years of school.[20]

In terms of "goals to aim for" in Swedish instruction, the syllabus states that schools should aim to ensure that students do the following:

- Develop imagination and desire to learn through reading literature, as well as reading on their own for personal enjoyment;
- Develop imagination and desire to create using language, both individually and in cooperation with others;

- Develop correctness in spoken and written language; have the courage, desire, and ability to express themselves in many different contexts; and acquire an instrument for thinking, learning, communicating, and exercising influence through writing;
- Develop the ability to develop texts they have written based on their own critical reflection and advice from others;
- Develop the ability in a dialogue with others to express feelings and thoughts arising from texts with a variety of purposes, as well as be stimulated into reflecting and evaluating these texts;
- Develop the ability to read, understand, interpret, and experience different kinds of texts and adapt reading and work to suit each text's purpose and character;
- Have the opportunity to understand cultural diversity through exposure to literature and authors from different time periods and in different forms from Sweden, the Nordic region, and other parts of the world;
- Acquire a knowledge of the Swedish language and its ongoing development, structure, origins, and history, as well as develop their understanding of why people write and speak differently;
- Deepen insight into basic patterns and grammatical structures in the language through their own writing, and develop the ability to apply standards of written language in different contexts;
- Gain experience of languages in the neighboring Nordic countries, as well as an orientation to the Sami language and other minority languages in Sweden;
- Develop the ability to write legibly and use computers as an aid;
- Develop the ability to use different opportunities to obtain information, acquire knowledge of the language and functions of the media, and develop the ability to interpret, critically examine, and evaluate different sources and their contents;
- Receive encouragement to be personally creative and independently search for meaningful reading, as well as take part in cultural activities; and
- Acquire an insight into their learning, reflect on their own development, and learn both on their own and together with others to use their

experiences, thinking skills, and language skills to form and maintain their knowledge.

In terms of "goals to be attained" in reading, the syllabus states that students should be able to do the following by the end of the third year in compulsory school:

- Read texts with fluency that are familiar and closely related to their specific contexts;
- Read literary texts related to their specific contexts, and be able to retell the story plot orally or in writing; and
- Read factual texts and instructions that are related to their specific contexts, and be able to describe and use the content orally or in writing.

In terms of "goals to be attained" in writing, the syllabus states that students should be able to do the following by the end of the third year in compulsory school:

- Write legibly;
- Write narrative texts with a clear story line;
- Write simple and factual texts and instructions related to their specific contexts where the content is clear;
- Correctly spell words that they themselves often use in writing and words that they frequently encounter in texts;
- Use capital letters, periods, and question marks in their own texts when writing speech and dialogue;
- Relate and describe everyday events so that content and story line are clear;
- Give and receive simple oral instructions; and
- Discuss questions and subjects based on their own and others' experiences, and talk about texts and pictures by asking questions, expressing views, and offering comments.

By the end of the fifth year in compulsory school, the "goals to be attained" section of the syllabus states that students should be able to do the following:

- Read with fluency, both aloud and to themselves; understand events and meaning in books and nonfiction written for children and young persons; and be able to discuss their experiences from reading, as well as reflect on texts;

- Produce texts for different purposes, for learning and communication;
- Present and relate material orally so that the content is understandable and brought to life; and
- Apply the most common rules of the written language and the most common rules of spelling, as well as be able to use dictionaries.

By the end of the ninth year in compulsory school, the "goals to be attained" section of the syllabus states that students should be able to do the following:

- Actively participate in conversations and discussions, be able to understand other's perspectives, and be able to present work orally so that the content is clear and understandable;
- Read age-appropriate literature from Sweden, the Nordic region, and other countries, as well as nonfiction and newspaper articles on general subjects, and be able to summarize the content coherently and reflect on it;
- Read, reflect on, and put into a context some literary works and authors that have been influential in affecting how people live and think;
- Appreciate, reflect on, and evaluate the content and means of expression used in pictures, film, and theater;
- Write different kinds of texts so that the content is clear, applying the standards of written language when writing by hand and using a computer; and
- Know the language needed to analyze both one's own and others' use of language.

Consistent with the decentralization of the school system, there are no overall rules regarding grouping for instruction. Some schools work in mixed-age groups, particularly with students ages 6–10 (Grades 0–3). Other schools group students homogenously by age. Grouping criteria vary in different subjects. Ability grouping may be used only occasionally, such as for beginning reading instruction.

Swedish students are entitled to at least 1,490 hours of instruction in Swedish and Swedish as a second language throughout the nine grades of compulsory school. Individual schools decide how these hours should be distributed across the grades.

Reading Instruction in the Primary Grades

Instructional Materials

By tradition, Sweden has a wide variety of high-quality children's books for all grade levels. Many teachers choose a model of beginning reading instruction that combines children's books with leveled readers and uses texts that students have produced themselves either independently or in conjunction with books. In line with the decentralized system, teachers are free to choose their own instructional materials, and there are no mandated or officially approved materials. Schools purchase teaching materials from various publishers and distribute them to students free of charge.[21] Under the terms of the Education Act and the curriculum, students should be able to have some influence over the way teaching is organized, and as they become older and more mature, they assume increasing responsibility for their own schoolwork.[22]

Use of Technology

A "goal to aim for" stated in the syllabus for Swedish instruction is for students to develop their abilities to use computers as a writing aid. Students should also develop their ability to use different sources to do the following: obtain information; obtain knowledge of the language and the functions of the media; and develop their ability to interpret, critically examine, and evaluate different sources and their contents.[23] Many schools and municipalities aim to have one computer available for each student and will continue to invest in working toward this goal. Although most schools have access to computers, Internet, and other technological aids, the use of technology varies widely, depending on teacher interest and financial resource availability at each school. There is approximately one computer per every six students in public compulsory school and one computer per every 4.5 students in independent compulsory schools. In secondary public schools, there is approximately one computer per every 2.5 students and one computer per every 1.6 students in independent secondary schools. Various types of pedagogical computer programs for language development or mathematics are available for all grade levels. In preschool, there are also computer programs for working with images, sound, and video. At the lower grades of compulsory school, the most common computer programs are available for training in language awareness, reading, writing, and mathematics. Computers also are used frequently as writing tools. Students are encouraged from an early age to seek information on the Internet while working on various assignments. The computer is considered to be a particularly valuable tool in

special education for students with reading and writing disabilities. Many schools also have technical tools such as digital cameras, video cameras, projectors, and digital writing slates available.[24]

Role of Reading Specialists

Special education teachers and remedial teachers are trained to work generally with students with learning difficulties. Special education teachers traditionally support the class teacher and remedial teachers, working in separated classes for students with learning difficulties. Specialized reading instruction can be organized in a number of ways, depending on students' needs. A special education teacher or remedial teacher most often is contacted when the classroom teacher detects that a student has reading difficulties. Specialists may opt for one-on-one sessions for a number of hours per week, small-group instruction, or individual assistance within the classroom, depending on resources and the student's personal preferences.

Second-language Instruction

Students with a mother tongue other than Swedish have the opportunity to take Swedish as a second language, regardless of their age. The syllabi for Swedish and Swedish as a second language share the same overarching goals, but the specific goals for Swedish as a second language emphasize the functionality of the Swedish language. The main difference between the two subjects is in the instructional approach.

The goal of Swedish as a second language instruction is for students to acquire a functional mastery of the Swedish language comparable to that of students who speak Swedish as their mother tongue. Through this instruction, schools should provide students with experiences that help them develop their ability to speak, listen, read, and write in a variety of situations.[25]

Students with Reading Difficulties

Diagnostic Testing

If a teacher, a student, a parent, or any other school staff member believes that a student will not be able to reach the national goals, the school investigates the student's need of special support. Students have the right to receive special support if the investigation shows that they need it. In consultation with the parents and the student, the school should also frame an action plan that describes the student's needs and how the school will meet and evaluate these needs.[26] Many municipalities have established special education teams that

offer advice to teachers and parents, in-service training for teachers, and short-term assistance at local schools. In addition, Sweden has regional centers with specialists who can diagnose dyslexia and other reading disabilities and give advice on instructional materials and aids. When students are diagnosed with dyslexia, they have the right to get special assistance in terms of materials, computer programs, and instruction.

Instruction for Children with Reading Difficulties

Special support should be given so that students with reading difficulties are able to follow their age group and reach the goals established for that grade. In special cases, students may receive this support privately or in special teaching groups.[27] However, in compulsory and upper secondary schools, most students who need special support are taught in regular classes.

Schools also have a certain number of special remedial classes for students with functional disabilities or social and emotional problems. Schools for students with impaired sight, hearing, or speech follow a 10-year program that adheres as closely as possible to the education children receive in regular compulsory schools. The National Agency for Special Needs Education and Schools promotes access to teaching materials, runs special needs schools, and allocates government funding to education providers for students with disabilities. This agency also offers advice and support to teaching staff in schools under government supervision, in matters related to the impact of disabilities on education.[28]

When taking national tests, students in need of special support are entitled to assistance. However, the school principal must approve this assistance, and it should be provided in such a way that the test still meets its purpose. For example, the student could be given extended time.[29]

Teachers and Teacher Education

Teacher Education Specific to Reading

Teacher training in Sweden has undergone a number of reforms. After 1988 (and until 2001), there was no specialized training for teachers of the lowest grades. Instead, teachers were trained to teach Grades 1–7, with an orientation either in mathematics and science or language and social studies. Further specialization was offered for teachers of Grades 4–9 (with an overlap in Grades 4–7) with three combinations of subjects: mathematics and science, Swedish and foreign languages, and social studies. In 2001, a new teacher-

training program was launched, providing a high degree of individual choice with regard to the combination of subjects.

Teacher education offers prospective teachers a high degree of individual choice about the combination of subjects they study. However, since 2006, all teachers in Grades 1–6 obtain training as reading teachers.

Due to the general decentralization of Sweden's education system, universities have a high degree of freedom in arranging their teacher education programs, as long as they are in accordance with the framework established by the government. A large part of teacher education takes place in mixed groups of students studying different subjects and grade levels, particularly in courses on instructional matters and teaching practices. For the compulsory education level, teacher education takes 3.5–5 years, with teachers of older students receiving longer training than teachers of younger students.

Requirements for Ongoing Professional Development in Reading for Teachers

Public school teachers are municipal employees, while teachers in independent schools are employed by the schools. Teachers without appropriate qualifications may be employed for a maximum of twelve months if qualified staff are not available. This temporary contract may be renewed if qualified staff is still not available when the contract ends.[30]

In recent years, there have been various campaigns to increase teachers' education level and professional standing. In 2008, an initiative was introduced to increase the number of teachers with research experience. Teachers were offered the opportunity at ten different universities to participate in a two-year post graduate program in several subjects, including linguistics and literacy.[31] In 2007, a campaign called Continuing Professional Development Program for Teachers (*Lärarlyftet*) was introduced. This project aims to raise student achievement levels by improving teacher competence. Teachers were given the opportunity to deepen their competence in subjects for which they already had a degree, as well as broaden their competence in subjects for which they lacked education. The project will be continued in 2012–15, though only for teachers with a teaching degree who are currently teaching subjects or grade levels that they did not study when they earned their degree. The National Agency for Education has organized these courses in cooperation with universities, and municipalities can receive government grants that help cover the costs of the reduced teaching hours of teachers who attend these courses.[32]

Monitoring Student Progress in Reading

Sweden monitors and assesses students in compulsory school through a system of national tests, diagnostic materials, and written reports with individual development plans and grades. Designed by the National Agency for Education, the national tests provide support for teachers in monitoring student progress according to the curriculum and syllabus. The tests also provide support for teachers in assigning grades and applying the curriculum and syllabus.

In 2009, national tests were introduced in Grade 3 (in the subjects of Swedish or Swedish as a second language and mathematics), in addition to the already existing national tests in Grade 5 (in the subjects of Swedish or Swedish as a second language, mathematics, and English) and Grade 9 (in the subjects of Swedish or Swedish as a second language; mathematics; English; and biology, physics, or chemistry). The National Agency for Education also provides diagnostic materials, tests, and individual test items that are intended to highlight individual student strengths and weaknesses, help teachers monitor student progress, and make impartial judgments. These materials are available for Swedish (and Swedish as a second language), mathematics, and science for Grades 1–3, English for Grades 1–6, and foreign language and mechanics for Grades 7–9. In addition to these materials, diagnostic materials and several screening, reading achievement, and spelling tests are commercially available.[33]

Students receive grades beginning in Grade 8. In compulsory school, there are three passing grades: Pass (G), Pass with Distinction (VG), and Pass with Special Distinction (MVG). At all grade levels, teachers are required to present written reports on student progress in each subject. Teachers are also required to meet individually with students and their parent(s) or guardian(s) at least once per term to discuss student progress, how learning can be stimulated and supported, and what efforts students need to make to reach their individual goals.

Impact and Use of PIRLS

Sweden's results in PIRLS and other international and national studies have indicated declining achievement in Swedish schools. These results have undeniably influenced the general school debate and also have had an impact on the extensive new school reforms mentioned earlier in the chapter (see Overview of the Education System). For example national tests were introduced in Grade 3 due to the declining results in Swedish schools. In addition, a number of

directed campaigns have been introduced, such as "reading-writing-counting," as mentioned earlier in this chapter.[34]

Since the 1990s, technological developments and new ways of buying and distributing books have brought about changes in Swedish reading habits and book publishing. PIRLS and other studies have revealed a negative trend in reading literacy and reading interest among children and young people. This trend has led the Swedish government to appoint a committee to analyze the condition and distribution of quality literature and to propose activities the government could develop to promote reading.[35]

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Trinidad and Tobago

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Language and Literacy

The Republic of Trinidad and Tobago has a diverse tradition of language and culture. The majority of the population is of East Indian and African descent (41% and 40%, respectively). One percent of the population is of Chinese, European, or Middle Eastern descent.[1]

English is the official language of Trinidad and Tobago and is the language of instruction in schools and universities. However, English-based Creole is the most commonly spoken language, with English typically being reserved for formal situations.[2] The vocabulary of English Creole draws largely from English with influence from West African languages as well as French, Spanish, and Bhojpuri. Its structure, pronunciation, and grammar are distinct from English.

The government of the Republic of Trinidad and Tobago recognizes Spanish as the country's first official foreign language. Spanish, and in some cases French, is available as part of the curriculum in secondary schools. By 2013, Spanish will be introduced nationally in primary schools. In anticipation of this, Spanish is included among the core subjects at the primary education level that will be revised in 2012. Another foreign language, Hindi, is an integral part of the curriculum in Hindu primary schools and in some Hindu secondary schools. In some Muslim primary schools, Quranic Arabic is included in the curriculum.

Heritage languages from Africa and India, such as Arabic, Hindi, Sanskrit, and Yoruba, are used mainly during religious ceremonies. Trinidad and Tobago's rich oral tradition dates back to the period of slavery and indenture, and is expressed through various forms of communication, such as, folk storytelling, Quranic recitation, panchayat, talk tent, robber talk,[a] extempo, calypso, and

a Robber talk is derived from the speech used by the Midnight Robber Carnival character, who was known for using monologues of empty threats.

rapso. These traditions are manifest in the richness of the Creole spoken throughout the country.[3]

The Ministry of Education has concentrated efforts to address the literacy needs of the country's students. In 2011, a Literacy Team was created specifically to address the reading challenges facing the country. Emphasis has been placed on teacher professional development and on the deployment of staff with specialized training in reading. The co-existence of two dialects and their impact on teaching and learning are also under examination. Additionally, other Ministry of Education literacy initiatives are being organized.

Since 2004, the Center of Excellence for Teacher Training has coordinated a literacy initiative to develop innovative approaches to reading instruction and to promote action research to address reading problems. This program focuses on diagnostic and performance assessments, development of teaching and learning materials, teacher training, and the use of information technology in the delivery of the literacy curriculum. Sixty-one primary schools participated in the program's initial phase. In 2011, the program expanded to 100 of the country's 545 public and private primary schools, with literacy interventions in Grades 1–3 (Infants Year 1–Standard 2).[4]

Libraries have long been partners in literacy development in Trinidad and Tobago. The National Library and Information System Authority operates the library system, managing all libraries in the public sector, including public, special, and school libraries. Students and parents have access to 23 public libraries within the republic. Librarians in the public system organize read-a-thons, read-alouds by visiting authors, storytelling, and other reading activities to generate interest in reading. School libraries have been established in most schools and, recently, the Ministry of Education has undertaken initiatives to upgrade all school libraries.

Overview of the Education System

The education system in Trinidad and Tobago includes both publicly funded (government and government assisted) and privately funded schools. The country's education system falls mainly under the jurisdiction of the Ministry of Education, and the Ministry of Science, Technology, and Tertiary Education. For the island of Tobago, the Tobago House of Assembly and the Ministry of Education share a collaborative relationship to ensure standardized practices in the education system.

The education system comprises five levels: preprimary, primary, secondary, postsecondary (advanced proficiency, and technical and vocational programs), and tertiary (postsecondary education opportunities). The Ministry of Education is the administrative authority for preprimary through postsecondary education levels. The Ministry of Science, Technology, and Tertiary Education is responsible for tertiary education.

Preprimary education in Trinidad and Tobago is not compulsory and encompasses Early Childhood Care and Education (ECCE) Centers, nursery schools, and daycare centers, provided by government schools, government-assisted schools, and private individuals. The Ministry of Education is working toward the goal of universal quality ECCE through the provision of additional ECCE facilities via public-private partnerships, the use of underutilized primary schools, and continued construction of 50 new centers in collaboration with the Inter-American Development Bank. The Ministry of Education has established a preprimary education curriculum, and monitors all aspects of this level's educational and developmental role.[5]

The preprimary program covers two years, with children typically entering the program at age 3. The educational curriculum at this level involves readiness for learning, play, music, sound, movement, visual creativity, and expression. Some programs focus on emergent written language acquisition and reading. The current distribution of preprimary education centers in Trinidad and Tobago is as follows:

- A total of 179 public centers exist, including 107 government centers and 72 Service Volunteered For All centers;
- A total of 904 private ECCE centers are registered with the Ministry of Education's ECCE Division; and
- Education Facilities Company Limited has operationalized a total of 27 newly constructed ECCE centers, with an additional 24 centers yet to be completed or operationalized.

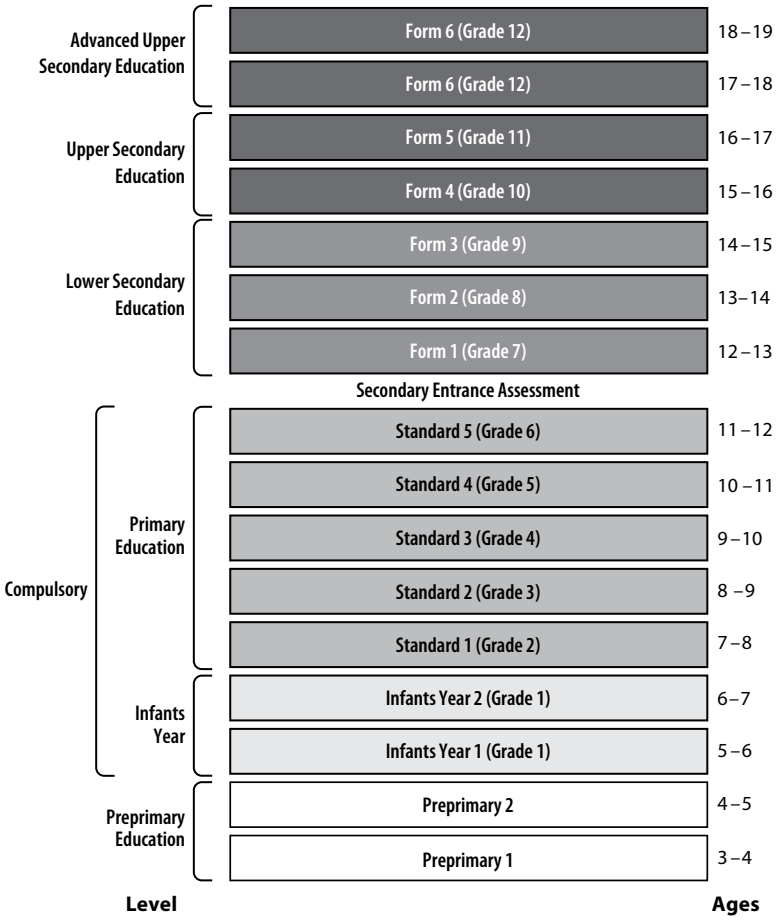
Under the aegis of the Ministry of Education's Planning Division, ECCE position and policy papers are being developed to help guide and further the goal of universal quality ECCE.

Primary education is compulsory for students ages 5–12. Primary education begins with a two-year course termed Infant Years 1–2 (Grade 1) for students ages 5–7. Students continue into Standards 1–5 (Grades 2–6) at ages 7–12. Curriculum guides contain content specifications for language arts,

mathematics, social studies, science, agricultural science, physical education and health, and arts and crafts. Music and drama are also included in the curriculum at some schools, while religious instruction is common among denominational schools. Selected primary schools also have piloted Spanish. Primary education culminates in the Secondary Entrance Assessment, a measure of readiness for passage into secondary education.

Secondary education offers a great degree of program variety, with a wide range of subject choices for students ages 12–19. Lower secondary education comprises Forms 1–3 (Grades 7–9) for students ages 12–15. Upper secondary education comprises Forms 4–5 (Grades 10–11) for students ages 15–17. Advanced level schools provide a two-year program termed Form 6 (Grade 12) for students ages 17–19. Secondary education is provided at secondary (Forms 1–6; Grades 7–12) and advanced level (Form 6; Grade 12) schools. Secondary schools also offer continuation classes at the upper secondary level (Forms 4–5; Grades 10–11) for students who must repeat or complete courses. Exhibit 1 presents the education levels in Trinidad and Tobago, from preprimary through advanced secondary levels.

Exhibit 1: Preprimary Through Secondary Education in Trinidad and Tobago[6]



In addition to public secondary and advanced level schools, several youth development and apprenticeship centers not managed by the Ministry of Education offer technical and vocational education. The National Open School of Trinidad and Tobago is one such school that provides secondary education as a complement to the traditional school system.

At the tertiary level, students pursue different kinds of education and training programs at a variety of institutions, including the University of the West Indies, the University of the Southern Caribbean, and the University of Trinidad and Tobago. Foreign universities, in collaboration with local education providers, provide additional tertiary education options.

Education continues to be high on the national agenda and over the years has received a high proportion of the government's budgetary allocation. Total expenditure for education expressed as a percentage of GDP continues to increase.[7] In the 2011–12 fiscal year, approximately $8.7 billion Trinidad and Tobago dollars have been allocated to education.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Reading instruction in the primary grades is included in the English language arts curriculum. During the first four years of primary school, reading skills are taught separately from other language arts. Reading programs are supported by a variety of reading and learning philosophies outlined in the curriculum for primary schools.

The main goal of the English language arts curriculum is for students to be able to communicate (speak and write) effectively using standard English. The curriculum stresses the interrelated nature of listening and speaking and their fundamental role in the development of reading and writing. A key intended outcome of the curriculum is for students to read effectively for different purposes, using a variety of materials in both print and electronic media.

Summary of National Curriculum

The former reading scheme in Trinidad and Tobago was essentially skills-based and endorsed multiple strategies for teaching reading.[8, 9, 10] Since 1999, reading has been included within the English language arts curriculum at the primary level. This current curriculum presents a holistic and integrated approach to language teaching and learning.[11, 12] The curriculum emphasizes the interrelatedness of listening, speaking, reading, writing, and presentation skills.

It recognizes that reading is not a single skill that can be taught in isolation from the other language arts, nor can it be separated from the rest of the primary school curriculum. Reading skills, however, are expected to be taught discretely, while reinforcing other language arts.

The English language arts curriculum is prescribed for all students regardless of ability level and describes reading outcomes and objectives for all seven years of the primary system. The curriculum identifies teaching and evaluation strategies for reading, recommends resources to enhance teaching and learning, and makes connections between language arts and other curriculum areas. The curriculum also emphasizes the following reading processes: retrieving explicitly stated information; making inferences; interpreting and integrating ideas and information; and evaluating content, language, and textual elements. Reading purposes highlighted in the curriculum include enjoyment, acquisition of information, reading for literary experience, and forming critical language awareness.

Formal reading instruction begins at the start of Grade 1 (Infants Year 1) of primary school, at ages 5–6. During Grade 1, reading instruction focuses on mechanics, reading comprehension (literal), and study skills. Emphasis is on an appreciation of children's literature across genres. Vocabulary development is added at Grades 2–3 (Standards 1–2), and students in Grades 4–6 (Standards 3–5) receive greater exposure to the three literary genres of poetry, prose, and drama. In these later grades, the curriculum focuses on reading skills and strategies for deeper meaning, such as making inferences, predicting outcomes, and problem solving.

Reading Instruction in the Primary Grades

The academic year runs from September to early July, consisting of three terms that are each approximately 13 weeks long. The number of school days per year ranges from a minimum of 185 days to a maximum of 195 days. In a typical week at primary school, the total amount of instructional time prescribed is 25 hours. An average session at upper primary (Grades 5–6; Standards 4–5) is between 40–50 minutes. At the start of Grade 1 (Infant Years 1 and 2), however, a lesson may last 15 minutes.

Students in Grade 1 (Infant Years 1 and 2) receive approximately 10–15 lessons per week in language instruction. Those in Grades 2–6 (Standards 1–5) receive between 15–20 lessons per week in language instruction, which includes

reading, writing, listening, speaking, and viewing. Between 10–20 percent of instructional time for language is devoted to formal reading instruction.

The average class size at the primary level is 20 students.

Instructional Materials

The Ministry of Education provides instructional materials, including textbooks and manipulatives, for all primary schools in Trinidad and Tobago. Books for reading instruction include textbooks, workbooks, dictionaries, atlases, storybooks, guided reading programs, and phonics programs. Manipulatives include puzzles, games, globes, stickers, and reading-rods kits (color-coded interlocking cubes with letters) used to build literacy skills. Computer software and educational games supplement traditional teaching methods in a number of schools.

Libraries continue to play an important role in reading education in Trinidad and Tobago. Many schools and, in quite a few instances, individual classrooms have their own libraries for students to select and borrow books.

Use of Technology

Computer software is available in a number of primary schools. Many teachers also use video, radio, CDs, and tape recorders during language and reading instruction. Audio books supplement reading instruction for emergent readers, and are available along with Braille versions and magnifying glasses for students with visual impairments. However, traditional use of print media remains popular.

Role of Reading Specialists

Classroom teachers are responsible for teaching reading during all seven years of primary education (Infant Years 1–2 and Standards 1–5). As a result of current reforms, reading specialists have begun to work alongside teachers in selected low-performing schools, and there is potential for expansion of this program.

Second-language Instruction

Standard English is the second language for many students who speak English-based Creole in Trinidad and Tobago. This, therefore, has implications for language learning and reading instruction that uses reading materials in standard English. To account for potential challenges, the language arts curriculum offers strategies for teaching English as a second language within the context of English-based Creole. However, despite these efforts, many readers still face difficulties with standard English.

Students with Reading Difficulties

In primary education, students with reading difficulties are integrated into class under the supervision of regular classroom teachers. The Ministry of Education's Student Support Services Division addresses situations where teachers identify students with special learning needs. A multi-disciplinary team of officers from the division is located in each educational district to serve a cluster of schools. The division supplies educational psychologists and guidance officers, as well as diagnostic specialists to diagnose dyslexia, visual impairment, and other disabilities that negatively affect learning in general. The intention is to intervene when learning problems are detected in order to eliminate the practice of promoting students who would face particular challenges at the next level. Eventually, the aim is for no student to leave primary school with his or her reading difficulties unattended.

Diagnostic Testing

Screening for reading difficulties may be carried out by primary schools, but the Student Support Services Division uses few standardized screening tests. The Ministry of Education, in collaboration with the Ministry of Health, has introduced a program of auditory and visual screening for all students entering primary schools. In addition, the Ministry of Education has embarked on a strategy to strengthen its guidance and support services. The Student Support Services Division works with primary schools, particularly those identified as underperforming. Special educators use diagnostic tests to identify challenges to learning and areas for special attention.

Teachers and Teacher Education

The Teaching Service Commission is responsible for hiring primary and secondary school teachers. All teachers are employed on a full-time basis. Three times as many female teachers as male teachers work at the primary education level.[13]

Prior to 2006, the minimum qualification for being a registered teacher included completing a minimum of five ordinary level subjects at the secondary education level, including mathematics and language arts, as well as meeting the qualifications of the Caribbean Examination Council or the General Certificate of Education. Teachers with these minimum qualifications now must pursue a teacher's diploma in education to be permanently appointed as a primary school

teacher. As of 2006, new teacher applicants must successfully complete a relevant degree program at a university before entering the system.

In 2011, the University of the West Indies introduced a Pre-service Diploma in Education program. The University of the West Indies has traditionally offered a three-year program to prospective teachers. In 2006, the University of Trinidad and Tobago introduced a four-year Bachelor of Education degree to replace the teacher's diploma. Additionally, the University of the Southern Caribbean also offers degree programs in education. All three universities offer graduate programs in education. The curriculum for teacher education in these programs includes courses in educational theory, curriculum studies, and subject area content, with special education offered as an additional option.

Requirements for Ongoing Professional Development in Reading for Teachers

In-service education is available to teachers through a series of workshops and seminars conducted by the Ministry of Education. No specifications mandate the number of hours required for in-service education. Workshops usually are organized by the different divisions of the Ministry of Education according to needs identified or requests made by schools. These one- to two-day workshops address areas such as teaching and learning strategies, writing, reading comprehension, and student assessment. Teachers usually attend several workshops during the school year.

Monitoring Student Progress in Reading

The Ministry of Education conducts national examinations in mathematics and English language arts at Grades 2 and 4 (Standards 1 and 3). The English language arts examination consists of reading, spelling, vocabulary, punctuation, grammar, comprehension, and creative writing. National examinations in science and social studies are conducted at Grades 3 and 5 (Standards 2 and 4). Standardized scores (normal-curve equivalent) are used to report national, district, and school results, and four levels of performance are reported to describe student achievement: Exceeds the Standard (Level 4), Meets the Standard (Level 3), Nearly Meets the Standard (Level 2), and Below the Lowest Benchmark (Level 1). School performance scores—Excelling, Mostly Effective, Academic Watch, and Academic Emergency—are used for comparisons by district, school, school type, and gender, as well as for school-based interventions.[14] The Ministry of Education uses national results to inform policy and develop the curriculum.

At Grade 6 (Standard 5), the Caribbean Examination Council conducts the Secondary Entrance Assessment (SEA) for the Ministry of Education. The components of this assessment include mathematics, English language arts, and creative writing. Results from this assessment are used primarily for student placement in secondary schools. The ministry has also proposed to include a continuous assessment component for the SEA beginning in 2013.

At the primary education level, the Ministry of Education already has a system of continuous assessment in place to facilitate the detection and remediation of learning deficits. Teachers assess students through teacher-constructed tests and use the results as the basis for the assessment of student academic performance during the school year. These results also guide teachers' instructional decisions. At the end of each term, a summative assessment occurs in a variety of formats. The results of these assessments are used to decide student retention or promotion at the end of the academic year.

Impact and Use of PIRLS

The PIRLS 2006 results indicated that the overall reading literacy achievement average for Trinidad and Tobago was significantly below the PIRLS Scale Average (436 points, compared to 500, respectively). Trinidad and Tobago's performance was similar to the Republic of Macedonia and significantly better than the Islamic Republic of Iran, Indonesia, Qatar, Kuwait, Morocco, and South Africa.[15] However, all countries that tested in English, including Canada, Singapore, United States, England, New Zealand, and Scotland, had significantly higher achievement scores than Trinidad and Tobago.

The percentage of students meeting the PIRLS Advanced, High, Intermediate, and Low benchmarks in Trinidad and Tobago also were significantly below the international median. In addition, the difference in average reading achievement in Trinidad and Tobago between the 95th percentile and the 5th percentile was relatively high (340 points), compared to the international average (253 points). Schools with fewer students from economically disadvantaged homes also had much higher reading achievement scores, as did students from educationally well-resourced homes. These findings indicate that the quality and equity of reading literacy education in Trinidad and Tobago is relatively low compared to PIRLS international standards.

These results have provided support for a number of initiatives being implemented by the Ministry of Education. The development of a National

Reading Policy and expansion of the Center for Excellence for Teacher Training program, which is geared towards teacher training, are expected to improve the quality of teaching and learning. The aforementioned initiative to implement quality universal Early Childhood Care and Education centers is another measure that is expected to improve reading literacy in Trinidad and Tobago.[16] The relatively large percentage of schools in Trinidad and Tobago at the low index of educational resources at home also supports the current national policy for the provision of resources such as textbooks to students. The policy to raise the minimum primary school teacher qualification requirements to a university degree is also consistent with efforts to improve teacher quality and the quality of teaching and learning in the classroom.

Monitoring progress in reading literacy against PIRLS international standards can assist in guiding policy and intervention measures for successful growth. The future goal is for students in Trinidad and Tobago to attain or surpass an overall reading achievement scale score of 500 for PIRLS 2011. This would be a suitable position for Trinidad and Tobago to build on in its efforts to enhance the quality of education it provides for its children.

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United Arab Emirates

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Language and Literacy

According to the state constitution, the official language of the UAE is Arabic, which also is the language of instruction in public schools. In addition to Arabic, English is taught as a second language, and there are other languages of instruction used in international schools across the UAE.

In the 2007–08 academic year, *Madrasa Al Ghad* (Schools of Tomorrow) was launched in 50 schools as part of a ministry initiative to develop bilingual education in government schools. In *Madrasa Al Ghad*, English language is the medium of instruction used by fourth-grade mathematics and science teachers. However, students and teachers are allowed to use Arabic to provide context and explain vocabulary.[1] Other schools in Dubai and the northern emirates have subsequently adopted the system.

In response to the rapid development of language teaching and learning in Arabic, the Ministry of Education has prepared the *Developed National Document of the Arabic Language Curriculum*.[2] The document was inspired by multiple documents, including the following: the UAE Constitution; the UAE federal strategy; the UAE educational policy; the Ministry of Education Vision of the Year 2020; the 2010–20 Ministry of Education strategic plan; the previous *Developed National Document of the Arabic Language Curriculum*, approved in June 2002; a number of approved international curricula documents; and internal educational feedback.

The document was built on the following modern premises of language teaching and learning: [3]

- Concentration on oral and written communication skills—Distributing linguistic and literary knowledge to match student ability levels, meeting actual student needs, and enabling students to employ knowledge and concepts of literary and linguistic skills to support and gradually develop their language communication skills.
- Focus on reading forms—Emphasizing curricular, independent, and free reading of literary fictional texts that are distributed and classified according to student level and scientific, psychological, and emotional

learning needs; employing these readings to develop student writing and communication skills, through some carefully measured schemes; and developing analysis, deduction, criticism, and prediction skills, in addition to student appreciation for literature and awareness of the role of language in their lives and the community.

- Establishment of the school and class library as key in the educational process through the preparation of a list of different books.
- Development of thinking skills, including analysis, evaluation, criticism, and comparison and contrast, in addition to oral and written skills.
- Focus on diverse, active, and effective self-learning, and enhancing efforts to change the concept of education in its traditional teacher-centered approach to a student-centered approach by providing materials at the heart of the curriculum for student enjoyment. Afterwards, students can use these materials in other aspects of the curriculum.

The *Developed National Document of the Arabic Language Curriculum* is considered subject to development and adjustment to account for the most current ideas, theories, and practical outcomes in the field of education, in response to the United Arab Emirates political vision concerning the role of education. The document, therefore, is under continual refinement to respond to the needs of the community in a constantly changing world.

Overview of the Education System

Since the formation of the United Arab Emirates (UAE) in 1971, education has been a top priority in the country. The UAE offers citizens a comprehensive, free public education from Kindergarten through university for both male and female students. In mid-2010, the National Bureau of Statistics estimated the UAE population was 8,264,070, of which 947,997 were UAE citizens.[4] Private education also is offered at different levels and is divided into three types: national private schools, foreign private schools, and foreign community schools. National private schools implement the federal Ministry of Education curriculum and textbooks, while the other private schools have their own curricula and textbooks approved by the ministry.

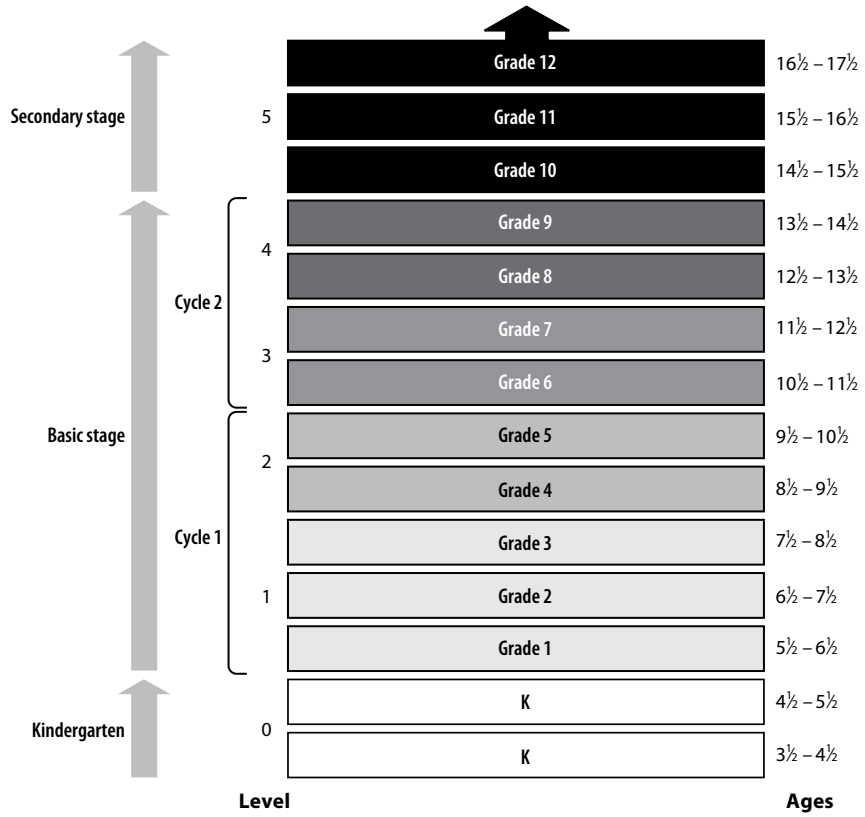
A key component of government strategy has been the decentralization of educational authority from the ministry to local education bodies in each emirate. Three major bodies are working to improve the education sector: the ministry, which has full jurisdiction over the northern emirates; the Abu Dhabi Education Council; and Dubai's Knowledge and Human Development Authority.[5] Under this

structure, the relationship between educational committees, educational councils in each emirate, and educational zones is clearly defined.[6]

In the UAE, Kindergarten is offered for two years and is free and non-compulsory for children ages 3½ to 5½. The Basic Stage is compulsory, comprising two cycles: Cycle 1, covering Grades 1–5 (ages 5½ to 10½, although children at private schools begin Grade 1 at age 5); and Cycle 2, covering Grades 6–9 (ages 10½ to 14½). The Secondary Stage offers education in general schools, religious schools, or through the Institute of Applied Technology (IAT). The former two schools encompass Grades 10–12 (ages 14½ to 17½). Within general schools, students who successfully complete Grade 10 may choose between a science or literature track and receive a Secondary School Leaving Certificate upon completion of Grade 12. IAT encompasses Grades 9–12 (ages 13½ to 17½) and consists of five campuses in the UAE: Abu Dhabi, Al Ain, Dubai, Fujairah, and Ras Al Khaima. Students at IAT may study one of six clusters: Engineering Sciences, Engineering Energy, Applied Mechanical Engineering, Information and Communication Technology (ICT), and Health Sciences and Technology (HST). Upon completion of Grade 12, students receive a Secondary Certificate in Applied Technology, which is fully accredited by the local Ministry of Education.

The stages of the UAE education system are presented in Exhibit 1.

Exhibit 1: The UAE Public Education System[7]



Language/Reading Curriculum in the Fourth Grade

Reading Policy

The educational policy in the UAE establishes principles and guidelines to keep pace with the modern age; it enables students to interact positively with the variables of life and modern demands through the development of new formulas for learning in response to the ambitious aspirations set by educational specialists in the country. General standards have been derived for teaching Arabic according to three main themes: [8]

- Language skills of reading, listening, speaking, and writing;
- Concepts and linguistic knowledge, including grammar, spelling and punctuation, handwriting, and rhetoric and parody; and
- Concepts and literary knowledge, including history of literature, literary arts, and literary criticism.

Students are also expected to apply a variety of reading skills, such as using contextual clues, prediction, previous knowledge, and vocabulary strategies, to achieve the highest level of understanding. Through conscious reading, students can acquire an understanding and appreciation of the written language as an effective means of communication and self-expression.

Reading is a complex process, through which students can construct meaning and communicate feelings and attitudes with other people in different situations. The reading process requires connecting the psychomotor skills of correct pronunciation and sound reading with the mental skills related to understanding, analysis, and criticism of materials. Making these connections, students are then required to link previous knowledge and personal experience to texts, and respond to reading material aesthetically and critically. Students are also required to understand words in their various contexts, use a variety of reading strategies to adapt to different levels of reading texts, and eventually develop lifelong intellectual reading habits.

Accordingly, reading skills are divided into the following four sections:

- Application, Practice, and Fluency—This section relates to the psychomotor aspect of reading, and aims to develop correct pronunciation habits of Arabic sounds in their different forms and locations. Students should be trained on proper ways of practicing the different types of reading—silent, aloud, and contemplative—so that they can apply each properly to serve different needs, purposes, and goals.

- Word Comprehension (Development of Concepts and Vocabulary)—This section focuses on reading outcomes, because reading is the primary means to enrich student vocabulary and guide consideration of the relationships between words, development of a sense of words, enjoyment in learning new words, and recognition of the value and role of words in individual life. This section also draws student attention to the concepts of printed media and the important role of reading material in introducing information.
- Understanding and Comprehension—This section guides students to the proper understanding of text and develops text analysis skills through clearly defined strategies. This section is restricted to informational texts and focuses on text organizational features, comprehension, analysis, and criticism.
- The Organizational Features of Texts—This section focuses on literary texts. It teaches students the correct way to read literary texts, distinguish between different literary genres, analyze literary texts, and understand the structure, characteristics, language, and style of literary texts, in order to develop an appreciation of literature.[9]

By at the end of Cycle 1 (Grade 5), students are expected to achieve particular standards in each of these areas. In addition, they are also expected to achieve standards in Response to Literature (Analysis of Literary Texts): [10]

- Application, Practice, and Fluency—Pronounce letters and words accurately; read aloud properly, accurately representing meaning; take into account the correct links and stops when reading; read words and sentences accurately; read poetry in an appropriately expressive way; read at an appropriate speed; identify errors and their position when reading; and read silently.
- Understanding Words (Development of Concepts and Vocabulary)—Distinguish sounds located in the beginning, the middle, or at the end of a word (initial, mid, or final); analyze words phonetically; form new words through addition, deletion, or rearrangement; classify words into groups according to grammatical rules or meaning; apply knowledge of contradiction, equivalence, or voice harmony to determine the meanings of words; use sentences and context to extract the meanings of new vocabulary; distinguish words with "multiple meanings" through textual context; understand the metaphorical use of words in *Muthana* (only in Arabic); and use the school dictionary to learn new vocabulary.

- Understanding the Organizational Features of Informational Texts—Know the title, author's name, index, and table of contents of books; use the title, author's name, index, table of contents, and chapter headings to locate information in books; and use organization methods in informational texts to enhance comprehension.
- Understanding and Analysis of Texts—Answer general questions about texts; predict the content of texts through the title or introduction, and confirm predictions through keywords in texts; link previous knowledge to new input; identify the purposes of reading; ask questions to promote understanding of the important elements in texts; suggest appropriate titles for texts; demonstrate understanding by locating answers in texts; recall important points of texts; distinguish between fact and opinion or cause and effect; re-formulate facts and information to clarify ideas; identify main ideas presented in texts; make conclusions or decisions about texts supported by evidence from the text itself or previous knowledge; and generate questions about texts.
- Response to Literature (Analysis of Literary Texts)—Select appropriate words to complete sentences; select the best expression to express meaning; select the most beautiful expression for images; replace words in a sentence with more suitable ones; observe the verbal rhythm of a phrase in a few sentences; select favorite terms and expressions, and record them in a personal dictionary; explain or justify the preference of one sentence over another in a given situation; know the place, characters, main events, and plot in stories; describe the characters in a story through text or illustration; compare the places and characters in different stories; and express opinions about content.

Summary of National Curriculum

The fourth-grade curriculum includes a variety of printed and unprinted texts, as well as traditional and modern literary works to build up students' cultures and enhance their knowledge. Students apply a variety of reading skills to achieve comprehension, such as using previous knowledge and past experiences, prediction, understanding of new words, and language appreciation as a means of communication.[11]

Reading Instruction in the Primary Grades

Instructional Materials

The Ministry of Education in the UAE provides instructional materials free of charge for all students in public schools. Supporting materials for reading vary according to unit subject matter and textbook themes. A range of text genres, such as children's stories, folk stories, historical tales, anecdotes, articles, and plays form the basis for teaching and learning media. In addition, these materials support integration of functional literary knowledge and skills, with language skills and the arts. Thus, the *Developed National Document of the Arabic Language Curriculum* considers the four language skills (listening, speaking, reading, and writing) as an integral package for achieving all oral and written communication skills.[12]

Use of Technology

The UAE believes that the 21st-century education system depends fundamentally on technology, which contributes to the success and development of the educational process. Technology is integrated into UAE's education system reasonably, practically, and influentially to ensure its success. Technology helps students improve their performance and apply their knowledge to the language of this age.[13] A number of criteria outlined in the *Developed National Document of the Arabic Language Curriculum* relate to using technology in teaching and learning to help students meet these goals, including the following abilities:

- Operating computers;
- Understanding Arabic software programs;
- Using technology for reading, writing, and documenting;
- Making presentations, and producing texts and photography;
- Searching and collecting usable materials (e.g., audio, videos, pictures, maps, graphs, and diagrams) for projects and reports;
- Using technology to enhance and self-assess language performance;
- Using multimedia to share knowledge and build personal sites;
- Using technology to self-correct work; and
- Building an archive of usable information.

Role of Reading Specialists

In 2009, UAE's Ministry of Education began integrating students from a variety of special needs centers into regular public schools. These students are assessed according to Individual Educational Plans, and are automatically promoted to the next grade at the end of each academic year.[14]

Teaching and learning reading do not adhere to a single method, but are rather flexible. Therefore, collaboration between teachers and specialists is necessary to develop a plan for each student that takes into account gradation, integration, and inclusion in two phases:

- Phase I—The reading specialist identifies possible linguistic or intellectual problems in a text, and prepares lessons based on the desired outcomes, goals, and linguistic aspects of the activity, as well as the assessment tools to measure the extent of achievement.
- Phase II—The teacher implements the specialist's recommendations in everyday practice, which may include activities involving different learning techniques or providing reading materials related to the expected outcomes following an accurate reading model. The teacher uses prepared activities for integrating linguistic and intellectual skills, and finally evaluates student performance, acquisition, and mastery of outputs.[15]

Second-language Instruction

Reading instruction in Arabic for non-native speakers is available in community schools that implement international curricula through courses such as *I Love Arabic*, a series issued by the Arab Bureau of Education for the Gulf States. This course includes six levels and books for twelve years of study and is taught in four classes per week. Students in fourth grade study two units in the second level of the course.[16]

Students with Reading Difficulties

Diagnostic Testing

Care for students with low academic achievement follows a series of procedures. First, diagnostic surveys are used to identify areas and causes of weakness, including health and social background problems, with the help of medical facilities and social workers in the schools. Students are then classified into categories according to survey results. Some students temporarily are placed in special needs classes to focus on certain problems; after resolving these issues,

the students are brought back to their original classrooms to continue the normal academic year.

Remedial programs are designed to upgrade the achievement level of students with difficulties. The design of these programs relies mainly on the teacher, though parental involvement is essential to help the students adjust.[17]

Instruction for Children with Reading Difficulties

Teachers help students with poor reading achievement using a range of tools to accurately identify student difficulties. These tools may include diagnostic tests, systematic observation, case studies, interviews, and evaluation records.

Teachers are expected to be aware that every student may have unique difficulties in reading. Therefore, the supervision department asks teachers to observe each student closely to determine individual reading weaknesses and their causes, and propose appropriate solutions.[18]

Teachers and Teacher Education

Teacher Education Specific to Reading

Before teaching, teachers must acquire knowledge and specialized skills, as well as professional, cultural, and community skills that are learned in schools of education and human sciences in colleges and universities. Teachers in public schools must complete, on average, four years of university-level study, either at education colleges or specialist colleges. Graduates of specialist colleges also receive additional pedagogical training, arranged exclusively by the ministry, before they start teaching.

The qualifications and conditions for teaching in public schools differ depending on whether the candidate is a UAE national or an expatriate; particularly, the number of years of experience required and compensation are different. Non-national candidates should not be older than 40 in the academic year applied for and must have at least three years of teaching experience, while national candidates' age criterion is subject to the Civil Service Bureau rules and regulations. Further, national candidates are not restricted by a minimum GPA average, while non-nationals must obtain at least an average of a "C," except in the case of those who hold education diplomas and higher degrees. Nationals retain priority in job placement. Priority also is given for holders of the International Computer Driving License Certificate (ICDL) and a certificate in the Test of English as a Foreign Language or the International English Language Testing System.

Arabic language teachers must have the equivalent of a bachelor's degree in Arabic, and preferably an educational diploma. New teachers also are required to pass a written examination and a professional interview.[19]

Requirements for Ongoing Professional Development in Reading for Teachers

Professional development is the responsibility of both individual teachers and the Ministry of Education.[20] Once employed, teachers must continue to develop their knowledge and professional and cultural skills. Professional development programs for new and experienced teachers are organized by departments within the ministry or educational districts under the guidance of the supervision departments within these districts. These programs are designed to meet teacher needs within each district and are developed based on classroom visits and questionnaires from teachers in addition to teachers' cumulative records. Some examples of topics addressed in professional development programs for teachers of Arabic include the following:

- Strategies for teaching a story to fourth-grade students and examples of fourth-grade instructional materials;
- Ways to prepare enriching and remedial reading activities;
- Managing reading difficulty;
- Managing learning groups;
- Analysis of narrative texts;
- Developing poetry-based lessons;
- Strategies for learning through games;
- Strategies for reading diagrams and maps;
- Ongoing assessment practices; and
- Measuring student performance in reading tests, such as PIRLS.

In addition, the Arabic language supervisors within the school districts in the Northern Emirates have implemented many additional workshops focusing on reading instruction.[21]

Monitoring Student Progress in Reading

Continuous assessment occurs in all grades in public schools in the UAE. Different evaluation tools are used, depending on the grade and the subject. Students in Grades 1–5 are assessed with written tests prepared by their teachers

at the end of each textbook unit in each subject. Other evaluation tools include the following: classroom activities, such as oral presentations, written activities, and practical exercises; and non-classroom activities, such as research projects and portfolio construction. According to the Ministry of Education examination system, students are promoted to the next grade automatically. However, if a student does not achieve 50 percent on the total examination score, he or she will be enrolled in a remedial program at the end of the school year. If a student still fails, he or she will enroll in another remedial program at the beginning of the following year to support his or her learning in the next grade.

Assessment strategy is a key element in the construction of any curriculum and in the area of language skills, because it proves that the objectives and learning goals of the Arabic language have been fulfilled. The purpose of assessment is to determine the level of student comprehension, diagnose areas of difficulty, and propose treatments. In addition, assessment is considered an important tool to understand student personality, which may have a significant impact on learning, performance, and attitudes. A number of guidelines prescribe that student assessment should be as follows: [22]

- An orderly and systematic process based on scientific foundations, with objective methods;
- An on-going process throughout the school year, with many different forms to achieve continuity;
- A comprehensive process extending to various aspects of the educational process to measure student knowledge and skills;
- Functional, to encourage the development of language skills for use in real life, and therefore test questions should comprise issues concerning the students' lives and needs;
- Aligned with curriculum goals, taking into account the growth and development of objectives (e.g., if speed in silent reading is the ultimate goal, then assessment at each stage should be directed toward that goal);
- Taking student ability level into consideration, and providing questions with a range of difficulty levels to match the range of student abilities;
- Relatively easy to conduct and score, with results that can be analyzed without much time and effort; and
- Formatted according to the skill that is being assessed, including written assessment and oral assessment.

Overall, assessment should use clear criteria and standards that are linked to curricular goals and desired skills, so the use of a report card, or "Standards of Evaluation Card," is considered indispensable. At the end of each semester, students in Grades 1–9 in public schools receive a report card, which includes the scores obtained in each subject and level of evaluation, as well as any promotional comments or observations related to remedial programs from teachers of all subjects. Teachers record the standards of student performance and areas of improvement, which are presented to students' guardians periodically with teacher recommendations, notes, and evaluations.[23]

The most common tools used to assess student performance include the following:

- Teacher comments regarding student performance on specific activities (e.g., oral reports, discussions, group work, listening positions, acting roles in school plays, and oral reading);
- Student portfolios, where students revise and assess their own work (e.g., different activities, personal dictionary, diary, and personal notebook); and
- Timed assessments, where students have no opportunity to revise their work (e.g., personality and diagnostic tests).[24]

Impact and Use of PIRLS

This is the first time the UAE has participated in PIRLS. Administrating PIRLS 2011 across the UAE will provide decision-makers with international comparisons to measure student knowledge and skills in both mathematics and science. Also, participation will help to identify the contextual factors that affect student performance and achievements in reading.

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The United States

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Language and Literacy

English is the primary language in the United States. In 2007, 80 percent of the population over the age of five spoke only English at home.[1] To hold a job that requires interaction with the general public, English is generally the only language that is necessary. English is also the language of instruction in most classrooms, with the exception of schools with language immersion programs, where a language other than English is used for instruction. Spanish is, by far, the second most widely spoken language in the United States, with about 35 million people over the age of five speaking Spanish at home. The next most widely spoken language is Chinese, with about 3 million people in the United States speaking Chinese at home.[2]

English literacy is promoted at all levels of governance in the United States. At the state and local level, libraries serve as key resources to promote literacy. In fiscal year 2008, there were about 9,220 public libraries in the United States, supported by public funds and serving communities, districts, or regions.[3] Public libraries in the United States allow residents to borrow an assortment of materials, including fiction and non-fiction books, reference sources, electronic resources, movies, and music. These items may be "checked-out" or borrowed, in great quantity, without charge. Besides providing free and virtually unlimited access to books and electronic resources, public libraries often provide free programs for children to promote literacy, such as story hours and summer reading events. In addition, most elementary and secondary schools in the United States have library media centers that make available printed, audio-visual, and computer resources to students, teachers, and administrators.

There also are resources and programs at the national level that promote reading for enjoyment, many of which receive funding from the U.S. Department of Education. For example, Reading Is Fundamental (RIF) is the largest children's literacy nonprofit organization in the United States

and provides free or inexpensive book distribution.[4] The highest priority of this organization is reaching underserved children from birth to age 8. Another program, Reading Rockets, provides Public Broadcasting Service (PBS) television programs on videotape and DVD, online services (including the websites www.ReadingRockets.org and www.ColorinColorado.org), and professional development opportunities.[5] Other PBS television programs that promote reading literacy include *Sesame Street*, *Between the Lions, Super Why, Word World, Word Girl,* and *Martha Speaks*.[6]

Overview of the Education System

Public education is decentralized in the United States; each state governs its own school system. States oversee all levels of education and direct (or delegate to local authorities) all aspects, including political, administrative, and fiscal aspects that would generally be directed by a ministry of education in a centralized system. The degree of a state's control, in comparison to that of local authorities, depends on state laws and regulations; but, in every state, education is the largest budget item.[7] State education departments distribute federal and state funding, establish policy for graduation requirements and teacher certification requirements, provide curriculum guidance, conduct student assessments, and are responsible for ensuring that efficient and effective school opportunities are made available to every eligible child in the state. In the 2010–11 school year, an estimated $1.1 trillion was spent nationwide to fund all levels of education, with the substantial majority of that funding for elementary and secondary schools coming from state and local public funding; only around 10 percent of that funding came from federal sources.[8, a]

States delegate the operation of elementary and secondary schools to local governments which, in turn, have traditionally assigned the task of running schools to elected or appointed school boards. Local school boards raise funds, establish policy and operating regulations, and hire superintendents to manage and operate the district. The local district is responsible for curriculum decisions, standards implementation, facilities construction and maintenance, and operation of school programs. In the 2008–09 school year, there were about 13,800 school districts in the United States.[9] In 2007, approximately 86 percent of U.S. elementary and secondary school students attended the public schools in these districts, 11 percent attended private schools, and 3 percent were homeschooled.[10]

a Federal funding for public education includes funds not only from the U.S. Department of Education but also from other Federal agencies, such as the U.S. Department of Health and Human Services' Head Start program and the U.S. Department of Agriculture's School Lunch program.

While state and local governments have the primary responsibility for education in the United States, the federal government also plays a role in state education systems. Since 1917, the federal government has offered states funding to support various programs, including vocational education as well as mathematics, science, and foreign language programs. Since the 1960s, the federal government has also promoted equal educational opportunities through the Elementary and Secondary Education Act (ESEA). ESEA makes equal educational requirements a condition for federal funding and provides aid (known as Title I funding) to high poverty schools to improve the learning of educationally disadvantaged children. In 1980, the federal Office of Education became the U.S. Department of Education, a Cabinet-level department with the additional responsibilities of promoting improvements in the quality and usefulness of education through federally supported research, evaluation, and sharing of information.[11]

In 2002, ESEA was reauthorized as the No Child Left Behind Act (NCLB), which made federal funding conditional on educational results.[12] Specifically, NCLB requires states to ensure that all students are proficient in reading, mathematics, and science by the 2013–14 school year based on state academic content standards. NCLB measures school performance by whether certain percentages of students and student subgroups (e.g., economically disadvantaged students and students with limited English proficiency) reach state proficiency standards on the state assessment each year. If a school's percentages exceed its preceding year's percentages by certain amounts, the school is considered to have made adequate yearly progress (AYP).[13]

The federal government also has established the Race to the Top Fund under the American Recovery and Reinvestment Act of 2009. The Race to the Top Fund is a competitive grant program meant to support state education reforms that improve students' college and career preparation, build data systems to aid teachers and principals in measuring student growth, recruit and develop effective teachers and principals, and turn around low-achieving schools.[14] In 2011, the Race to the Top–Early Learning Challenge was introduced to reward states that create comprehensive plans to transform early learning systems with better coordination, clearer learning standards, and meaningful workforce development.[15]

In addition to the publicly funded and operated school systems, major religious denominations and other private groups operate schools in the United States. These schools charge a tuition fee and operate under their own rules

and regulations. In 2007, 11 percent of U.S. students enrolled in kindergarten through twelfth grade attended private schools, of which about 78 percent had religious affiliations.[16]

In recent years, a growing number of parents have elected to homeschool their children. Homeschooled children may be taught by one or both parents, by tutors who come into the home, or through virtual school programs available on the Internet. In 2007, approximately 2 million school-aged children (3% of all school-aged children) were reported by their parents to be homeschooled.[17] The state in which the family resides is responsible for any oversight of homeschooling.[18]

Education in the United States typically begins with an early childhood education program after which students enter primary school (elementary school), then lower secondary school (middle school), and then upper secondary school (high school). In the 2008-09 school year, there were approximately 98,700 public schools in the United States. Of these, 68 percent were elementary, 25 percent were secondary, and 6 percent were combined elementary-secondary public schools. Special education schools, alternative schools, and other special-purpose schools constituted about 2 percent of these public schools.[19] Average student enrollment in public schools was 517, with elementary schools averaging 470 students, secondary schools averaging 704 students, and combined elementary-secondary schools averaging 308 students. Student enrollment across public schools ranged widely during this period, with 20 percent of students attending schools with enrollment under 200, and 9 percent of students attending schools with enrollment over 1,000.[20] A special type of public school is a charter school. This is a publicly funded school that, in accordance with an enabling state statute, has been granted a charter exempting it from selected state or local rules and regulations.

In the 2007 school year, there were 33,740 private schools in the United States.[21] Of these, 65 percent were private elementary, 9 percent were private secondary, and 26 percent were private combined elementary/secondary schools.[22]

- Preprimary Education—Early childhood education (ages 3–4) varies widely and ranges from child-care programs to developmental programs that stimulate the following: development of reading and oral communication skills; awareness of size, shape, and color; development of manipulative skills; and the advancement of physical development. Most programs or schools are privately operated and not publicly

funded. One exception is Head Start, which is supported financially by the U.S. Department of Health and Human Services but operates outside of the public education structure. Head Start provides preschool education for children from financially disadvantaged backgrounds. In addition, some states and districts are beginning to offer public preschool education. The Census Bureau estimated that 5.1 million students were enrolled in nursery or preschool programs in 2009.[23] The United States has a gross enrollment ratio of 57 percent of the total relevant age group enrolled in preprimary education.[24]

- Primary Education—Elementary school (ages 5–11) is the initial level of public education and consists of some combination of Kindergarten through Grade 6 (K–6).[b, 25] At age 6, children must enter Grade 1, though many children attend kindergarten prior to Grade 1 at age 5. In October 2008, the majority of students (72%) were enrolled in full-day kindergarten programs.[26] Elementary schools are typically characterized by a single classroom teacher teaching core subjects to the same students in a single classroom, with special teachers assisting in art, music, and physical education.

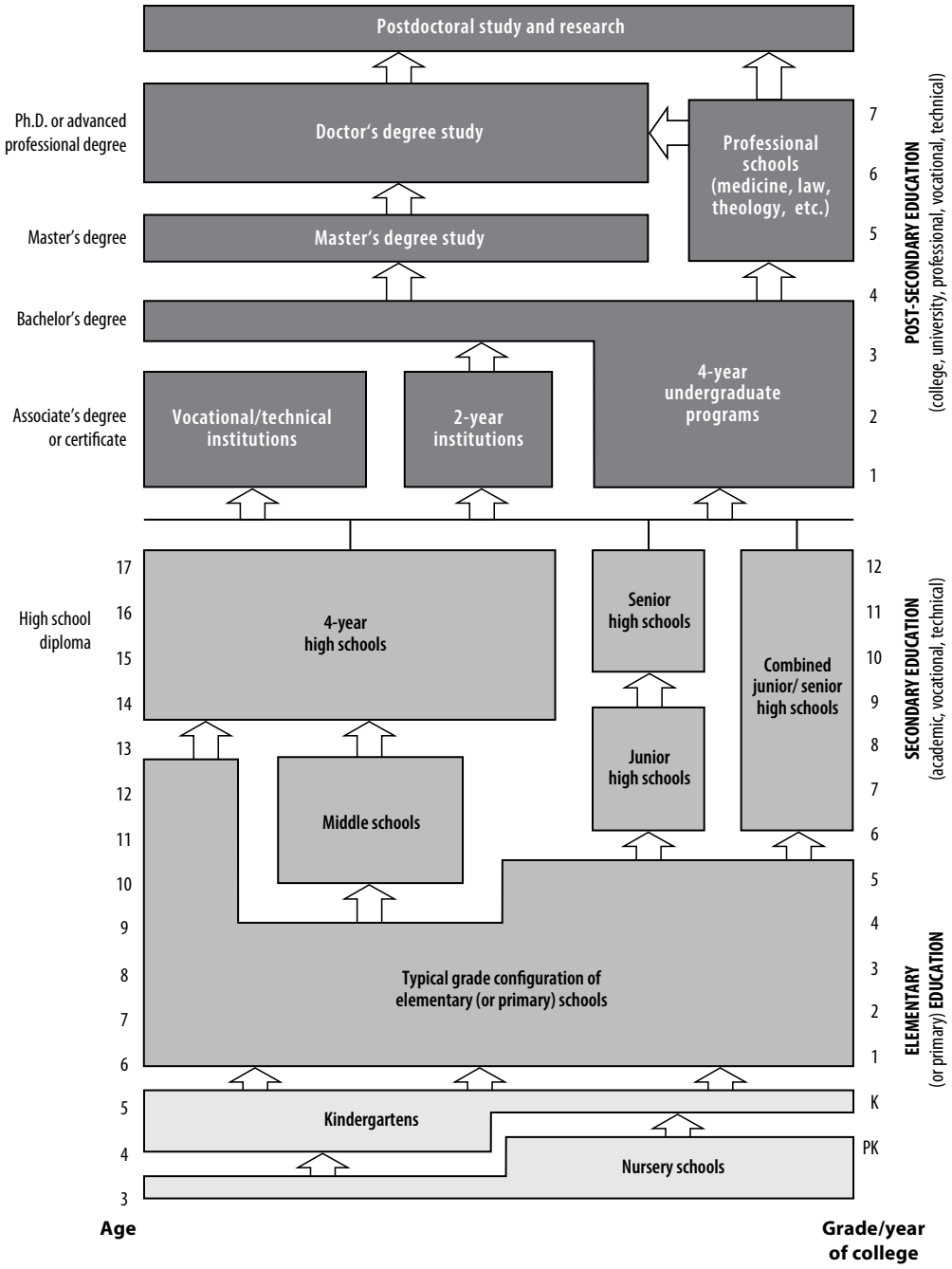
- Lower Secondary Education—Middle school or junior high school (ages 12–14) is an intermediate level between the elementary and secondary school levels.[27] Middle schools typically end at Grade 8 and most often include Grade 5–8, 6–8, or 7–8, while junior high schools typically include Grade 7–9. In these institutions, students typically attend departmentalized classes, where they move from classroom to classroom for instruction in separate subjects.

- Upper Secondary Education—High school or senior high school (ages 15–17) provides specific subject knowledge building on the general foundations developed during elementary and middle school.[28] In senior high schools, students typically enroll at age 15, in Grade 10, and attend for three years. In other high schools, students start at age 14, in Grade 9, and attend for four years.

Exhibit 1 provides a detailed illustration of the structure of the U.S. education system.

b Note that Kindergarten in the United States is considered as Level 0 on the International Standard Classification of Education (ISCED), and Grade 1 is the start of ISCED Level 1.

Exhibit 1: The Structure of Education in the United States[29]



Language/Reading Curriculum in the Fourth Grade

Reading Policy

ESEA includes programs that help schools meet the special educational needs of students working to learn the English language, students with disabilities, Native American students, homeless students, students whose parents are migrant workers, and neglected or delinquent students. Title I is the major federal program providing financial assistance to districts and schools with large numbers or percentages of students from poor families to help ensure that all children meet challenging state academic standards.[30]

Summary of National Curriculum

There is no national curriculum for reading in the United States. NCLB requires that states adopt challenging academic content and achievement standards for English language arts and specify what students are expected to know and do at each grade level. The law imposes no requirements on the content or rigor of the standards developed by states. As a result, state standards for reading differ in both content and level of specificity.

In 2010, states began to adopt the reading standards developed by the Common Core State Standards Initiative. Started in 2009, the Common Core State Standards Initiative is a state-led effort sponsored by the National Governors Association and the Council of Chief State School Officers to bring diverse state curricula into alignment with each other by establishing a shared set of clear educational standards for English language arts and mathematics that states can voluntarily adopt. These standards provide grade-specific K–12 standards in reading, writing, speaking, listening, and language that translate the broad aims of being ready for college or a career into age- and attainment-appropriate terms. The K–12 Common Core State Standards set specific expectations for the English language arts criteria in multiple domains, including reading. The three expectations for the reading domain are the following:

- Reading comprehension develops through a "staircase" of increasing complexity in what students can read;
- Students experience a diverse array of reading materials with the goal of broadening their perspectives and gaining new insights; and
- Certain types of critical content, such as foundational U.S. documents or influential works of American literature, are mandatory for students to learn.[31]

By emphasizing required achievements, the Standards leave room for teachers, curriculum developers, and states to determine how these expectations should be reached and what additional topics should be addressed. Standards were benchmarked to international standards to help guarantee that U.S. students are competitive in the emerging global marketplace. By 2011, 43 of the 50 states and the District of Columbia had adopted the Common Core Standards.[32]

Reading Instruction in the Primary Grades

Instructional Materials

States use one of two methods to select the textbooks used in their schools. The majority of states allow school districts or schools to choose the textbooks they will use. However, many states (21 in 2008) either select or recommend which textbooks can be used by all districts.[33] Because some of these states, known as textbook adoption states, have large student populations (e.g., California and Texas), they can greatly influence the market of published textbooks.

Reading texts are produced by a handful of publishing companies. Commercial programs offer an array of components that can be selected to build a school's or district's program, giving more or less emphasis on certain aspects of reading. For example, these may include charts and workbooks on phonics and phonemic awareness, texts of selections to be used in instruction, journals for writing about selections read in class, and books for self-selected pleasure reading keyed to specific grade ranges. Most commercial programs provide alternative methods for using common program materials to address the needs of students with varying levels of reading achievement and English language proficiency. Some programs provide materials for small-group instruction. Because many schools integrate reading instruction with writing instruction, most commercially developed reading programs include writing instruction in their core or main curriculum materials. All commercial core or main reading programs have more features in common than distinctive features to satisfy the adoption guidelines within two of the largest states. These programs lend a degree of cohesiveness to reading curricula across the country.

Use of Technology

The use of technology in U.S. public schools has been growing in recent years. The ratio of public school students to instructional computers with internet access has decreased from 7:1 in 2000 to 3:1 in 2008.[34] In 2009, 40 percent of

teachers reported that they or their students used computers in the classroom "often," while 29 percent reported using them "sometimes." [35] Additionally, use of information technology has had an impact on instructional planning. The percentage of public school teachers using the Internet for instructional or administrative purposes was 94 percent in 2009.[36] Reading researchers, business leaders, and policy makers are beginning to call for more instruction in "new literacies"—the ability to use computer-based resources such as the Internet to locate, select, and use information.[37]

Role of Reading Specialists

The role of the reading specialist varies from district to district and school to school. In some schools, the reading specialist serves as a support for classroom teachers, providing materials and ideas, helping to organize students for instruction, assisting in diagnosis and assessment, and providing staff development. In other situations, the reading specialist works with individual students or small groups of students who are not achieving as expected.

Second-language Instruction

The population of school-age children that speaks a language other than English at home has increased over time. Between 1980 and 2009, the number of school-age children (ages 5–17) who spoke a language other than English at home increased from 5 to 11 million or from 10 to 21 percent of all children in this age group. The number of school-age children who spoke English with difficulty also increased over the same time period, albeit not in a linear fashion. This population increased from 2 million (or 4% of all school-age children) in 1980 to 4 million (or 7% of all school-age children) in 2000, before decreasing to 3 million (or 5% of all school-age children) in 2009.[38]

A critical challenge facing K–12 schools in the United States is teaching language-minority students to read and write well in English. Language-minority students unable to read and write proficiently in English may struggle to participate fully in education and will likely face limited job opportunities and earning power.[39] As of 2009, 12 percent of adults age 25 and older who spoke only English at home had not completed high school. The percentage was three times higher for those who spoke a language other than English at home (31%) and four times higher among those who spoke Spanish at home (41%).[40] There are differing views on how best to teach these students to read. Some favor immersion in English and learning to read at the same time. Others

are convinced that students should be taught to read proficiently in their native language first before learning to read in English.

Students with Reading Difficulties

The federal government provides guidelines for the education of students with learning disabilities in the Individuals with Disabilities Act (IDEA), reauthorized in 2004. The law provides procedures for diagnosing, planning programs, and monitoring progress of students with disabilities. Most schools use a battery of tests administered by a teacher, specialists, or a school psychologist to screen for reading problems. If a student is diagnosed with a learning disability, he or she must have an Individualized Education Program, which may require that reading instruction be adapted to address the specific student's learning needs.

Diagnostic Testing

Research has found that high-quality evaluative and instructional approaches, begun early in a child's life, are important in helping children who are struggling to read and in reducing referrals to special education. Across the country, elementary schools screen students early on to identify those students that may have learning disabilities and require extra help in school. The 2004 reauthorization of IDEA marked a transition away from the traditional IQ-achievement discrepancy method and a move towards the Response to Intervention (RtI) model. As of 2010, RtI, which is funded by the U.S. Department of Education's Office of Special Education Programs, is used across all 50 states for evidence in determining eligibility for specific learning disability services.[41] This model, with its associated elements of screening, progress monitoring, and tiered instruction, can provide earlier and more targeted interventions to struggling students.

Instruction for Children with Reading Difficulties

Instruction for students identified as needing instructional intervention in reading is provided in different ways. Some schools use computers to provide additional instruction and practice. In some schools, reading teachers work with students having reading difficulties. In some situations, classroom paraprofessionals work with students who are progressing satisfactorily while the teacher works with a small group of students needing extra help. Extra help is usually provided in a small-group setting rather than one-on-one.

Teachers and Teacher Education

In the 2007–08 school year, there were an estimated 4 million teachers in grades K–12 in the United States. About 3 million were employed in public elementary and secondary schools, including traditional public schools and charter schools. Forty-five percent of public school teachers had a master's degree and 81 percent had four or more years of teaching experience. Private schools employed 489,550 teachers. Thirty-three percent had a master's degree or higher educational attainment, and 71 percent had four or more years of teaching experience.[42]

Teacher Education Specific to Reading

The traditional educational pathway for a public school teacher includes a degree from a four-year college or university and completion of a teacher-education program, including a practicum of supervised teaching experience. In current teacher education programs, early childhood educators (pre-Kindergarten–Grade 3) and elementary school teachers (Grade 1–5) usually earn a bachelor's degree in education, while secondary school teachers may earn a bachelor's degree in their specific subject area, a double major in their subject and education, or a master's degree in education in addition to the bachelor's in their subject area.

Most universities, both public and private, have a school of education that provides teacher education programs. The content and structure of teacher-education programs is left to the discretion of the institutions offering them, with the understanding that students meet state standards for certification. Following a four–year program and a practicum (i.e., a period of supervised teaching experience), prospective teachers must then apply to individual states for certification or licensure. States vary in their licensure requirements. Most states require satisfactory performance on a statewide test for teacher certification. These tests often assess knowledge of specific subject matter, general knowledge, and pedagogy.[43] Some states require teachers to obtain a master's degree as part of license maintenance.

Since 2002, NCLB has required that all students be taught by "highly qualified teachers" with the following: [44]

- A bachelor's degree, at minimum;
- Full state certification as a teacher, or evidence of passing the state teacher licensing examination and a license to teach in the state;

- No waiver of certification or licensure requirements on an emergency, temporary, or provisional basis; and
- Demonstrated competence in all of the academic subjects in which the teacher teaches in a manner determined by the state.

Requirements for reading specialists vary from state to state. Most states require additional coursework in reading and related subjects, and some states require a master's degree.

Requirements for Ongoing Professional Development in Reading for Teachers

In-service education is training provided by an agency or institution for its employees to improve skills in a specific area or learn about new developments in a particular field. Employed teachers are provided in-service education by the local district. Sometimes, the state determines what kind of assistance would be useful and then retains consultants to address those areas. In other instances, the district or school decides the content and format of in-service education. Usually one to two days in duration, these programs are offered (with pay) before students return to school at the beginning of the school year and/or during the year when students are not in attendance.

Monitoring Student Progress in Reading

There is no nationally required examination that has consequences for individual students in the United States. However, some states have high school exit examinations that students must pass in order to receive a standard high school diploma. In 2010, 25 states required students to pass an exit examination in at least one subject.[45] For the most part, instead of individual testing, the U.S. takes part in and administers a variety of assessments measuring the condition or quality of schooling.

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what U.S. students know and can do in various subject areas. NAEP has been collecting nationally representative data since 1969 and state representative data since the early 1990s. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. While the sample for this national assessment is large and represents states, the assessment is not designed to yield results for individual students or schools; no stakes are attached to the results.

NAEP reading assessments are given to representative samples of students at the state and national levels in fourth, eighth, and twelfth grade every two years. Results include reading achievement at the national level (fourth, eighth, and twelfth graders from public and private schools) and at the state level (fourth and eighth graders from public schools), as well as trends in reading achievement.[46] The assessment is designed to examine the outcomes of reading instruction rather than its components and to reflect the increasingly rigorous literacy demands of employment, citizenship, and personal development.[47]

As described previously (in the Overview of the Education System section), NCLB requires states to test all students annually in third through eighth grade in reading (as well as mathematics), and to provide detailed reports of the results. The NCLB legislation requires states to use state assessments to monitor the progress of schools and to meet state-level requirements for adequate yearly progress. The law does not require states to use a certain type of test but does require tests to be "peer reviewed." The quality of these tests varies across states because states are permitted to choose their testing instrument. Many states have developed their own tests, some of which resemble NAEP, while other states use commercial tests.

Classroom assessments of reading are often part of a package of materials purchased with textbooks. Commercial programs usually include diagnostic, formative, and summative assessments. Some districts and even some states provide classroom assessment tools, but schools or teachers usually decide whether to use those tools. Due to the requirements of Reading First, many schools use the Dynamic Indicators of Basic Early Literacy Skills in the primary grades to track student progress in phonemic awareness, phonics, and fluency.

A variety of grading systems are used in U.S. schools, and there is no nationally mandated grading system. Decisions regarding which grading system to use are generally left up to individual institutions or teachers. The parents and guardians of students are informed about their child's performance through report cards, usually four times a year, and parent-teacher conferences, typically twice a year. The monitoring of individual students' long-term progress is generally shared by students, parents, and schools, except in cases in which students are identified as having special needs. In this case, the school district and school are responsible for monitoring student progress toward educational goals.

Impact and Use of PIRLS

Following the release of PIRLS 2006 data, U.S. media noted the number of jurisdictions with higher average scores than the United States, the lack of measurable change in the U.S. average score between 2001 and 2006, and the relatively high number of hours U.S. fourth grade teachers spent, on average, on explicit reading instruction, compared with the international average.

In some media coverage, PIRLS results were discussed in relation to other U.S. assessments and policies (e.g., a report released by the National Endowment for the Arts on leisure time reading, the implementation of No Child Left Behind, and reading results from the U.S. National Assessment of Educational Progress). Additionally, some professional journals published articles focused on various topics: pedagogy; performance of students from other jurisdictions; issues in secondary analysis and reporting gender differences in reading achievement; national curriculum standards; and attitudes and self-concept in reading.

One state, Florida, joined PIRLS 2011 as a benchmarking participant. The state will receive results it can use to compare the performance of Florida fourth graders with their peers around the world.

Another means of assessing public interest in PIRLS is by the number of people looking for PIRLS information on the U.S. National Center for Education Statistics (NCES) website, which is the primary U.S. Department of Education internet source for information on PIRLS. Between 2009 and 2011, the number of visits to the NCES website for information about PIRLS increased from approximately 2,000 visits per month to approximately 3,000 visits per month. Furthermore, use of the PIRLS International Data Explorer (IDE), which debuted in 2010 to allow users online to create statistical tables and charts with PIRLS data, increased between 2010 and 2011. In 2011, there were over 25,000 views of the PIRLS IDE website, compared with approximately 18,000 in 2010. Documents and publications continue to be downloaded from the website, showing sustained interest in PIRLS.

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Benchmarking Participants

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Alberta Education

Language and Literacy

In Alberta, Canada, the primary languages of instruction are English and French, with the majority of students receiving English instruction. Alberta's ministry of education, Alberta Education, encourages school authorities to provide opportunities for all students in the province to learn French—through alternative French programs, such as French Immersion and French as a second language courses—and for Francophone students to study in their first language.[1] The majority of non-language arts programs of study developed provincially by Alberta Education are in both English and French for kindergarten to Grade 12.

Alberta Education also encourages and supports school authorities to offer additional optional language programming to meet student needs and interests.[2] School authorities may select from provincially- or locally-developed language programs, or develop their own programming. Alberta Education has programs of study as well as learning and teaching resources to support the following international languages: Chinese (Mandarin), German, Italian, Punjabi, Spanish, and Ukrainian; in addition to the First Nations, Métis, and Inuit (FNMI) languages of Blackfoot and Cree.[3] Classroom assessment materials have been developed for the following languages for Grades 4–6: Cree, Chinese (Mandarin), French, German, Japanese, Punjabi, Spanish, and Ukrainian.

Alternative language programs such as French Immersion and bilingual programming provide instruction in the target language for a percentage of the school day. Bilingual programs provide instruction in the target language for up to 50 percent of the school day. In addition to a language arts course to provide explicit language instruction in the target language, instruction for one or more subject areas, such as mathematics and social studies, also is in the target language.

A number of recent initiatives in Alberta emphasize the importance of literacy skills. For example, the ministries of Human Services, Advanced Education and Technology, and Alberta Education have developed the

provincial literacy framework, *Living Literacy: A Literacy Framework for Alberta's Next Generation Economy*.[4] This framework supports the 2007 Council of Ministers of Education, Canada (CMEC) Literacy Action Plan, which involves raising literacy levels for all Canadians and assisting Canadians to acquire the highest levels of literacy skills in the world.[5] To support the vision, values, and goals of the provincial literacy framework, Alberta Education developed and is implementing *Literacy First: A Plan for Action*.[6]

Alberta Education also has launched a number of other significant initiatives that focus on literacy. Two literacy pilot projects using online community of practice models, face-to-face learning events and ongoing mentoring with participating teachers and administrators focus on professional literacy learning for all teachers and on meeting the literacy and communication needs for students with significant disabilities in Grades 1–6.[7] To engage multiple constituents, these projects both use online community practice models, face-to-face learning events, and ongoing mentoring with participating teachers and administrators.

Lastly, in an effort to redesign the provincial curriculum and outline the relationships among literacy and numeracy, competencies, and subject or discipline areas fundamental to student success, Alberta Education recently published the *Framework for Student Learning: Competencies for Engaged Thinkers and Ethical Citizens with an Entrepreneurial Spirit*.[8]

Overview of the Education System

Alberta, like other provinces and territories in Canada, is responsible for operating its own educational system, although Alberta collaborates with a number of provinces and territories through the *Western and Northern Canadian Protocol for Collaboration in Education* (WNCP).[9] The WNCP partnership was established in 1993 and renewed in 2011 by the Ministers of Education in Alberta, Saskatchewan, Manitoba, Yukon, Northwest Territories, and Nunavut. These provinces and territories work to achieve shared strategic goals in the broad area of kindergarten to Grade 12 curricula (curriculum frameworks, resources, and assessment) while continuing to recognize and maintain jurisdictional autonomy on educational matters.[10] Along with its WNCP partners, Alberta is in the process of developing common curriculum frameworks for *Français* as a Second Language (French Immersion), and *Français* as a First Language.[11] These frameworks will guide the development of new provincial *Français* and French language arts programs of study.

The province's programs of study identify what students are expected to learn and be able to do in all subject areas and grade levels, from kindergarten to Grade 12. School authorities may select instructional materials that will assist students in achieving the identified outcomes. Students must take certain required courses; however, they also can select from a number of optional courses that may differ in each school.[12]

Alberta generally groups schools into the following three levels: primary (Grades 1–6), junior high (Grades 7–9), and senior high school (Grades 10–12). Several school choices exist in Alberta, including public, separate, Francophone, private and charter schools. In Alberta, separate schools, which can be either Roman Catholic (in most cases) or Protestant, are all funded on the same basis as public schools. Charter schools must be approved by the Minister of Education and are established to provide innovative, different, or enhanced programs to improve student learning. Students also have access to a number of unique and innovative programs including home education, online or virtual schools, outreach programs, and alternative programs. Students in Alberta are required to attend school from ages 6–16, although parents also may choose to homeschool their children.[13, 14]

Early Childhood Services (ECS) programs serve children prior to Grade 1 and include kindergarten. Attendance at early childhood programs such as kindergarten is voluntary and may be offered by public or private schools, or other private institutions. Students attending kindergarten should have access to at least 475 hours of instruction per year.[15]

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Although Alberta does not have an official reading policy, the curriculum emphasizes literacy across all subject areas. There is no separate curriculum for reading; rather, the provincial program of study for English language arts sets out expectations for reading.

Summary of Curriculum

Alberta's provincial English language arts program of study (kindergarten–Grade 12) derives from the WNCP *Common Curriculum Framework for English Language Arts*.[16] The aim of English language arts is to enable each student to understand and appreciate language, and to use it confidently and

competently in a variety of situations for communication, personal satisfaction, and learning.[17]

Students from kindergarten to Grade 12 develop knowledge, skills, and attitudes in six language arts, integrated in the English language arts program of studies as follows: Listening and Speaking, Reading and Writing, and Viewing and Representing. All language arts components are interrelated and interdependent, and facility in one strengthens and supports each of the others.[18]

Reading Instruction in the Primary Grades

Instructional Materials

Alberta Education authorizes resources that support the teaching and learning of the outcomes of the province's programs of study. These resources are available in English and French and are reviewed to ensure they meet the following stringent criteria: curriculum congruency, and instructional and technical design; recognizing diversity and promoting respect; Canadian content; and First Nations, Métis, and Inuit perspectives. Authorized resources are not mandated in program delivery. School boards have the responsibility to develop or acquire resources for use in their schools and may choose to develop their own instructional materials or select resources that may or may not include those authorized by Alberta Education.

Resources for reading instruction include basic student resources, student support resources, and teaching resources. Basic student resources address the majority of general and specific outcomes of the programs of study, while support resources address only some outcomes. Resources are available in various forms, including digital, print, audio, video, or hands-on materials, such as manipulatives.[19]

Use of Technology

In Alberta, provincial programs of study, particularly those in language arts, social studies, science, and mathematics, provide information and communication technology (ICT) learning outcomes in both English and French. Students develop the ability to use a variety of processes to critically assess information, manage inquiry, solve problems, do research, and communicate with a variety of audiences within the context of other subject areas. Students learn about the impact of information and communication technology on themselves and society, how to use their knowledge and skills,

and to apply a number of technologies in real-life situations. Assessment of student progress in these areas is integrated into and aligned with other assessments.

Further, Alberta Education supports LearnAlberta.ca, a website that provides online learning and teaching resources directly tied to classroom learning. These high quality digital resources are designed for teachers, parents, and students, and are accessible in both English and French.[20]

Role of Reading Specialists

Some schools have designated teachers who administer reading diagnostic assessments to individual students, provide small group reading instruction, and/or provide strategies and advice related to reading instruction to other teachers. If available, reading specialists tend to work at the school district level and provide diagnostic assessments for individual students with reading difficulties, consultation to teachers related to reading instruction, and professional learning opportunities for district staff.

Second-language Instruction

The population of English language learners in Alberta continues to increase by an average of 14 percent each year. In order to continue to meet the needs of these students, preprimary, primary, and junior high schools (Kindergarten–Grades 9) with identified English language learners may refer to the following resources: *English as a Second Language Kindergarten to Grade 9 Guide to Implementation*, and *Working with Young Children Who Are Learning English as a New Language.*[21] The *Alberta K–12 ESL Proficiency Benchmarks* have been developed to guide appropriate ESL programming and to support teachers in assessing and reporting the progress of English language learners.[22] Launched in August 2011, Teaching Refugees with Limited Formal Schooling is a website that also provides information and resources to school authorities across Alberta and elsewhere to promote effective school-based programming for students from refugee backgrounds.[23]

Students with Reading Difficulties

Diagnostic Testing

There are various ways to identify students with reading difficulties, including teacher observations and informal assessments (e.g., paper and pencil tests, inventories, questionnaires, and surveys). Teacher assessments may include the following: concepts about print assessments, surveys of reading attitudes

or strategies, assessments of student ability to read sight words, and running records (i.e., assessments of a student ability to read a passage orally).[24]

Instruction for Children with Reading Difficulties

Students with reading difficulties or other special education needs typically receive instruction within their grade level classroom. The classroom teacher, however, may use differentiated instruction and small group work to provide more targeted or guided practice on specific skills and concepts. In addition, some students may receive additional reading instruction and support for all or part of the school day in more specialized settings, such as resource rooms or self-contained special education classes.

Language arts instruction offers numerous opportunities to differentiate reading instruction through the following best practices:

- Promoting frequent and varied reading;
- Providing high interest, low vocabulary reading materials;
- Teaching skills for reading;
- Teaching strategies for reading;
- Emphasizing textual details; and
- Offering varied options to extend text.

In addition, schools increasingly are using educational and assistive technology, such as text-to-speech software, to support students who have difficulty with print and/or reading.

Teachers and Teacher Education

Teacher Education Specific to Reading

Elementary and secondary school teachers must complete at least four years of post-secondary education to receive a bachelor's degree in education. At least one supervised practicum in the field is mandatory. For certification purposes, all primary and secondary school teachers are required to complete a minimum of six semester hour credits in English or French literature and composition within their post-secondary education. Each university requires students take a specific number of English language arts or language and literacy courses in order for a degree to be granted in the specific area of focus. For certification purposes, if secondary teachers choose English language arts as a teachable subject area, they must complete a minimum of 24 semester hour credits in

this area. Curriculum courses are offered to teacher education students, with several instructional courses taken by those specializing in English language arts or language and literacy. After receiving a degree and upon confirmation of competency by a Dean of Education, a teacher is granted an interim professional teaching certificate from Alberta Education. After two years, and upon recommendation from a school authority, based on evaluation of teacher performance in meeting enhanced competency standards, a teacher may be granted a permanent professional teaching certificate.[25]

Requirements for Ongoing Professional Development in Reading for Teachers

In-service teacher education is overseen by each school district and by regional consortia that coordinate professional development opportunities. Teachers in the province have opportunities to explore more hands-on and personalized types of learning environments (offered in both English and French) to enhance their professional development needs in a number of subject areas.

In addition to traditional face-to-face professional development opportunities, teachers also may enhance their learning through a number of technology-supported methods, including online learning communities (e.g., Moodles, Wikis). Alberta Education also supports teachers' professional development learning opportunities at teacher conventions and specialist council conferences. Furthermore, Alberta Education liaises with the Alberta Teachers' Association, the professional organization representing teachers in the province, to offer professional development opportunities to teachers. Teacher conventions are held each year to provide opportunities for teachers to become acquainted with the latest research and news with regards to their areas of instruction.

Monitoring Student Progress in Reading

Monitoring student progress in reading is part of daily classroom instruction and primarily is accomplished through classroom assessment including, but not limited to, teacher observations, portfolios, informal reading inventories, marked assignments, student-teacher communications, and various formative and summative teacher-made quizzes and tests. Alberta mandates that teachers communicate to parents about student progress in relation to the grade levels of the provincial program of study for language arts and mathematics through various means, including report cards, parent-teacher conferences, blogs, and emails.[26]

Students take provincial achievement tests (PATs) to help teachers maintain consistent standards across the province and to obtain a clear understanding of whether students have achieved the expected learning outcomes as described in the provincial programs of study for each grade level. PATs are administered annually in English language arts and mathematics to all students in Grades 3, 6, and 9, and in science and social studies to students in Grades 6 and 9. Additionally, students registered in alternative French programs are required to take a PAT in *Français*/French language arts. As of June 2008, teachers are required to report to parents the preliminary teacher ratings for the machine-scored component of Grades 6 and 9 PATs.

In Grade 12, students must take provincial diploma examinations (DIPs) in order to receive high school diplomas. Diploma examinations are administered in the following subjects: mathematics, English language arts, biology, chemistry, physics, science, social studies, and French language arts. Each examination grade comprises 50 percent of a student's final grade in that subject.

Following each PAT or DIP administration, detailed reports are generated at the district, school, class, and student level based on data collected from the assessment. These reports are then sent to schools and teachers to help them identify students' strengths and areas requiring improvement.[27, 28]

In addition to a variety of informal reading inventories, teachers use an array of standardized tests to assess reading achievement. Commonly used tests include the following:

- Brigance Comprehensive Inventory of Basic Skills-Revised (CIBS-R);
- Canadian Achievement Test;
- Canadian Test of Basic Skills (CTBS);
- Dynamic Indicators of Basic Early Learning Skills (DIBELS);
- Fountas and Pinnel;
- Gates-MacGinitie Reading Test Second Canadian Edition;
- Gray Oral Reading Test;
- Gray Oral Reading Test–diagnostic;
- Gray Silent Reading Tests;
- Jerry Johns;
- PM Benchmarks;

- Standardized Reading Inventory, Second Edition;
- Stanford Diagnostic Reading Test;
- Test of Early Reading Ability;
- Wechsler Individual Achievement Test, Canadian Version;
- Woodcock Diagnostic Reading Battery;
- Woodcock Reading Mastery Tests, Revised/Norm Update; and
- Woodcock-Johnson III Tests of Achievement.

Impact and Use of PIRLS

Alberta has participated in PIRLS since 2006. The province also has participated in a number of other international studies of achievement including the Trends in International Mathematics and Science Study (TIMSS) since 1995, and the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA) since 2000.[29]

Through its active involvement in these international studies and the ensuing trend analyses of student achievement levels, Alberta is able to identify and understand its students' strengths and weaknesses in an international context compared to other participating countries and jurisdictions. Alberta also is able to triangulate standards in its own provincial assessments and programs of study. Typically, whenever a noticeable change is found in student performance on provincial assessments, student achievement results on an international assessment will be used as an external measure to confirm whether such a change is substantive or if the results may be attributed to any shift in provincial assessment standards and/or curricula.

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Province of Ontario

Ontario Ministry of Education

Language and Literacy

Ontario, Canada, is multilingual and multicultural and has approximately 13.4 million inhabitants, representing 39 percent of Canada's population. The official language of Ontario is English and the languages of instruction in the province are both English and French, with Section 23 of the Canadian Charter of Rights and Freedoms guaranteeing Francophones the right to a French-language education.[1]

According to 2006 census data, approximately 70 percent of Ontarians have English as their mother tongue, 4 percent have French, and 26 percent have a first language other than English or French. First nations, Métis, and Inuit peoples comprise close to 2 percent of the population.

In 2004, the Ontario Ministry of Education launched a comprehensive Literacy and Numeracy Strategy to help students acquire a solid foundation in reading, writing, and mathematics. The Literacy and Numeracy Secretariat (LNS) was established to support district school boards across the province in improving literacy and numeracy and in closing gaps in student achievement. LNS works in partnership with districts and schools to identify areas of greatest need, set goals through board and school improvement planning, and build capacity through an inquiry learning stance.

In 2010–11, Ontario began introducing full-day kindergarten with the goal of complete implementation by 2014–15. Full-day kindergarten is a child-centered and developmentally appropriate learning program for four- and five-year-olds. The purpose of the program is to establish a strong foundation for learning in the early years, and to do so in a safe and caring play-based environment that promotes the physical, social, emotional, and cognitive development of all children. While kindergarten is not mandatory, over 90 percent of eligible children are enrolled.

Overview of the Education System

In Ontario, education is governed principally by the Education Act and its regulations, which set out the duties and responsibilities of the Minister and

Ministry of Education, school boards, school board supervisory officers, principals, teachers, early childhood educators, parents, and students.[2] By law, the Ministry of Education has overall responsibility for the following: developing curriculum; allocating funds to school boards; setting policies and guidelines for school trustees, directors of education, principals, and other school board officials; and setting requirements for student diplomas and certificates.

Primary and secondary public education is free to all individuals qualified to be resident students. With the passage of the Education Amendment Act (Learning to 18) in 2006, students now are required to continue their education until they graduate or turn 18.[3]

Approximately 95 percent of Ontario's students are enrolled in publicly funded schools. Ontario has 72 district school boards: 31 English public schools, 29 English Catholic, 4 French public, and 8 French Catholic. In 2009–10, approximately 2 million students in the publicly funded education system were enrolled in approximately 4,000 primary and 900 secondary schools. Approximately two-thirds of Ontario's students were enrolled in public schools and one-third in Catholic schools. Approximately 5 percent of Ontario's students were enrolled in French-language schools. In addition, there were 22 provincial schools for students who are deaf, blind, or have severe developmental disabilities, as well as about 875 Ministry-recognized private schools that do not receive government funding. In Ontario, there are approximately 70,000 full-time equivalent primary school teachers and 44,000 full-time equivalent secondary school teachers.[4]

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Ontario's reading policy is presented in the introduction and expectations sections of the provincial curriculum documents, *The Ontario Curriculum, Grades 1–8 Language 2006 (revised)* and *Le curriculum de l'Ontario de la 1re à la 8e année, Français, 2006 (révisé)*.[5, 6] District school boards may have individual reading policies at the local level.

In 2003, Ontario launched a primary literacy strategy following the publication of an *Early Reading Strategy* (*Stratégie de lecture au primaire*) report, written by an expert panel of academics, educational administrators, and practitioners, and in 2004, a subsequent expert panel report *Literacy for Learning* (*La littératie au service de l'apprentissage*) focused on Grades 4–6.[7, 8] Freebody

and Luke's Four Resources Model informs Ontario's expert panel report, *Literacy for Learning (La littératie au service de l'apprentissage)*.[9] This model emphasizes the importance of critical literacy concepts—that all text is constructed for a purpose, and that reading is not a passive act but an interaction between the text and a reader, who looks for meaning, asks questions, and challenges assumptions. As well, the expectations in the Ontario Language and *Français* curricula for reading (lecture) capture the model's "code breaking, making meaning, using text and analyzing practices."

Summary of Curriculum

The Ontario Curriculum, Grades 1–8 Language 2006 (revised) and *Le curriculum de l'Ontario de la 1re à la 8e année, Français, 2006 (révisé)* are based on the belief that literacy is critical to responsible and productive citizenship and that all students can become literate. According to these documents, successful language learners do the following: [10]

- Understand that language learning is a necessary, life-enhancing, and reflective process;
- Communicate (i.e., read, listen, view, speak, write, and represent) effectively and with confidence;
- Make meaningful connections between themselves, what they encounter in texts, and the world around them;
- Think critically;
- Understand that all texts advance a particular point of view that must be recognized, questioned, assessed, and evaluated;
- Appreciate the cultural impact and aesthetic power of texts; and
- Use language to interact and connect with individuals and communities, for personal growth, and for active participation as world citizens.

Ontario's language curriculum document sets out overall and specific curriculum expectations in four broad areas of learning: oral communication, reading, writing, and media literacy. All four areas of learning are closely interrelated, and reading expectations for language in Grades 1–8, described below, include overall expectations that students will be able to do the following:

- Read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;

- Recognize a variety of text forms, text features, and stylistic elements; and demonstrate understanding of how they help communicate meaning;
- Use knowledge of words and cueing systems to read fluently; and
- Reflect on and identify their strengths as readers, areas for improvement, and the strategies they found most helpful before, during, and after reading.

Specific expectations are associated with each of these overall expectations. The overall expectations remain the same across Grades 1–8 but the content of the specific expectations differs from grade to grade, reflecting the development of student skills, knowledge, and understanding through the primary years.

The language curriculum for French-language students, *Le curriculum de l'Ontario de la 1re à la 8e année, Français, 2006 (révisé),* is similar to the English-language curriculum, but with three strands—oral communication, reading, and writing (*communication orale, lecture,* and *écriture*)—because media literacy is integrated within the three strands.[11] The 2006 revised French reading strand comprises three areas: pre-reading, reading, and response to reading (*prélecture, lecture,* and *réaction à la lecture*). The French-language curriculum is developed, implemented, and revised in parallel with the English-language curriculum. A distinct feature of the French-language education system is the *Aménagement Linguistique Policy*, which aims to promote, enhance, and expand the use of French language and culture in minority settings, and in all spheres of activity.[12] With respect to reading, the policy focuses on optimal oral and written language acquisition, as well as integrating cultural experiences into the daily life of the classroom and school.

Reading Instruction in the Primary Grades

Instructional Materials

There are no mandated reading textbooks for Ontario schools. The Ministry of Education evaluates, approves, and provides, textbooks for teacher and student use in Ontario classrooms. Textbooks approved by the ministry must support at least 85 percent of the curriculum expectations for the subject area. All textbooks that meet ministry requirements are placed on a central list from which schools and school boards select textbooks that meet their local needs.

Use of Technology

In Ontario, there is an increasing emphasis on integrating technology as a part of the teaching and learning process.

The Education Quality and Accountability Office (EQAO) is a government agency responsible for Ontario's annual provincial assessment program.[13] According to an EQAO survey, in 2010–11, 66 percent of Grade 3 teachers and 84 percent of Grade 6 teachers indicated that they sometimes or frequently used computer software as resources for language instruction.

A greater use of adaptive technologies has reduced the number of exemptions from provincial testing for students with special education needs. Indeed, in 2010–11, 97 percent of Ontario's students participated in EQAO's Grade 3 and 6 annual student assessments.

In addition, in support of greater data-driven decision making, district school boards and schools have improved their data collection and analytic capacity through the use of technology.

Role of Reading Specialists

In Ontario, all school districts have reading specialists. In addition, the Ontario Ministry of Education has Student Achievement Officers (SAOs) in the Literacy and Numeracy Secretariat, including both central and field-based reading specialists, who work with schools and districts. Central teams research and design strategy and focused initiatives in response to evidence-based needs and field-based teams. SAOs work with districts to support school and district improvement planning and implementation, including effectively using data and monitoring progress in student achievement. In addition, SAOs support professional learning communities as a way to mobilize research and effective practices.

Second-language Instruction

In the English-language system, over 20 percent of Ontario's elementary students have a first language other than English. Ontario has a policy for English language learners (ELLs) and two programs to support them: English as a Second Language, supporting students in kindergarten to Grade 12; and English Literacy Development (ELD), for students with limited prior schooling, supporting students in Grades 3–12.

The entire school team is responsible for helping ELLs learn the language while learning the curriculum, and research-based resources have

been developed to support ELLs—*Supporting English Language Learners in Kindergarten–A practical guide for Ontario educators*, *Supporting English Language Learners–A practical guide for Ontario educators, Grades 1–8*, and, for students requiring an ELD program, *Supporting English Language Learners with Limited Prior Schooling–A practical guide for Ontario educators, Grades 3–12*.[14, 15, 16] These guides assist educators in understanding English language learners, assessing students, and making appropriate decisions regarding student placement and adapting Ontario curriculum expectations.

Similarly, there are documents and resources that support French-language learners in French-language schools. The kindergarten program, *Le programme d'apprentissage à temps plein de la maternelle et du jardin d'enfants* (2010), has specific expectations to support differentiated instruction for French-language students.[17] Grades 1–12 have the curriculum policy documents *Actualisation linguistique en français (ALF)* and *Programme d'appui aux nouveaux arrivants (PANA)*.[18, 19]

Students with Reading Difficulties

Diagnostic Testing

In 2004, the Ontario Literacy and Numeracy Strategy was developed to improve student learning and achievement based on evidenced-based practices (e.g., differentiated instruction, student inquiry, sustained time for reading and writing in integrated contexts, and emphasis on higher order thinking skills and metacognition), using common assessment tools and promoting job-embedded professional education. Assessment "for, as and of" learning are integral parts of the teacher's repertoire and are used regularly for lesson planning and providing interventions.

In 2005, following the release of *Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6*, the Ministry provided funding to school boards for projects that have led to improvements in teaching literacy skills and assessing the reading skills of students with reading disabilities.[20] In particular, these projects have demonstrated the effectiveness of assistive technology in supporting student learning and achievement.

The Ministry of Education funded the Learning Disabilities Association of Ontario to develop an early screening and intervention tool for identifying students who may be at risk of experiencing difficulty in learning literacy and numeracy and to make the tool available to all school boards in Ontario. The

resulting Web Based Teaching Tool (WBTT) assists teachers in identifying students from Junior Kindergarten to Grade 2 who are struggling with phonological awareness and math skills, as well as key school readiness skills.[21] Currently, the Ministry and the Learning Disabilities Association of Ontario are discussing possible adjustments to the WBTT in light of the new Full Day Kindergarten program.

Instruction for Children with Reading Difficulties

In Ontario, legislation protects the rights of students with special education needs. In 2009–10, school boards reported that 14.9 percent of the student population (about 307,000 students) was receiving special education programs and services. Approximately 81 percent of all students who are receiving special education programs or services are in regular classrooms for more than half of the instructional day.

In May 2006, the Ministry of Education published *Special Education Transformation: The Report of the Co-chairs with the Recommendations of the Working Table on Special Education*, which recognized the need for a paradigm shift in special education and made recommendations for system transformation to enhance success for students with special education needs.[22] Subsequently, in December 2011, the Ministry of Education released *Learning for All–A Guide to Effective Assessment and Instruction for All Students, Kindergarten to Grade 12* (*L'apprentissage pour tous–un guide d'évaluation et d'enseignement efficaces de la maternelle à la 12e année*).[23, 24] This resource guide outlines an integrated process of assessment and instruction that educators can use to plan and deliver instruction that benefits all students, from high achievers to those needing additional support.

Teachers and Teacher Education

Teacher Education Specific to Reading

To teach in the publicly funded primary school system, a teacher must be a member of the Ontario College of Teachers. To become a member of the College, a teacher must have completed a minimum three-year postsecondary academic degree from an acceptable postsecondary institution and a one-year teacher education program consisting of coursework in education foundations, curriculum, and instruction, and at least eight weeks of practice teaching. Teachers can complete teacher education programs consecutively after their academic degree, or concurrently with their academic degree.

In Ontario, teacher education programs lead to certification in two divisions of the school system—Primary and Junior divisions (kindergarten–Grade 6), Junior and Intermediate divisions (Grades 4–10), Intermediate and Senior divisions (Grades 7–12)—or in Technological Education (Grades 9–12). The Primary and Junior divisions cover the full range of teaching subjects, including reading, within the language section of the provincial primary curriculum. Teaching assignments are based on providing the best possible program and ensuring the safety and well being of students, with consideration given to teacher qualifications.

Requirements for Ongoing Professional Development in Reading for Teachers

After completing their pre-service teacher education program, teachers can enhance their teaching credentials by taking Additional Qualification (AQ) courses. The Ontario College of Teachers accredits AQ courses, which are offered by approved providers such as university departments of education, school boards, and teacher federations. Teachers obtain a "specialist" qualification in reading by completing a three-course AQ program in reading.

Providing for ongoing professional learning is a responsibility shared by the Ministry of Education, the Ontario College of Teachers, teachers' federations, and Ontario school boards. The ministry mandates two Professional Activity (PA) days for schools and school boards to work on provincial education priorities, and up to four more PA days for other professional development activities. The ministry also supports professional learning at all stages of a teacher's career (e.g., New Teacher Induction Program, a growth-oriented teacher performance appraisal process, and the Teacher Learning and Leadership Program, which provides funding for advanced, self-directed learning).

The Ontario College of Teachers sets professional standards for teachers and provides for teachers' continuing education through its Professional Learning Framework, which includes the following: formal accredited AQ courses; and informal learning opportunities, programs, and activities, such as mentoring, research, networking, and curriculum development.

In Ontario, professional education involves learning and improving over time. Teacher inquiry has emerged as a critical element of teachers' daily work, and a focus on student learning drives this inquiry. Inquiry informs teacher practice, helping to refine planning, instruction, and assessment approaches. Because new questions and approaches to improve student learning and achievement emerge through collaborative dialogue in schools, districts, and

across the province, current teacher collaboratives include the following: the Early Primary Collaborative Inquiry, the Collaborative Inquiry for Learning: Mathematics, and the Student Work Study.

Print, multimedia, and online resources support the work of the Ministry, districts, and school staff. These resources include the *What Works: Research into Practice* (*Faire de la difference–de la recherche à la pratique*) series, the *Capacity Building Series* (*Accroître la capacité–La Série d'apprentissage professionnel*), *Webcasts for Educators* (*Webémissions pour les éducatrices et éducateurs*), and the *Guides for Effective Instruction* (*Guides d'enseignement efficace*).[a]

Monitoring Student Progress in Reading

In Ontario, teachers are responsible for classroom assessment and evaluation to improve student learning. Teachers and early childhood educators bring varied assessment and evaluation approaches to the classroom, including assessment "for, as, and of" learning. Classroom assessment and evaluation are based on the provincial curriculum, which include overall expectations, the basis for evaluation, and specific expectations. All curriculum documents have achievement charts with four levels of achievement and four categories of knowledge and skills. The provincial standard or expected level of achievement is Level 3, the level at which teachers and parents can be confident that students are well prepared for work in the next grade or course.

The Education Quality and Accountability Office, an agency within the Ministry of Education, develops and administers annual large-scale provincial assessments. Assessments are administered in English or French to all students in Grades 3 and 6 (reading, writing, and mathematics), Grade 9 (mathematics), and Grade 10, which is when the Ontario Secondary School Literacy Test (OSSLT) is first administered. Results do not affect student grades or promotion in Grades 3, 6, and 9. Ninth grade teachers have the option of scoring the Grade 9 mathematics tests and counting the result as a portion of the course grade. To obtain an Ontario Secondary School Diploma, all students must meet a graduation literacy requirement by passing the OSSLT. Students who are not successful on this test may retake it or meet the requirement by passing the Ontario Secondary School Literacy Course.

The Grade 3, 6, and 9 assessments are based on Ontario curriculum expectations and the OSSLT is based on the cross-curricular reading and writing expectations up to the end of Grade 9. All assessments include both selected-response and open-response questions, and all writing assessments include

a For more information about the Literacy and Numeracy Secretariat's initiatives, please visit the following website: http://www.edu.gov.on.ca/eng/literacynumeracy/about.html

extended writing. (More information on provincial assessments may be found at the Education Quality and Accountability Office's website.) [25]

Impact and Use of PIRLS

Ontario benefits from participating in national and international assessments, which provide external measures of student achievement, in addition to the provincial assessment program run by the Education Quality and Accountability Office. These assessments also contribute to Ontario's overall education strategy to raise the bar, close gaps in student achievement, and increase confidence in public education.

Participation in external assessments has confirmed that, over time, Ontario students have improved their achievement on national and international assessments in mathematics, science, and reading. Ontario's education system has become a focus of interest for other jurisdictions, particularly in terms of meeting the needs of a large proportion of students whose language or culture is different than Canada's two official languages.

Suggested Readings

For more information in English and French about Ontario's policies, programs, and initiatives, please visit the Ontario Ministry of Education's website at http://www.edu.gov.on.ca

More information about the Literacy and Numeracy Secretariat's initiatives may be found at http://www.edu.gov.on.ca/eng/literacynumeracy/about.html

Ontario Webcasts for Educators provides content in English and French, and may be found at http:/I curriculum.org/content/webcasts

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Province of Québec

Lise Ouellet
Michele Luchs
Ministère de l'Éducation, du Loisir et du Sport (MELS)

Language and Literacy

In Québec, primary education is offered in French, English, or an Aboriginal language, and secondary education in French or English. Most primary schools in the English sector also provide French immersion programs. Certain secondary schools offer Spanish as a third language, and some schools offer language courses for students from other linguistic communities (e.g., Greek, Hebrew, Italian, Portuguese, German) in addition to the official curriculum.

Specialists provide instruction in a second language (English or French) in primary and secondary school. In primary school, this instruction is delivered one hour per week. Since September 2006, English as a second language has been taught as of the first year of primary school. In the first, second, and third years of secondary school, the Basic School Regulation specifies instructional guidelines of 100 hours per year for English as a second language and 150 hours per year for French as a second language.[1] In the fourth and fifth years of secondary school, the guideline is 100 hours per year for each second language. In 2011–12, the Department of Education, Recreation and Sports (*Ministère de l'Éducation, du Loisir et du Sport*, or MELS) also began implementing intensive instruction in English as a second language in the sixth year of elementary school. For 2011–12, it is estimated that 10 percent of classes are providing this type of intensive English instruction.

In 2005, MELS initiated the Action Plan on Reading in School in order to contribute to the success of all students, particularly boys. One component of the plan involves subsidizing school literary and documentary library resources, and another offers reading education as well as reading promotion projects. In 2008, MELS expanded the action plan and implemented a measure for hiring school librarians. New activities also were added, including a review of initiatives related to family and community involvement as well as support for school administrations to establish student reading portraits. In addition, primary and secondary schools instituted a daily reading period. All of these initiatives contribute to the main objective of making students lifelong readers.

Overview of the Education System

In Québec, the education system offers a variety of free educational programs and services to the public, from preprimary through university, including vocational training. Preprimary education in Québec is for five-year-olds and is full-time; it is not compulsory, but nearly all children are enrolled. Children with disabilities or those from disadvantaged backgrounds may be admitted to preprimary education starting at age four. Primary education (Grades 1–6) is compulsory and comprises three two-year learning cycles: Elementary Cycle One, Two, and Three. Secondary education consists of five years of studies divided into two cycles: Secondary Cycle One lasts two years (Grades 7–8) and, for all students, is a continuation of the common core education begun in primary school; Secondary Cycle Two lasts three years (Grades 9–11). Some secondary schools offer vocational training programs. School attendance is compulsory until the year in which students turn 16 years of age, which normally corresponds to Grade 10 (Secondary 4). After completing their secondary studies, students may continue on to CEGEP (a general and vocational college), opting for a two-year pre-university program or a three-year technical training diploma.

MELS fulfills different functions at the various levels of education. MELS develops programs and determines objectives and, often, content or standards for preprimary through university education. MELS negotiates labor relations, signs collective agreements, defines a normative framework, and provides most educational resources. At the university level, MELS promotes the advancement of teaching and research by providing universities with resources for operation and development while respecting their autonomy and fostering collaboration among various partners.

Seventy-two linguistic school boards in Québec administer the public school system: 60 are French, nine are English, and three have a special status (two of these provide services primarily to Aboriginal students). Private institutions, most of which are subsidized by MELS, also provide primary and secondary education. These institutions are subject to the same regulations as public institutions and must implement the official curriculum. The private school system accounts for 7 percent of primary students and 20 percent of secondary students in the youth sector.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

Although Québec has no specific reading policy, reading is an important part of current educational programs, and the aforementioned Action Plan on Reading in School reflects a desire to implement a variety of initiatives to support student success in reading.

Summary of Curriculum

The Québec Education Program (QEP) is based on the development of competencies, including cross-curricular competencies—broad areas of learning that address major issues confronting young people, and programs of study grouped into various subject areas. The curriculum also includes broad areas of learning that address major issues confronting young people and that serve to contextualize learning.

The Preschool and Elementary Education Program has been in effect in Québec schools since September 2000, and in the Secondary Cycle One program since September 2005.[2, 3] The new curricula were introduced gradually—in September 2000 for Grades 1–2, in September 2001 for Grades 3–4, and in September 2003 for Grades 5–6. In secondary education, the new curricula were introduced in September 2005 for Grade 7 (Secondary 1) and in September 2006 for Grade 8 (Secondary 2). The Secondary Cycle Two program also was implemented gradually from September 2007 to September 2009.[4]

Reading is at the heart of the QEP as a tool for communicating and developing thinking. It enables students to experience the culture of Québec and elsewhere in order to construct students' identities and world-views. Reading instruction concerns all teachers; it shares a special connection with cross-curricular competencies—"uses information," "exercises critical judgment," and "uses information and communications technologies"—and it is essential to developing competencies in other subjects.[5] In the language of instruction programs (French and English), reading a variety of texts is one of the competencies to be developed in conjunction with writing and communicating orally. In English language arts, which now include reading media texts, students read and produce media texts, and use language to communicate and to learn. To complement the programs of study, MELS has produced a series of documents under the title Progression of Learning that detail what students are expected to learn in each year of primary and secondary school.[6, 7]

For the language of instruction programs in French and English, the Basic School Regulation specifies an instructional guideline of nine hours per week in Elementary Cycle One (Grades 1–2), and seven hours per week in Cycles Two (Grades 3–4) and Three (Grades 5–6). In secondary school, the Basic School Regulation specifies a guideline of 200 hours per year in the first three years (Grades 7–9) and 150 hours per year in the fourth and fifth years (Grades 10–11).

Preprimary education introduces children to reading and writing. Preprimary students discover the various forms and functions of language and learn to adapt these to different communication situations. In primary and secondary school, students read and appreciate different types of texts dealing with topics covered in the language of instruction and other subjects. These texts may be in various formats—books, magazines, the media, and the Internet. From the beginning of primary to the end of secondary education, students gradually learn to understand different types of texts, explore the range of meanings of these texts, respond to them, and become critical readers. Using their knowledge of words, different types of texts, the world of books and literature, and their varied reading strategies and experiences, students are able to gather information on different subjects, justify critical assessments, discover literature, and construct cultural references.

To develop an interest in reading and become better readers, students must read regularly (during a daily reading period) and be exposed to a variety of books in the classroom and at the library. These books must appeal to the preferences and interests of all students, boys and girls, regardless of reading level. To support teachers and librarians in choosing literary and documentary resources, MELS has developed the Internet site Livres Ouverts, which contains a database of more than 6,000 French titles from Québec, Canada, and Europe for students in preschool, elementary, and secondary education.[8] Using different search criteria, both students and educators can use this resource to find books that meet their needs.

Reading Instruction in the Primary Grades

Instructional Materials

Teachers must use MELS-approved instructional materials. To be approved, materials must comply with the program of study orientations, including those related to reading. However, teachers do not need to limit themselves to one pedagogical approach or source of instructional material; teachers may

choose learning situations, pedagogical approaches, and problems in addition to classroom texts and their use.

There are no approved materials in English language arts, but teachers must use a variety of resources that include both literary and information-based texts. Classrooms and libraries contain picture books, books, magazines, newspapers, and computers for Internet research, among other purposes.

Use of Technology

MELS recognizes that using information and communications technologies (ICT) is essential for students in the 21st century. Depending on the choices made by schools and teachers, students may work with technology such as computers, audiovisual tools, digital tablets, and white interactive boards (Smartboards).

In February 2011, the Premier of Québec announced an action plan for the use of ICT, School 2.0: Connected Classrooms.[9] The action plan will promote access to and use of digital technology in schools by providing for an interactive white board and multimedia projector for each classroom, as well as a laptop computer for each teacher.

Role of Reading Specialists

Homeroom teachers are responsible for teaching reading as well as all other subjects except second language, music, and physical education and health. There are no dedicated reading specialists who apply specific reading approaches in classrooms. However, classroom resource teachers may help students who are experiencing difficulties, either in small groups or individually. Services vary depending on school resources.

Second-language Instruction

A number of students who attend French primary schools speak another language at home. Because all immigrant students whose parents did not study English in Canada must attend school in French, schools offer various welcoming services to help these students learn French and integrate into regular classrooms. These services may range from ten to 30 months and take different forms, depending on the number of immigrant students at the school (e.g., welcoming class or individualized instruction with a specialist).

Students with Reading Difficulties

Diagnostic Testing

School personnel and parents gather information for assessing students with learning difficulties, primarily through observing their relationship to reading, the knowledge and strategies that they use, and the means they adopt to remedy their comprehension difficulties. Measuring instruments may be used to validate hypotheses concerning the type of difficulty, and teachers may call on specialists (e.g., resource teacher, speech therapist) when necessary.

Instruction for Children with Reading Difficulties

Interventions for students with difficulties in reading first involve developing the desire to read by giving books a prominent place in the class and by reading in their presence. An unmotivated student may benefit from reading clubs, poetry workshops, or research groups. To give meaning to reading activities, students read complete texts and carry out meaningful tasks appropriate to their development level, with assistance. Other activities help students effectively use cognitive and metacognitive strategies in reading. These interventions are part of regularly conducted reading activities.

Integration into regular classes is the first choice to promote success for students with special needs.[10] These students may participate in activities planned for several students who share the same difficulties or benefit from one-on-one help from a homeroom or resource teacher. According to the school's policy, students also may receive support from specialists (e.g., a resource teacher or speech therapist). Schools also provide special classes for students with special needs. Students with learning difficulties may benefit from specialized technological tools to support their learning of reading (e.g., voice synthesizer or audio books). The decision to opt for services or specialized tools is supported by an individualized education plan that specifies required actions, conditions, and follow-ups.[11]

Teachers and Teacher Education

Teacher Education Specific to Reading

A four-year bachelor's program in preprimary and primary education is required to teach preprimary and primary school (Grades 1–6). The program trains generalists to teach all subjects other than those requiring specialists, such as music, physical education and health, and second languages. No additional diploma is required to teach reading in primary school. To teach French or

English (language of instruction) at the secondary level, teachers must hold a bachelor's degree in secondary education, preferably with a specialization in their subject area.

Requirements for Ongoing Professional Development in Reading for Teachers

The most common forms of professional development for teachers are university studies, training provided by MELS or the school boards, and conferences. Teachers increasingly appreciate peer-led continuing education and collaboration in action research projects.

As part of the Action Plan on Reading in Schools, preprimary, primary, and secondary school staff are offered continuing education sessions organized around various themes—reading for four- to seven-year-olds, reading in the digital age, and reading in all subjects. In addition, the English school board system has developed centers of excellence that offer training and support to teachers who have students with language difficulties.

Monitoring Student Progress in Reading

At the end of primary school, MELS administers compulsory examinations in French or English, depending on their language of instruction. Teachers score the examinations using a scoring guide. For certification purposes, MELS also administers compulsory uniform examinations at the end of secondary school. MELS scores the writing examination in French (language of instruction). However, student evaluation is the responsibility of schools, which must have a local evaluation policy compliant with the ministerial directive which stipulates that reading account for 40 percent of the final grade in French (language of instruction).

MELS currently administers only one compulsory examination in reading at the end of primary school (Grade 6), but the Minister recently announced the addition of a second reading examination at the end of Elementary Cycle Two (Grade 4). Before writing examinations, primary and secondary school students must read several texts in order to become familiar with themes.

As part of the action plan for improving French (*Plan d'action pour l'amélioration du français*), MELS administers writing examinations and publishes reports on student results in the fourth and sixth years of primary school (Grades 4 and 6) and in the second and fifth years of secondary school (Grades 8 and 11). These reports also provide additional information

on reading—for example, students' enjoyment of reading, their feeling of competence, and the books that boys and girls choose.

Impact and Use of PIRLS

In the last two decades, a number of briefs, reports, and studies produced primarily by UNESCO, OECD, and the International Association for the Evaluation of Educational Achievement (IEA) have spurred reflection on how to adapt schools to new social and cultural realities. The Québec Education Program reflects on these analyses and choices as part of a collective educational project in which more than 500 people have participated, including teachers, school administrators, consultants, and other professionals working in education and in universities.

The positive results of Québec students confirm the effectiveness of the various reading initiatives undertaken in Québec over the last several years. Still, there is opportunity for improvement in terms of helping students who are experiencing difficulties and reducing the gap between boys and girls. To this end, recent improvements concern additions to the spelling lists for primary school (3,000 words) as well as a new compulsory reading examination in the fourth year of primary school (Grade 4) in June 2013.

Suggested Readings

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Autonomous Community of Andalusia

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Language and Literacy

Located in the south of Spain, the Autonomous Community of Andalusia is one of 17 autonomous communities, and is recognized as a historic nationality by the 1978 Spanish Constitution.[1] As the most populated and the second largest region in Spain, Andalusia has an important status within the country. Andalusia's official language is Spanish, but specifically its Andalusian linguistic modality, whose use is recognized and protected by the Statute of Autonomy of Andalusia (2007).[2]

As in many other European countries, a growing number of schools in Andalusia have adopted a Content and Language Integrated Learning (CLIL) curriculum during the past decade, under which schools teach some subjects in English.

Since 2007, the Education Department has been developing the Reading and School Libraries Project[3] in educational centers. The aim of this project is to promote the use of the school libraries and improve students' reading habits. Schools play an essential role in fostering positive attitudes towards books and reading, and can organize global reading projects over time. In addition, schools have resources such as school libraries that are indispensable for the adequate education of students in a society that requires citizens to have the following efficient research skills: knowledge of different information sources, critical selection of information, and autonomous knowledge building.

Overview of the Education System

The Spanish Constitution of 1978 created a highly decentralized education system. The Spanish Government oversees educational legislation, basic system structure, and cooperative initiatives with other nations. As of 2000, Andalusia, like all autonomous communities in Spain, has overseen all other aspects of

the education system, such as management of finances, teachers, schools, and curriculum.[4] Since this transfer of responsibilities from the government to the autonomous communities, subsequent education legislation, such as the Organic Law on Education,[5] has attempted to balance this distribution of responsibility and the inter-regional cooperation necessary to guarantee a coordinated effort in developing educational policies throughout Spain.

According to Andalusian Education Department statistics, public expenditure on education totaled 7,933 million Euros in 2009 (5.2% of GDP).[6] Of this, 32 percent was used for preprimary, primary, and special education; 34 percent for secondary and professional education; 23 percent for university education; and 11 percent for artistic, adult, and other forms of education. As of the 2011-12 school year, 1,846,586 students were enrolled in school (public or private) in Andalusia, excluding universities.[7]

In 2006, the Organic Law on Education legally validated the current basic structure of the Spanish education system, including Andalusia, though this law did not modify the organization already established in 1990.[8]

Language/Reading Curriculum in the Fourth Grade

Reading Policy

In general, Andalusia follows the same reading policies carried out in the other autonomous communities of Spain.

Summary of Autonomous Curriculum

Reading is included in the language and literature section of Spain's national curriculum.[9] The law defines "curriculum" as all the objectives, key competencies, content, assessment criteria, and pedagogical methods for each type of education.

Reading is an interaction between reader and text, in a mother tongue or foreign language, requiring active reading and a specific purpose. This approach to the initiation and development of reading skills requires a continuous functional approach to reading. Students should consider reading a pleasant experience as well as an important tool for the transmission of values and language

Reading should be a process of understanding and engaging with the world that requires collaboration between family and school, as well as progressive language processing skills. Reading implies knowing Andalusian heritage as

well as communication models from other regions of Spain, other societies, and especially from Andalusia.

Reading should involve enjoying ideas, stories, and experiences in different contexts. Children must read a variety of formats (paper and digital), both individually and with others (shared reading), and be aware of the existence of other languages (e.g., Braille and sign language). Reading must involve understanding different types of texts, according to their purpose, intention (implicit or explicit), and mode of production (e.g., personal, official, journalistic, political, and religious). Lastly, reading in school must also be a way to discover and learn about the unknown.

In particular, instruction in Andalusia focuses on the following topics: [10]

- Reading and comprehension of near-life experiences through local and regional texts;
- Knowledge and reading of newspaper articles related to Andalusia (e.g., society, culture, and science); and
- Knowledge of literature with Andalusian themes (written by Andalusian and non-Andalusian authors) as a way of understanding the historical and cultural reality of Andalusia, including narrative (oral tradition, short stories), poetry (oral tradition, proverbs, riddles), theatre (read or dramatized), and short films (by viewing and analyzing Andalusian films).

A basic reading of simple texts must be achieved initially, with gradual progress towards more complex and varied texts. This progress should be based in functional and expressive reading, with an understanding of the purposes and contexts in which texts are produced. Eventually, students are expected to analyze and reflect on the texts they read. The same progression applies to the mastery of foreign languages, with particular emphasis on the cultural knowledge of other regions of Spain and other societies.

The methods for reading instruction emphasize the following components: [11]

- Reading to understand other perspectives, cultures, and ages;
- Reading to express ideas, feelings, and needs, and to describe the world in which we live;
- Critical reading;
- Improving reading comprehension skills;

- Expressing oneself freely through messages in various formats;
- Appreciating the usefulness and pleasure that reading brings; and
- Using a variety of resources in the classroom, such as books, papers and other texts, films, songs, and the Internet.

Reading Instruction in the Primary Grades

Instructional Materials

In addition to textbooks, it is common practice for schools to use books that include reading comprehension activities. Also, classrooms usually have sets of children's literature anthologies. All books made available for the teaching staff (e.g., textbooks and teachers' manuals) are for reference purposes and are not prescribed.

The texts used in instruction should serve a practical function and connect to contexts familiar to children. In addition, the school library is an important resource center where children engage in reading experiences that develop reading habits.

Use of Technology

In primary education, one of the competencies specified in language and literature instruction is to use the media of everyday communication and information communications technology to obtain, interpret, and value different opinions and information. The content specified in each block for all cycles includes references to new technologies, either for support or as a source of information to develop comprehension and expression, and as a way to reinforce significant learning activities and peer learning settings.

Role of Reading Specialists

There are no reading specialists in primary education. The language and literature teacher, usually the classroom teacher, is responsible for reading instruction, even though other subject teachers also cover reading comprehension.

Second-language Instruction

In 2003, the Autonomous Community of Andalusia created a service, Linguistic Adaptation Temporary Classrooms (LATC), for immigrant students who have a total or partial lack of Spanish language.[12] In LATC, immigrants enroll in a Spanish learning program with a specialist teacher. The goal is for students to

become integrated into the school and become accustomed to the rhythms and learning activities specific to the level associated with their age and curriculum competencies. The main objectives of LATC are to do the following:

- Provide specific care for immigrant students with no or limited knowledge of Spanish through a unique program that supports the acquisition of language and communication skills; and
- Integrate these students into the school and social environments in the shortest time possible, and to help them make progress in the mainstream classroom.

LATC support groups organize outside the regular classroom for a maximum of ten hours in primary education and fifteen hours in secondary education.

Students with Reading Difficulties

Diagnostic Testing

The classroom teacher handles assessment and makes initial diagnoses of reading difficulties based on observations and specific tests. An educational psychologist intervenes when reading disabilities are considered serious.[13]

Instruction for Children with Reading Difficulties

In Andalusia, specific guidance is provided to improve reading comprehension. Students with disabilities receive specialist support in specific classrooms, in accordance with the school's schedule.

As stipulated by the Organic Law on Education, education authorities must provide the necessary resources for students who require specialized education due to specific learning disabilities, high intellectual abilities, delayed integration into the education system, personal problems, and weak academic records.

Teachers and Teacher Education

Teacher Education Specific to Reading

At present, throughout Spain it is necessary to complete a three-year diploma course at a university in order to become a primary education teacher.[14] Pre-service teachers spend several months in schools in both the second and third years of their education program. University education degrees are recognized throughout the country and are subject to the regulations established by the Spanish government. Degrees are issued on behalf of the monarch by the rector of the university in which they were earned.

To become a certified teacher in the public education system, prospective teachers must pass a competitive examination, complete a one-year course as a civil servant trainee teacher under an experienced teacher tutor, and receive a positive evaluation from the school leadership team.[15] To become a teacher in the private education sector, it is necessary to have an appropriate degree and a work contract.[16]

Requirements for Ongoing Professional Development in Reading for Teachers

Teachers receive ongoing professional development through Teacher Training Centers or government-subsidized training programs for language teachers.

Monitoring Student Progress in Reading

Primary school teachers are responsible for evaluating individual student progress. The evaluation of student achievement in reading, as well as other subjects, is ongoing and global and takes into account student progress in all areas and elements of the curriculum.[17] Teachers use the evaluation criteria specified for a content area as the basis for determining the level(s) of competence that the student has attained. Primary schools use qualitative grades to inform students and their parents about student learning progress at the end of each term. When a student's progress is inadequate, schools must adopt remedial measures as soon as the difficulties are detected. These measures are designed to guarantee the acquisition of essential skills so that the student can progress within the education system.

In general, the autonomous communities in Spain are responsible for evaluating schools, taking into account the socio-economic and cultural contexts of the parents and the students, the school environment, and the community resources available. The Andalusian education authorities, within the framework of their respective competencies, carry out any and all evaluation plans they consider appropriate.[18] The authorities also may evaluate school leadership in order to improve a school's performance.

Since 2011, Andalusia has established a new assessment, ESCALA, to measure achievement and detect reading difficulties. ESCALA is administered to all students at the end of second grade.[19] As a result of this examination, each student and their family receives a report explaining the student's achievement in reading, mathematics, and writing.

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19 Orden de 18 de mayo de 2011, por la que se regula la prueba de evaluación ESCALA y su procedimiento de aplicación en los centros docentes de Andalucía (BOJA de 25/05/2011) [Order of May 18, 2011, for Regulating the Assessment Scale and its Method of Implementation in Schools of Andalusia].

Emirate of Abu Dhabi

P-12 Policy Sector
Abu Dhabi Education Council

Language and Literacy

The language of instruction in Abu Dhabi schools is either Arabic or English, although Arabic is the official language of the Emirate and the most common mother tongue in public schools. The public school fourth-grade student cohort tested in PIRLS 2011 is the last fourth-grade cohort to be educated under the United Arab Emirates (UAE) Ministry of Education's national curriculum, which was initiated in 2001.[1] In accordance with this national curriculum, the ministry had been selecting and providing materials for teaching Arabic language and literacy for all public school students. In the future, public school students participating in PIRLS will have received instruction under the new bi-literacy program, with the Abu Dhabi Education Council (ADEC) providing the curriculum and curriculum resources.

In 2010, significant language instruction reform termed the New Schools Model began in public schools (Kindergarten through Grade 3) where students currently receive bilingual instruction.[2] English language, mathematics, and science are taught through an integrated English literacy program using similar pedagogy and resources to those used by the Arabic literacy program.[3] Full implementation of the New School Model will be achieved in all grades by 2016.

Overview of the Education System

The Abu Dhabi Education Council (ADEC) is responsible for all educational decisions in the Emirate of Abu Dhabi. ADEC operates 302 public schools and regulates 176 private schools offering Kindergarten to Grade 12.[4] Several private schools offer international curricula including the International Baccalaureate, Advanced Placement Courses, and General Certificate of Secondary Education, as well as Asian programs.

The public schools operate in a centralized system with centrally developed policies, curricula, and common year-end assessments. Performance standards are established by ADEC.

Since 2007, ADEC has operated an increasing number of schools in a public-private partnership. Private operators are contracted to place

advisory staff in public schools. These advisors provide advice and support to administrators and teachers concerning the implementation of curriculum and changes in pedagogy.

Language/Reading Curriculum in the Fourth Grade

ADEC public and private schools follow the UAE's national curriculum for Arabic.[5] Among private schools in which English is the language of instruction, and the language of testing for PIRLS, reading and language curricula are aligned with the program that they offer (International Baccalaureate, Asian, etc.).

Reading Instruction in the Primary Grades

Instructional Materials

Instructional material for Arabic language and reading consists of a textbook and workbook given to each student in addition to supplementary material. The textbook provides the topic sequence and a variety of language learning activities. Teachers select supplementary reading activities for use in their classrooms.

Use of Technology

The technology infrastructure in Abu Dhabi public schools is currently being developed. As a result, some public and private schools have state-of-the-art facilities, while other schools do not yet have IT infrastructure, and therefore have limited facilities. All public school students have access to mind mapping (graphical idea organization), word processing, and presentation software. Private schools have a variety of technology available to their students.

Second-language Instruction

All students in Arabic language schools also study English as part of their program. Private schools where English is the language of instruction offer Arabic courses to native Arabic speakers and Arabic as a second language to students whose mother tongue is not Arabic.

Students with Reading Difficulties

Diagnostic Testing

In public schools, students are assessed using Performance Indicators in Primary School (PIPS) upon entry to Kindergarten and Grade 2.[6] Fourth-grade students were assessed using the PIPS assessment in 2009 if they were second-grade students in one of Abu Dhabi's pilot schools. In future PIRLS cohorts, all fourth-

grade students in Abu Dhabi public schools will have been assessed using PIPS. The results of this test, along with teacher-developed assessments, are used to help identify students with reading difficulties. Specific diagnostic testing is also available through special education support personnel. Private schools have a variety of programs.

Instruction for Children with Reading Difficulties

Pullout programs within public schools identify students with reading difficulties and provide support lessons. Special education support personnel operate these programs. As with testing, private schools have a variety of programs to support children.

Teachers and Teacher Education

Teacher Education Specific to Reading

In public schools, many teachers only teach Arabic because they have received specific language education in Arabic, though some of these teachers might teach one additional subject. This education follows the national model provided by the UAE Ministry of Education. The training of staff in private schools varies from generalists to highly trained reading specialists.

Requirements for Ongoing Professional Development in Reading for Teachers

All teachers are required to participate in professional development. However, for teachers of the fourth-grade students who participated in PIRLS 2011, there had been no professional development requirements specific to reading.

Monitoring Student Progress in Reading

Student progress is monitored using PIPS through second grade. Beginning in the third grade, every March all students take the External Measurement of Student Achievement—a standardized test delivered by Pearson Education.[7] This examination is externally developed using standards set by ADEC. Because the examination uses standardized scores on a continuous scale for all grades, results can be used to track individual student progress over a student's entire school career. The test measures performance in Arabic, English, mathematics, and science. Both PIPS and EMSA provide schools and teachers student-specific information on reading.

Impact and Use of PIRLS

Participation in PIRLS 2011 will serve two valuable purposes. First, participation will provide a baseline from which ADEC can measure the educational reform that is currently underway. The students tested in PIRLS 2011 have not been part of the reform, whereas future fourth-grade students will have experienced the curricular and pedagogical changes. The second purpose is to validate the other testing in which ADEC is currently involved. ADEC will have a basis to compare other reading measurements to international standards. While PIPS does provide standardization through comparative data, the External Measurement of Student Achievement does not have any validating comparison.

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Emirate of Dubai

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Knowledge and Human Development Authority

Language and Literacy

The national language in the UAE, and in Dubai, is Arabic. Standard Arabic is used for printed matter, as well as for official and formal purposes, although English and several Asian languages are used widely, particularly in commerce. Statistics from 2011 estimate the population of Dubai at 2 million, with a significant annual growth rate.[1] National Emirati citizens account for approximately 10 percent of the population, with the remainder originating from the rest of the Arab world, the Indian subcontinent, the Far East, Europe, and elsewhere. In public schools, mathematics and science are taught in Arabic, while in private schools these subjects are taught in the school's language of instruction, which is primarily English. The multi-cultural nature of Dubai means that, in some international schools, students will be taught in English, though more than 50 languages may be spoken by students.

In 2007–08, the Knowledge and Human Development Authority launched the first phase of its "My Language My Identity" project to encourage the habit of reading in Arabic among elementary school students. Every public elementary school was issued a library of around 40 interesting book titles. A group of qualified Arab education specialists, Arabic language teachers, and Arabic language supervisors selected and translated the books into Arabic, which have since been approved by education ministries across numerous Arab countries. The project was aimed at reviving the culture of reading in Arabic among students. Events such as the Emirates International Festival of Literature and the Million Book Challenge also promote a culture of reading amongst students.

While overall literacy rates in Dubai are comparable to the average among developed countries, literacy levels for nationals, and more specifically boys, are a priority. The Dubai Schools Inspection Bureau reported that, in public schools in Dubai, reading and writing skills in Arabic are weaker than speaking and

listening skills. This was corroborated by the performance of students age 15 in the Programme for International Student Assessment (PISA) of 2009.[2] Most students in public schools in Dubai scored below those in private schools in reading, and well below the OECD average. Girls outperformed boys in reading to a greater extent than in other types of schools, and to a far greater degree than in most other countries.

Overview of the Education System

The Emirate of Dubai has a unique education landscape, offering a complete education system for boys and girls from Kindergarten through higher education, and provided free of charge for residents of Dubai through public schools, colleges, and universities. Education from primary to upper-middle school is universal and compulsory.

The UAE's Ministry of Education provides policies and regulations for both public and private schools, as well as services for public schools. For public schools, the ministry is solely responsible for designing school administration structure, staff recruitment and compensation, curriculum design and improvement, and the availability of resources.[3]

The Knowledge and Human Development Authority (KHDA), an independent educational board, was established to develop the knowledge and human resource sectors in the emirate. KHDA identifies and implements evidenced-based strategies that are tailored to Dubai. This authority regulates the private schools in Dubai in alliance with the general policy of the ministry. KHDA's goals are to raise the quality of education to the highest international standard, to ensure the continuous development of the education sector, and improve the quality and outcomes of education on all fronts and at all stages.[4]

In 2008, the Dubai Schools Inspection Bureau was launched to define and measure education quality in order to support the improvement of education in Dubai and inform improvement planning at the school and policy level. Since 2009, significant reform has taken place at the school level, including annual school inspections every year (2009–11). All three rounds of inspection have been driven by the same key questions about the academic achievement of students, the quality of education (particularly the teaching) that schools provide, and the effectiveness with which they are led and managed. This degree of consistency has allowed valid comparisons to be made across the three-year period.[5]

The number of students in Dubai's public schools has increased over the past two years. Indeed, the overall enrollment of students in Dubai schools is continuing to expand, with a 5.7 percent increase in the number of students in school in 2011 compared to 2010. Dubai also has an extensive private education sector, accounting for approximately 85 percent of the student population (approximately 190,000 students in 148 schools).[6] More children in Dubai's private schools are in the lower grades than in upper grades.

Some key features of the educational landscape in Dubai include the following: [7, 8]

- A large, increasing proportion of expatriate students (77%);
- An increasing proportion of Emirati national students educated in private schools (currently 57%);
- Thirteen different curricula offered across the school system, including United Kingdom curricula (31% of students in private schools), Indian curricula (30% of students in private schools), and United States curricula (21% of students in private schools); and
- The world's highest number of branch universities.

Language/Reading Curriculum in the Fourth Grade

Reading Policy

The UAE Ministry of Education national charter of Arabic language outlines the national literacy standards and expectations for all grades starting from Kindergarten, including expectations regarding appropriate educational standards. The charter includes skills levels, distributions of curricular standards, and assessment criteria. It also provides teachers with guidance regarding teaching strategies and the use of ICT in teaching Arabic language.

Summary of Curriculum

Dubai public schools use the UAE national Arabic language curriculum. Private schools use different curricula based on the school's own curriculum standards. Due to the large proportion of students in Dubai attending private primary schools, as opposed to public schools, summaries of the most widely used curricula in private schools in Dubai are provided below:

- Curriculum for United Kingdom Schools—The reading program of study for Year 4 (Key Stage 2) in private schools using the UK curriculum includes knowledge, skills, and understanding in the

following areas: [9] read with fluency, accuracy, understanding, and enjoyment; develop phonemic awareness and phonic knowledge to decode and encode words; use grammatical understanding and knowledge of the content and context of texts; read for information; read texts with greater accuracy and understanding, and understand the characteristics of different types of text; develop understanding of a wide range of literary genres; and read non-fiction and non-literary texts, including print and ICT-based information texts, dictionaries, encyclopedias, and other reference materials.

- Curriculum for International Baccalaureate Schools—Expectations for achievement in reading take into account the range of language learning situations that exist in Primary Year Program schools, which include Grade 4.[10] The reading strand of the language curriculum is summarized through a list of overall expectations—generic statements that encapsulate the expected learning in a broad sense. The continuum is organized into five developmental phases. All language strands are learned across and throughout the curriculum. Like all other strands, reading has been considered from both the receptive aspect—receiving and constructing meaning—and expressive aspect—creating and sharing meaning.
- Curriculum for United States Schools—Based on the English standards of the State of California, reading for the fourth grade focuses on the following areas: word analysis, fluency, and systematic vocabulary development; reading comprehension; and literacy response and analysis.[11] Schools in Dubai following a US curriculum may use different curricular standards and many base their English curriculum on set textbooks rather than specific state or cross-state curricular standards.

Reading Instruction in the Primary Grades

Instructional Materials

Public schools have curriculum documents that guide school instruction in every subject. These documents outline the general standards for the specific subject area from Kindergarten to Grade 12, and guide the process, scope, sequence, and content of the Arabic and English curricula.

In fourth grade, teachers in public schools use the ministry textbooks and a teachers' guide to deliver the curriculum. Students complete workbooks that accompany their textbooks. In private schools, reading instruction is determined by the curriculum standards relevant to the specific school.

Use of Technology

Public schools are provided with a bank of resources to support the teaching of Arabic and English, including ICT resources, but these are not always well utilized by teachers. The diverse range of school types in Dubai means that use of technology to develop and support reading varies enormously. In schools where achievement in reading is high, a range of high quality resources are used to motivate and engage students and support their learning.

Role of Reading Specialists

Reading specialists do not play a role in public schools, and their roles vary substantially in private schools.

Second-language Instruction

Beginning at the second year of Kindergarten, children in public schools are taught English daily. As of first grade, students are taught five 40-minutes English classes per week. English is taught as a foreign language throughout the general education stages and at higher education levels.

Students with Reading Difficulties

Generally, students who experience difficulties in reading are taught within the usual classroom setting and supported by the class teacher, though specific reading difficulties such as dyslexia are rarely accurately identified. Additional support may be provided after school for students who fail to pass internal tests, in order to prepare them for the ministry examinations. Repetition of "failed" years is common practice in public schools, most evident at the end of Cycle 2 (Grades 6–9) and early Cycle 3.

In private schools, identification of and support for students experiencing difficulties in reading varies significantly. The best schools have early identification procedures in place and provide individual education plans to address areas of deficit. Support is provided in class or on a withdrawal basis, and specialist help may be sought from outside the school.

Teachers and Teacher Education

For teachers in public schools, teacher education in Dubai follows the national model provided by the UAE Ministry of Education.

Teachers in public schools must complete, on average, four years of university-level study, either at education colleges or specialist colleges. Studies in education colleges are largely pedagogical, and, therefore, graduates may

only teach Grades 1–6. Graduates from specialist colleges can teach all grades and are usually appointed to teach at the middle or secondary school level. Graduates of specialist colleges also receive additional pedagogical training, arranged exclusively by the ministry, before they start teaching.

The qualifications and conditions for teaching in public schools differ depending on whether the candidate is a UAE national or an expatriate; particularly, the number of years of experience required and compensation are different. Non-national candidates should not be older than 40 and must have at least two years of teaching experience, while the national candidates' age criterion is subject to the Civil Service Bureau rules and regulations. Further, national candidates are not restricted by a minimum GPA average, while non-nationals must obtain at least an average of a "C," except in the case of those who hold education diplomas and higher degrees. Nationals retain priority in job placement. Priority also is given for holders of the International Computer Driving License Certificate (ICDL) as well as a certificate in the Test of English as a Foreign Language or the International English Language Testing System.

Monitoring Student Progress in Reading

Public schools follow the UAE's national system of assessment, which includes mid-year and end-of-year examinations in Grades 1–12. The end-of-year assessments are integrated across each educational zone and all of them are linked to the Ministry of Education objectives. Most of these examinations are in written form, and only a few require performance assessments.

Dubai has no formal process for monitoring progress in reading in public schools beyond the national examination system. Some individual schools devise systems for tracking student progress using a range of tests, quizzes, and games.

Private schools throughout Dubai adopt the monitoring and assessment procedures related to their specific curricula. Many schools adapt the national assessment procedures of their country to suit the needs of their student population. For example, most UK schools adopt the English National Curriculum assessment processes. UK, International Baccalaureate, and Indian schools participate in external national or international examinations relevant to the curricula offered. US schools use a range of internal assessment tools and some participate in international benchmark tests in upper grades relevant to further and higher education placement.

Impact and Use of PIRLS

In 2011, Dubai is participating in PIRLS for the first time as a benchmarking participant, so the impact has yet to be realized.

Suggested Readings

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State of Florida

PIRLS 2011

Florida Department of Education, 2012

Language and Literacy

There is no official language in the United States. English is the most widely spoken language in the country and is the only language spoken by persons five years and over in 80 percent of homes. English is the language of instruction for academic subjects at all academic levels. The second most commonly spoken language at home is Spanish, spoken by twelve percent of the U.S. population.[1]

Overview of the Education System

The Florida Department of Education (FDOE) is the state education agency of Florida. It governs public education and manages funding and testing for local educational agencies. The Florida Commissioner of Education is the state's Chief Educational Officer.[2] The Office of the Commissioner of Education was originally directly responsible for education in Florida, and was a Cabinet-level position filled by direct election. By a 2003 constitutional amendment, the Governor assumed overall responsibility for FDOE. The amended constitution also created a new State Board of Education with seven members appointed by the Governor to oversee FDOE. The State Board now is responsible for appointing the Commissioner of Education.

FDOE serves and supports more than 2.6 million students, 180,000 teachers, 3,800 public schools, and 318,000 full-time staff in the state. Its annual operating budget in 2009–10 exceeded $19.3 billion.[3] FDOE serves as the single repository of education data from school districts, community colleges, universities, and independent postsecondary institutions, which allows for the tracking of student performance across time and various education sectors.

Florida law delegates the operation of primary and secondary schools to local governments, which in turn have traditionally assigned the task of running the schools to elected or appointed local school boards. These boards raise funds, establish policies and operating regulations, and hire or elect superintendents to manage and operate the district. The local district is responsible for curriculum decisions, implementation of standards, construction and maintenance of facilities, and operation of school programs.[4]

Language/Reading Curriculum in the Fourth Grade

Florida Statute 1003.41 specifies that public K–12 instruction in Florida is based on content standards called the Sunshine State Standards, first adopted in 1996. These standards established what every student in Florida needs to learn in reading and language arts for Grade 4. Section (1)(a)3 of the Statute states that the standards must include distinct grade level expectations for the core content knowledge and skills that a student is expected to have acquired by each individual grade level from kindergarten through Grade 8.

In 2007, the Florida State Board of Education adopted a revision of the Sunshine State Standards—the Next Generation Sunshine State Standards (NGSSS)—in reading and language arts. These content standards are by grade level for K–8 and in grade bands of 9–10 and 11–12. Grade structure varies by district. Typically, the fourth grade is in the primary set of grades (K or 1–5 or 1–6). The standards revision process went far beyond increasing the rigor of the standards, and included the alignment of the new standards with assessments, instructional materials, professional development, and teacher licensure exams.

In 2010, a consortium of education leadership state-based associations led the process of developing the Common Core State Standards (CCSS), supported by private philanthropic foundations with strong participation by state reading specialists. Later in 2010, Florida adopted CCSS in English and language arts and is currently developing strategies and resources to support full implementation of assessments accompanying CCSS in 2014–15.[5] Currently, CCSS serve as the basis for curriculum and instruction, professional development for teachers, instructional materials, and statewide assessment in Florida.

Florida has no specified state curriculum. However, Florida's content standards serve as the basis of instruction statewide and for State Board of Education approved course descriptions. Local school districts in Florida are responsible for determining the necessary curriculum and instructional scope and sequence to ensure that their students meet the state content standards. School districts also are responsible for developing and providing instructional and pedagogical guides for teachers.

Florida's approved courses, content standards, and resources are provided in the Course Code Directory and CPALMS (Collaborate, Plan, Align, Learn, Motivate, and Share) website, which was established in 2007 to support the implementation of the standards.[6, 7]

CPALMS' Standards Information System is the core database of all components of Florida's standards, providing direct Internet access and

connection to these standards, including mathematics and science. By integrating all standards into a single online system, CPALMS aims to do the following:

- Make the standards more practical by connecting them to courses;
- Make standards more achievable by providing high quality resources that are specifically aligned or created for the NGSSS and CCSS;
- Provide standards-based tools to create high quality courses, instructional resources, planning and professional development; and
- Serve as "one source" for all standards-based information by utilizing the latest technologies such as Web 2.0, Internet services, and application programming interfaces. This infrastructure will enable the creation of new standards-based tools and applications without the need to replicate the information systems within CPALMS.

In 2006, Florida Statute 101.62 ensured an allocation for reading provided through the Florida Education Finance Program. Recommended by the Governor and the Florida State Board of Education, this action has made reading a permanent priority and ensures annual funding for reading as a part of the public school funding formula. In order to receive this reading funding, districts are required to write a K–12 Comprehensive Research-Based Reading Plan each year.

Lastly, the Florida Department of Education, in collaboration with committees of stakeholders from across Florida, has developed Achievement Level Descriptions (ALDs). These descriptions outline specific student expectations at each grade and subject for each of the five Achievement Levels of the Florida Comprehensive Assessment Test (for more on FCAT, see Monitoring Student Progress in Reading).[8] The content of each statewide assessment is organized by reporting categories that are used for test design, scoring, and reporting purposes, and ALDs express what students at each Achievement Level know and can do for each reporting category. The FCAT 2.0 reading assessment currently assesses these ALDs, which are tied to NGSSS, and which presently are the standards being taught in the classroom.

Reading Instruction in the Primary Grades

Instructional Materials

Florida Statutes govern the adoption process for Florida's instructional materials. FDOE develops policies and procedures for the adoption of instructional

materials annually, identifying subject areas for material adoption each year on a rotating basis. Prior to each adoption, FDOE publishes Instructional Materials Specifications for the subjects to be adopted. These specifications outline the courses for which materials are being sought, as well as the standards that those materials are expected to meet. State Instructional Materials Reviewers evaluate the materials submitted for adoption, and the Commissioner of Education formally adopts the recommendations of the reviewers, either fully or with amendments.

Each district (Local Education Agency) may choose which materials to purchase from this adoption list. Florida schools and school districts must purchase adopted materials through the publisher's Florida depository. Florida Statutes stipulate that funding for instructional materials is allocated to local school districts annually, as determined by the legislature. Up to 50 percent of this annual allocation may be used for materials not on the state-adopted list. By the 2015–16 school year, each district is required to use at least 50 percent of the annual allocation for the purchase of digital or electronic instructional materials included on the list of state-adopted instructional materials.[9]

Use of Technology

Florida has not adopted technology standards for students statewide. The state does, however, support the International Society for Technology in Education —National Educational Technology Standards (ISTE-NETS) for Students.[10] In addition, Florida Language Arts content standards require that students routinely use digital tools. Some school districts in the state have adopted their own technology standards.

Role of Reading Specialists

Florida has two types of reading specialists serving public schools: reading-literacy coaches and reading interventionists. All schools utilizing reading-literacy coaches must implement the Just Read, Florida! reading-literacy coach model. In this model, the reading-literacy coach serves as a stable resource for professional development throughout a school to generate improvement in reading and literacy instruction and student achievement. Coaches support and provide initial and ongoing professional development to teachers in the following areas:

- Each of the major reading components, as needed, based on an analysis of student performance data;
- Administration and analysis of instructional assessments; and

- Differentiated instruction and intensive intervention.

Reading interventionists work with individual students or small groups of students who are not achieving as expected. This work may take place in a reading intervention classroom or in a pullout setting.

Second-language Instruction

Florida's English language learners (ELLs) total over 260,000 students (about 10% of all Florida students), ranking Florida third among U.S. states in ELL population. Most of these students have Spanish as their native language. Florida's diversity of languages spoken by ELLs also surpasses most states in the country, with a total of 300. The League of United Latin American Citizens et al. v. State Board of Education Consent Decree is the state of Florida's framework for compliance with federal and state laws and jurisprudence regarding the education of English language learner students.

Students with Reading Difficulties

Florida Statute and State Board of Education Rules define reading intervention requirements for students with reading difficulties. These requirements note that any and all students who exhibit a substantial deficiency in reading based upon local assessments, statewide assessments, or teacher observations must be provided daily intensive reading instruction immediately following identification of the reading deficiency. Middle and high school students who score at Level 1 (the lowest of 5 achievement levels) on the Florida Comprehensive Assessment Test in reading are required to complete an intensive reading course. Those students who score at Level 2 also must be placed in an intensive reading course or in a content area reading intervention course.

Teachers and Teacher Education

Florida's "traditional" state-approved pathway for public school teachers is completion of an Initial Teacher Preparation program, which requires candidates to demonstrate mastery of three areas: general knowledge, professional preparation and education competence, and subject area knowledge in one or more specific subject areas. These programs are offered at Florida postsecondary institutions and include a culminating supervised teaching experience of at least ten weeks. Individuals who complete an Initial Teacher Preparation program earn a bachelor's or master's degree in education specific to the subject area in which they are being prepared. For example, individuals in a program specific

to primary education (Grades K–6) earn a degree in primary education, while individuals in a program specific to secondary mathematics (Grades 6–12) earn a degree in mathematics education.

During the 2009–10 academic year, 81 percent of individuals who completed a Florida Initial Teacher Preparation program completed their program at the bachelor's degree level and could be considered "traditional" entrants to the teaching profession. That same academic year, 3 percent of individuals completed a five-year program resulting in a bachelor's and master's degree. Finally, 16 percent of individuals completed their program at the master's degree level and could have demonstrated mastery of subject area knowledge by holding a bachelor's degree in the appropriate subject area, by completing the appropriate subject area content courses, or by passing a subject area test.

Florida public school teachers must be certified by FDOE. Most four-year colleges and universities, public and private, have a department or school of education offering teacher education programs aligned with state certification requirements. Florida issues a three-year non-renewable Temporary Certificate and a five-year renewable Professional Certificate. The Professional Certificate requires passing scores on a general knowledge exam, a subject area knowledge exam, and a general pedagogy exam. Florida also has two alternative certification programs approved by FDOE: the District Alternative Certification Program, and Educator Preparation Institutes. The District Alternative Certification Program requires that participants hold a valid Temporary Certificate while employed as full-time teachers. Both alternative certification programs require participants to have completed a bachelor's degree.

In the 2010–11 school year, 100 percent of Florida's more than 185,000 primary and secondary public school teachers had at least a bachelor's degree, and 41 percent also had a master's degree or other degree or certificate beyond a bachelor's degree.[11]

Requirements for Ongoing Professional Development in Reading for Teachers

Florida requires continuing professional development and education for the renewal of teacher certificates. Even though instructional processes or methods are not prescribed by the state, FDOE provides professional development that includes recommended instructional processes and methods. School districts and educational consortia that assist smaller school districts also provide opportunities for teachers to continue their education through professional development activities organized by the school district. Many districts have

professional development coordinators or specialists whose primary focus is to assist teachers with completing professional development and attaining credits toward re-certification.[12]

The Florida Professional Development Evaluation System guides a district's professional development activities. This evaluation system assesses local planning, delivery, follow-up, and evaluation of professional development activities according to standards modeled after the Learning Forward (formerly the National Staff Development Council) standards, as well as Florida Statutory requirements. The Florida Professional Development Evaluation System Protocol includes standards that identify and recognize best practices as well as local professional development systems in need of improvement.

Professional development in Florida is linked directly to identified student needs. Principals are required to maintain individual professional development plans for instructional personnel, which are based on the needs of students in the classrooms to which they are assigned. Consequently, professional development activities are selected and scheduled locally to correspond to specific schools' student needs.

Monitoring Student Progress in Reading

The Florida Comprehensive Assessment Test (FCAT) measures student achievement of the Next Generation Sunshine State Standards and assesses students in Grades 3–10. Historically, FCAT has included reading, writing, mathematics, and science assessments that measure student achievement on the Sunshine State Standards benchmarks. Florida began the transition from FCAT to FCAT 2.0 and Florida End-of Course (EOC) Assessments in the 2010–11 school year. Selected grades and subjects will continue to participate in FCAT assessments until the transition to the Partnership for the Assessment of Readiness for College and Careers assessments (based on Common Core State Standards) is complete. FDOE requires progress monitoring for students scoring below proficiency in reading.

Florida students enrolled in Advanced Placement, International Baccalaureate, or Advanced International Certification of Education programs also participate in tests associated with these programs. In addition, all Florida students have the opportunity to take the Preliminary Scholastic Aptitude Test during high school.

Florida's Student Progression Planning Guide provides the required elements of a Student Progression Plan.[13] Florida public schools typically

issue grade reports every six weeks for students in Grades K–5 and every nine weeks for students in Grades 6–12. Semester grades and yearly grades also are given in many districts. Florida Statutes include requirements for middle grade promotion (from Grade 8 to Grade 9) and high school graduation. The latter include a minimum grade point average (GPA) as well as a minimum number of credits (including some specific course credits).[14] High school transcripts that show courses taken and grades earned are used to establish whether students have met the state's graduation requirements. Transcripts also are used in college entrance applications as a record of academic performance

Florida has not adopted a statewide policy related to homework. The amount of time students at a given grade level are expected to spend on mathematics and science homework in a given week varies according to the policies established by local school districts, schools, and teachers. In general, educational activities completed at home are viewed as opportunities for practicing skills and reinforcing understanding of material learned in the classroom.

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Appendix

Organizations and Individuals Responsible for PIRLS 2011

Introduction

PIRLS 2011 was a collaborative effort involving hundreds of individuals around the world. This appendix acknowledges the individuals and organizations for their contributions. Given that work on PIRLS 2011 has spanned approximately five years and has involved so many people and organizations, this list may not include all who contributed. Any omission is inadvertent. PIRLS 2011 also acknowledges the students, parents, teachers, and school principals who contributed their time and effort to the study. This report would not be possible without them.

Management and Coordination

PIRLS is a major undertaking of IEA, and together with the Trends in International Mathematics and Science Study (TIMSS), comprises the core of IEA's regular cycles of studies. The PIRLS assessment at the fourth grade complements TIMSS, which regularly assesses mathematics and science achievement at fourth and eighth grades.

The TIMSS & PIRLS International Study Center at Boston College has responsibility for the overall direction and management of the TIMSS and PIRLS projects. Headed by Executive Directors Drs. Ina V.S. Mullis and Michael O. Martin, the study center is located in the Lynch School of Education. In carrying out the project, the TIMSS & PIRLS International Study Center worked closely with the IEA Secretariat in Amsterdam, which managed country participation, was responsible for verification of all translations produced by the participating countries, and coordinated the school visits by International Quality Control Monitors. The IEA Data Processing and Research Center in Hamburg was responsible for processing and verifying the data submitted by the participants; Statistics Canada in Ottawa was responsible for school and student sampling activities; and Educational Testing Service in Princeton, New Jersey consulted on psychometric methodology, provided software for scaling the achievement data, and replicated the achievement scaling for quality assurance.

The Project Management Team, comprising the study directors and representatives from the TIMSS & PIRLS International Study Center, IEA

Secretariat and IEA Data Processing and Research Center, Statistics Canada, and ETS met twice a year throughout the study to discuss the study's progress, procedures, and schedule. In addition, the study directors met with members of IEA's Technical Executive Group twice yearly to review technical issues.

To work with the international team and coordinate within-country activities, each participating country designates an individual to be the PIRLS National Research Coordinator (NRC). The NRCs have the challenging task of implementing the PIRLS study in their countries in accordance with the PIRLS guidelines and procedures. In addition, the NRCs provide feedback and contributions throughout the development of the PIRLS assessment. The quality of the PIRLS assessment and data depends on the work of the NRCs and their colleagues in carrying out the complex sampling, data collection, and scoring tasks involved. Continuing the tradition of exemplary work established in previous cycles of PIRLS, the PIRLS 2011 NRCs performed their many tasks with dedication, competence, energy, and goodwill, and have been commended by the IEA Secretariat, the TIMSS & PIRLS International Study Center, the IEA Data Processing and Research Center, and Statistics Canada for their commitment to the project and the high quality of their work.

Funding

Funding for PIRLS 2011 was provided primarily by the participating countries. The National Center for Education Statistics of the U.S. Department of Education was a major funding partner, providing funding under contract number ED08C00117. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

The financial support from Boston College is gratefully acknowledged, as well as that from the U.K.'s National Foundation for Educational Research.

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COVER ILLUSTRATION: Mario A. Pita
BOOK DESIGN: Mario A. Pita and Ruthanne Ryan
LAYOUT & PRODUCTION: Susan Farrell, Jennifer Moher Sepulveda, and Steven A. Simpson
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PRINTER: Flagship Press, North Andover, MA

TIMSS & PIRLS
International Study Center
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BOSTON
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ISBN-10: 1-889938-62-9
ISBN-13: 978-1-889938-62-2

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