



# PROGRESS IN INTERNATIONAL READING LITERACY STUDY (PIRLS) 2016

NATIONAL REPORT  
MALTA 2016



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# **PIRLS 2016**

## **Malta Report**



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**Foreword**

Malta participated for the first time in the PIRLS study in 2011. The reading literacy assessment was administered to Year 5 students, in Maltese (as a benchmarking exercise) and in English (as a main test). In 2016, the reading literacy assessment was administered as a main test in Maltese to Year 5 students. This was in view of the fact that Maltese is the first language of the large majority of students in Malta. Furthermore in 2015, the Ministry for Education and Employment carried out, in conjunction with Cambridge Assessment English of the University of Cambridge, a benchmarking assessment for English, with both Year 5 and Year 10 students. The results from that exercise were largely positive for English Language teaching and use in Maltese schools and a set of recommendations pertaining to classroom practice and teacher preparation were made. The overall results and recommendations from that exercise were reported in Khabbazbashi et al, 2017.

In 2016, Malta has very much retained its ranking in the PIRLS reading study. Prima facie this may mean that the ranking of the overall reading attainment has remained the same, irrespective of the test language. The situation is more complex as I explain below. The reading gaps between high and low-achieving students and girls and boys have persisted too. These reflect international trends. The reading gap for school type has persisted too with some important differences. One needs to unwrap further these results as it has been shown repeatedly that in Malta the type of school may very much reflect the socio-economic and language background of the majority of students attending that particular school.

In 2015, the Language Policy in Education Committee of Malta and the Council of Europe Language Policy Unit issued the Language Education Policy Profile (LEPP) for Malta (Council of Europe, 2015). This presented the complex linguistic landscape of Malta as a bilingual nation, with Maltese and English being the official languages and the languages of schooling. There is societal bilingualism in Malta and this is reflected in the different school sectors in Malta. The first language of most students in State schools is Maltese. The language situation in Church schools is more varied. The first language of most students in Independent schools is English. This is made amply clear by the present PIRLS results where Maltese was the test language. There was a significant decrease in the performance for students from Church schools, but especially for those from Independent schools. It is clear that the language of the test was a huge factor which determined the general underperformance of Maltese students on the PIRLS assessment.

In order to provide a more realistic picture of the reading ability in the first language of school children in Malta, our preference would have been to administer the PIRLS assessment in the language of preference of the children in the various school sectors. However the PIRLS mechanism, with its emphasis on tracking progress, did not fully allow for this. We feel that this means that the PIRLS results for Malta do not represent an actual and comprehensive view of the first language reading proficiency situation of Malta. Therefore caution is to be exercised in the interpretation of these results as they have to be considered in the context of the complex language situation in Maltese society and schools. Whereas participation in international assessment exercises may have its benefits, we need to ensure that such an exercise reflects the actual situation of our society and schools. The PIRLS assessment is one tool in our toolbox to

ensure a higher quality education. We need to consider a wide range of evidence to determine the best way forward for such a quality education.

Furthermore, Malta has registered a significant increase in home reading resources in the last five years, according to parents. This very much reflects the important efforts in recent years on the part of schools and the Ministry for Education, through the National Literacy Agency, to ensure better provision of reading resources in the home and in the early years of schooling. One notes that it takes quite some time for the benefits of such an intervention to filter through the whole system and to manifest itself in increased performance and outcomes. The same significant increase was registered in home digital resources, according to parents. Early literacy activities and related children performance at entry in primary schools have also increased, according to parents. The proportion of students with early literacy skills has increased too, according to heads of school. The percentage of Maltese school libraries having more than 500 book titles is significantly higher than the international average. Maltese parents have very positive views of their child's education. Maltese students' engagement in school is significantly above the international average. Students' reading enjoyment has improved too.

I would like to express my sincere thanks to the students, teachers, head teachers and parents who generously participated in the PIRLS 2016 study in Malta. My deepest gratitude goes to the indefatigable Mr. Louis Scerri, Assistant Director and Ms Karen Grixti, Education Officer, together with their hard-working team at the Educational Assessment Unit (MEDE), and also to Professor Liberato Camilleri of the University of Malta for authoring the present report and for his technical support throughout.

Professor Charles L. Mifsud  
National Research Coordinator  
PIRLS 2016

Khabbazbashi, N., Khalifa, H., Robinson, M., Ellis, S. and Mifsud, C. (2017) Understanding language learning in Malta in *Research Notes* Issue 65, 3-23, Cambridge English Language Assessment, UK.

Council of Europe (2015) Language Education Policy Profile (LEPP) for Malta, Language Policy Unit, Strasbourg.

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## Executive Summary

The Progress in International Reading Literacy Study (PIRLS) is a comparative study of the reading attainment of 10-year-olds (Year 5 students). Moreover, it investigates reading literacy and the factors involved in acquiring this skill. The PIRLS study is held over a five-yearly cycle and is conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). The International Study Centre is responsible for the overall design, development and implementation of the study. This includes establishing the procedures, overseeing instrument development, conducting training and carrying out quality assurance measures. To develop the PIRLS reading literacy tests, a large number of reading passages were submitted by the national research coordinators and discussed at international meetings.

### 1 Background to PIRLS 2016

- The survey takes place every five years. The first was carried out in 2001 and PIRLS 2016 was the fourth survey.
- Malta participated for the first time in the PIRLS survey in 2011. The reading literacy test was administered to Year 5 (Grade 4) students, first in Maltese (as a benchmarking exercise) and then in English (as a main test). In 2016, the reading literacy test was administered solely as a main test in Maltese to Year 5 students.
- The 3647 Maltese students that participated in the PIRLS study included 1754 females and 1893 males. The sample comprised almost the whole population of 10-year-olds and guaranteed a maximum margin of error of approximately 1% using a 95% degree of confidence.
- These students, whose average age was 9.7 years, were selected randomly from 95 Primary schools ensuring a good geographical representation. 2033 students were selected from 62 State schools, 1245 students were selected from 25 Church schools and 369 students were selected from eight Independent schools.
- Test items were organised into sixteen test booklets with items repeated across booklets. Each student was provided with a test booklet and had to complete the provided tasks under test conditions.
- Heads of school and teachers were asked to complete questionnaires, which elicited information about school climate and learning environment, and students' engagement in reading literacy. Moreover, the questionnaires provided information about teachers' preparations and the approaches adopted by the school and teachers to the teaching of reading.
- Parents and students were asked to complete questionnaires, which elicited information about students' demographic and economic backgrounds, educational resources at home, preprimary education, students' attitude to reading, frequency of reading and their confidence in their reading abilities.
- In order to ensure that assessment material provided valid and reliable measures of reading literacy, a matrix sampling technique was used. This enabled all assessment instruments to be

linked so that ultimately performance of all students could be placed on a single scale using item response theory.

- PIRLS 2016 encompasses two new assessments of reading comprehension, PIRLS Literacy and ePIRLS. The PIRLS Literacy assessment is equivalent to PIRLS in scope and reflects the same conception of reading as PIRLS, except it is less difficult overall. ePIRLS is an innovative assessment of online reading by expanding PIRLS to include computer-based reading assessment by using an engaging, simulated internet environment to present students with authentic school-like tasks.
- PIRLS identifies two purposes for reading, which include - literary experience, and acquiring and using information. It also identifies four comprehension processes, which include focus on and the retrieval of explicitly stated information and ideas, the making of straightforward inferences, interpreting and integration of ideas and information, the examination and evaluation of content, language and textual elements.
- A total reading score is generated to measure reading literacy skills of students. The PIRLS reading achievement scale score is a rescaled version of the total reading score, which has a mean of 500 and a standard deviation of 100. This makes it possible to compare reading scale scores between countries and between different cycles.
- PIRLS 2016 identifies four benchmarks of reading achievement. The low, intermediate, high and advanced benchmarks are set at 400, 475, 550 and 625 respectively.

## **2. Reading Attainment in PIRLS 2016**

- Malta's mean reading score (452) was significantly lower than the international average (500) and was ranked 40<sup>th</sup> of 50 participating countries.
- Reading attainment of Maltese students was comparable to students from United Arab Emirates but was significantly higher than nine countries including Bahrain, Qatar, Saudi Arabia, Iran, Oman, Kuwait, Morocco, Egypt and South Africa.
- The bottom 25% of Maltese students scored less than 394 and the top 25% scored more than 517 in the Reading Achievement scale.
- The percentage of Maltese students scoring more than 550 scale points in reading (13%) was significantly lower than the international average (47%). Moreover, the percentage of Maltese students scoring less than 475 scale points in reading (55%) was significantly higher than the international average (18%).
- The mean reading score of Maltese students in the PIRLS 2016 Maltese main test (452) was significantly lower than the mean reading score in the PIRLS 2011 Maltese benchmark test (457) and the PIRLS 2016 English main test (477).
- The language of the test has a huge impact on the students' reading attainment when clustered by school type. When comparing reading attainment between the PIRLS 2011 English main test and

the PIRLS 2016 Maltese main test, the mean reading scores of students attending State schools increased marginally by 2 scale points; while the mean reading scores of students attending Church and Independent schools decreased significantly by 39 and 130 scale points respectively.

- In all countries, female students scored higher in reading literacy than males. In Malta, female students scored 21 scale points more than males and the difference is significant at the 0.05 level.
- On average, Church school students scored significantly higher in reading than State school students who in turn scored significantly higher than Independent school students. Mean reading scores of female students exceed those of males by 26.2 scale points in State schools, 15.4 scale points in Church schools and 5.2 scale points in Independent schools.
- The mean reading scores of Maltese students in informational and literary reading are comparable. Similarly, the mean reading scores of Maltese students in retrieving/inferencing and interpreting/integrating/evaluating are comparable.
- In all school types, Maltese female students scored higher than males in both reading purposes and comprehension processes; however, this gender reading discrepancy was significant for students attending State and Church schools.

### **3. The Home Reading Support**

- The scale score that measures home reading resources ranges from 11.4 (Norway, Sweden and Denmark) to 6.9 (Morocco). Malta's mean scale score (10.7) is significantly higher than the international average and exceeds the corresponding 2011 scale score (10.3), indicating that home reading resources have increased in the last five years, according to parents. Students' reading attainment is positively and significantly related to home resources for reading.
- The scale score that measures home digital resources ranges from 11.8 (Norway) to 6.9 (Morocco). Malta's mean scale score (10.3) is higher than the international average, according to parents. Students' reading attainment is positively and significantly related to home digital resources.
- 69% of Maltese students speak Maltese at all times, 20% speak Maltese almost always, 26% speak Maltese occasionally and 5% do not speak the language. On average, students who never spoke Maltese scored significantly lower in reading comprehension than their counterparts who speak Maltese regularly or occasionally.
- The scale score that measures parents' reading enjoyment ranges from 10.4 (Azerbaijan) to 8.7 (Egypt). Malta's mean scale score (10.2) is significantly higher than the international average, however it is lower than the 2011 scale score (10.7), indicating that parents' reading enjoyment has decreased in the last five years, according to parents. Students' reading attainment is positively and significantly related to how much parents enjoy reading.
- The scale score that measures early literacy activities before primary schooling ranges from 11.3 (Russia) to 8.5 (Macao). Malta's mean scale score (10.7) is significantly higher than the international average and exceeds the corresponding 2011 scale score (10.4), indicating that early

literacy activities before primary schooling have increased in the last five years, according to parents. Students' reading attainment is positively and significantly related to how much parents enjoy reading.

- 28% of Maltese students attended kindergarten for at least 3 years; 59% attended pre-primary education for two years, 9% attended kindergarten for at most 1 year and 5% never attended pre-primary education. There is evidence that students who received longer pre-primary education tend to score higher in reading comprehension.
- 51% of Maltese students often engaged in literacy activities during pre-primary education, while the remaining 49% of Maltese students sometimes or never engaged in early literacy activities. There is evidence that students who frequently engaged in literacy activities during pre-primary education performed significantly better in reading attainment than their counterparts who seldom or never engaged in early literacy activities.
- The scale score that measures performance in early literacy tasks by students when they began primary school ranges from 12.0 (Ireland) to 8.6 (Slovak Republic and Hungary). Malta's mean scale score (10.1) is above the international average and is higher than the corresponding 2011 scale score (10.0), indicating that performance in early literacy activities at entry in primary schools have increased in the last five years, according to parents. Reading attainment is positively and significantly related to performance in early literacy activities.

#### **4. The School Environment**

- The percentage of Maltese students coming from economically affluent homes (39%) is marginally higher than the international average (38%). On the other hand, the percentage of Maltese students coming from economically disadvantaged homes (3%) is significantly lower than the international average (29%). Students' reading attainment is positively and significantly related to the student's economic background.
- 60% of Maltese schools have more than 90% of students who speak Maltese; 35% of the schools have between 51% and 90% and the remaining 5% of Maltese schools have less than 50% of students who speak Maltese. Students' reading attainment is weakly related to the percentage of students speaking regularly their native language.
- The scale score that measures the prevalence of students with early literacy skills ranges from 14.2 (Ireland and Northern Ireland) to 8.0 (Norway). Malta's mean scale score (10.2) is above the international average and exceeds the corresponding 2011 scale score (9.5), indicating that the proportion of students with early literacy skills has increased in the last five years, according to heads of school. Students' reading attainment is weakly related to the proportion of students with early literacy skills.
- The scale score that measures reading resource shortages ranges from 11.5 (Australia) to 7.6 (Kuwait). Malta's mean scale score (9.7) is less than the international average and is lower than the corresponding 2011 mean scale score (10.3), indicating that reading resource shortages have increased in the last five years, according to heads of school. Students' reading attainment is positively and significantly related to the lack of reading resource shortages at school.

- The percentage of Maltese school libraries having more than 500 book titles (78%) is significantly higher than the international average (72%). However, 15% of Maltese Primary schools do not have a library, which is marginally higher than the international average (13%). Students' reading attainment is weakly related to the size of school libraries.
- The percentage of Maltese schools having one computer available for instruction for at most 5 students (85%) is significantly higher than the international average (74%). Almost all Maltese schools have computers available for instruction. Students' reading attainment is weakly related to the number of computers available within schools.

## **5 The School Climate**

- The scale score that measures parents' perception of their child's school ranges from 11.4 (Malta and Kazakhstan) to 8.7 (Slovenia). Malta's mean scale score is significantly higher than the international average, which indicates that Maltese parents have very positive views of their child's education. Students' reading attainment is positively related to the parents' positive perceptions of their child's school.
- The scale score that measures the school's emphasis on academic success ranges from 11.7 (Northern Ireland) to 8.0 (Morocco and Chile). Malta's mean scale score (10.4) is above the international average but is lower than the corresponding 2011 mean scale score (11.0), indicating that in the last five years schools are making less emphasis on academic success, according to heads of school. Students' reading attainment is positively and significantly related to the school's emphasis on academic success.
- The scale score that measures teachers' job satisfaction ranges from 11.3 (Saudi Arabia, Oman and Chile) to 8.7 (France). Malta's scale score (10.3) is significantly higher than the international average but is lower than the corresponding 2011 mean scale score (10.7), indicating that in the last five years job satisfaction has diminished, according to teachers. Students' reading attainment is weakly related to the teachers' career satisfaction.
- The scale score that measures students' sense of school belonging ranges from 11.6 (Egypt) to 8.9 (Hong Kong). Malta's scale score (10.3) is significantly higher than the international average, according to students. Students' reading attainment is positively and significantly related to the students' sense of school belonging.
- In Maltese schools, at least 50% of students are expected to know the letters of the alphabet, know letter-sound relationships, read words, read isolated sentences, read connected text, locate information within the text, and explain/support understanding of a text by the end of Year 2. At least 50% of students are expected to identify the main idea of a text, compare a text with a personal experience, compare different texts, and make predictions about what will happen next in a text by the end of Year 3. At least 50% of students are expected to make generalizations and drawing inferences based on a text, and describe the style or structure of a text by the end of Year 4. At least 50% of students are expected to determine the author's perspective/intention by the end of Year 5.

## 6 School Discipline and Safety

- The scale score that measures school discipline ranges from 11.9 (Hong Kong) to 7.4 (Morocco). Malta's scale score (10.2) is higher than the international average and is equal to the corresponding 2011 mean scale score (10.2), indicating no change in the prevalence of disciplinary problems in Maltese schools in the last five years, according to heads of school. Students' reading attainment is positively and significantly related with fewer disciplinary problems.
- The scale score that measures safety and order in school ranges from 12.4 (Kazakhstan) to 8.7 (Slovenia). Malta's mean scale score (9.6) is significantly lower than the international average and less than the corresponding 2011 mean scale score (9.9), indicating that safety issues and order in Maltese schools have worsened in the last five years, according to teachers. Students' reading attainment is positively and significantly related with an increase in school safety and order.
- The scale score that measures lack of bullying at school ranges from 11.2 (Azerbaijan) to 8.4 (South Africa). Malta's mean scale score (9.8) is lower than the international average and is equal to the corresponding 2011 mean scale score (9.8), indicating no change in the prevalence of bullying in Maltese schools in the last five years, according to students. This implies that bullying in Maltese schools is more prevalent than foreign schools and trends in this aggressive behaviour did not change in the last five years. Students' reading attainment is positively related to a reduction in school bullying.

## 7. Teachers' and Heads' of school Preparation

- The percentage of Maltese teachers completing a Master's degree or a PhD (7%) is significantly lower than the international average (26%). On the other hand, the percentage of Maltese teachers with a Bachelor's degree (84%) is significantly higher than the international average (60%). The percentage of Maltese teachers who completed post-secondary education or a diploma (9%) is similar to international average proportions (11%).
- The percentage of Maltese teachers who emphasized language in their formal education (71%) is comparable to the international average (70%). The percentage of Maltese teachers who emphasized pedagogy and teaching reading in their formal education (80%) is significantly higher than the international average (64%). The percentage of Maltese teachers who emphasized reading theory in their formal education (28%) is significantly lower than the international average (32%). Students' reading attainment is weakly related to the type of training the teachers received in their formal education.
- The percentage of Maltese teachers spending at least 16 hours on professional reading development (29%) is significantly lower than the international average (36%). The percentage of Maltese teachers spending 6 to 15 hours (38%) is significantly higher than the international average (27%). The percentage of Maltese teachers spending less than 6 hours (29%) is significantly higher than the international average (22%). The percentage of Maltese teachers who spend no time on professional reading development (5%) is significantly lower than the international average (16%). Students' reading attainment is unrelated to the teachers' reading development duration.

- The average teaching experience duration ranges from 10 years (United Arab Emirates and Qatar) to 28 years (Bulgaria). The average teaching experience duration of Maltese teachers (11 years) is significantly less than the international average (17 years), which indicates that Maltese schools are staffed by relatively young teachers. Students' reading attainment is weakly related to the teaching experience duration of teachers.
- The percentage of Maltese heads of school completing a Master's degree or a PhD (58%) is significantly higher than the international average (48%). On the other hand, the percentage of Maltese heads of school with a Bachelor's degree (40%) is significantly lower than the international average (45%). The percentage of Maltese heads of school that completed post-secondary education or a diploma (2%) is significantly lower than the international average (7%).
- The average headship experience duration ranges from 5 years (Egypt) to 16 years (Lithuania and Latvia). The average headship experience duration of Maltese heads of school (9 years) is less than the international average (10 years).

## **8. Classroom Instruction**

- On average, the total instructional hours per year in Maltese schools (942 hours) is significantly larger than the international average (898 hours). The mean duration allocated to language instruction each year in Maltese schools (178 hours), which includes reading, writing, speaking, literature, and other language skills is significantly lower than the international average (242 hours). The mean duration allocated to reading instruction each year in Maltese schools (83 hours), which includes reading across the curriculum is significantly lower than the international average (156 hours).
- 96% to 97% of Maltese students have lessons at least weekly on how to 'locate information within texts', 'identify main ideas', and 'explain or support their understanding of what they read'. 75% to 89% of Maltese students have at least weekly lessons that cover skills that 'compare what they have read to their own experiences', 'make comparisons across texts', 'make predictions about the texts' or 'make generalizations and draw inferences on what they read'. 57% to 69% of Maltese students have at least weekly lessons that cover skills that 'describe text style/structure', or 'determine the author's perspective'.
- The percentage of Maltese students who are always/almost always taught reading as a whole-class activity (30%), clustered by same-ability grouping (7%), clustered by mixed-ability grouping (6%), and assigned independent work (7%) are lower than the international averages, which are 32%, 11%, 13% and 14% respectively. On the other hand, the percentage of Maltese students who are never taught reading as a whole-class activity (2%), clustered by same-ability grouping (19%), clustered by mixed-ability grouping (16%), and assigned independent work (13%) are mostly higher than the international averages, which are 3%, 15%, 8% and 5% respectively.
- The percentage of Maltese students who at least once weekly are asked to read short stories (89%), read longer fiction books with chapters (58%) and read plays (7%) differ considerably from the international averages (78%, 41% and 9% respectively). There is no relationship between students' reading attainment and the types of literary texts they read in class.

- The percentage of Maltese students who at least once weekly are asked to read nonfiction subject area books or textbooks (68%), read longer nonfiction books with chapters (34%) and read nonfiction articles (28%) differ considerably from the international averages (71%, 24% and 39% respectively). There is no relationship between students' reading attainment and the types of informational texts they read in class.
- The percentage of Maltese students, who have a classroom library or a reading corner (94%), whose library has more than fifty books (54%), and at least three magazines (40%), whose teacher gives them time to use the classroom library at least once a week (90%), who allows them to borrow books from the class library to take home (71%) and who takes them to other libraries at least once a month (82%) all exceed by a large margin the corresponding international averages of 72%, 33%, 32%, 61%, 55% and 67% respectively.
- The percentage of Maltese students who have a computer/tablet available to use for reading lessons (49%) is significantly higher than the international average (43%). Internationally, students with computers available for reading instruction have a significantly higher mean reading score (516) than their counterparts who do not have computers available for reading (508).
- In Maltese schools, relatively few students (2%) learn in classrooms where every student has a computer, about half (46%) learn in classrooms where students share computers, and another one-tenth (12%) used computers available school-wide. The corresponding international averages are 10%, 23% and 36% respectively.
- The percentage of Maltese students who at least once weekly are asked to read digital texts (19%), taught strategies for reading digital texts (15%), taught to be critical when reading on the internet (15%), asked to look up information (26%), asked to research a particular topic/problem (21%), asked to write stories or other texts (30%) are similar to the international averages of 19%, 13%, 17%, 25%, 19% and 17% respectively.
- The scale score that measures classroom instruction limitations ranges from 11.3 (Slovenia and Italy) to 8.6 (Russia). Malta's scale score (9.6) is significantly lower than the international average, indicating that according to teachers, Maltese students have more impact on classroom instruction due to their lack of readiness to learn, than foreign students. Students' reading attainment is positively and significantly related to students' preparedness and readiness to learn.
- The percentage of Maltese students who are never/rarely absent from school (79%) is significantly higher than the international average (68%). On the other hand, the percentage of Maltese students who are absent from school at least once weekly (8%) is lower than the international average (10%). There is a significant relationship between reading attainment and students' absenteeism, where students who are never/rarely absent from school perform significantly better in reading comprehension than their counterparts who are frequently absent.
- The percentage of Maltese students who almost every day arrive at school feeling hungry (40%) is significantly higher than the international averages (26%). However, the percentage of Maltese students who almost every day arrive at school feeling tired (32%) is equal to the international average (32%). There is a significant relationship between reading attainment and students' health. Healthy students perform better in reading comprehension than their counterparts who feel tired and hungry.

## 9. Student Engagement and Attitudes

- The scale score that measures students' engagement in reading ranges from 11.4 (Azerbaijan) to 8.9 (Hong Kong). Malta's mean scale score (10.3) is significantly above the international average but lower than the corresponding 2011 scale score (10.6), indicating that in the last five years, students' engagement in reading lessons diminished. Students' reading attainment is positively and significantly related to their engagement in reading lessons.
- The scale score that measures students' reading enjoyment ranges from 11.4 (Kazakhstan and Portugal) to 8.9 (Sweden). Malta's mean scale score (10.4) is significantly above the international average and is higher than the corresponding 2011 scale score (10.2), indicating that in the last five years, students' reading enjoyment improved. Students' reading attainment is positively and significantly related to their reading enjoyment.
- The scale score that measures students' confidence in reading ranges from 10.8 (Sweden) to 8.8 (South Africa). Malta's mean scale score (9.7) is significantly below the international average and is lower than the corresponding 2011 scale score (10.1), indicating that students' confidence in reading diminished in the last five years. Students' reading attainment is positively and significantly related to their reading confidence.



## 1

# Background to PIRLS 2016

## 1.1 Introduction

The Progress in International Reading Literacy Study (PIRLS) is a comparative study of the reading attainment of ten-year-olds (4<sup>th</sup> grade). Moreover, it investigates reading literacy and the factors involved in acquiring this skill. PIRLS is conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). The International Study Centre is responsible for the overall design, development and implementation of the study. This includes establishing the procedures, overseeing instrument development, conducting training and carrying out quality assurance measures. To develop the PIRLS reading literacy tests, a large number of reading passages were submitted by the national research coordinators and discussed at international meetings. At these meetings, workshops were convened and the research coordinators wrote questions on those passages that were accepted by the group. The process was iterative and the material was reviewed by both research coordinators and the reading development group.

The Special Surveys Methods Statistics group was responsible for all sampling activities in PIRLS, including developing the sampling procedures and documentation, and assisting participants in adapting the PIRLS sampling design to local conditions. After administering the reading test to a number of students selected randomly from various schools the scripts were corrected and marked. The data collected from each country was processed and verified and used to construct the international database.

The PIRLS study is conducted on a five-yearly cycle and this is the fourth time it was carried out. The first PIRLS study was held in 2001 with the participation of 26 countries. The target population included all students enrolled in the upper of the two adjacent grades that contain the largest proportion of 9-year olds at the time of testing. The survey was repeated in 2006 in which 40 countries participated in the study. The target population for this study was redefined to include all students who completed four years of schooling from the first year of ISCED level 1. This age group was targeted because at this age children would have learned to read and are now starting to read to learn. In 2011, IEA broadened PIRLS to meet the needs of countries in which most children in the fourth grade are still developing fundamental reading skills by widening participation to fifth and sixth grade students. Additionally, IEA provided a less difficult version of the PIRLS reading assessment for fourth grade students (called prePIRLS). Malta took part in PIRLS for the first time in 2011 together with 47 other participating countries.

PIRLS 2016 is the fourth assessment in the current trend series, following PIRLS 2001, 2006, and 2011. Fifty countries and 11 benchmarking entities participated in PIRLS 2016, including many that have participated in previous assessment cycles since 2001. Nationally representative samples of approximately 4,000 students from 150-200 schools participated in PIRLS 2016. More than 340,000 students, 330,000 parents, 16,000 teachers, and 12,000 schools participated in total. Figure 1.1 displays the countries participating in PIRLS 2001, 2006, 2011 and 2016.

**Figure 1.1:** Countries participating in PIRLS 2016 and earlier PIRLS assessments

Country	2016	2011	2006	2001
Australia	●	●		
Austria	●	●	●	
Azerbaijan	●	●		
Bahrain	●			
Belgium (Flemish)	●		●	
Belgium (French)	●	●	●	
Bulgaria	●	●	●	●
Canada	●	●		
Chile	●			
Chinese Taipei	●	●	●	
Czech Republic	●	●		●
Denmark	●	●	●	
Egypt	●			
England	●	●	●	●
Finland	●	●		
France	●	●	●	●
Georgia	●	●	●	
Germany	●	●	●	●
Hong Kong SAR	●	●	●	●
Hungary	●	●	●	●
Iran, Islamic Rep. of	●	●	●	●
Ireland	●	●		
Israel	●	●	○	○
Italy	●	●	●	●
Kazakhstan	●			
Kuwait	●	○	○	○
Latvia	●		●	●
Lithuania	●	●	●	●
Macao SAR	●			
Malta	●	●		
Morocco	●	●	○	○
Netherlands	●	●	●	●
New Zealand	●	●	●	●
Northern Ireland	●	●		
Norway	●			
Oman	●	●		
Poland	●	○	○	
Portugal	●	●		
Qatar	●	●	○	
Russian Federation	●	●	●	●
Saudi Arabia	●	●		
Singapore	●	●	●	●
Slovak Republic	●	●	●	●
Slovenia	●	●	●	●
South Africa	●	●	○	
Spain	●	●	●	
Sweden	●	●	●	●
Trinidad and Tobago	●	●	●	
United Arab Emirates	●	●		
United States	●	●	●	●

● indicates participation in testing cycle  
 ○ indicates participation but data could not be compared to measure trends to 2016

## 1.2 Selection criteria and test design and administration

In most of the participating countries the PIRLS sample was drawn from the population of students aged 10 years who attended Primary educational institutions. For convenience this population is referred to as 10-year-olds or 4<sup>th</sup> grade.

Figure 1.2: Trends in students' populations

Country	Average Age at Time of Testing				Overall Exclusion Rates				Overall Participation Rates (After Replacement)			
	2016	2011	2006	2001	2016	2011	2006	2001	2016	2011	2006	2001
Australia	10.0	10.0			4.8%	4.4%			94%	93%		
Austria	10.3	10.3	10.3		5.6%	5.1%	5.1%		98%	98%	97%	
Azerbaijan	10.1	10.2			2.1%	7.2%			96%	100%		
Belgium (Flemish)	10.1		10.0		1.6%		7.1%		92%		91%	
Belgium (French)	10.0	10.1	9.9		6.0%	5.6%	3.9%		97%	82%	95%	
Bulgaria	10.8	10.7	10.9	10.9	4.3%	2.5%	6.4%	2.7%	95%	95%	94%	93%
Canada	9.9	9.9			7.5%	9.9%			86%	94%		
Chinese Taipei	10.1	10.2	10.1		0.9%	1.4%	2.9%		98%	99%	99%	
Czech Republic	10.3	10.4		10.5	3.4%	5.1%		5.0%	95%	94%		90%
Denmark	10.8	10.9	10.9		9.8%	7.3%	6.2%		90%	95%	96%	
England	10.3	10.3	10.3	10.2	3.7%	2.4%	2.4%	5.7%	96%	82%	92%	82%
Finland	10.8	10.8			2.4%	3.1%			96%	95%		
France	9.8	10.0	10.0	10.1	5.4%	5.2%	3.8%	5.3%	96%	97%	95%	94%
Georgia	9.7	10.0	10.1		3.8%	4.9%	7.3%		96%	96%	98%	
Germany	10.3	10.4	10.5	10.5	4.2%	1.9%	0.7%	1.8%	95%	95%	92%	86%
Hong Kong SAR	9.9	10.1	10.0	10.2	10.1%	11.8%	3.9%	2.8%	79%	83%	97%	97%
Hungary	10.6	10.7	10.7	10.7	4.5%	4.2%	3.7%	2.1%	97%	96%	97%	95%
Iran, Islamic Rep. of	10.2	10.2	10.2	10.4	4.1%	4.5%	3.8%	0.5%	99%	99%	99%	98%
Ireland	10.5	10.3			3.1%	2.5%			96%	95%		
Israel	10.0	10.1			24.9%	24.6%			94%	93%		
Italy	9.7	9.7	9.7	9.9	4.9%	3.7%	5.3%	2.9%	95%	95%	97%	98%
Latvia	10.9		11.0	11.0	7.9%		4.7%	4.6%	91%		92%	89%
Lithuania	10.8	10.7	10.7	10.9	4.2%	5.6%	5.1%	3.8%	95%	94%	92%	83%
Malta	9.7	9.8			7.9%	4.1%			96%	94%		
Morocco	10.2	10.5			1.7%	2.0%			99%	95%		
Netherlands	10.1	10.2	10.3	10.3	3.1%	3.7%	3.6%	3.7%	86%	89%	90%	87%
New Zealand	10.1	10.1	10.0	10.1	3.7%	3.3%	5.3%	3.2%	92%	93%	95%	96%
Northern Ireland	10.4	10.4			3.0%	3.5%			84%	79%		
Norway (4)	9.8	9.7	9.8	10.0	5.1%	4.2%	3.8%	2.8%	95%	71%	71%	82%
Oman	9.7	9.9			0.6%	1.5%			98%	96%		
Portugal	9.8	10.0			7.5%	2.5%			93%	93%		
Qatar	10.0	10.0			3.9%	6.2%			97%	99%		
Russian Federation	10.8	10.8	10.8	10.3	3.8%	5.3%	5.9%	6.6%	98%	98%	97%	97%
Saudi Arabia	9.9	10.0			2.3%	1.6%			96%	98%		
Singapore	10.4	10.4	10.4	10.1	11.1%	6.3%	0.9%	0.1%	97%	96%	95%	98%
Slovak Republic	10.4	10.4	10.4	10.3	4.8%	4.6%	3.6%	2.0%	97%	96%	94%	96%
Slovenia	9.9	9.9	9.9	9.8	2.4%	2.6%	0.8%	0.3%	90%	94%	93%	94%
South Africa	10.6	10.5			2.5%	3.0%			94%	95%		
Spain	9.9	9.9	9.9		4.8%	5.4%	5.3%		97%	96%	97%	
Sweden	10.7	10.7	10.9	10.8	5.2%	4.1%	3.9%	5.0%	95%	91%	96%	92%
Trinidad and Tobago	10.2	10.3	10.1		1.3%	0.9%	0.7%		96%	95%	94%	
United Arab Emirates	9.8	9.8			3.3%	3.3%			95%	97%		
United States	10.1	10.2	10.1	10.2	4.8%	7.2%	5.9%	5.3%	86%	81%	82%	83%

Figure 1.2 displays the average age of the students participating in the last four PIRLS cycles of each participating country. Students from Malta, Italy, Georgia and Oman had the lowest mean age (9.7 years), while students from Latvia, Bulgaria, Denmark, Finland, Lithuania and Russia had the highest mean age (10.8 years). Figure 1.2 also shows the overall exclusion rates and overall participation rates after replacement of each participating country in the last four PIRLS cycles.

In Malta, the main study was administered in March 2016 with 3647 Year 5 students who attended State, Church and Independent schools. A large percentage (97.4%) of these students was born in 2006 and the average age (9.7 years) was marginally lower than the PIRLS 2011 mean age (9.8 years). The Maltese sample comprised 1754 (48.1%) females and 1893 (51.9%) males and guaranteed a maximum margin of error of approximately 1% assuming a 95% degree of confidence. These students came from 95 schools ensuring a good geographical representation. 2033 (55.7%) students were from 62 State schools, 1245 (34.1%) students were from 25 Church schools and 369 (10.1%) students were from 8 Independent schools. These percentages are comparable to the population percentages of students attending these school types ensuring a good representative sample. Table 1.1 displays the number of male and female Maltese students categorized by Maltese school type.

**Table 1.1** Maltese participants categorized by gender and school type

		School Type		
		State	Church	Independent
Gender	Female	975 (26.7%)	603 (16.5%)	176 (4.8%)
	Male	1058 (29.0%)	642 (17.6%)	193 (5.3%)

Test items were organised into sixteen test booklets with items repeated across booklets. Each student was provided with a test booklet and had to complete the provided tasks under test conditions. In order to ensure that assessment material provided valid and reliable measures of reading literacy, a matrix sampling technique was used. This enabled all assessment instruments to be linked so that ultimately performance of all students could be placed on a single scale using item response theory methods although each participating student took just a part of the whole assessment. Test administrators were appointed and followed the procedure described in the Test Administrator manual. The marking of the constructed response questions in the tests was carried out by trained Maltese markers.

Moreover, students, parents, teachers and heads of school were asked to complete questionnaires. The questionnaires submitted to heads of schools and class teachers elicited information about the approach to the teaching of reading adopted in the school and in the classrooms. In addition, they collected background information about the teachers and the schools of the students taking part in the survey. These questionnaires were sent in advance and were collected on the day of testing by the test administrator. The survey required two timetabled sessions in the participating schools, both on the same day. The first was for the administration of the reading tests and the second was for the completion of the student questionnaire. The parent and student questionnaires elicited information on students' demographic background including gender and age, parental education and occupation levels, items owned by the family and educational resources at home. The questionnaires also provide information about the students' attitude to reading, what they choose to read outside school, how often they read and their confidence in their reading abilities. Moreover, background data include information about the national curriculum policies in reading and how the educational system is organized to facilitate learning.

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### 1.3 The PIRLS reading assessment items

Reading literacy is defined by PIRLS as the ability to understand and use those written language forms required by society and valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment. Besides being a constructive and interactive process, reading is intended to embrace multi-modal forms of reading, as well as traditional print forms. PIRLS 2016 represents the most significant changes in PIRLS to date, because it encompasses two new assessments of reading comprehension, PIRLS Literacy and ePIRLS.

The PIRLS Literacy assessment is equivalent to PIRLS in scope and reflects the same conception of reading as PIRLS, except it is less difficult overall. PIRLS Literacy 2016 includes some passages and items that also are included in PIRLS 2016, but most of the assessment is based on shorter passages with higher proportion of more straightforward questions. The purpose of the PIRLS Literacy assessment is to provide better measurement at the lower end of the scale. Countries whose fourth grade students are still developing fundamental reading skills can participate in the PIRLS Literacy assessment and still have their results reported on the PIRLS achievement scale. The reading passages and questions in common between the PIRLS Literacy and the PIRLS assessments will enable the two assessments to be linked, so that the PIRLS Literacy assessment results can be reported together with the PIRLS assessment results and directly compared to them. Depending on a country's educational development and the students' reading level, countries can participate in either or both PIRLS and PIRLS Literacy. One approach would be to participate in PIRLS Literacy at the fourth grade and PIRLS at the sixth grade. The goal is to provide the best policy relevant information about how to improve teaching and learning and to help young students become accomplished and self-sufficient readers.

ePIRLS is an innovative assessment of online reading, designed to be open to the information age and provide important information about how well students are developing 21st century skills. Internet reading increasingly is becoming one of the central ways students are acquiring information. The internet is also becoming the central source for students to gather additional information in their school subjects, such as science and social studies. As students have begun to rely on the internet, reading curricula around the world are beginning to emphasize the importance of developing online reading skills and competencies such as reading for information. For countries participating in PIRLS 2016, ePIRLS expands PIRLS to include computer-based reading assessment by using an engaging, simulated internet environment to present fourth grade students with authentic school-like tasks involving science and social studies topics. An internet browser window provides students with websites containing information about their assignments, and students navigate through pages with a variety of features, such as photos, graphics, multiple tabs, and links. In an assessment window, a teacher avatar guides students through the ePIRLS assignments, prompting the students with questions about the online information.

PIRLS identifies two overarching purposes for reading and four comprehension processes. Each question was attributed to one of the two purposes (literary experience, acquiring and using information). Moreover, each question was attributed to one of the four processes (focus on and retrieve explicitly stated information and ideas, make straightforward inferences, interpret and

integrate ideas and information, examine and evaluate content, language and textual elements). The texts selected for use in PIRLS 2016 were submitted by representatives of the participating countries and scrutinized by the group of reading experts and the national research coordinators at various meetings. Once a shortlist of texts had been selected, several items were produced by the national research coordinators and other representatives of the participating countries at item writing workshops. These items were subsequently reviewed by the reading expert group and combined with other items retained from the 2011 survey, which served as a means of linking the two surveys.

Students' ability to understand text through the four PIRLS comprehension processes is assessed via comprehension questions that accompany each text. Two question formats are used in the PIRLS and PIRLS Literacy assessments: multiple-choice and constructed-response. Each multiple-choice question is worth one point. Constructed-response questions are worth one, two, or three points, depending on the depth of understanding required. Up to half of the total number of points represented by all of the questions comes from multiple choice questions. In the development of comprehension questions, the decision to use either a multiple-choice or a constructed-response format is based on the process being assessed, and on which format best enables test takers to demonstrate their reading comprehension.

Multiple-choice questions provide students with four response options, of which only one is correct. Multiple-choice questions can be used to assess any of the four comprehension processes. However, because they do not allow for students' explanations or supporting statements, multiple-choice questions may be less suitable for assessing students' ability to make more complex evaluations or interpretations. In assessing fourth grade students, it is important that linguistic features of the questions are developed appropriately, where questions are written clearly and concisely. Response options also are written succinctly in order to minimize the reading demand of the question. Incorrect options are written to be plausible, but not deceptive.

Constructed-response test items require students to provide a written response, rather than select a response from a set of options. The emphasis placed on constructed-response questions in the PIRLS assessments is consistent with the definition of literacy underlying the framework. It reflects the interactive, constructive view of reading - meaning is constructed through an interaction between the reader, the text, and the context of the reading task. This question type may be used to assess any of the four comprehension processes. However, it is particularly well suited for assessing aspects of comprehension that require students to provide support or that result in interpretations involving students' background knowledge and experiences. In the PIRLS assessments, constructed-response questions may be worth one or two points (short-answer items), or three points (extended-response items), depending on the depth of understanding or the extent of textual support the question requires. In scoring students' responses to constructed-response questions, the focus is solely on students' understanding of the text, not on their ability to write well. Also, scoring takes into account the possibility of various interpretations that may be acceptable, given appropriate textual support. Consequently, a wide range of answers and writing ability may appear in the responses that receive full credit to any one question.

Figure 1.3 and Figure 1.4 show the number of distinct types of PIRLS items and PIRLS Literacy items clustered by reading purposes, comprehension processes and item formats. Moreover, the tables show the percentage score allocated to each type of items.

**Figure 1.3:** Distribution of PIRLS items by reading purposes, comprehension processes and item format

PIRLS Assessment Items	Multiple-Choice Items		Constructed Response Items		Total Items		Percentage of Score Points
	Items	Points	Items	Points	Items	Points	
<b>Reading Purpose</b>							
Literary Experience	46	46	44	67	90	113	51%
Acquire and Use Information	40	40	45	70	85	110	49%
<b>Comprehension Process</b>							
Focus on and Retrieve Explicitly Stated Information and Ideas	25	25	25	32	50	57	26%
Make Straightforward Inferences	35	35	18	24	53	59	26%
Interpret and Integrate Ideas and Information	11	11	36	68	47	79	35%
Examine and Evaluate Content, Language, and Textual Elements	15	15	10	13	25	28	13%
<b>Total</b>							
Items	86	86	89	137	175	223	100%
Percentage of Score Points	39%		61%				

**Figure 1.4:** Distribution of PIRLS Literacy items by reading purposes, comprehension processes, item format

PIRLS Literacy Items	Multiple-Choice Items		Constructed Response Items		Total Items		Percentage of Score Points
	Items	Points	Items	Points	Items	Points	
<b>Reading Purpose</b>							
Literary Experience	47	47	46	60	93	107	50%
Acquire and Use Information	44	45	46	60	90	105	50%
<b>Comprehension Process</b>							
Focus on and Retrieve Explicitly Stated Information and Ideas	30	30	52	61	82	91	43%
Make Straightforward Inferences	35	35	17	19	52	54	25%
Interpret and Integrate Ideas and Information	9	10	22	39	31	49	23%
Evaluate and Critique Content, Language, and Textual Elements	17	17	1	1	18	18	8%
<b>Total</b>							
Total	91	92	92	120	183	212	100%
Percentage of Score Points	43%		57%				

## 1.4 International Benchmarks of Reading Attainment

The overall reading score was generated to measure reading literacy skills of students. This PIRLS reading achievement scale has a mean of 500 and a standard deviation of 100 and was designed to remain constant between assessments at different cycles.

**Figure 1.5:** International Benchmarks of Reading Achievement

<b>●</b>	<b>Advanced</b> International Benchmark
<b>625</b>	<p><i>When reading relatively complex <b>Literary Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Interpret story events and character actions to describe reasons, motivations, feelings, and character development with full text-based support</li> <li>• Begin to evaluate the effect on the reader of the author's language and style choices</li> </ul> <p><i>When reading relatively complex <b>Informational Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Distinguish and interpret complex information from different parts of text, and provide full text-based support</li> <li>• Integrate information across a text to explain relationships and sequence activities</li> <li>• Begin to evaluate visual and textual elements to consider the author's point of view</li> </ul>
<b>○</b>	<b>High</b> International Benchmark
<b>550</b>	<p><i>When reading relatively complex <b>Literary Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Locate and distinguish significant actions and details embedded across the text</li> <li>• Make inferences to explain relationships between intentions, actions, events, and feelings, and give text-based support</li> <li>• Interpret and integrate story events and character actions, traits, and feelings as they develop across the text</li> <li>• Recognize the use of some language features (e.g. metaphor, tone, imagery)</li> </ul> <p><i>When reading relatively complex <b>Informational Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Locate and distinguish relevant information within a dense text or a complex table</li> <li>• Make inferences about logical connections to provide explanations and reasons</li> <li>• Integrate textual and visual information to interpret the relationship between ideas</li> <li>• Evaluate and make generalizations about content and textual elements</li> </ul>
<b>●</b>	<b>Intermediate</b> International Benchmark
<b>475</b>	<p><i>When reading a mix of simpler and relatively complex <b>Literary Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Independently locate, recognize, and reproduce explicitly stated actions, events, and feelings</li> <li>• Make straightforward inferences about the attributes, feelings, and motivations of main characters</li> <li>• Interpret obvious reasons and causes, recognize evidence, and give examples</li> <li>• Begin to recognize language choices</li> </ul> <p><i>When reading a mix of simpler and relatively complex <b>Informational Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Locate and reproduce two or three pieces of information from text</li> <li>• Make straightforward inferences to provide factual explanations</li> <li>• Begin to interpret and integrate information to order events</li> </ul>
<b>○</b>	<b>Low</b> International Benchmark
<b>400</b>	<p><i>When reading predominantly simpler <b>Literary Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Locate and retrieve explicitly stated information, actions, or ideas</li> <li>• Make straightforward inferences about events and reasons for actions</li> <li>• Begin to interpret story events and central ideas</li> </ul> <p><i>When reading predominantly simpler <b>Informational Texts</b>, students can:</i></p> <ul style="list-style-type: none"> <li>• Locate and reproduce explicitly stated information from text and other formats (e.g., charts, diagrams)</li> <li>• Begin to make straightforward inferences about explanations, actions, and descriptions</li> </ul>

The Advanced International Benchmark is set at a scale score of 625, the High International Benchmark is 550, the Intermediate International Benchmark is 475 and the Low International Benchmark is 400. Figure 1.5 provides a detailed description of each benchmark for both literary and informational purposes and Figure 1.6 to Figure 1.13 provide a number of illustrative items.

**Figure 1.6:** Item at a Low International Benchmark (Multiple-choice item)



**Figure 1.7:** Item at a Low International Benchmark (Constructed-response item)

Country	Percent Full Credit	Purpose: Literary Experience
		Process: Make Straightforward Inferences
		Description: Recognize and reproduce a character's feeling that is clearly suggested at a specified point in the story
Austria	96 (0.8) ●	<p>At the end of the story, how did Granny Gunn feel about her new home?</p> <p></p> <p>The answer shown illustrates the type of student response that would receive full credit (1 point).</p>
Ireland	95 (1.0) ●	
Norway	95 (1.0) ●	
Finland	94 (0.9) ●	
Denmark	94 (1.0) ●	
Poland	94 (1.1) ●	
Northern Ireland	94 (1.2) ●	
Netherlands	94 (1.0) ●	
England	93 (0.9) ●	
Czech Republic	93 (1.0) ●	
Germany	93 (1.0) ●	
Spain	92 (0.8) ●	
Latvia	92 (1.4) ●	
Hong Kong SAR	92 (1.3) ●	
Canada	92 (0.8) ●	
Australia	92 (0.9) ●	
United States	92 (1.2) ●	
Belgium (Flemish)	91 (1.1) ●	
Singapore	90 (0.9) ●	
Slovak Republic	90 (1.4) ●	
Russian Federation	90 (1.4) ●	
Portugal	88 (1.3) ●	
Hungary	88 (1.7) ●	
New Zealand	88 (1.5) ●	
Italy	87 (1.6) ●	
Slovenia	87 (1.8) ●	
Bulgaria	86 (1.5) ●	
France	86 (1.5) ●	
Israel	86 (1.4) ●	
Chile	86 (1.5) ●	
Belgium (French)	84 (1.6) ●	
Lithuania	83 (1.9) ●	
Trinidad and Tobago	82 (1.9) ●	
Chinese Taipei	81 (1.6) ●	
<b>International Avg.</b>	<b>80 (0.2)</b>	
Macao SAR	78 (1.5) ●	
Sweden	77 (1.8) ●	
Malta	73 (1.8) ▼	
Georgia	71 (1.8) ▼	
Kazakhstan	70 (2.0) ▼	
United Arab Emirates	67 (1.4) ▼	
Iran, Islamic Rep. of	67 (1.9) ▼	
Bahrain	62 (1.5) ▼	
Qatar	60 (1.3) ▼	
Oman	58 (1.9) ▼	
Saudi Arabia	57 (2.4) ▼	
Azerbaijan	55 (2.3) ▼	
Kuwait	45 (2.3) ▼	
Morocco	36 (1.4) ▼	
Egypt	32 (1.9) ▼	
South Africa	32 (1.6) ▼	

● Significantly higher than international average  
 ▼ Significantly lower than international average

**Figure 1.8:** Item at Intermediate International Benchmark (Multiple-choice item)

Country	Percent Correct	Purpose: Literary Experience
		Process: Interpret and Integrate Ideas and Information
		Description: Identify the narrator (in a first person story) from a range of clues in the text and confirmed by the pictures
Ireland	94 (1.3) ●	<p>Who is telling the story?</p> <p><input type="radio"/> A a granny</p> <p><input checked="" type="radio"/> B a child</p> <p><input type="radio"/> C a doctor</p> <p><input type="radio"/> D a farmer</p>
Russian Federation	93 (1.2) ●	
Northern Ireland	93 (1.3) ●	
Poland	91 (1.4) ●	
England	90 (1.0) ●	
Denmark	90 (1.4) ●	
Czech Republic	90 (1.2) ●	
Bulgaria	90 (1.5) ●	
Hungary	89 (1.7) ●	
Slovenia	89 (1.6) ●	
Netherlands	89 (1.4) ●	
United States	88 (1.5) ●	
Austria	87 (1.4) ●	
Singapore	87 (1.2) ●	
Latvia	87 (1.4) ●	
Australia	87 (1.2) ●	
Italy	86 (1.6) ●	
Finland	86 (1.2) ●	
Belgium (Flemish)	86 (1.4) ●	
Canada	85 (1.1) ●	
Israel	85 (1.2) ●	
Norway	85 (1.8) ●	
Germany	85 (1.4) ●	
Slovak Republic	84 (1.5) ●	
Portugal	83 (1.5) ●	
Lithuania	83 (2.3) ●	
Azerbaijan	82 (1.9) ●	
Spain	82 (1.3) ●	
New Zealand	81 (1.4) ●	
Sweden	80 (2.0) ●	
Kazakhstan	80 (1.8) ●	
France	78 (1.9)	
Georgia	77 (1.7)	
Hong Kong SAR	77 (1.9)	
Chile	77 (1.9)	
<b>International Avg.</b>	<b>75 (0.2)</b>	
Macao SAR	75 (1.6)	
Malta	73 (1.8)	
Belgium (French)	70 (2.0) ▼	
Chinese Taipei	67 (1.8) ▼	
Trinidad and Tobago	66 (2.6) ▼	
Iran, Islamic Rep. of	57 (2.0) ▼	
United Arab Emirates	54 (1.4) ▼	
Qatar	53 (1.2) ▼	
Bahrain	51 (1.9) ▼	
Oman	44 (1.8) ▼	
Morocco	39 (1.5) ▼	
Kuwait	38 (2.7) ▼	
Saudi Arabia	27 (1.9) ▼	
South Africa	25 (1.4) ▼	
Egypt	25 (1.8) ▼	

● Significantly higher than international average  
 ▼ Significantly lower than international average

**Figure 1.9:** Item at Intermediate International Benchmark (Constructed-response item)

Country	Percent At Least 1 Point	Purpose: Literary Experience
		Process: Focus on and Retrieve Explicitly Stated Information
		Description: Reproduce 1 (of 2) explicitly stated character action
Latvia	96 (0.9)	<p>Write <b>two</b> ways in which Granny Gunn made her new flat feel like home.</p> <p>① 1. She brought her cat to town</p> <p>② 2.</p>
Austria	96 (0.8)	
Belgium (Flemish)	95 (0.7)	
Norway (S)	95 (1.0)	
Ireland	95 (1.0)	
Poland	95 (0.9)	
Netherlands	94 (1.0)	
Hungary	94 (1.3)	
Czech Republic	94 (1.0)	
Sweden	93 (1.2)	
Northern Ireland	92 (1.2)	
Lithuania	92 (1.7)	
Finland	91 (1.1)	
Russian Federation	91 (1.1)	
Denmark	91 (1.3)	
Slovenia	90 (1.3)	
Slovak Republic	90 (1.4)	
Portugal	90 (1.5)	
Canada	90 (0.9)	
Australia	89 (1.3)	
Hong Kong SAR	88 (1.6)	
France	88 (1.2)	
United States	88 (1.6)	
Bulgaria	87 (1.5)	
Spain	87 (1.1)	
England	87 (1.4)	
Chinese Taipei	87 (1.7)	
Macao SAR	87 (1.2)	
Singapore	86 (1.2)	
Italy	85 (1.6)	
Israel	84 (1.3)	
New Zealand	84 (1.3)	
Belgium (French)	84 (1.6)	
Kazakhstan	82 (1.6)	
Germany	82 (1.7)	
<b>International Avg.</b>	<b>79 (0.2)</b>	
Chile	77 (2.0)	
Georgia	75 (2.0)	
Trinidad and Tobago	74 (2.1)	
Azerbaijan	68 (2.5)	
Malta	66 (2.0)	
Bahrain	64 (1.5)	
Saudi Arabia	59 (2.5)	
United Arab Emirates	56 (1.6)	
Iran, Islamic Rep. of	52 (2.0)	
Qatar	49 (1.2)	
Oman	46 (1.7)	
Kuwait	44 (2.0)	
Morocco	36 (1.6)	
Egypt	29 (1.6)	
South Africa	22 (1.4)	

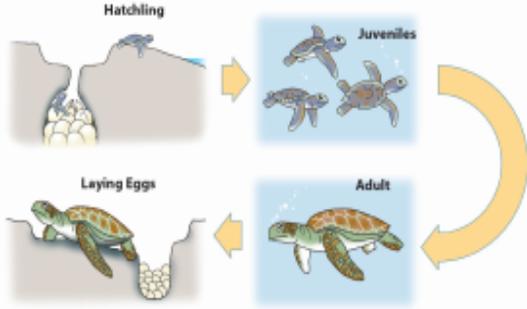
The answer shown illustrates the type of student response that would receive partial credit (1 of 2 points).

**Figure 1.10:** Item at High International Benchmark (Multiple-choice item)

Country	Percent Correct	Purpose: Literary Experience
		Process: Make Straightforward Inferences
		Description: Make a straightforward inference about the reason for a character's words
Russian Federation	85 (1.5) ●	<p>Why does Mum say, "I would like your job"?</p> <p><input type="radio"/> A Mum feels sorry for Macy.</p> <p><input type="radio"/> B Macy should do more jobs around the house.</p> <p><input type="radio"/> C Mum really likes looking after hens.</p> <p><input checked="" type="radio"/> D Macy should understand Mum has harder jobs.</p>
Hungary	72 (2.1) ●	
Spain	72 (1.6) ●	
Chinese Taipei	70 (1.8) ●	
Lithuania	68 (2.1) ●	
Poland	67 (2.1) ●	
Bulgaria	67 (2.4) ●	
Hong Kong SAR	66 (2.5) ●	
Italy	65 (2.1) ●	
Slovak Republic	65 (2.0) ●	
Macao SAR	63 (1.7) ●	
Latvia	63 (2.3) ●	
Norway	63 (2.2) ●	
Azerbaijan	63 (2.2) ●	
France	62 (2.3) ●	
Portugal	61 (2.0) ●	
Kazakhstan	60 (2.2) ●	
Czech Republic	60 (1.8) ●	
Ireland	57 (2.3)	
Netherlands	57 (1.8)	
Sweden	56 (2.1)	
Slovenia	56 (2.2)	
Denmark	56 (2.1)	
Malta	55 (2.2)	
Belgium (Flemish)	55 (2.2)	
Austria	55 (2.3)	
Belgium (French)	55 (2.3)	
Georgia	55 (2.3)	
<b>International Avg.</b>	<b>55 (0.3)</b>	
Israel	54 (2.0)	
Northern Ireland	53 (2.1)	
Germany	53 (2.2)	
England	53 (1.5)	
Canada	52 (1.7) ▼	
Finland	51 (2.1)	
United States	51 (2.2)	
Singapore	48 (1.7) ▼	
Australia	47 (2.1) ▼	
Iran, Islamic Rep. of	47 (2.7) ▼	
New Zealand	47 (2.0) ▼	
Chile	39 (2.3) ▼	
United Arab Emirates	37 (1.2) ▼	
Qatar	37 (1.2) ▼	
Saudi Arabia	37 (2.0) ▼	
Bahrain	34 (1.9) ▼	
Trinidad and Tobago	30 (1.9) ▼	
Oman	24 (1.5) ▼	
Morocco	21 (1.8) ▼	

- Significantly higher than international average  
▼ Significantly lower than international average

**Figure 1.11:** Item at High International Benchmark (Constructed-response item)

Country	Percent Full Credit	Purpose: Acquire and Use Information
		Process: Evaluate and Critique Content and Textual Elements
		Description: Evaluate the content of a diagram and interpret its meaning
Singapore	74 (1.6) ●	<p>A diagram from the article is shown below.</p> <p>What does this diagram help you to understand?</p>  <p>① <u>what all the parts of the life cycle are</u></p> <p>The answer shown illustrates the type of student response that would receive full credit (1 point).</p>
Poland	68 (1.9) ●	
England	68 (1.7) ●	
Australia	67 (1.7) ●	
Chinese Taipei	64 (1.7) ●	
Canada	63 (1.8) ●	
Latvia	61 (2.0) ●	
United States	61 (2.4) ●	
Kazakhstan	59 (2.4) ●	
Northern Ireland	59 (2.1) ●	
Slovenia	57 (2.5) ●	
Bulgaria	57 (2.3) ●	
New Zealand	54 (2.0) ●	
Ireland	54 (2.4) ●	
Hong Kong SAR	54 (2.9) ●	
Russian Federation	52 (1.7) ●	
Norway	51 (2.2) ●	
Hungary	51 (2.4) ●	
Denmark	51 (2.3) ●	
Lithuania	51 (2.5) ●	
Slovak Republic	49 (2.1) ●	
Netherlands	49 (1.7) ●	
Macao SAR	49 (2.3) ●	
Finland	47 (2.0) ●	
<b>International Avg.</b>	<b>47 (0.3)</b>	
Trinidad and Tobago	46 (2.2) ●	
Czech Republic	45 (2.1) ●	
Italy	45 (2.4) ●	
Belgium (French)	44 (1.9) ●	
Georgia	44 (2.6) ●	
Germany	42 (2.5) ▼	
Belgium (Flemish)	42 (2.4) ▼	
Bahrain	41 (1.8) ▼	
United Arab Emirates	41 (1.3) ▼	
Portugal	41 (2.0) ▼	
Israel	39 (2.0) ▼	
Azerbaijan	39 (2.5) ▼	
Austria	39 (2.3) ▼	
Qatar	38 (1.2) ▼	
France	35 (2.0) ▼	
Chile	34 (2.2) ▼	
Spain	34 (2.1) ▼	
Oman	33 (1.8) ▼	
Malta	31 (1.8) ▼	
Sweden	30 (2.2) ▼	
Saudi Arabia	28 (2.2) ▼	
Morocco	13 (1.7) ▼	
Iran, Islamic Rep. of	11 (1.4) ▼	

- Significantly higher than international average
- ▼ Significantly lower than international average

Figure 1.12: Item at Advanced International Benchmark (Multiple-choice item)

Country	Percent Correct	Purpose: Acquire and Use Information
		Process: Make Straightforward Inferences
		Description: Distinguish relevant information and make an inference about a scientific question
Singapore	67 (1.7) ●	<p>Which activity in an adult female green sea turtle's life is not fully understood by scientists?</p> <p>Ⓐ how she can swim over 600 miles</p> <p>Ⓑ how she makes a nest for her eggs</p> <p>Ⓒ how she avoids being eaten by predators</p> <p>● how she finds the right beach to lay her eggs</p>
Russian Federation	61 (2.0) ●	
Netherlands	60 (2.4) ●	
Sweden	59 (2.1) ●	
Bulgaria	59 (2.6) ●	
Finland	59 (2.1) ●	
Slovak Republic	58 (2.1) ●	
Latvia	57 (1.9) ●	
Czech Republic	55 (2.0) ●	
Chinese Taipei	55 (2.1) ●	
Australia	55 (2.0) ●	
Hungary	55 (2.1) ●	
Lithuania	54 (2.2) ●	
Norway	53 (2.2) ●	
Poland	53 (2.4) ●	
Denmark	52 (2.8) ●	
Ireland	52 (2.1) ●	
Germany	50 (2.3) ●	
Belgium (Flemish)	50 (2.0) ●	
England	50 (1.9) ●	
Italy	50 (2.3) ●	
United States	49 (2.2) ●	
Northern Ireland	49 (2.4)	
Kazakhstan	49 (2.0) ●	
Canada	49 (1.6) ●	
Portugal	47 (2.3)	
Austria	47 (2.1)	
New Zealand	46 (2.0)	
Israel	46 (1.9)	
Slovenia	45 (2.3)	
<b>International Avg.</b>	<b>45 (0.3)</b>	
France	44 (2.1)	
Hong Kong SAR	43 (2.1)	
Chile	39 (1.9) ▼	
Georgia	38 (2.3) ▼	
Spain	37 (1.6) ▼	
Macao SAR	34 (2.0) ▼	
United Arab Emirates	33 (1.3) ▼	
Belgium (French)	32 (1.9) ▼	
Trinidad and Tobago	30 (2.1) ▼	
Qatar	29 (1.3) ▼	
Malta	25 (1.7) ▼	
Azerbaijan	25 (2.3) ▼	
Bahrain	24 (1.9) ▼	
Oman	22 (1.4) ▼	
Saudi Arabia	19 (1.9) ▼	
Iran, Islamic Rep. of	18 (2.0) ▼	
Morocco	17 (1.6) ▼	

● Significantly higher than international average  
 ▼ Significantly lower than international average

**Figure 1.13:** Item at Advanced International Benchmark (Constructed-response item)



- Significantly higher than international average
- ▼ Significantly lower than international average

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## 1.5 Report Structure

Chapter 2 presents the reading attainment results of 4<sup>th</sup> grade (Year 5 in Malta) students for each of the fifty participating countries in PIRLS 2016. Performance in reading attainment is first compared between countries and then compared between male and female students for each country separately. Reading attainment is also compared between countries in two different purposes – literary purposes and informational purposes. This is followed by the results in two processes of reading comprehension – retrieving and straightforward inferencing and interpreting, integrating and evaluating. This chapter also contrasts overall reading achievement between Maltese students attending different school types and between the 2011 and 2016 cycles.

Chapter 3 describes the importance of home environments for reading literacy development and investigates the relationship between children’s home circumstances and their performance on the PIRLS reading assessment. PIRLS collects data through both the student and parent questionnaire, which provide rich information about home resources for learning, languages spoken at home, parental educational expectations, early literacy and numeracy activities, and home reading support. A scale score is generated for each of these home contexts. This chapter investigates the relationship between Maltese students’ performance on the PIRLS reading assessment and these home contexts and compares these relationships between State, Church and Independent schools.

Chapter 4 provides information about the school environment and organization contexts, which are essential for the ease and effectiveness of reaching curricular goals. This chapter provides information about the school environment supplied by the heads of school and it discusses the school composition by students’ socio-economic background, by the proportion of students speaking their native language and by the proportion of students having literacy skills at entry in Primary schools. This chapter also investigates how instruction is affected by reading resource shortage at school, size of school library, and availability of computers for instruction at school. Scale scores are generated for reading resource shortage and students’ early literacy skills, which are both related to the PIRLS reading assessment.

Chapter 5 describes the views of heads of school and teachers regarding a number of school related aspects. It highlights the heads’ and teachers’ perspectives on the school emphasis on academic success; the parents’ perceptions of their child’s school, the emphasis on reading and strategies in the early stages of primary schooling, teachers’ job satisfaction and students’ sense of belonging. A scale score is generated for five of these aspects which will be used to identify differences between participating countries and between school types for the local context. Moreover, each of these aspects will be related to the PIRLS reading assessment.

Chapter 6 describes the views of heads of schools, teachers and students regarding a number of school related issues. It investigates the heads’ and teachers’ perspectives regarding the school discipline, safety and order at school, and examines student bullying behaviour. For each of the three issues, a scale score is generated which will be used to identify differences between participating countries and between school types for the local context. Moreover, each of these issues will be related to the PIRLS reading assessment.

Chapter 7 investigates the impact of teachers' and heads' of school preparation and training in professional development programs on students' reading attainment. PIRLS collects information about how countries educate teachers in the content and pedagogical approaches specified in the curriculum. Moreover, this chapter provides background information about the formal education and years of experience of teachers and heads of school, time spent by teachers on professional development and the emphasis on language and reading areas in teachers' formal education.

Chapter 8 investigates how classroom environment and instructional activities affect teaching and learning at school. This chapter focuses on a number of facilities and practices, which include instruction duration of language and reading, teachers' emphasis on reading comprehension skills and strategies, organizing students for reading instruction, availability of classroom libraries, reading of various types of literary and informational texts and availability of computers for reading lessons. Moreover, this chapter examines a number of negative student attributes, including students' lack of preparedness and readiness to learn, students' absenteeism from school and the prevalence of tired and hungry students arriving at school. A scale score is generated for students' preparedness and readiness to learn, which will be related to the PIRLS reading assessment and compared between different school types.

Chapter 9 focuses on students' attitudes and habits to reading and their confidence in their abilities. This chapter investigates how much students find reading pleasant, how confident they are in reading and how much they are engaged during lessons to enhance reading and learning and strategies employed by teachers to develop students' reading comprehension skills. A scale score is generated for each reading characteristic, which will be related to the PIRLS reading assessment and compared between different school types.

## 2

# Reading Attainment in PIRLS 2016

## 2.1 Introduction

This chapter presents the reading attainment results of 4<sup>th</sup> grade students for each of the 50 participating countries and 11 benchmarking participants in PIRLS 2016. Performance in reading attainment is first compared between countries and then compared between male and female students for each country separately. Reading attainment is also compared between countries in two different purposes – literary purposes and informational purposes. This is followed by the results in two processes of reading comprehension – retrieving and straightforward inferencing and interpreting integrating and evaluating. These purposes and processes were described at length in Chapter 1. This chapter also contrasts overall reading achievement between Maltese students attending different school types and between students participating in the 2011 and 2016 cycles.

## 2.2 Overall Reading Achievement in PIRLS 2016

Russian Federation (581), Singapore (576), Hong Kong (569), Ireland (567) and Finland (566) attained the highest mean reading scores of the 50 participating countries in PIRLS 2016 for 4<sup>th</sup> grade students. Malta's mean reading score (452) was significantly lower than the international PIRLS mean reading score (500) implying that reading attainment of 4<sup>th</sup> grade Maltese students is significantly lower than the average reading attainment of the participating countries. Reading attainment of Maltese students was comparable to students from United Arab Emirates but was significantly higher to 9 countries including Bahrain, Qatar, Saudi Arabia, Iran, Oman, Kuwait, Morocco, Egypt and South Africa. The 39 countries that scored significantly higher than Malta in reading included Russian Federation, Singapore, Hong Kong, Ireland, Finland, Poland, Northern Ireland, Norway, Chinese Taipei, England, Latvia, Sweden, Hungary, Bulgaria, United States, Lithuania, Italy, Denmark, Macao, Netherlands, Australia, Czech Republic, Canada, Slovenia, Austria, Germany, Kazakhstan, Slovak Republic, Israel, Portugal, Spain, Belgium (Flemish), New Zealand, France, Belgium (French), Chile, Georgia, Trinidad and Tobago and Azerbaijan.

Figure 2.1 displays the mean reading scores on the PIRLS achievement scale listed together with the standard errors for each country. The PIRLS 2016 reading achievement scale has a mean of 500 and a standard deviation of 100 and is designed to remain constant between assessments.

Figure 2.1: Distribution of Reading Achievement

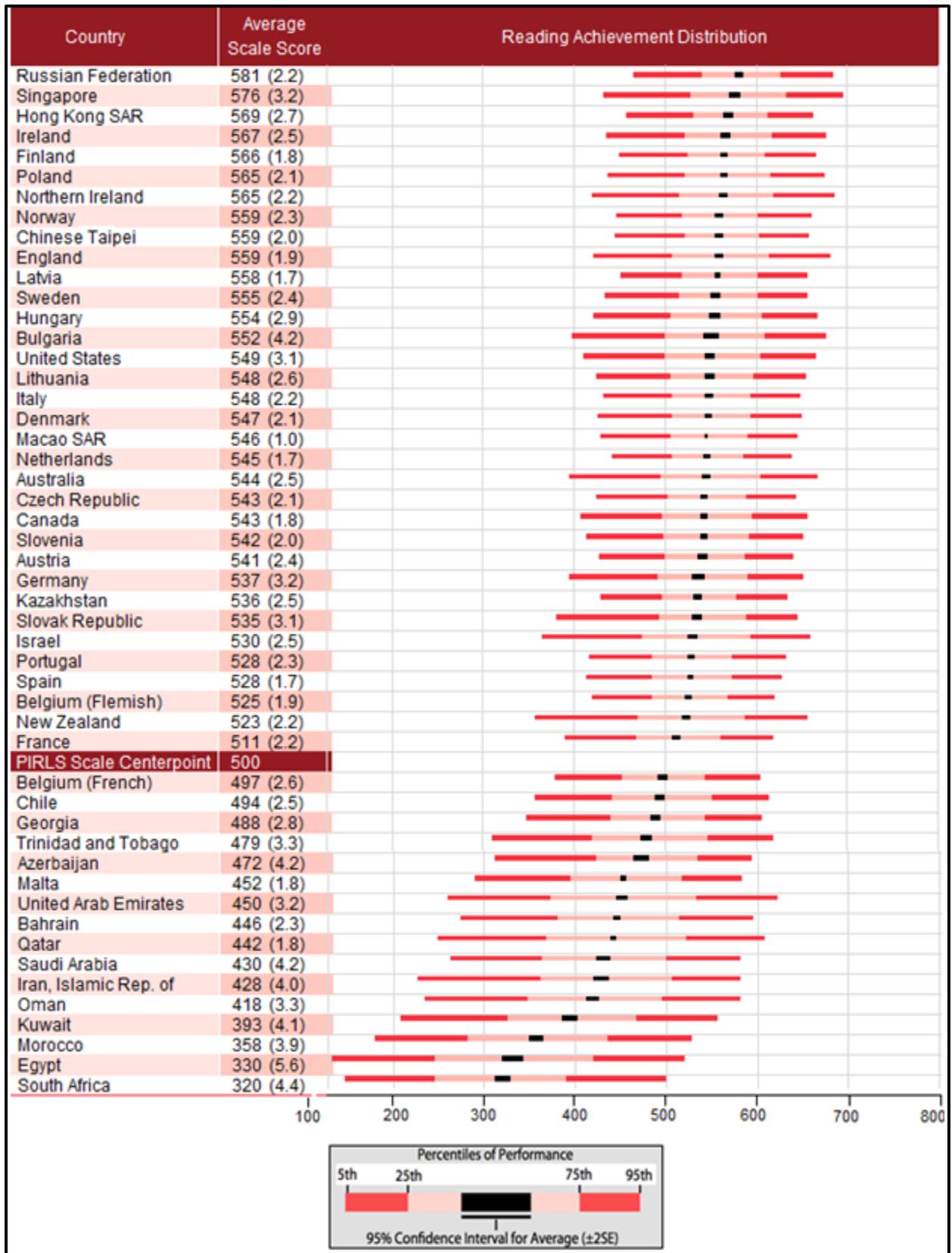


Figure 2.2: Percentiles of Reading Achievement

Country	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Australia	394 (6.3)	432 (5.5)	494 (3.9)	552 (3.1)	603 (2.7)	644 (2.7)	668 (2.7)
Austria	427 (4.4)	454 (4.8)	500 (2.9)	545 (2.4)	586 (2.2)	620 (2.4)	640 (3.6)
Azerbaijan	312 (10.1)	353 (9.1)	422 (5.4)	483 (4.2)	533 (2.9)	572 (2.6)	594 (3.7)
Bahrain	274 (6.5)	313 (3.8)	381 (3.6)	453 (2.5)	515 (2.7)	567 (3.1)	596 (3.9)
Belgium (Flemish)	420 (3.8)	446 (3.6)	486 (2.6)	527 (2.2)	567 (2.3)	601 (2.0)	620 (2.6)
Belgium (French)	378 (4.9)	408 (4.7)	454 (3.1)	500 (2.7)	544 (2.5)	584 (3.6)	606 (2.8)
Bulgaria	398 (11.0)	440 (7.5)	501 (6.5)	559 (4.8)	611 (3.5)	653 (3.5)	678 (4.1)
Canada	407 (4.0)	444 (3.9)	497 (2.7)	549 (2.2)	596 (2.0)	634 (2.0)	657 (2.8)
Chile	356 (5.1)	388 (4.0)	442 (3.5)	499 (3.0)	550 (3.1)	591 (3.1)	614 (3.2)
Chinese Taipei	445 (5.1)	475 (3.7)	521 (2.9)	563 (1.7)	603 (2.3)	637 (2.6)	657 (2.7)
Czech Republic	424 (7.0)	456 (4.6)	503 (2.8)	548 (1.8)	590 (2.3)	625 (2.4)	645 (3.6)
Denmark	425 (6.3)	457 (4.2)	507 (3.0)	553 (2.6)	594 (2.5)	628 (2.9)	650 (3.9)
Egypt	112 (9.2)	161 (8.6)	246 (7.9)	340 (6.4)	420 (6.0)	483 (6.7)	520 (7.1)
England	421 (6.4)	455 (3.3)	508 (3.1)	564 (2.1)	613 (2.2)	655 (2.9)	680 (3.3)
Finland	449 (6.9)	481 (4.6)	526 (2.7)	571 (2.3)	612 (2.0)	647 (2.5)	667 (2.4)
France	389 (5.2)	420 (3.7)	468 (2.8)	516 (2.6)	559 (2.2)	595 (3.7)	617 (4.0)
Georgia	347 (7.0)	383 (5.3)	440 (3.4)	495 (3.3)	543 (3.0)	584 (3.8)	606 (3.9)
Germany	395 (11.5)	435 (6.7)	493 (4.2)	544 (2.8)	591 (2.8)	629 (3.1)	652 (4.3)
Hong Kong SAR	457 (9.3)	487 (4.4)	531 (2.6)	573 (3.2)	612 (3.0)	645 (3.0)	663 (4.2)
Hungary	421 (5.5)	452 (5.8)	506 (4.6)	560 (3.6)	606 (3.6)	645 (3.1)	668 (4.0)
Iran, Islamic Rep. of	226 (12.7)	278 (9.7)	361 (5.9)	442 (4.4)	505 (2.8)	553 (2.7)	581 (4.2)
Ireland	435 (9.5)	472 (5.2)	522 (3.5)	572 (2.7)	617 (3.0)	656 (3.2)	678 (3.5)
Israel	365 (6.6)	407 (3.7)	475 (4.5)	542 (2.2)	593 (2.9)	635 (3.4)	660 (4.7)
Italy	432 (6.2)	461 (5.4)	508 (3.2)	553 (2.6)	592 (2.4)	627 (2.8)	647 (3.1)
Kazakhstan	429 (4.3)	455 (4.2)	496 (3.5)	538 (3.0)	578 (3.2)	615 (3.6)	635 (4.0)
Kuwait	207 (9.9)	250 (7.4)	326 (5.5)	401 (4.7)	466 (4.4)	522 (5.8)	556 (7.4)
Latvia	451 (5.0)	475 (3.6)	518 (2.4)	561 (2.3)	601 (2.3)	636 (3.8)	656 (2.3)
Lithuania	424 (6.6)	459 (5.5)	506 (3.9)	553 (3.1)	595 (4.0)	632 (2.9)	654 (4.0)
Macao SAR	429 (5.0)	459 (2.6)	506 (1.4)	551 (1.4)	590 (1.4)	625 (1.7)	646 (3.6)
Malta	289 (6.8)	328 (5.5)	394 (2.5)	462 (2.3)	517 (2.2)	560 (2.3)	583 (2.4)
Morocco	180 (6.3)	217 (4.9)	282 (5.3)	359 (5.5)	436 (3.6)	496 (3.6)	529 (3.9)
Netherlands	441 (5.4)	466 (3.4)	508 (2.5)	548 (2.4)	586 (2.1)	619 (2.2)	639 (2.9)
New Zealand	356 (6.8)	400 (5.3)	469 (3.4)	532 (2.3)	586 (3.1)	630 (3.0)	656 (3.0)
Northern Ireland	420 (7.1)	460 (5.4)	516 (2.8)	571 (2.4)	619 (3.1)	662 (2.2)	687 (3.0)
Norway (5)	446 (6.1)	474 (4.4)	518 (2.9)	562 (2.5)	603 (2.9)	640 (3.1)	661 (3.2)
Oman	234 (4.5)	275 (3.4)	348 (4.2)	426 (3.9)	494 (4.0)	549 (4.2)	580 (5.7)
Poland	436 (5.2)	470 (4.6)	521 (3.3)	569 (2.7)	615 (2.4)	652 (2.3)	675 (4.4)
Portugal	417 (4.3)	442 (4.0)	485 (3.3)	530 (2.1)	572 (2.9)	611 (3.3)	633 (5.5)
Qatar	249 (5.1)	291 (3.9)	367 (3.4)	452 (2.5)	523 (1.7)	577 (2.4)	608 (3.6)
Russian Federation	465 (5.2)	495 (4.1)	540 (2.8)	584 (2.5)	626 (2.7)	663 (2.6)	684 (3.3)
Saudi Arabia	263 (8.6)	298 (6.0)	363 (6.0)	436 (4.5)	500 (4.3)	553 (6.6)	582 (5.7)
Singapore	432 (7.8)	469 (6.2)	528 (4.4)	583 (2.9)	633 (3.5)	673 (4.2)	695 (3.9)
Slovak Republic	381 (15.5)	430 (8.6)	493 (3.8)	545 (2.6)	589 (2.7)	626 (2.9)	647 (2.2)
Slovenia	413 (6.3)	444 (3.7)	498 (3.8)	549 (2.3)	592 (2.2)	629 (2.8)	651 (3.6)
South Africa	147 (4.9)	182 (4.7)	246 (3.9)	320 (4.2)	390 (5.0)	456 (7.9)	498 (9.5)
Spain	413 (5.1)	442 (3.9)	486 (2.2)	532 (1.8)	573 (1.4)	607 (2.1)	628 (2.2)
Sweden	434 (5.7)	465 (4.0)	515 (3.1)	561 (2.8)	601 (3.2)	635 (3.5)	656 (3.5)
Trinidad and Tobago	310 (8.3)	351 (5.6)	420 (4.7)	487 (5.4)	547 (3.5)	594 (2.5)	619 (4.8)
United Arab Emirates	260 (4.8)	299 (4.1)	373 (4.2)	455 (4.2)	533 (3.6)	590 (2.5)	622 (2.6)
United States	410 (5.9)	446 (6.3)	501 (4.1)	555 (3.2)	604 (3.3)	645 (4.0)	666 (4.4)

The standard error refers to uncertainty in estimates resulting from random fluctuations in samples. The smaller the standard error, the better is the sample mean reading score as an estimate of the population mean reading score. The 95% confidence interval of the population mean reading score is displayed by black shading on the achievement distribution. Malta's 95% confidence interval is narrow because the vast majority of Maltese student participated in the PIRLS 2016 study, where non-participants included students who were absent on the day of the test or did not satisfy the inclusion criteria. Mean reading scores of two countries differ significantly when their corresponding confidence interval are disjoint (do not overlap). The red shadings display the range of reading scores between the 5<sup>th</sup> and 25<sup>th</sup> percentiles and between the 75<sup>th</sup> and 95<sup>th</sup> percentiles.

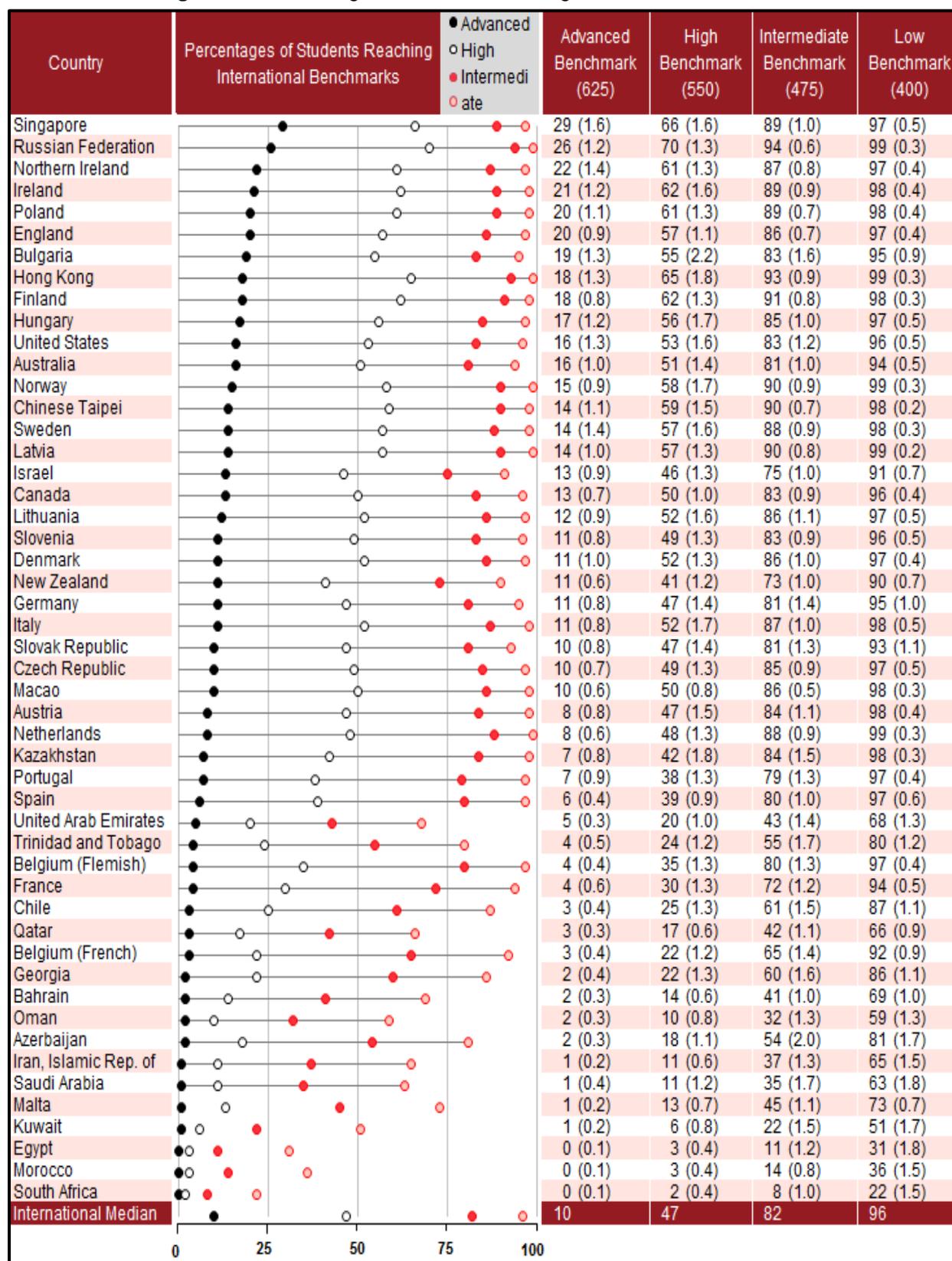
Figure 2.2 also shows the reading threshold reading scores at the 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup> and 95<sup>th</sup> percentiles for each individual country. For low performing countries the difference between the 5<sup>th</sup> and 95<sup>th</sup> percentile was larger than high performing countries. This indicates that reading scores are more dispersed in low performing than high performing countries. In Malta, the difference between the 25<sup>th</sup> and 75<sup>th</sup> percentile is 123 scale points, the difference between the 10<sup>th</sup> and 90<sup>th</sup> percentile is 232 and the difference between the 5<sup>th</sup> and 95<sup>th</sup> percentile is 294 scale points. These percentile scores are essential to display the proportion of pupils in different countries below or above a specified threshold scale score. For instance, the 5<sup>th</sup> percentile for Australia is equal to the 25<sup>th</sup> percentile for Malta indicating that the weakest 25% of students in Malta has the same level of reading attainment as the weakest 5% in Australia. On the other hand the 50<sup>th</sup> percentile for Hungary is equal to the 90<sup>th</sup> percentile for Malta indicating that the top 10% of students in Malta has the same level of reading attainment as the top 50% in Hungary. Similarly, the 50<sup>th</sup> percentile for Singapore is equal to the 95<sup>th</sup> percentile for Malta indicating that the top 5% of students in Malta has the same level of reading attainment as the top 50% in Singapore.

Figure 2.3 depicts whether or not the differences in average reading scores between pairs of countries are statistically significant. Selecting a country of interest and reading horizontally across the table, the letter '*h*' indicates better performance and the letter '*i*' indicates poorer performance than a comparison country selected from the columns. The absence of an arrow indicates no significant difference in performance. For instance, the mean reading scores of Russia and Singapore are comparable but are significantly higher than those of other participating countries. Similarly, the mean reading scores of Egypt and South Africa are similar but are significantly lower those of other participating countries.

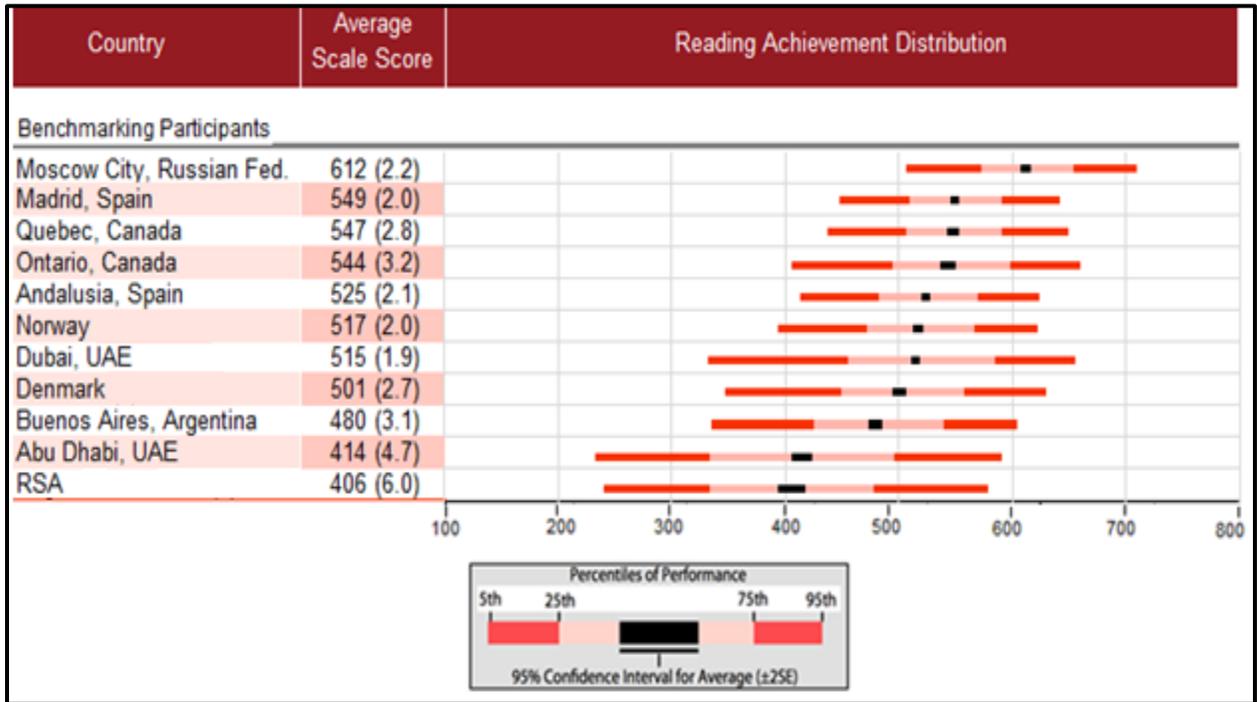
Figure 2.4 shows the proportion of students within the International Benchmarks, described in Chapter 1, for countries participating in PIRLS 2016. The international average shows that 10% of the students have a reading attainment score above 625, 37% have a reading attainment score between 550 and 625, 35% have a reading attainment score between 475 and 550, 14% have a reading attainment score between 400 and 475 and the remaining 4% have a reading attainment score below 400. The percentages of Maltese students in these five clusters are respectively 1%, 12%, 32%, 28% and 27%, indicating that compared to the international averages Malta has a larger percentage of low reading achievers and smaller percentage of high reading achievers. Reading attainment varies significantly between countries. In Russia and Singapore the percentages of high reading achievers (92% and 86%) and low reading achievers (2% and 3%) differ significantly from those of South Africa and Morocco (2% and 3% for high reading achievers) and (92% and 86% for low reading achievers).



Figure 2.4: Percentage of Students Reaching International Benchmarks

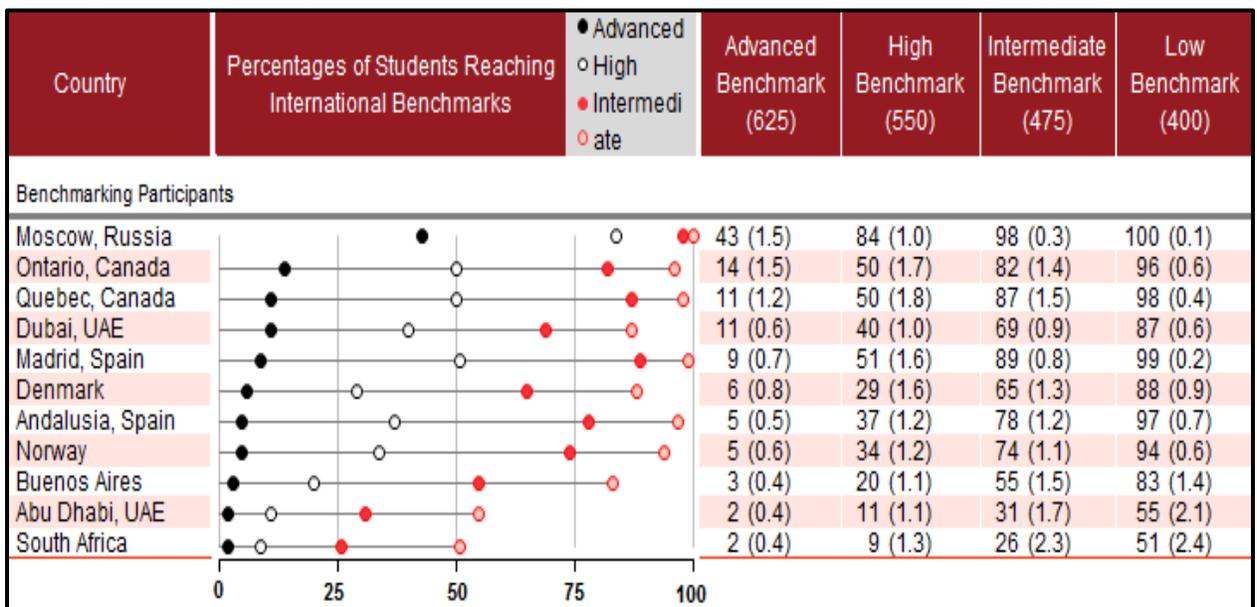


**Figure 2.5:** Distribution of Reading Achievement (Benchmarking participants)



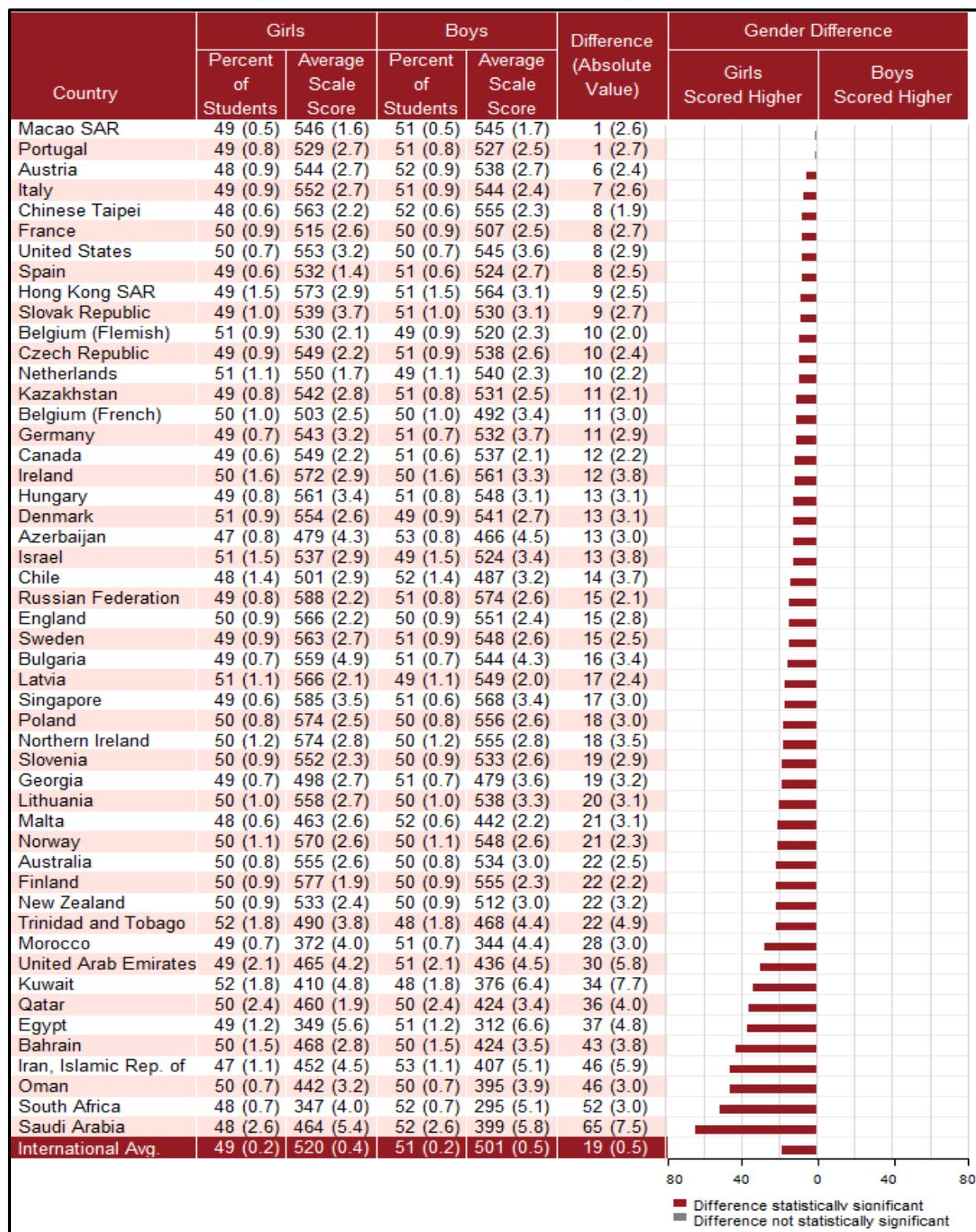
Moscow (Russia), Madrid and Andalusia (Spain), Quebec and Ontario (Canada), Dubai, Abu Dhabi, Buenos Aires, Norway, Denmark and the Republic of South Africa participated in the benchmarking exercise. Figure 2.5 displays the mean reading scores and standard errors, 95% confidence intervals and percentiles on the PIRLS 2016 achievement for benchmarking participants. Figure 2.6 displays the shows of students reaching the international benchmarks for benchmarking participants.

**Figure 2.6:** Percentage of students reaching International Benchmarks (Benchmarking participants)



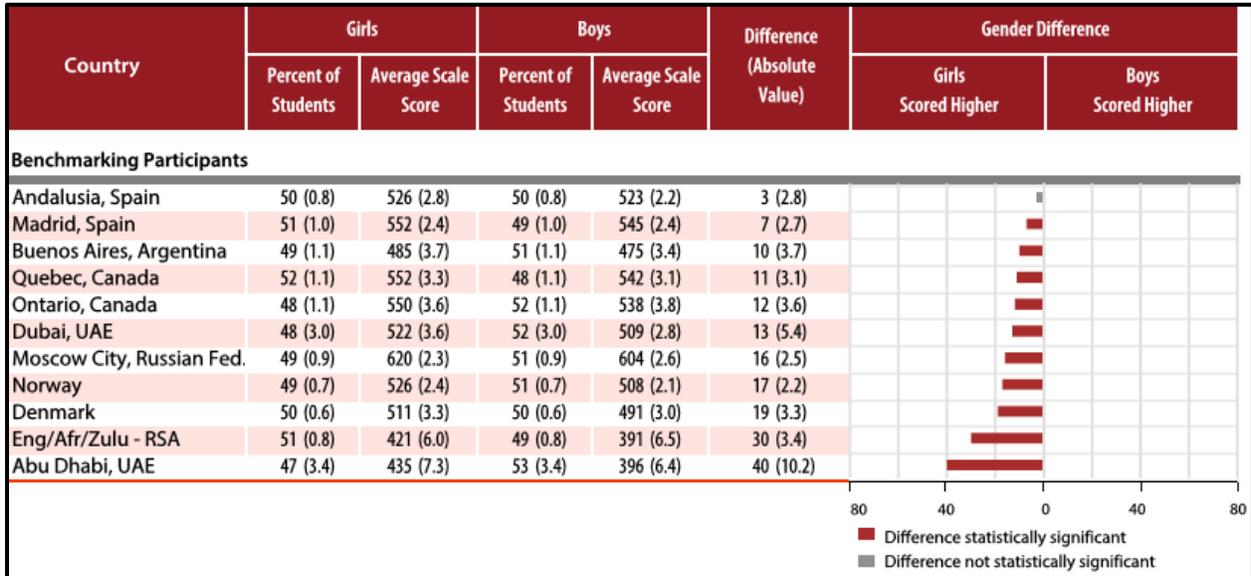
## 2.3 Gender Differences in Overall Reading Attainment

Figure 2.7: Gender Differences in Reading Performance

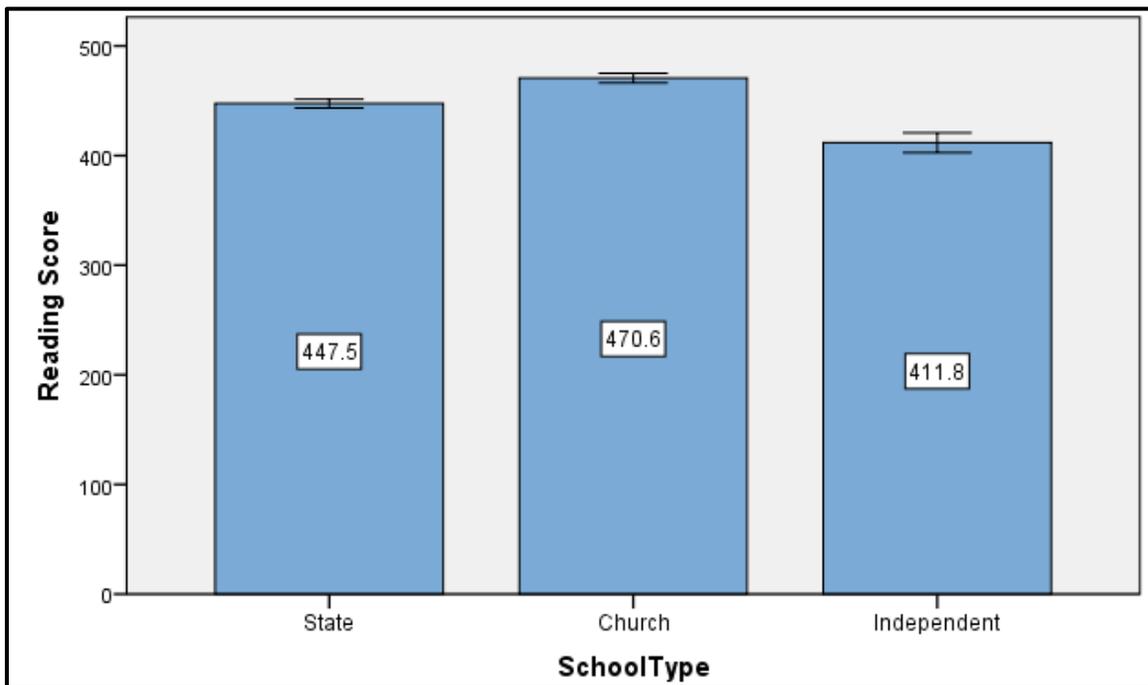


Figures 2.7 and 2.8 show that in all participating countries and benchmarking participants, females outperformed males in reading attainment. In Portugal and Macao the gender differences in mean reading scores (1 scale point) were not significant at the 0.05 level of significance; however in the remaining countries the gender differences exceeded 5 scale points and were significant. Saudi Arabia had the largest gender discrepancy in reading attainment (65), followed by South Africa (52), Oman and Iran (46) and Bahrain (43). The gender difference in mean reading scores in Malta (21) is larger than the international average (19).

**Figure 2.8: Gender Differences in Reading Performance (Benchmarking Participants)**



**Figure 2.9: Reading Performance of Maltese Students by School Type**



**Figure 2.10: Reading Performance of Maltese Students by Gender and School Type**

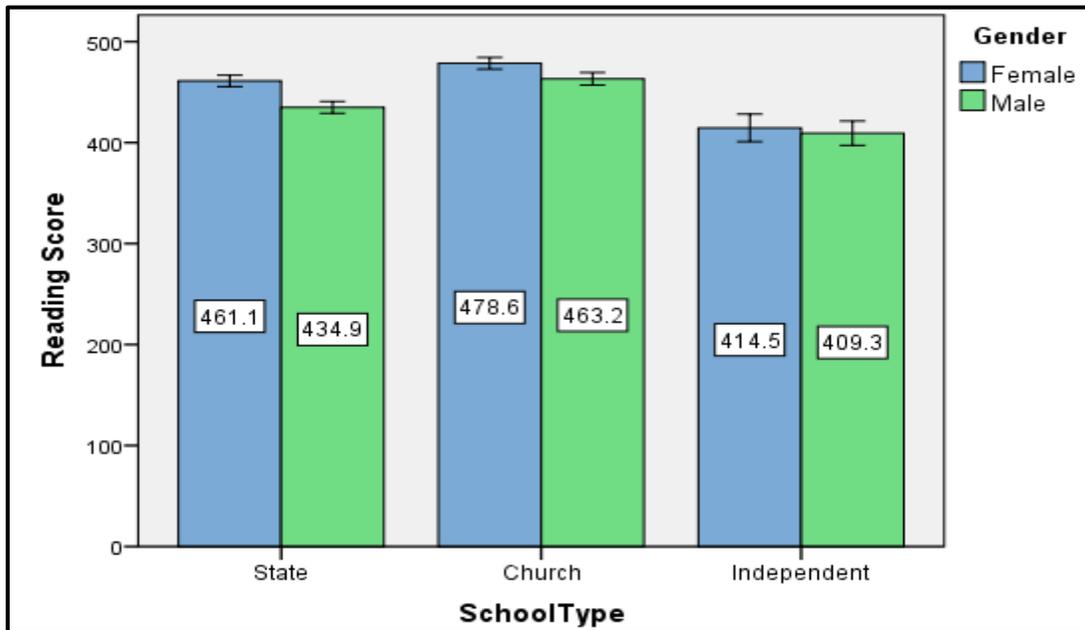
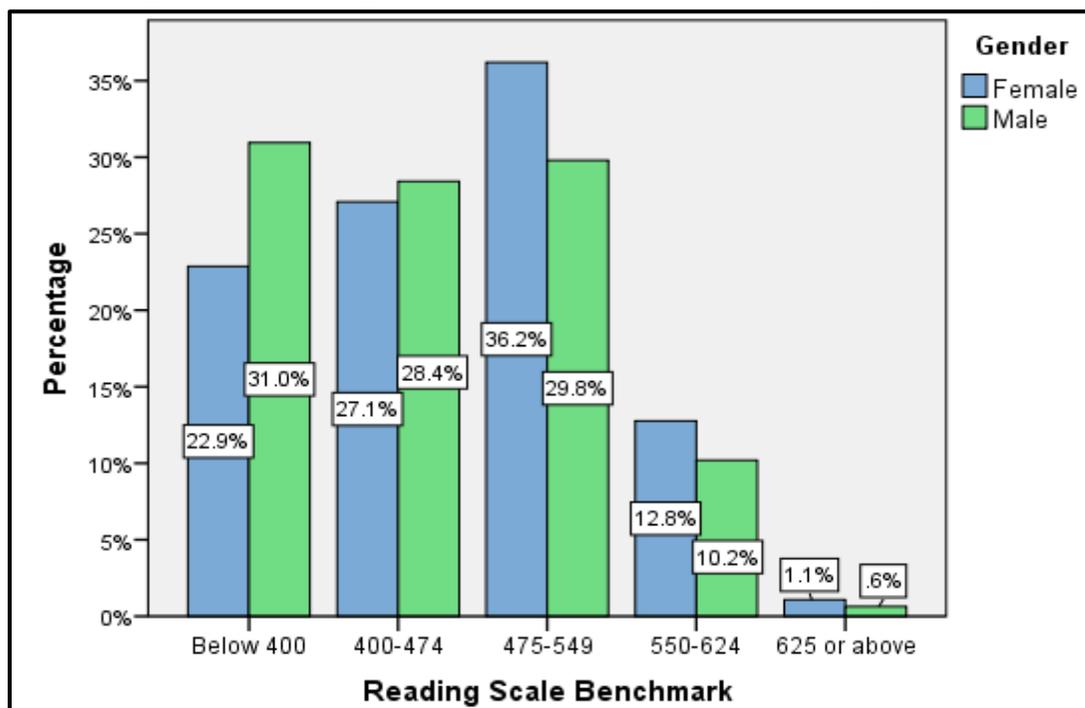
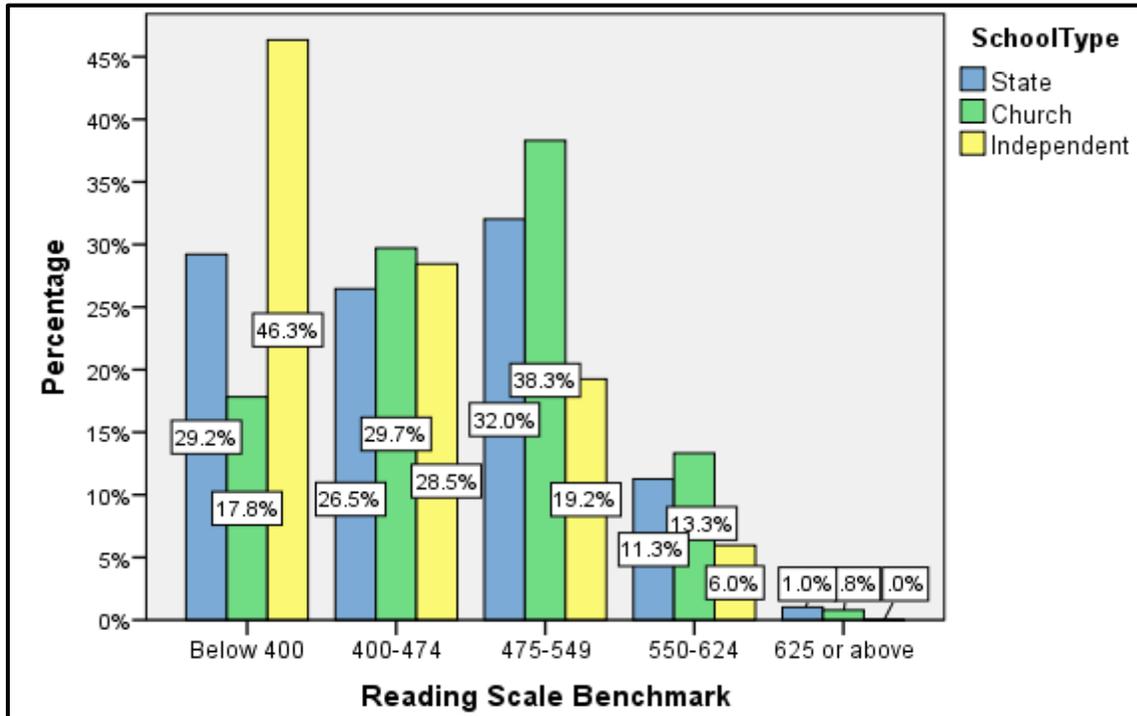


Figure 2.9 shows that the mean reading score of Church school students (470.6) exceeds the mean reading score of State school students (447.5) by 23.1 scale points, which in turn exceeds the mean reading score of Independent school students (411.8) by 35.7 scale points. Figure 2.10 shows similar pattern when Maltese students are grouped by gender. Mean reading scores for female students exceed those of males by 26.2 scale points in State schools, 15.4 scale points in Church schools and 5.2 scale points in Independent schools.

**Figure 2.11: Reading Scale Benchmarks of Maltese Students by Gender**



**Figure 2.12:** Reading Scale Benchmarks of Maltese Students by School Type



Figures 2.11 and 2.12 display significantly larger percentages of females and students attending Church schools in the upper reading scale benchmarks and significantly larger percentages of males and students attending Independent schools in the lower reading scale benchmarks.

## 2.4 Reading Attainment for different reading purposes

One of the central features and strengths of IEA surveys is the explicit definition of the constructs being assessed. In PIRLS 2016, reading literacy is defined as the ability to understand and use those written language forms required by society and /or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment. This definition, in which reading is seen as a constructive and interactive process, is intended to embrace multi-modal forms of reading, as well as traditional print forms. PIRLS identifies two purposes for reading – reading for literary experience and reading to acquire and use information, which are described in Chapter 1. Figures 2.13 and 2.14 present the mean achievement scores of the participating countries and benchmarking participants in these two purposes of reading. It should be noted, however that the two numerical scale scores representing the reading purposes are not comparable since they represent different constructs and the degree of difficulty may vary between the two assessments. To allow comparison of the relative performance of each country the international average for each purpose was scaled to be 500, similar to the overall international average. This makes it possible to examine relative strengths and weaknesses of countries by comparing the relative positions of the participants on the two scales.

Figure 2.13: Performance between Reading Purposes

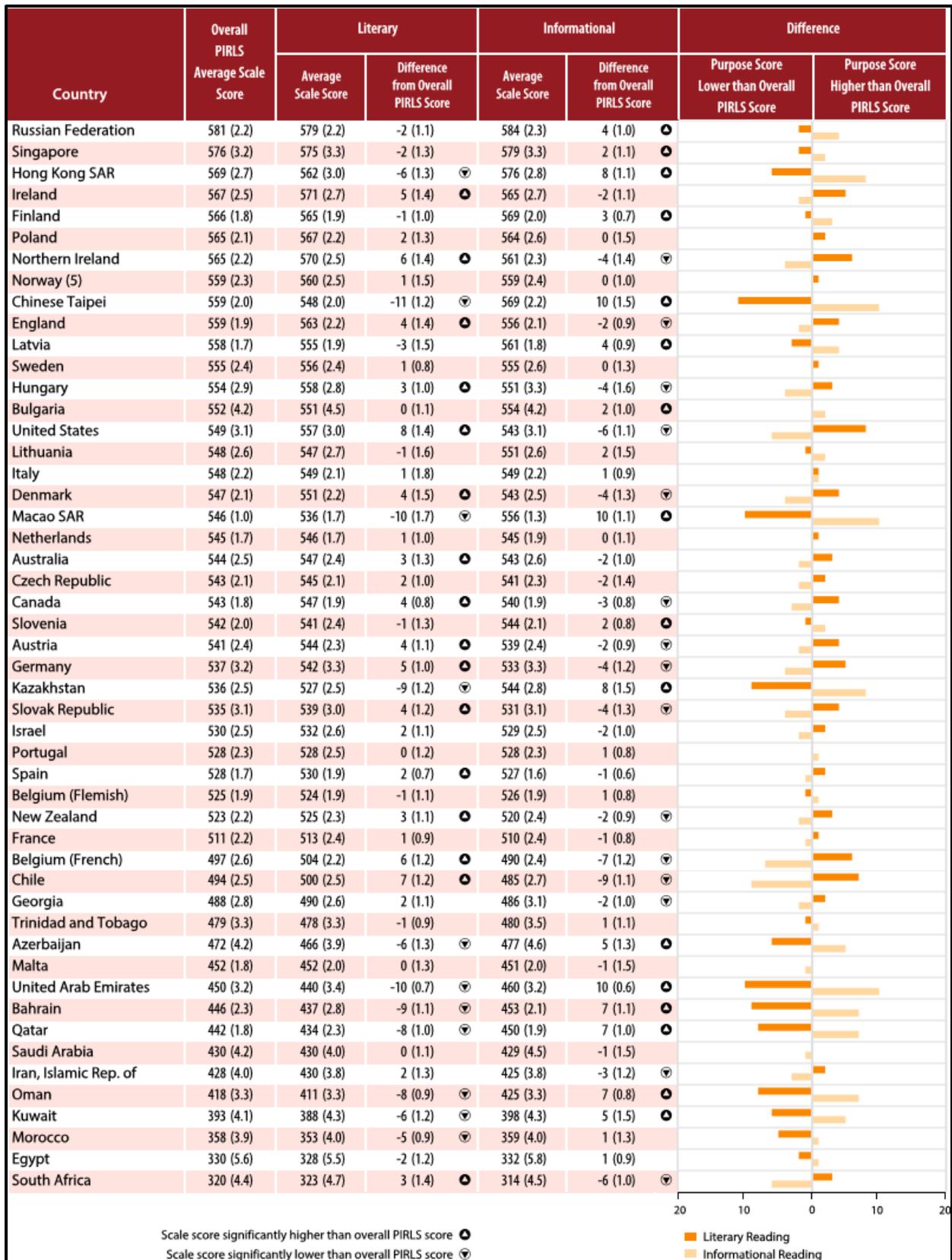


Figure 2.14: Performance between Reading Purposes (Benchmarking participants)

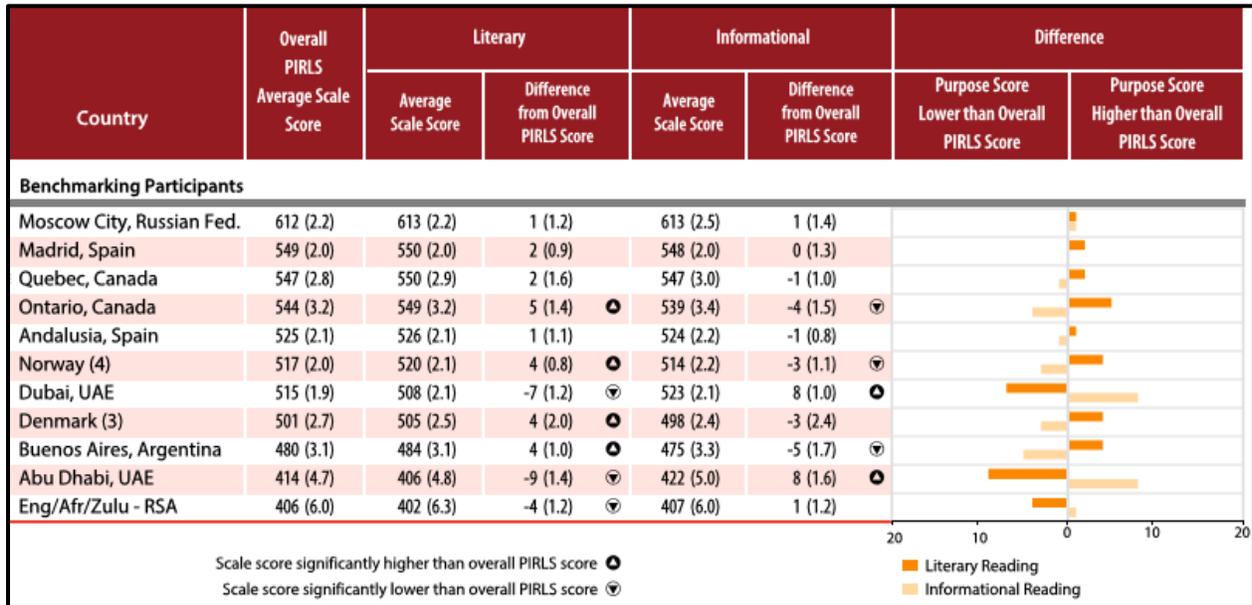


Figure 2.13 shows that the mean literary reading score of Maltese students (452) differed marginally from the mean informational reading score (451). Malta was among 15 participating countries where both the mean literary and informational reading scores did not differ significantly from the country’s mean PIRLS reading score. There were 23 countries where both the mean literary and informational reading scores differed significantly from the country’s mean PIRLS reading score. The mean literary reading score was significantly higher in Northern Ireland, England, Hungary, United States, Denmark, Canada, Austria, Germany, Slovak Republic, New Zealand, Belgium (French), Chile and South Africa. The mean informational reading score was significantly higher in Hong Kong, Chinese Taipei, Macao, Kazakhstan, Azerbaijan, United Arab Emirates, Bahrain, Qatar, Oman and Kuwait.

## 2.5 Reading Attainment for different reading processes

PIRLS identifies four reading processes that were described in Chapter 1. These include: focus on and retrieve explicitly stated information, make straightforward inferences, interpret and integrate ideas and information and examine and evaluate content, language and textual elements. The two text-based processes (retrieval and straightforward inferencing) were grouped to form a single scale, and the other two processes more concerned with reasoning (interpreting and integrating, and examining and evaluating) were combined to form another. Participating countries’ performance on these two scales, the retrieving and straightforward inferencing scale and the interpreting, integrating and evaluating scale, is reported separately. Figure 2.15 and 2.16 show the mean achievement scores of the participating countries and benchmarking participants in these two processes of reading. To allow comparison of the relative performance of each country the international average for each process was scaled to be 500, similar to the overall international average. This makes it possible to examine relative strengths and weaknesses of countries by comparing the relative positions of the participants on the two scales.

Figure 2.15: Performance between Reading Comprehension Processes

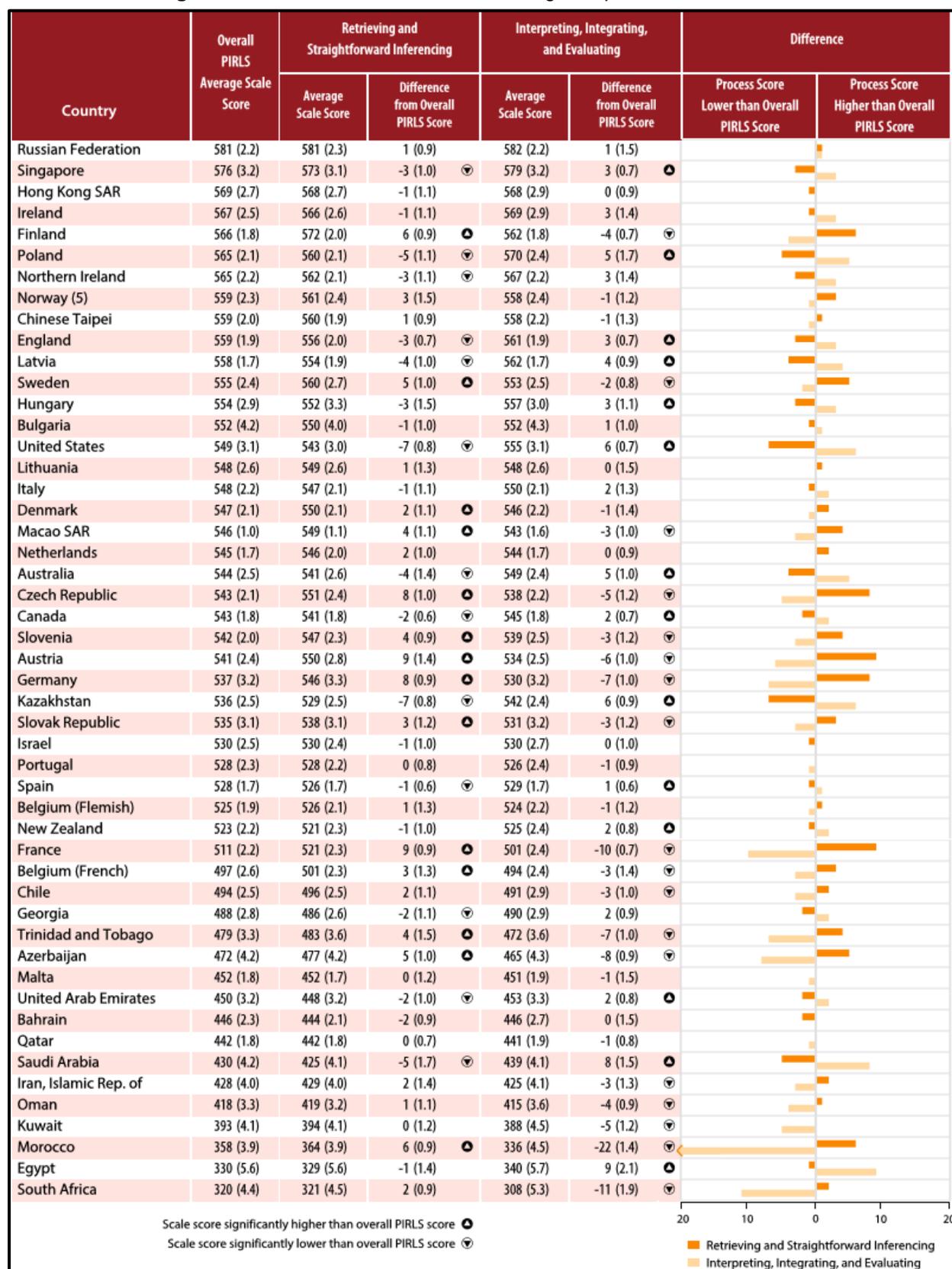


Figure 2.16: Performance between Reading Comprehension Processes (Benchmarking Participants)

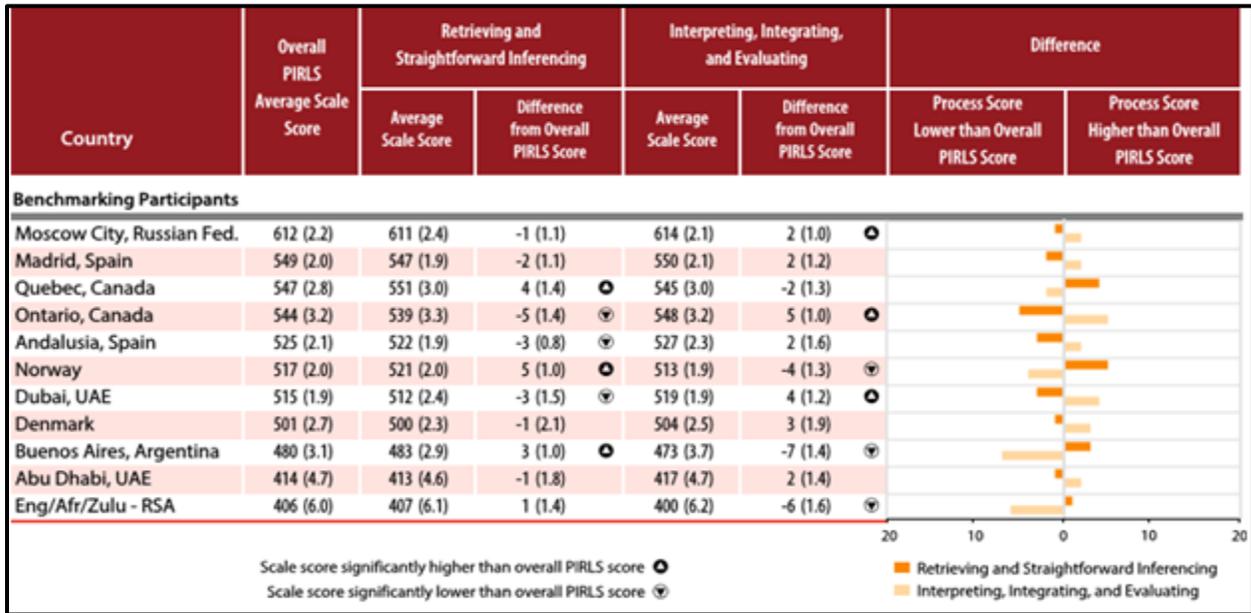


Figure 2.15 shows that the mean retrieving and inferencing score of Maltese students (452) differed marginally from the mean interpreting, integrating and evaluating score (451). Malta was among 15 participating countries where the mean retrieving/inferencing and the mean interpreting/integrating/evaluating scores did not differ significantly from the country’s mean PIRLS reading score. There were 24 countries where both the mean retrieving/inferencing and the mean interpreting/integrating/evaluating scores differed significantly from the country’s mean PIRLS reading score. The mean retrieving and inferencing score was significantly higher in Finland, Sweden, Macao, Czech Republic, Slovenia, Austria, Germany, Slovak Republic, France, Belgium (French), Trinidad and Tobago, Azerbaijan and Morocco. The mean interpreting, integrating and evaluating score was significantly higher in Singapore, Poland, England, Latvia, United States, Australia, Canada, Spain, Kazakhstan, United Arab Emirates and Saudi Arabia.

## 2.6 Gender differences in reading scores between purposes/processes

Figure 2.17 shows that girls consistently outperform boys both in the two reading purposes and the two reading processes. Maltese female students scored 27 scale points higher than males in reading for literary purposes (international average was 23) and 18 scale points higher in reading for information (international average was 16). In Macao and Portugal there was no significant gender discrepancy in literary reading, while in Austria, Chinese Taipei, Czech Republic, France, Germany, Hong Kong, Israel, Italy, Macao, Portugal, Spain and United States there was no significant gender discrepancy in informational reading. Moreover, Maltese female students scored 22 scale points higher than males in retrieving and inferencing processes (international average was 17) and 21 scale points higher in interpreting, integrating and evaluating processes (international average was 20). In Austria, Macao and Portugal there was no significant gender discrepancy in retrieving/inferencing processes, while in Macao and Portugal there was no significant gender discrepancy in interpreting/integrating/evaluating processes.

Figure 2.17: Gender Score Differences in Reading Purposes and Comprehension Processes

Country	Reading Purposes				Comprehension Processes			
	Literary		Informational		Retrieving and Straightforward Inferencing		Interpreting, Integrating, and Evaluating	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Australia	561 (2.7) ○	533 (2.9)	552 (2.7) ○	533 (2.9)	552 (2.7) ○	530 (3.0)	561 (2.6) ○	538 (2.7)
Austria	550 (2.6) ○	539 (2.6)	540 (2.9)	538 (2.9)	552 (3.1)	549 (3.3)	539 (2.5) ○	530 (3.3)
Azerbaijan	472 (4.1) ○	460 (4.2)	485 (4.7) ○	471 (5.2)	484 (4.4) ○	471 (4.5)	472 (4.5) ○	458 (4.7)
Bahrain	462 (3.5) ○	413 (4.0)	472 (2.6) ○	434 (3.4)	464 (2.8) ○	425 (3.6)	469 (3.3) ○	422 (3.8)
Belgium (Flemish)	530 (2.3) ○	517 (2.5)	529 (2.3) ○	522 (2.2)	529 (2.4)	522 (2.5)	529 (2.3) ○	519 (2.5)
Belgium (French)	512 (2.6) ○	496 (2.6)	494 (2.9)	486 (2.8)	506 (2.5) ○	496 (3.0)	500 (2.5) ○	488 (3.1)
Bulgaria	561 (5.2) ○	542 (4.6)	561 (4.6) ○	547 (4.5)	557 (4.5) ○	544 (4.2)	560 (4.9) ○	545 (4.3)
Canada	556 (2.3) ○	538 (2.1)	543 (2.5) ○	537 (2.1)	546 (2.2) ○	537 (1.9)	552 (2.2) ○	539 (2.1)
Chile	511 (2.8) ○	491 (3.6)	490 (3.0) ○	481 (3.7)	502 (2.9) ○	490 (3.3)	500 (3.3) ○	483 (3.9)
Chinese Taipei	555 (2.4) ○	543 (2.2)	570 (2.7)	568 (2.3)	565 (2.5) ○	555 (2.0)	562 (2.4) ○	555 (2.7)
Czech Republic	554 (2.3) ○	536 (2.6)	544 (2.3)	538 (3.1)	556 (2.5) ○	546 (2.9)	544 (2.6) ○	532 (2.5)
Denmark	560 (2.6) ○	542 (2.7)	548 (3.0) ○	539 (2.9)	556 (2.7) ○	544 (2.6)	552 (2.6) ○	539 (2.7)
Egypt	348 (5.4)	308 (6.6)	350 (5.6)	314 (7.0)	347 (5.5)	311 (6.6)	359 (5.8)	321 (6.6)
England	572 (2.7) ○	553 (2.5)	562 (2.6) ○	551 (2.7)	563 (2.4) ○	549 (2.5)	569 (2.4) ○	554 (2.3)
Finland	576 (2.0) ○	554 (2.4)	579 (2.1) ○	559 (2.6)	582 (2.3) ○	562 (2.6)	573 (2.0) ○	552 (2.3)
France	518 (2.9) ○	507 (2.8)	513 (2.8)	508 (2.9)	524 (2.8) ○	517 (2.6)	506 (2.9) ○	496 (3.1)
Georgia	501 (2.5) ○	479 (3.5)	495 (3.1) ○	478 (4.1)	495 (2.6) ○	477 (3.3)	501 (2.7) ○	479 (3.8)
Germany	551 (3.5) ○	534 (3.8)	536 (3.6)	530 (3.8)	550 (3.5) ○	541 (3.8)	537 (3.5) ○	524 (3.8)
Hong Kong SAR	569 (3.3) ○	557 (3.7)	580 (3.1)	573 (3.3)	571 (2.9) ○	565 (3.3)	574 (3.1) ○	563 (3.3)
Hungary	566 (3.4) ○	549 (3.1)	555 (3.9) ○	547 (3.5)	558 (3.7) ○	545 (3.5)	563 (3.5) ○	550 (3.2)
Iran, Islamic Rep. of	457 (4.6)	407 (5.1)	446 (4.5)	406 (5.0)	454 (4.6)	408 (5.1)	450 (4.8)	403 (5.1)
Ireland	580 (3.2) ○	563 (3.4)	569 (3.2) ○	561 (3.4)	571 (3.2) ○	561 (3.5)	576 (3.4) ○	562 (3.6)
Israel	541 (3.4) ○	523 (3.8)	533 (3.0)	525 (3.4)	536 (2.8) ○	523 (3.4)	537 (3.2) ○	523 (3.6)
Italy	554 (2.4) ○	543 (2.8)	551 (2.7)	547 (2.6)	550 (2.3) ○	544 (2.8)	554 (2.4) ○	545 (2.4)
Kazakhstan	535 (3.0) ○	520 (2.6)	547 (3.1) ○	540 (3.0)	534 (2.9) ○	525 (2.8)	548 (3.0) ○	537 (2.5)
Kuwait	405 (4.9)	370 (6.6)	415 (5.0)	381 (6.9)	410 (4.7)	377 (6.5)	406 (5.2) ○	369 (6.7)
Latvia	565 (2.2) ○	545 (2.1)	569 (2.3) ○	553 (2.1)	562 (2.3) ○	546 (2.5)	571 (2.1) ○	553 (1.9)
Lithuania	558 (2.9) ○	536 (3.1)	561 (2.9) ○	541 (3.1)	560 (2.7) ○	539 (3.0)	558 (2.7) ○	537 (3.0)
Macao SAR	538 (2.3) ○	534 (2.0)	555 (1.8)	556 (1.6)	548 (1.8)	550 (1.4)	544 (2.2)	542 (1.8)
Malta	466 (3.0) ○	439 (2.2)	461 (2.5) ○	443 (2.6)	463 (2.5) ○	441 (2.3)	462 (2.9) ○	441 (2.1)
Morocco	369 (4.3)	338 (4.4)	372 (4.3)	346 (4.3)	378 (4.0) ○	350 (4.4)	352 (4.6) ○	321 (5.2)
Netherlands	553 (1.8) ○	539 (2.4)	549 (2.4) ○	540 (2.6)	551 (2.6) ○	542 (2.3)	550 (1.8) ○	538 (2.3)
New Zealand	539 (2.5) ○	512 (3.0)	528 (2.9) ○	512 (3.4)	530 (2.5) ○	512 (3.1)	536 (2.8) ○	513 (2.9)
Northern Ireland	582 (3.0) ○	559 (3.1)	569 (3.1) ○	552 (3.3)	570 (2.6) ○	553 (3.0)	577 (2.6) ○	558 (3.0)
Norway (5)	571 (2.7) ○	550 (3.2)	568 (2.8) ○	549 (2.9)	570 (2.7) ○	553 (3.0)	568 (2.8) ○	548 (2.5)
Oman	434 (3.4) ○	387 (3.8)	448 (3.3) ○	403 (3.9)	442 (3.1) ○	397 (3.9)	439 (3.6) ○	391 (4.2)
Poland	577 (2.4) ○	556 (2.8)	573 (2.9) ○	556 (3.1)	568 (2.6) ○	551 (2.6)	580 (2.7) ○	559 (2.8)
Portugal	529 (2.8)	527 (2.8)	527 (2.9)	529 (2.7)	527 (2.6)	528 (2.6)	528 (2.8)	525 (2.8)
Qatar	453 (2.3) ○	415 (3.8)	466 (2.0) ○	433 (3.8)	460 (2.0) ○	424 (3.4)	458 (2.2) ○	423 (3.4)
Russian Federation	587 (2.5) ○	572 (2.5)	591 (2.3) ○	578 (2.7)	588 (2.5) ○	575 (2.8)	589 (2.4) ○	575 (2.6)
Saudi Arabia	461 (5.1)	401 (5.7)	465 (5.8)	395 (6.5)	458 (5.4) ○	395 (5.7)	472 (5.5) ○	408 (5.8)
Singapore	586 (3.6) ○	563 (3.7)	586 (3.5) ○	571 (3.7)	580 (3.4) ○	566 (3.6)	589 (3.4) ○	568 (3.4)
Slovak Republic	545 (3.6) ○	533 (3.1)	535 (3.6) ○	528 (3.2)	542 (3.4) ○	533 (3.3)	538 (3.4) ○	525 (3.6)
Slovenia	552 (2.9) ○	531 (2.8)	552 (2.6) ○	536 (2.6)	554 (2.7) ○	539 (2.8)	550 (3.1) ○	529 (2.8)
South Africa	352 (4.2)	296 (5.5)	340 (4.0)	290 (5.2)	348 (4.1) ○	297 (5.1)	338 (5.4) ○	281 (5.8)
Spain	536 (1.7) ○	524 (2.9)	529 (1.5)	525 (2.4)	530 (1.5) ○	523 (2.5)	534 (1.5) ○	525 (2.7)
Sweden	564 (2.7) ○	548 (2.7)	562 (3.3) ○	548 (2.8)	566 (3.1) ○	555 (3.0)	562 (2.7) ○	544 (2.8)
Trinidad and Tobago	489 (4.0) ○	466 (4.5)	490 (3.8) ○	469 (4.7)	495 (4.1) ○	471 (4.6)	482 (4.2) ○	461 (4.9)
United Arab Emirates	456 (4.2) ○	425 (4.6)	474 (4.2) ○	446 (4.6)	463 (4.1) ○	434 (4.5)	468 (4.3) ○	438 (4.5)
United States	563 (3.5) ○	552 (3.5)	546 (3.2)	540 (3.7)	547 (3.1) ○	539 (3.5)	559 (3.3) ○	551 (3.5)
International Avg.	522 (0.5) ○	499 (0.5)	519 (0.5) ○	503 (0.5)	520 (0.4) ○	503 (0.5)	520 (0.5) ○	500 (0.5)

○ Average significantly higher than other gender

**Figure 2.18:** Gender Score Differences in Reading Purposes and Processes (Benchmarking Participants)

Country	Reading Purposes				Comprehension Processes			
	Literary		Informational		Retrieving and Straightforward Inferencing		Interpreting, Integrating, and Evaluating	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
<b>Benchmarking Participants</b>								
Buenos Aires, Argentina	491 (3.7) ⬤	477 (3.3)	477 (3.8)	473 (3.5)	487 (3.4) ⬤	479 (3.1)	478 (4.2) ⬤	468 (4.1)
Ontario, Canada	558 (3.8) ⬤	540 (4.0)	543 (4.0)	536 (4.0)	544 (3.7) ⬤	534 (3.7)	555 (3.5) ⬤	542 (3.7)
Quebec, Canada	558 (3.2) ⬤	540 (3.3)	549 (3.5)	544 (3.3)	555 (3.4) ⬤	546 (3.3)	551 (3.4) ⬤	538 (3.3)
Denmark	516 (3.5) ⬤	494 (2.8)	506 (3.3) ⬤	490 (2.8)	511 (3.1) ⬤	489 (2.9)	510 (3.3) ⬤	497 (2.8)
Norway	531 (2.6) ⬤	510 (2.3)	520 (2.8) ⬤	508 (2.2)	530 (2.8) ⬤	513 (2.2)	521 (2.4) ⬤	504 (2.0)
Moscow City, Russian Fed.	624 (2.6) ⬤	603 (2.4)	620 (2.6) ⬤	606 (3.0)	620 (2.2) ⬤	603 (3.2)	622 (2.4) ⬤	606 (2.4)
Eng/Afr/Zulu - RSA	418 (6.2) ⬤	386 (6.9)	421 (6.0) ⬤	393 (6.5)	421 (6.1) ⬤	393 (6.6)	417 (5.9) ⬤	383 (7.1)
Andalusia, Spain	529 (2.8) ⬤	522 (2.4)	523 (2.9)	524 (2.4)	523 (2.6)	521 (2.1)	529 (3.3)	525 (2.2)
Madrid, Spain	556 (2.6) ⬤	544 (2.6)	549 (2.2)	548 (2.7)	549 (2.3)	544 (2.3)	554 (2.5) ⬤	547 (2.7)
Abu Dhabi, UAE	428 (7.2) ⬤	386 (6.6)	443 (7.3) ⬤	404 (7.1)	433 (7.1) ⬤	395 (6.3)	438 (7.3) ⬤	398 (6.3)
Dubai, UAE	516 (3.8) ⬤	501 (3.1)	529 (3.8) ⬤	518 (2.7)	518 (3.8) ⬤	506 (3.2)	526 (3.5) ⬤	512 (2.9)

⬤ Average significantly higher than other gender

Figures 2.19 to 2.22 display that in all school types female students score significantly higher than male students in both reading purposes and comprehension processes since most of the 95% confidence intervals (error bars) are either disjoint or overlap slightly. Moreover, students attending Church schools on average score significantly higher than students attending Independent and State Schools.

**Figure 2.19:** Literary Reading Performance of Maltese Students by Gender and School Type

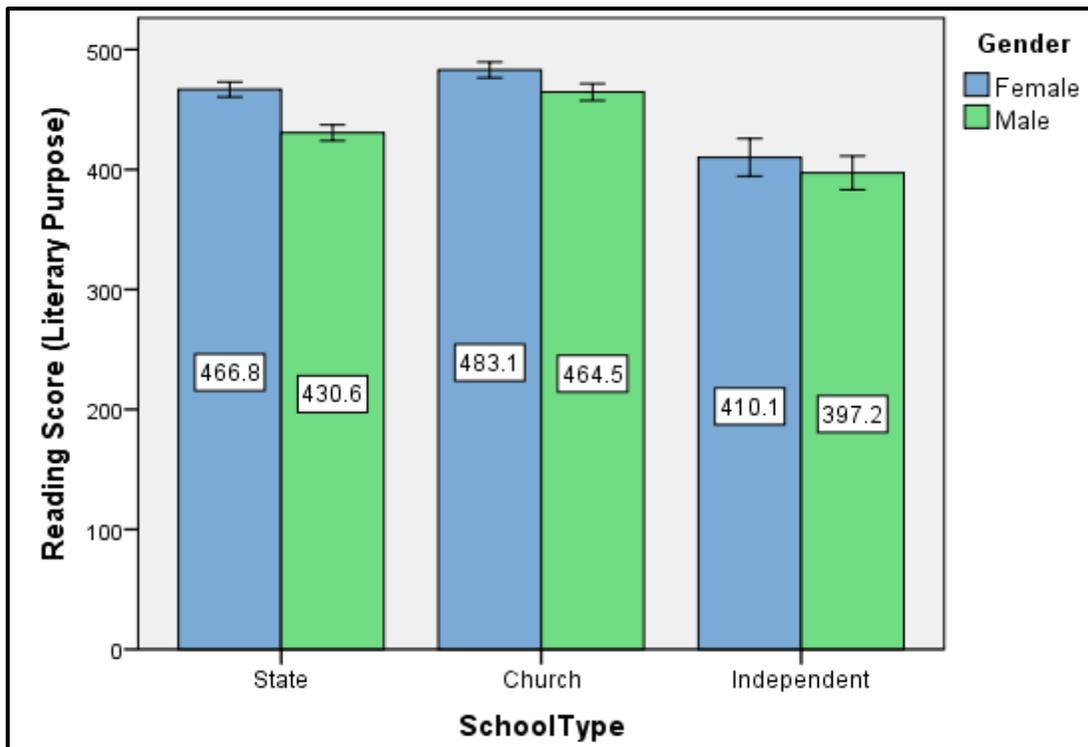


Figure 2.20: Informational Reading Performance of Maltese Students by Gender and School Type

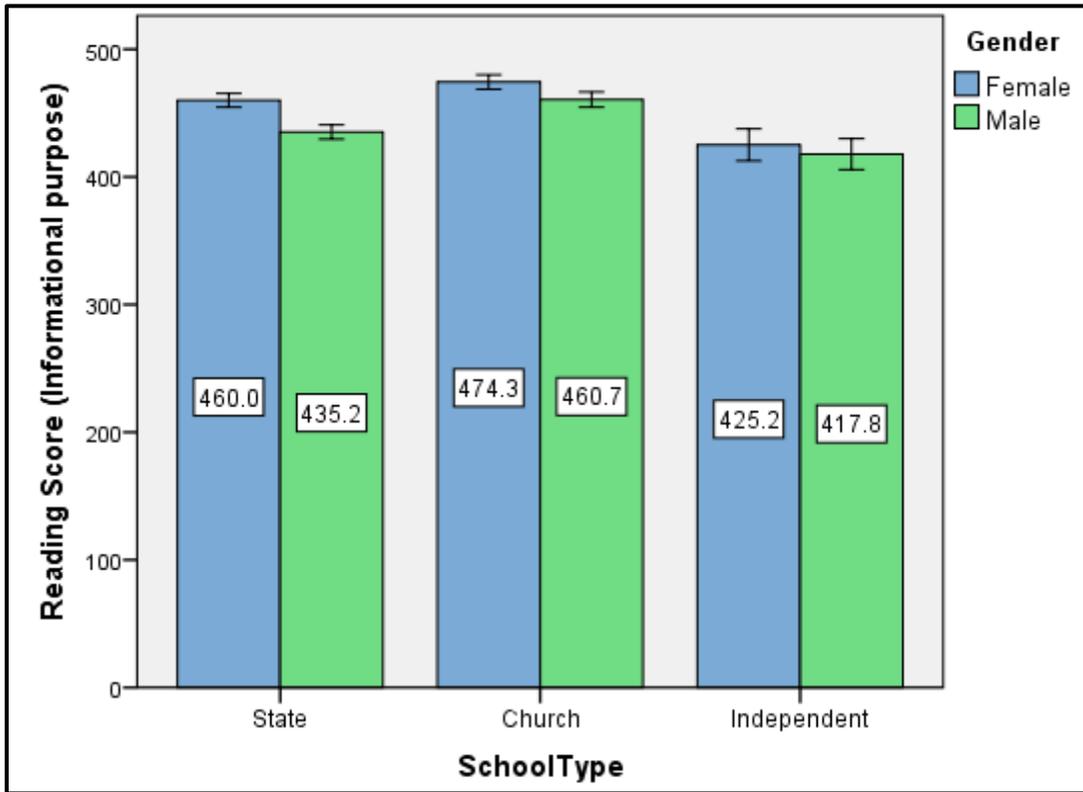
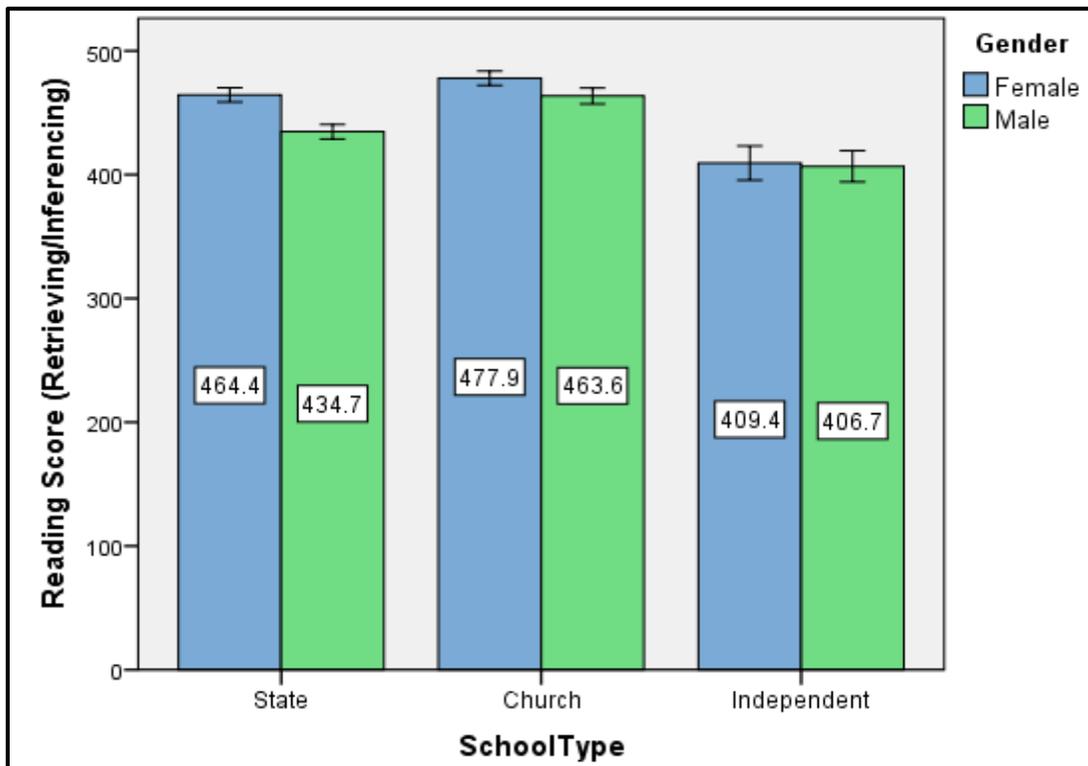
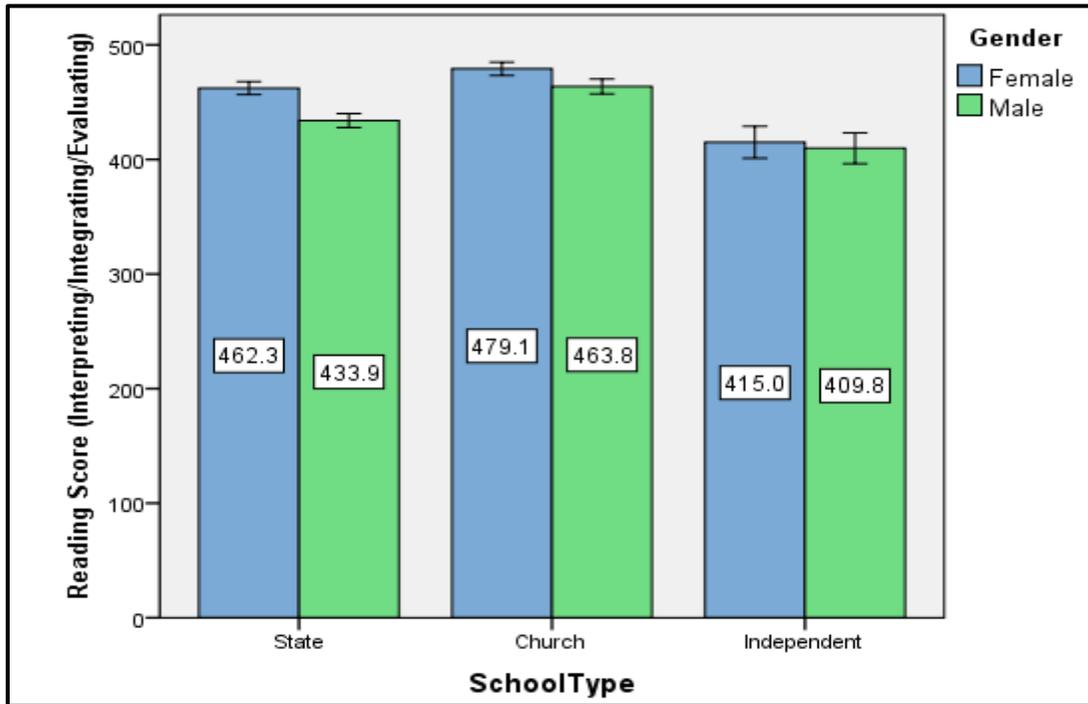


Figure 2.21: Retrieving/Inferencing Reading Performance of Maltese Students by Gender and School type



**Figure 2.22:** Interpret, Integrate, Evaluate Reading Attainment of Maltese Students by Gender and School Type



## 2.7 Reading score differences between the 2011 and 2016 cycles

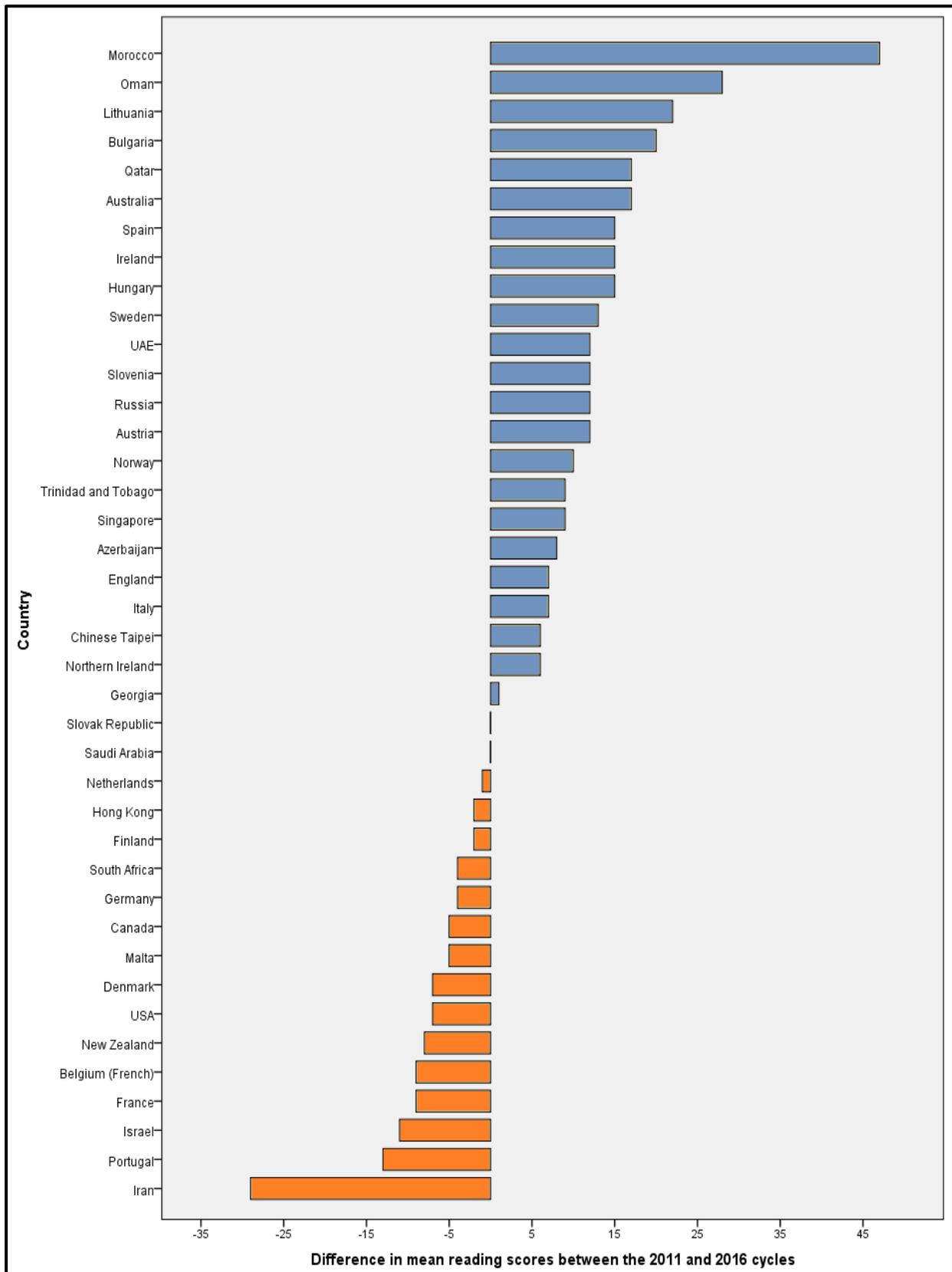
Figure 2.23 displays the reading score distributions of Maltese students in the PIRLS 2011 and 2016 cycles. The mean reading score in the 2016 cycle (452) is 5 points lower than the mean reading score in the 2011 cycle (457), where this reduction is significant at the 0.05 level of significance.

**Figure 2.23:** Reading score distributions of Maltese students in the 2011 and 2016 cycles

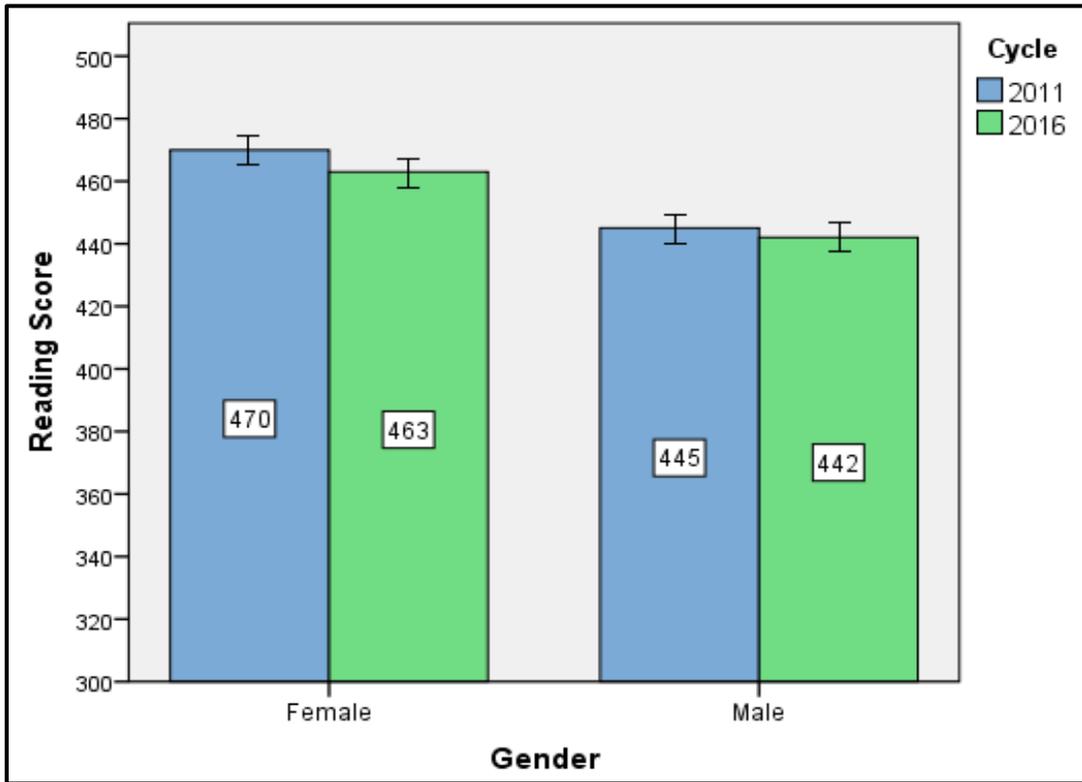


Figure 2.24 shows the differences in mean reading scores between 2009 and 2016 across countries. Twenty-three countries out of a total of forty countries that participated in both cycles registered an improvement in the mean reading score. Morocco registered the largest increment (47) in the mean reading score. This is followed by Oman (28), Lithuania (22), Bulgaria (20), Qatar (17), Australia (17), Spain (15), Ireland (15), Hungary (15) and Sweden (13). Iran registered the largest decrease (-29) in the mean reading score. This is preceded by Portugal (-13), Israel (-11), France (-9), Belgium (-9) and New Zealand (-8). Slovak Republic and Saudi Arabia were the only two countries that did not register a change in the mean reading score.

**Figure 2.24:** Difference in mean reading score between the 2011 and 2016 cycles clustered by country



**Figure 2.25:** Difference in mean reading scores between 2009 and 2016 clustered by gender



**Figure 2.26:** Difference in mean reading scores between 2009 and 2016 clustered by purpose/process

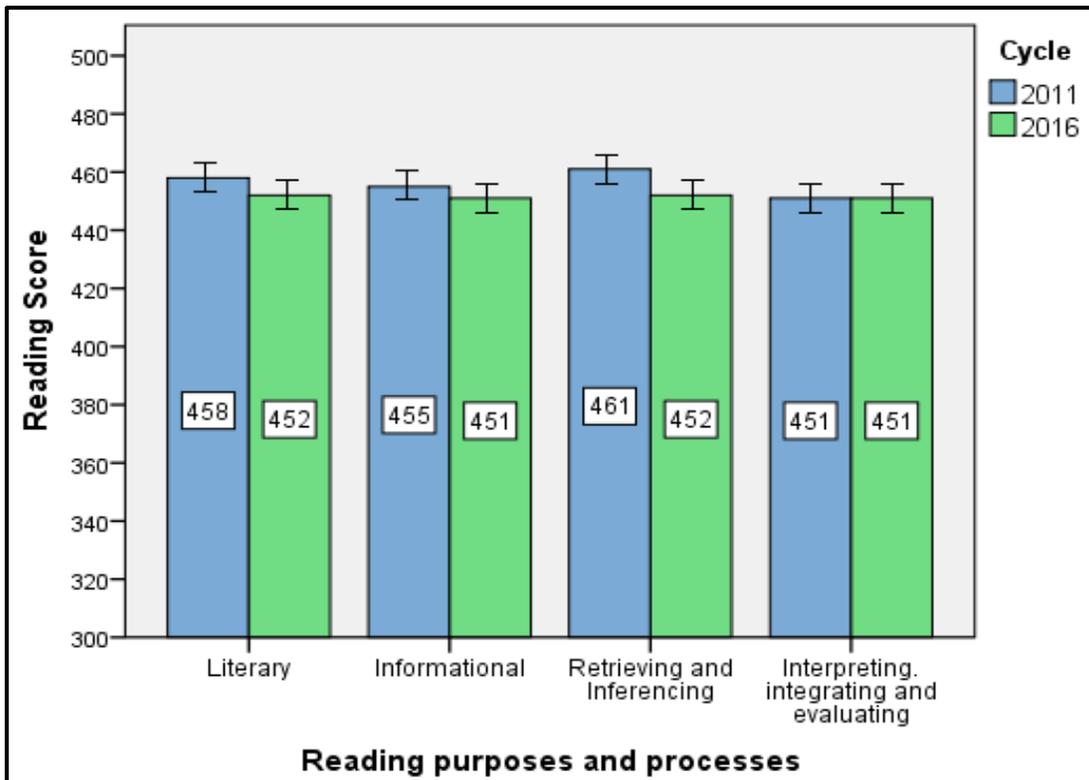


Figure 2.25 shows a significant reduction in the mean reading score for Maltese female students and a marginal reduction for Maltese male students between the two cycles. Figure 2.26 shows a significant reduction in the mean reading score for retrieving/inferencing processes and marginal reductions in the mean reading score for literary and informational purposes between the two cycles. However, there was no change in the mean reading score for interpreting/integrating/evaluating processes.

## 3

# Home Environment Support

## 3.1 Introduction

Much research has provided insight into the importance of home environments for reading literacy development. In order to better understand the effects of the home environment on literacy transmission, PIRLS collects data through both the student and parent questionnaire. Through these two questionnaires, information is gathered on home resources for learning, languages spoken at home, parental educational expectations, academic socialization, early literacy and early numeracy activities, and home reading support, where a scale score is generated for each of these home contexts. This chapter investigates the relationship between Maltese students' performance on the PIRLS reading assessment and these home contexts and compares these relationships between State, Church and Independent schools.

## 3.2 Home Resources for Learning

Home resources for learning encompass important socioeconomic characteristics of the parents, such as their education level, together with home support for learning and emphasis on educational activities. In educational research, the most influential background factors on student achievement tend to be those that measure socioeconomic status of the parents or caregivers, often indicated through proxy variables such as parental level of education, income, occupational class, and, more generally, home resources such as access to technology, the internet, and books, including children's books.

A scale score for Home Resources for Learning was generated by considering five components, which include highest education level and employment status of either parent, the number of books at home as suggested by students and by parents, the availability of an internet connection and whether the child has an own room. Tables 3.1 to 3.5 display the responses of the Maltese sample for each of the five items.

**Table 3.1:** Items found at home as indicated by Maltese students

Do you have any of these things at home?	Yes	No
Your own room	84.5%	15.5%
Internet connection	93.5%	6.5%

**Table 3.2:** Number of books at home as indicated by Maltese students

About how many books are there in your home (exclude school books)?	Frequency	Percentage
0-10 books	236	6.5%
11-25 books	811	22.5%
26-100 books	1415	39.2%
101-200 books	629	17.4%
More than 200 books	515	14.3%

**Table 3.3:** Number of children's books at home as indicated by Maltese parents

About how many books are there in your home? (Exclude children's books)	Frequency	Percentage
0-10	279	8.3%
11-25	573	17.1%
26-100	1272	38.0%
101-200	543	16.2%
More than 200	676	20.2%

**Table 3.4:** Employment status as indicated by Maltese parents/guardians

What kind of work do the child's parents/guardians do for their main job?	Father	Mother
Has never worked for pay	1.1%	9.1%
Small business owner	12.3%	6.0%
Clerk	3.8%	18.2%
Service or sales worker	9.6%	9.6%
Skilled agricultural or fishery worker	1.4%	0.2%
Craft or trade worker	15.8%	0.9%
Plant or machine operator	7.0%	4.8%
General labourers	6.8%	4.4%
Corporate manager or senior official	15.2%	7.9%
Professional	14.0%	21.8%
Technician or associate professional	7.4%	4.0%
Not applicable	5.6%	13.2%

**Table 3.5:** Highest Parental Education Level as indicated by parents/guardians

Highest level of education completed by the child's parents/guardians	Father	Mother
Did not go to school	0.9%	0.5%
Primary education	9.3%	4.1%
Lower secondary education	38.3%	30.4%
Upper secondary education	14.3%	22.6%
Post-secondary, non-tertiary education	4.6%	6.0%
Short-cycle tertiary education	9.4%	13.9%
Bachelor's or equivalent	10.9%	12.8%
Master's or equivalent	7.4%	5.7%
Doctor or equivalent	3.7%	3.3%
Not applicable	1.3%	0.6%

Figure 3.1: Home resources for learning and reading performance clustered by country

Country	Many Resources		Some Resources		Few Resources		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Norway	45 (1.2)	581 (2.3)	54 (1.2)	544 (2.5)	1 (0.1)	--	11.4 (0.04)	--
Sweden	43 (1.7)	586 (2.3)	56 (1.7)	542 (2.7)	1 (0.1)	--	11.4 (0.05)	0.0 (0.08)
Denmark	41 (1.4)	575 (2.2)	58 (1.4)	535 (2.5)	1 (0.2)	--	11.4 (0.05)	0.0 (0.07)
Finland	37 (1.2)	594 (2.0)	63 (1.1)	555 (2.0)	0 (0.1)	--	11.2 (0.03)	0.0 (0.06)
Ireland	33 (1.4)	607 (2.5)	66 (1.4)	555 (2.2)	1 (0.3)	--	11.0 (0.05)	0.2 (0.08)
Netherlands	33 (1.5)	577 (2.5)	67 (1.5)	541 (2.5)	0 (0.1)	--	11.0 (0.05)	0.2 (0.08)
Belgium (French)	30 (1.3)	540 (2.5)	67 (1.2)	486 (3.0)	4 (0.4)	439 (7.5)	10.7 (0.05)	0.1 (0.10)
Singapore	29 (0.9)	624 (3.3)	69 (0.8)	562 (3.3)	2 (0.2)	--	10.9 (0.03)	0.2 (0.05) ●
Hungary	28 (1.7)	603 (2.8)	65 (1.7)	543 (2.5)	6 (0.8)	467 (6.6)	10.6 (0.09)	0.5 (0.13) ●
Belgium (Flemish)	27 (1.2)	560 (2.1)	71 (1.1)	519 (1.9)	2 (0.3)	--	10.8 (0.05)	--
Germany	25 (1.5)	591 (3.4)	74 (1.5)	539 (2.8)	1 (0.2)	--	10.8 (0.06)	0.1 (0.09)
France	24 (1.3)	552 (3.5)	73 (1.3)	505 (2.1)	2 (0.3)	--	10.6 (0.05)	0.0 (0.08)
Malta	23 (0.7)	486 (2.9)	76 (0.7)	455 (2.0)	1 (0.2)	--	10.7 (0.02)	0.6 (0.03) ●
Israel	22 (1.3)	588 (3.0)	76 (1.3)	523 (2.9)	1 (0.2)	--	10.9 (0.06)	0.1 (0.08)
Austria	22 (1.2)	584 (2.8)	77 (1.1)	533 (2.2)	2 (0.2)	--	10.6 (0.05)	0.2 (0.08)
Canada	22 (0.8)	579 (2.4)	78 (0.7)	543 (1.8)	1 (0.1)	--	10.8 (0.03)	-0.5 (0.05) ▼
Slovenia	22 (1.1)	587 (2.6)	77 (1.1)	534 (2.1)	1 (0.2)	--	10.6 (0.04)	0.2 (0.06) ●
Czech Republic	21 (1.2)	587 (2.0)	77 (1.2)	536 (1.8)	2 (0.3)	--	10.5 (0.05)	0.0 (0.07)
Poland	21 (0.9)	605 (3.1)	76 (1.0)	556 (2.1)	3 (0.4)	509 (10.1)	10.4 (0.05)	--
Chinese Taipei	21 (1.3)	593 (2.8)	74 (1.2)	553 (1.9)	5 (0.4)	513 (6.7)	10.3 (0.06)	0.1 (0.08)
Hong Kong SAR	21 (1.8)	579 (4.9)	74 (1.8)	568 (3.0)	5 (0.5)	553 (7.3)	10.3 (0.08)	0.6 (0.11) ●
Latvia	21 (1.0)	589 (2.4)	77 (1.0)	552 (1.8)	2 (0.3)	--	10.6 (0.04)	--
Spain	19 (0.7)	565 (1.8)	77 (0.8)	526 (1.7)	4 (0.5)	476 (5.1)	10.3 (0.04)	0.0 (0.07)
Portugal	18 (1.0)	568 (4.2)	76 (0.9)	523 (2.2)	6 (0.5)	487 (4.3)	10.1 (0.05)	0.2 (0.08) ●
Lithuania	16 (1.0)	594 (3.5)	81 (1.1)	543 (2.6)	3 (0.6)	466 (8.1)	10.2 (0.05)	0.4 (0.07) ●
Slovak Republic	16 (0.9)	592 (3.4)	77 (1.4)	539 (2.2)	8 (1.1)	397 (13.5)	10.1 (0.05)	0.1 (0.08)
Bulgaria	15 (1.1)	610 (3.9)	71 (1.8)	558 (3.4)	14 (1.8)	466 (10.3)	9.8 (0.09)	0.4 (0.15)
Russian Federation	14 (0.8)	618 (3.2)	84 (0.8)	576 (2.2)	2 (0.3)	--	10.3 (0.04)	-0.1 (0.06)
United Arab Emirates	12 (0.5)	539 (4.7)	85 (0.5)	450 (3.0)	3 (0.2)	369 (8.3)	10.2 (0.03)	0.3 (0.05) ●
Georgia	12 (0.9)	529 (4.3)	82 (1.2)	488 (2.9)	6 (0.9)	439 (7.9)	10.0 (0.05)	0.1 (0.09)
Qatar	11 (0.5)	519 (3.9)	86 (0.6)	449 (2.0)	3 (0.3)	363 (8.6)	10.2 (0.02)	0.0 (0.05)
Macao SAR	11 (0.4)	581 (3.7)	81 (0.6)	542 (1.1)	7 (0.4)	530 (3.4)	9.8 (0.02)	--
Trinidad and Tobago	10 (0.8)	554 (5.1)	86 (0.9)	480 (3.6)	4 (0.4)	430 (10.2)	10.0 (0.04)	0.2 (0.07) ●
Italy	8 (0.8)	595 (3.3)	86 (0.9)	550 (2.2)	6 (0.6)	507 (6.2)	9.7 (0.05)	0.0 (0.07)
Bahrain	8 (0.6)	519 (6.2)	87 (0.6)	447 (2.7)	5 (0.4)	388 (7.2)	9.8 (0.03)	--
Kazakhstan	8 (0.9)	573 (7.1)	88 (1.0)	534 (2.3)	4 (0.6)	516 (7.4)	9.9 (0.05)	--
Chile	6 (0.4)	557 (4.4)	85 (0.8)	497 (2.6)	10 (0.7)	461 (6.8)	9.3 (0.05)	--
Oman	5 (0.4)	505 (7.8)	81 (0.7)	427 (3.3)	14 (0.6)	368 (4.7)	9.3 (0.03)	0.6 (0.05) ●
Iran, Islamic Rep. of	4 (0.5)	525 (5.8)	67 (1.4)	449 (3.5)	29 (1.4)	373 (5.4)	8.5 (0.06)	0.4 (0.11) ●
Kuwait	3 (0.6)	479 (12.3)	92 (0.9)	401 (4.2)	5 (0.7)	365 (13.7)	9.6 (0.05)	--
Saudi Arabia	2 (0.3)	--	85 (1.0)	436 (4.0)	13 (1.1)	418 (11.5)	9.1 (0.05)	0.1 (0.09)
Azerbaijan	2 (0.2)	--	75 (1.0)	486 (3.6)	24 (1.1)	440 (6.4)	8.7 (0.05)	0.2 (0.07)
Morocco	1 (0.1)	--	38 (1.2)	401 (3.5)	61 (1.2)	342 (4.8)	6.9 (0.06)	-0.3 (0.11)
Egypt	0 (0.1)	--	61 (1.8)	366 (5.4)	38 (1.8)	277 (8.3)	7.9 (0.08)	--
Australia	46 (1.6)	592 (3.4)	53 (1.6)	541 (3.1)	1 (0.2)	--	11.6 (0.06)	0.0 (0.08)
Northern Ireland	42 (1.5)	615 (4.3)	57 (1.5)	569 (3.7)	1 (0.2)	--	11.4 (0.05)	0.5 (0.09) ●
New Zealand	39 (1.4)	581 (3.2)	60 (1.4)	522 (3.0)	2 (0.4)	--	11.2 (0.05)	0.0 (0.07)
South Africa	1 (0.4)	--	70 (1.5)	354 (6.4)	29 (1.6)	295 (5.6)	8.3 (0.07)	-0.1 (0.10)
International Avg.	20 (0.2)	572 (0.6)	73 (0.2)	509 (0.4)	7 (0.1)	432 (1.5)		

Significantly higher than 2011 ● Significantly lower than 2011 ▼

Students with Many Resources had a score of at least 11.8, which is the point on the scale corresponding to students reporting they had more than 100 books in the home and both of the home study supports, and parents reporting that they had more than 25 children's books in the home, that at least one parent had finished university, and that at least one parent had a professional occupation, on average. Students with Few Resources had a score no higher than 7.5, which is the scale point corresponding to students reporting that they had 25 or fewer books in the home and neither of the home study supports, and parents reporting that they had 10 or fewer children's books in the home, that neither parent had gone beyond upper-secondary education, and that neither parent was a small business owner or had a clerical or professional occupation, on average. All other students were assigned to the Some Resources category.

Figure 3.1 shows the home resources scale score for learning of each country. The percentage of Maltese students with 'Many Resources' (23%) is slightly higher than the international average (20%), the percentage with 'Some Resources' (76%) is marginally higher than the international average (73%); whereas the percentage with 'Few Resources' (1%) is significantly lower than the international average (7%). Norway, Sweden and Denmark have the highest mean scale score (11.4) indicating richest home reading resources and Morocco has the lowest mean scale score (6.7). Malta's mean scale score (10.7) is significantly higher than the corresponding PIRLS 2011 mean scale score (10.1). The most striking relationship that emerges is that reading attainment is significantly positively related to home resources for reading. Across all countries, the mean attainment reading scores of students with 'Many', 'Some' and 'Few' resources are (572, 509 and 432) respectively and this pattern applies to all participating countries. The mean attainment reading scores of Maltese students with 'Many' and 'Some' resources are (486 and 455) respectively. The mean reading scores of Maltese students with 'Few' resources could not be computed because of insufficient data. Figure 3.2 displays the score distribution of home learning resources of Maltese students.

**Figure 3.2:** Score distribution of home learning resources of Maltese students

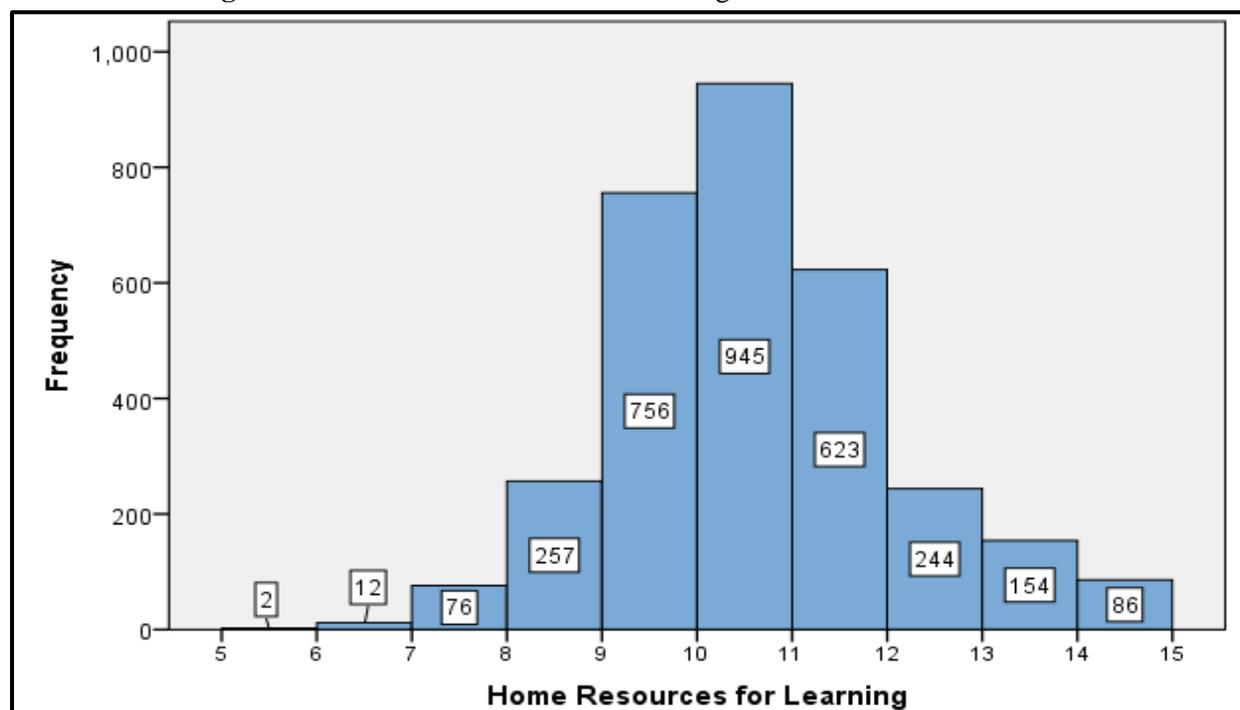


Figure 3.3: Mean home resources for learning clustered by school type

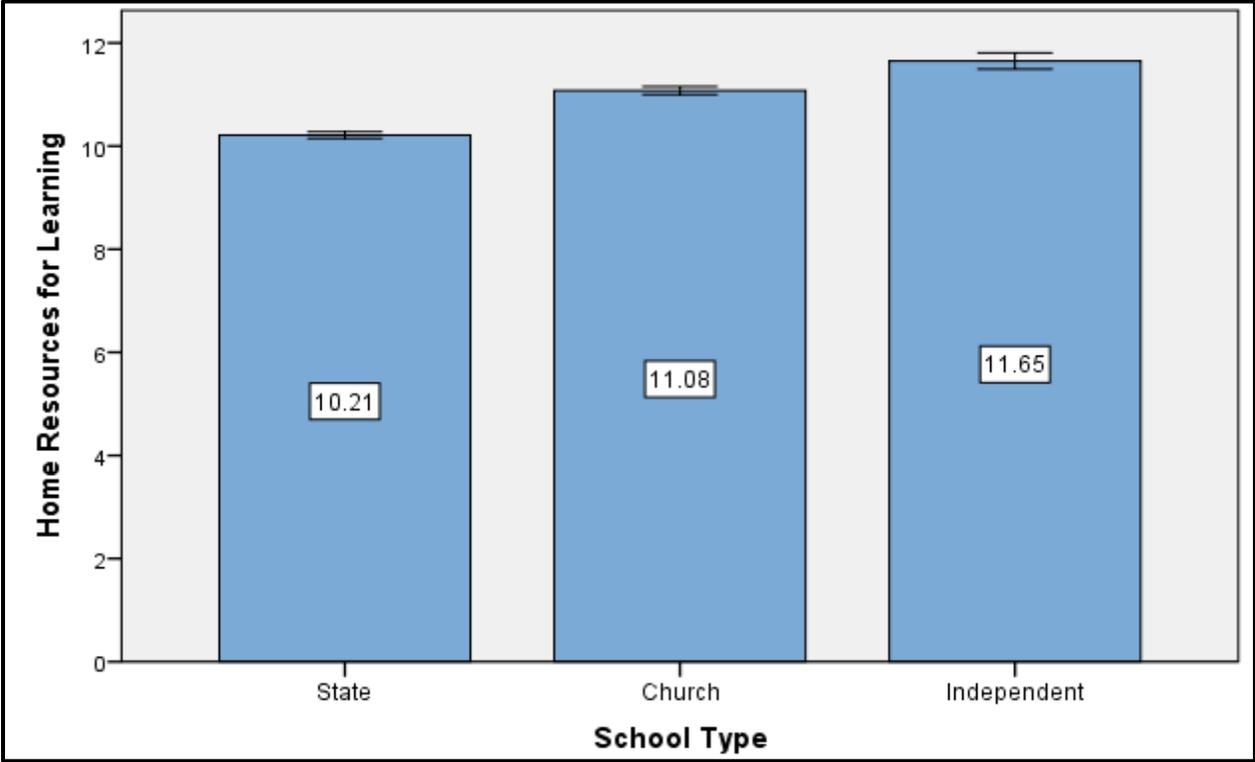


Figure 3.4: Relationship between home learning resources and reading attainment by school type

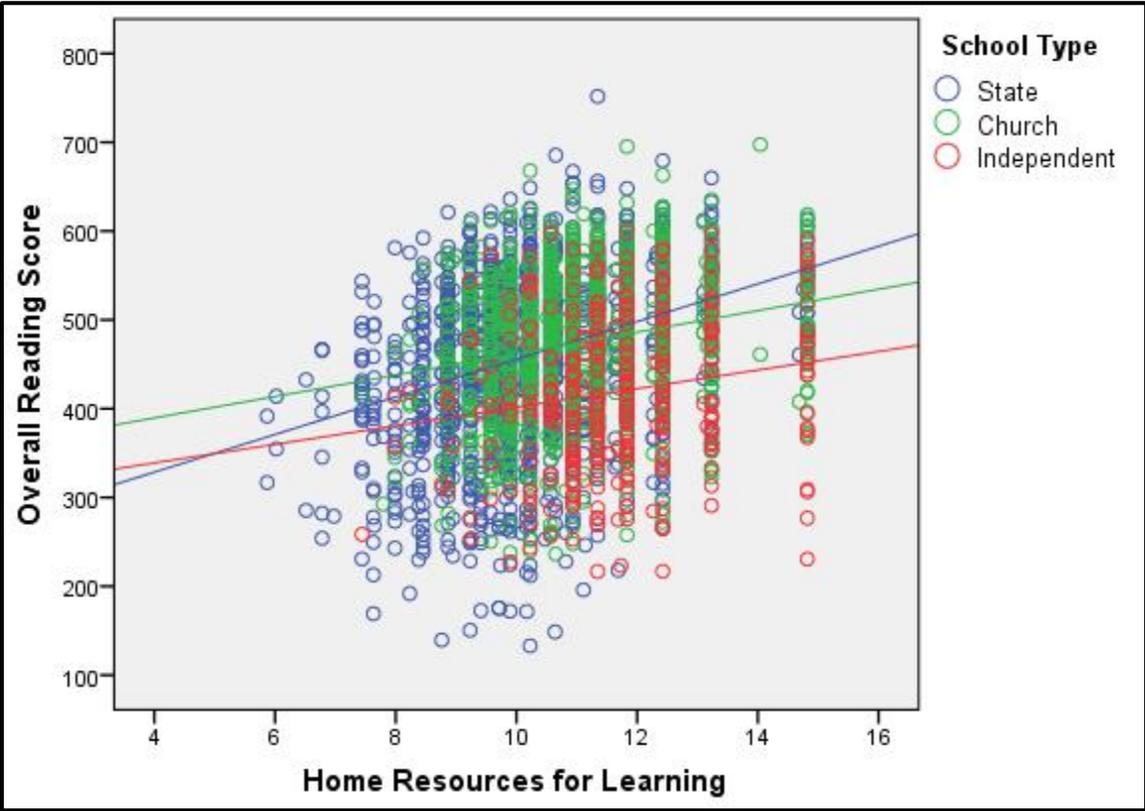


Figure 3.3 shows that the home learning resources mean scale score of Independent school students is significantly larger than the corresponding mean scale scores of Church and State school students. Figure 3.4 shows that reading attainment is positively related to home resources for learning and this applies for all school types. This implies that students with many home resources for learning are more likely to perform well in reading comprehension.

### 3.3 Digital Devices at Home

Recent research has shown that parents generally are accepting their children to spend their time playing on digital media, including video games, because they believe that such activities lead to proficiency with computers and technology - important skills for academic and career success. Research shows that there exists a relationship between access to new technology at home and academic achievement in general, as well as increased reading literacy in particular. It is believed that, if used correctly, educational applications for mobile and other media devices also can be effective, supplementary early learning tools for young children. As such, there is concern that students with less home access to these costly resources are further disadvantaged in the classroom environment, leading to greater inequity in educational systems.

A scale score for the availability of Digital Devices at Home was generated by considering three components, which include the number of digital information devices that are available at home, the availability of an internet connection, computer/tablet and devices for reading e-books by parent and child. Tables 3.6 to 3.8 display the responses of the Maltese sample for each of the three items.

**Table 3.6:** Items found at home as indicated by Maltese students

Do you have any of these things at home?	Yes	No
Computer / tablet	92.0%	8.0%
Internet connection	93.5%	6.5%

**Table 3.7:** Number of digital devices found at home as indicated by Maltese parents/guardians

How many digital information devices are there in your home?	Frequency	Percentage
None	26	0.8%
1-3 devices	913	27.3%
4-6 devices	1418	42.4%
7-10 devices	776	23.2%
More than 10 devices	208	6.2%

**Table 3.8:** Availability of devices for reading e-books as indicated by Maltese parents/guardians

Do you have a device for reading e-books that can be used by....?	Yes	No
Parent	87.3%	12.7%
Child	61.4%	38.6%

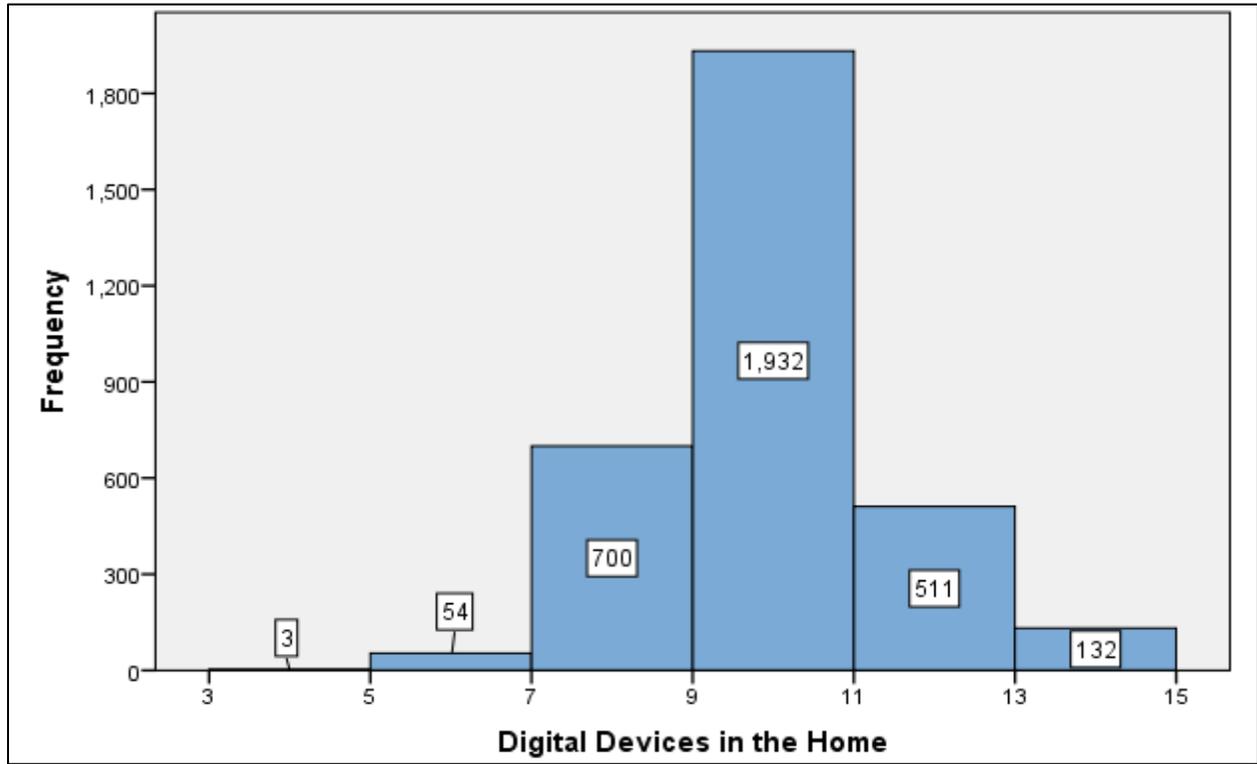
Students with High Access had a score of at least 12.1, which is the point on the scale corresponding to students reporting they had a computer and internet connection, and parents reporting they had seven or more digital information devices in the home as well as a digital device

for reading for both themselves and their child. Students with Low Access had a score no higher than 6.0, which is the scale point corresponding to students reporting that they did not have a computer or internet connection, and parents reporting that they had less than four digital information devices in the home and no digital devices for reading for either themselves or their child. All other students were assigned to the Medium Access category.

**Figure 3.5:** Availability of Digital Resources at home clustered by country

Country	High Access		Medium Access		Low Access		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Norway	58 (1.0)	566 (2.4)	42 (1.0)	552 (2.7)	0 (0.0)	~ ~	11.8 (0.04)
Finland	53 (0.9)	577 (2.0)	47 (0.9)	560 (2.3)	0 (0.0)	~ ~	11.6 (0.03)
Denmark	49 (1.0)	554 (2.9)	51 (1.0)	546 (2.4)	0 (0.0)	~ ~	11.5 (0.04)
Sweden	42 (1.2)	567 (2.7)	58 (1.2)	554 (2.8)	0 (0.1)	~ ~	11.3 (0.05)
Netherlands	32 (1.3)	557 (3.4)	68 (1.3)	551 (2.3)	0 (0.0)	~ ~	10.8 (0.05)
Qatar	29 (0.5)	474 (2.5)	69 (0.5)	445 (2.5)	1 (0.1)	~ ~	10.6 (0.02)
Belgium (Flemish)	29 (0.7)	535 (2.2)	71 (0.7)	526 (2.1)	0 (0.1)	~ ~	10.6 (0.03)
Hungary	28 (1.2)	575 (3.8)	70 (1.0)	549 (3.0)	2 (0.3)	~ ~	10.6 (0.06)
Canada	28 (0.6)	563 (1.8)	71 (0.6)	545 (2.2)	1 (0.1)	~ ~	10.6 (0.02)
Kuwait	28 (1.1)	411 (5.5)	71 (1.1)	397 (4.5)	1 (0.2)	~ ~	10.6 (0.05)
United Arab Emirates	26 (0.6)	474 (3.9)	74 (0.6)	451 (3.4)	1 (0.1)	~ ~	10.5 (0.03)
Ireland	25 (0.8)	580 (3.0)	75 (0.8)	568 (2.4)	0 (0.1)	~ ~	10.4 (0.03)
Bahrain	24 (0.8)	470 (3.2)	74 (0.7)	444 (2.6)	2 (0.2)	~ ~	10.2 (0.03)
Singapore	24 (0.6)	605 (3.1)	76 (0.6)	571 (3.3)	1 (0.1)	~ ~	10.4 (0.03)
Israel	23 (0.9)	546 (3.4)	76 (0.9)	534 (3.0)	2 (0.3)	~ ~	10.3 (0.04)
Portugal	21 (0.9)	549 (4.3)	78 (0.9)	524 (2.1)	1 (0.2)	~ ~	10.4 (0.03)
Trinidad and Tobago	21 (1.0)	514 (5.0)	75 (1.0)	481 (3.4)	4 (0.4)	417 (11.7)	10.0 (0.05)
Spain	20 (0.6)	550 (2.3)	79 (0.6)	526 (1.9)	1 (0.2)	~ ~	10.1 (0.03)
Bulgaria	19 (0.8)	592 (3.3)	75 (1.0)	549 (4.3)	6 (0.9)	473 (15.8)	9.9 (0.08)
Malta	19 (0.6)	468 (3.6)	80 (0.6)	457 (1.8)	0 (0.1)	~ ~	10.3 (0.02)
Poland	19 (0.8)	586 (3.0)	80 (0.8)	561 (2.1)	1 (0.3)	~ ~	10.5 (0.03)
Lithuania	19 (0.9)	568 (3.7)	79 (0.9)	547 (2.9)	2 (0.4)	~ ~	10.2 (0.05)
Slovak Republic	17 (0.6)	561 (3.4)	80 (0.7)	536 (3.0)	3 (0.6)	389 (19.9)	10.0 (0.05)
Austria	17 (0.7)	557 (3.6)	82 (0.7)	540 (2.4)	1 (0.1)	~ ~	9.9 (0.03)
Latvia	17 (0.6)	572 (3.1)	82 (0.8)	556 (1.9)	1 (0.3)	~ ~	10.2 (0.03)
Saudi Arabia	17 (0.9)	454 (4.6)	78 (0.9)	432 (4.3)	5 (0.5)	415 (12.2)	9.7 (0.06)
Oman	16 (0.6)	452 (5.0)	78 (0.6)	421 (3.4)	6 (0.3)	375 (7.3)	9.5 (0.04)
Czech Republic	16 (0.6)	557 (3.1)	83 (0.6)	544 (2.2)	1 (0.2)	~ ~	9.9 (0.03)
Germany	15 (0.7)	558 (3.8)	84 (0.7)	550 (2.7)	1 (0.2)	~ ~	9.7 (0.04)
Belgium (French)	15 (0.7)	507 (4.3)	84 (0.7)	499 (2.8)	1 (0.2)	~ ~	9.9 (0.03)
Macao SAR	14 (0.5)	563 (3.0)	85 (0.5)	543 (1.1)	1 (0.1)	~ ~	9.9 (0.02)
Italy	14 (0.7)	557 (3.7)	85 (0.8)	550 (2.3)	1 (0.2)	~ ~	9.8 (0.03)
Slovenia	13 (0.7)	568 (3.9)	86 (0.6)	541 (2.2)	1 (0.2)	~ ~	9.9 (0.03)
France	13 (0.6)	516 (4.5)	86 (0.6)	514 (2.2)	1 (0.2)	~ ~	9.8 (0.03)
Hong Kong SAR	13 (1.0)	577 (4.6)	87 (1.0)	569 (2.9)	1 (0.2)	~ ~	9.9 (0.05)
Russian Federation	12 (0.7)	604 (3.0)	85 (0.7)	580 (2.2)	3 (0.3)	519 (11.6)	10.0 (0.04)
Chinese Taipei	11 (0.5)	575 (3.5)	87 (0.5)	559 (2.1)	2 (0.2)	~ ~	9.7 (0.03)
Kazakhstan	10 (0.8)	561 (5.0)	81 (0.9)	535 (2.4)	8 (0.8)	516 (5.6)	9.5 (0.08)
Chile	8 (0.5)	540 (3.7)	83 (1.0)	495 (2.6)	9 (0.9)	470 (7.3)	9.0 (0.06)
Egypt	4 (0.6)	407 (14.0)	66 (1.8)	352 (5.1)	30 (1.8)	281 (9.3)	7.8 (0.10)
Georgia	4 (0.3)	513 (6.6)	87 (0.9)	492 (2.7)	9 (1.0)	468 (9.3)	9.0 (0.06)
Azerbaijan	3 (0.5)	523 (6.7)	63 (1.4)	490 (3.4)	34 (1.5)	448 (5.6)	7.6 (0.08)
Morocco	3 (0.2)	431 (7.8)	50 (1.1)	386 (3.9)	47 (1.2)	335 (4.7)	6.9 (0.07)
South Africa	3 (0.5)	429 (15.6)	64 (1.5)	341 (6.3)	33 (1.6)	313 (4.5)	7.4 (0.09)
Northern Ireland	32 (1.4)	599 (5.0)	67 (1.4)	582 (3.6)	0 (0.2)	~ ~	10.9 (0.06)
Australia	29 (1.0)	572 (4.6)	71 (1.0)	560 (3.1)	0 (0.1)	~ ~	10.7 (0.04)
New Zealand	22 (1.0)	559 (4.2)	76 (1.1)	540 (2.8)	2 (0.3)	~ ~	10.2 (0.04)
International Avg.	20 (0.1)	536 (0.7)	74 (0.1)	512 (0.4)	5 (0.1)	414 (2.8)	

**Figure 3.6:** Score distribution of home digital resources of Maltese students



**Figure 3.7:** Mean home digital resources clustered by school type

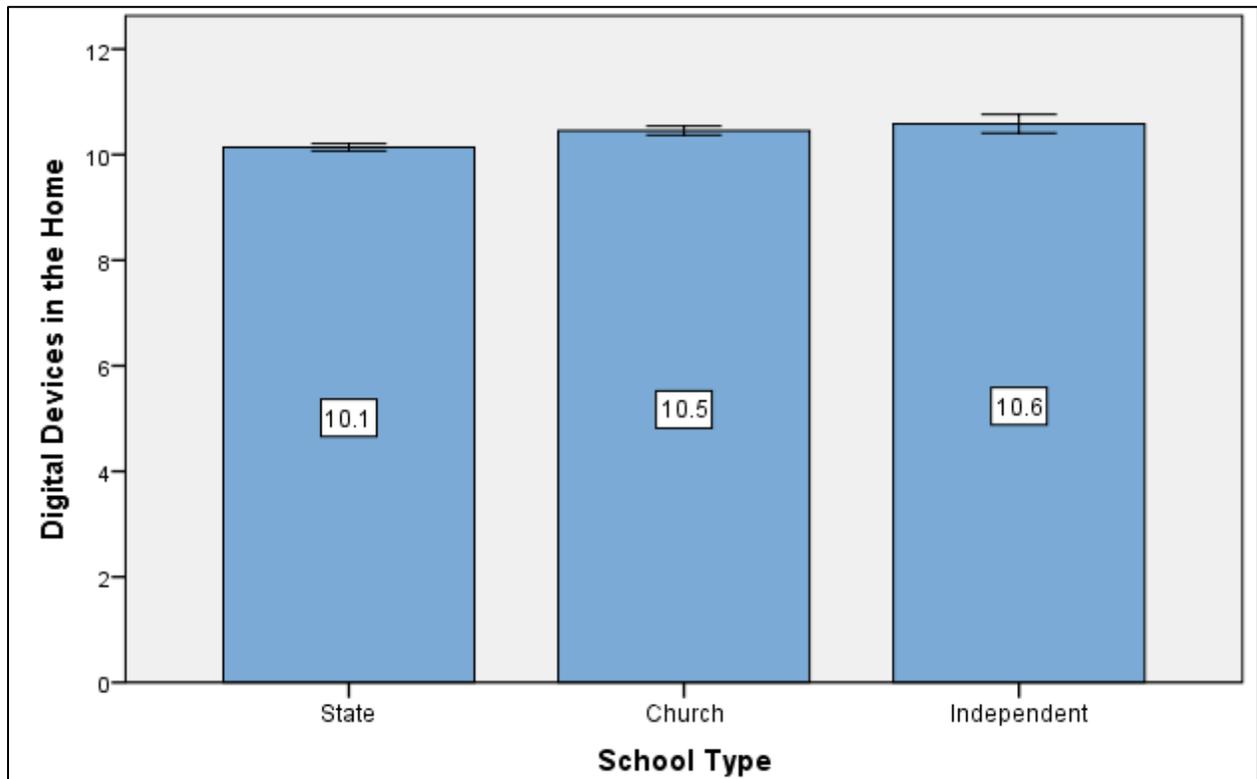


Figure 3.5 shows the home resources scale score for learning of each country. The percentage of Maltese students with ‘High Access’ (19%) is slightly lower than the international average (20%), the percentage with ‘Medium Access’ (80%) is significantly higher than the international average (74%); whereas the percentage with ‘Low Access’ (0%) is significantly lower than the international average (5%). Norway (11.8), Finland (11.6), Denmark (11.5) and Sweden (11.3) have the highest mean scale score indicating best access to digital resources at home, while Morocco (6.9), South Africa (7.4), Azerbaijan (7.6) and Egypt (7.8) have the lowest mean scale score. Malta’s mean scale score (10.3) is marginally higher than the international average. There is evidence of positive relationship between overall reading attainment and home digital resources. Across all countries, the mean attainment reading scores of students with ‘High’ and ‘Medium’ access are (599 and 582) respectively and this pattern applies to all participating countries. The mean attainment reading scores of Maltese students with ‘High’ and ‘Medium’ access are (486 and 457) respectively. The mean reading scores of Maltese students with ‘Low’ access could not be computed because of insufficient data. Figure 3.6 displays the score distribution of digital home resources of Maltese students.

**Figure 3.8:** Relationship between home digital resources and reading attainment by school type

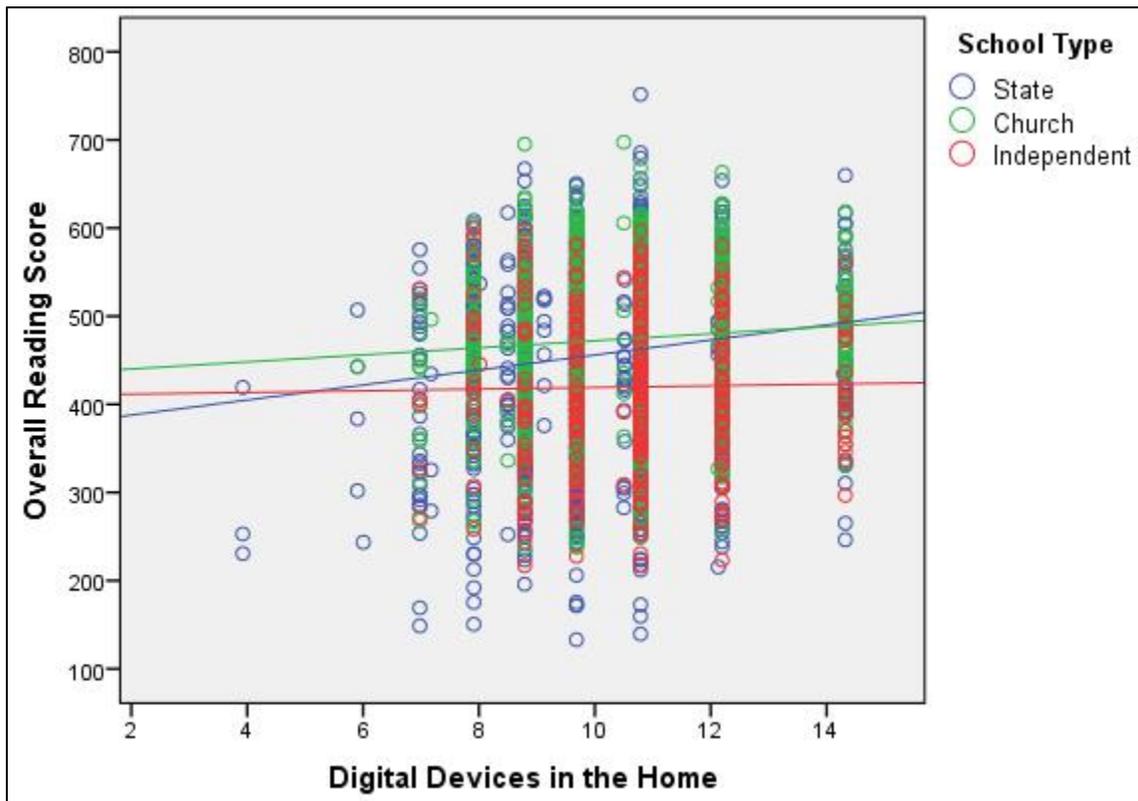


Figure 3.7 shows that the home digital resources mean scale score of State school students is significantly smaller than the corresponding mean scale scores of Church and Independent school students. Figure 3.8 shows that reading attainment is positively related to home digital resources and this applies mostly to State and Church schools. This implies that students with high access to digital resources are more likely to perform well in reading comprehension.

### 3.4 Language(s) spoken at Home

Many research studies have shown that learning to read is dependent on the children's early language experiences. The language or languages spoken at home and how they are used are important factors in reading literacy development. If students are not fluent in the language of instruction, there is often an initial learning gap.

**Figure 3.9:** Language(s) spoken at home clustered by country

Country	Always		Almost Always		Sometimes		Never	
	Percent of Students	Average Achievement						
Australia	72 (1.0)	546 (2.6)	13 (0.6)	557 (4.4)	14 (0.7)	532 (5.1)	1 (0.1)	~ ~
Austria	69 (1.4)	553 (1.7)	13 (0.8)	536 (4.8)	16 (0.9)	501 (5.3)	3 (0.2)	495 (9.6)
Azerbaijan	76 (1.4)	472 (4.0)	12 (0.8)	473 (9.0)	11 (0.8)	490 (5.1)	1 (0.2)	~ ~
Bahrain	52 (1.0)	437 (2.7)	13 (0.5)	467 (5.7)	29 (0.8)	467 (4.1)	5 (0.4)	407 (9.5)
Belgium (Flemish)	66 (1.2)	536 (1.8)	10 (0.5)	524 (3.6)	19 (0.8)	500 (3.2)	4 (0.4)	486 (7.3)
Belgium (French)	61 (1.2)	504 (2.4)	17 (0.8)	504 (4.0)	20 (0.9)	478 (4.1)	2 (0.2)	~ ~
Bulgaria	75 (2.1)	567 (3.5)	8 (0.6)	556 (6.0)	11 (1.3)	508 (8.6)	6 (1.2)	445 (14.8)
Canada	60 (1.1)	542 (2.1)	18 (0.6)	559 (2.5)	19 (0.8)	539 (2.4)	3 (0.3)	518 (8.5)
Chile	78 (0.8)	498 (2.5)	9 (0.4)	515 (5.8)	7 (0.4)	491 (5.4)	6 (0.5)	441 (6.6)
Chinese Taipei	39 (0.9)	555 (2.7)	20 (0.7)	574 (3.1)	40 (0.9)	557 (2.2)	1 (0.2)	~ ~
Czech Republic	77 (0.7)	542 (2.2)	16 (0.7)	556 (3.4)	7 (0.4)	531 (3.7)	1 (0.1)	~ ~
Denmark	69 (1.1)	553 (2.1)	20 (0.8)	547 (4.0)	10 (0.8)	521 (6.3)	1 (0.2)	~ ~
Egypt	57 (3.0)	328 (7.7)	11 (1.4)	346 (9.8)	16 (2.2)	354 (10.5)	16 (2.2)	317 (11.6)
England	73 (1.1)	559 (2.1)	11 (0.6)	575 (3.4)	14 (0.8)	555 (3.6)	2 (0.2)	~ ~
Finland	71 (1.2)	570 (1.8)	19 (0.8)	568 (3.2)	9 (0.9)	541 (5.1)	1 (0.2)	~ ~
France	71 (1.1)	514 (2.4)	13 (0.7)	520 (4.1)	15 (0.7)	494 (3.6)	1 (0.2)	~ ~
Georgia	75 (1.2)	490 (2.9)	9 (0.5)	511 (5.9)	14 (1.0)	484 (5.3)	2 (0.6)	~ ~
Germany	67 (1.4)	552 (2.6)	16 (1.0)	536 (7.3)	15 (0.9)	510 (4.8)	1 (0.2)	~ ~
Hong Kong SAR	54 (1.4)	566 (2.9)	14 (0.7)	577 (4.4)	28 (1.2)	573 (4.4)	4 (0.4)	554 (8.8)
Hungary	82 (0.8)	556 (2.8)	15 (0.8)	554 (5.2)	2 (0.4)	~ ~	0 (0.1)	~ ~
Iran, Islamic Rep. of	59 (2.5)	448 (3.9)	8 (0.7)	435 (9.4)	14 (0.9)	436 (9.0)	19 (2.1)	360 (9.9)
Ireland	79 (1.2)	567 (2.4)	10 (0.7)	587 (5.1)	10 (0.8)	559 (5.5)	2 (0.3)	~ ~
Israel	69 (1.3)	527 (2.7)	13 (0.6)	553 (4.9)	16 (0.9)	539 (3.9)	2 (0.3)	~ ~
Italy	70 (1.1)	554 (2.4)	14 (0.8)	552 (3.7)	14 (0.8)	523 (3.6)	2 (0.4)	~ ~
Kazakhstan	78 (1.2)	537 (2.5)	8 (0.5)	546 (4.6)	13 (0.9)	530 (4.5)	1 (0.2)	~ ~
Kuwait	13 (0.9)	374 (9.0)	24 (1.3)	393 (5.2)	33 (1.4)	420 (5.7)	30 (2.0)	384 (5.3)
Latvia	67 (1.3)	560 (2.1)	20 (1.0)	562 (2.8)	11 (0.8)	543 (3.7)	2 (0.3)	~ ~
Lithuania	70 (1.2)	549 (2.6)	19 (0.8)	562 (3.8)	10 (0.8)	526 (6.0)	1 (0.2)	~ ~
Macao SAR	54 (0.7)	550 (1.4)	15 (0.5)	561 (3.3)	29 (0.7)	535 (2.2)	2 (0.2)	~ ~
Malta	49 (0.9)	459 (2.3)	20 (0.7)	463 (3.6)	26 (0.7)	451 (3.4)	5 (0.4)	378 (7.3)
Morocco	12 (0.9)	338 (6.9)	15 (1.1)	369 (9.2)	26 (1.1)	392 (4.7)	47 (1.8)	340 (4.3)
Netherlands	66 (1.1)	549 (2.0)	16 (0.8)	549 (3.4)	15 (0.9)	527 (3.9)	3 (0.6)	527 (10.8)
New Zealand	~ ~	~ ~	~ ~	~ ~	~ ~	~ ~	~ ~	~ ~
Northern Ireland	85 (0.9)	565 (2.3)	9 (0.7)	578 (5.5)	5 (0.5)	555 (7.6)	1 (0.2)	~ ~
Norway	68 (1.2)	563 (2.5)	21 (1.0)	557 (3.2)	10 (0.7)	542 (4.5)	1 (0.2)	~ ~
Oman	59 (1.6)	420 (3.6)	16 (0.9)	419 (5.1)	18 (0.7)	438 (4.6)	8 (0.6)	392 (7.5)
Poland	81 (1.0)	560 (2.2)	16 (0.9)	588 (3.5)	3 (0.4)	573 (7.0)	0 (0.1)	~ ~
Portugal	83 (0.8)	528 (2.5)	9 (0.5)	538 (4.1)	8 (0.5)	512 (3.8)	1 (0.2)	~ ~
Qatar	37 (0.8)	423 (2.5)	15 (0.4)	455 (3.3)	38 (0.7)	470 (2.5)	10 (0.5)	408 (5.2)
Russian Federation	79 (1.0)	583 (2.3)	11 (0.7)	584 (4.4)	8 (0.8)	569 (7.0)	1 (0.3)	~ ~
Saudi Arabia	27 (1.6)	408 (5.2)	22 (1.4)	452 (5.4)	24 (1.2)	454 (5.9)	28 (1.6)	438 (7.4)
Singapore	30 (0.6)	585 (3.4)	22 (0.6)	599 (3.2)	45 (0.7)	564 (3.7)	3 (0.2)	508 (9.0)
Slovak Republic	69 (1.3)	543 (2.8)	17 (0.7)	554 (3.3)	11 (1.1)	494 (10.6)	2 (0.6)	~ ~
Slovenia	74 (1.6)	547 (2.0)	14 (0.7)	552 (4.1)	10 (0.8)	508 (4.5)	3 (0.7)	487 (10.4)
South Africa	66 (1.3)	314 (4.1)	9 (0.4)	313 (8.0)	19 (0.9)	363 (7.5)	6 (0.4)	308 (8.1)
Spain	57 (1.3)	531 (1.4)	13 (0.6)	542 (3.0)	20 (0.8)	523 (3.8)	10 (0.8)	502 (4.3)
Sweden	68 (1.4)	562 (2.5)	18 (0.9)	550 (3.6)	13 (0.9)	531 (6.0)	1 (0.1)	~ ~
Trinidad and Tobago	81 (1.3)	479 (3.2)	8 (0.7)	498 (9.6)	9 (0.9)	486 (6.9)	2 (0.3)	~ ~
United Arab Emirates	39 (0.8)	431 (3.4)	16 (0.6)	482 (4.2)	37 (0.7)	479 (4.4)	8 (0.5)	405 (6.4)
United States	72 (1.3)	555 (2.8)	11 (0.7)	553 (4.9)	16 (1.2)	529 (6.2)	1 (0.2)	~ ~
International Avg.	63 (0.2)	511 (0.5)	14 (0.1)	520 (0.7)	17 (0.1)	504 (0.8)	5 (0.1)	433 (1.9)

Figure 3.9 shows, on average, that 63% of the students ‘always’ speak the language of the test at home, 31% speak it ‘almost always’ or ‘sometimes’ and 5% ‘never’ speak the language. There was relatively small variation in average reading achievement across these categories (511, 520, 504 and 433 respectively), probably because of the many different interactions between the different languages which are spoken in homes and the various policies for the language(s) spoken in school. The percentage of Maltese students who ‘always’, ‘almost always’, ‘sometimes’ or ‘never’ speak the language of the test at home are 69%, 20%, 26% and 5% respectively and the corresponding average reading achievement across these categories are 459, 463, 451 and 378.

### 3.5 Parents’ Reading Enjoyment

Research has found that parental reading behaviour is important in fostering student achievement in reading. Parents impart their own beliefs about reading that shape children’s motivation to read. Reading socialization can have long term effects on a student academic performance because young children can learn to appreciate and use printed material by seeing their parents reading or using texts in different ways.

A scale score for Parents’ Reading Enjoyment was generated by considering the parents’ responses to eight statements about reading as well as how often they read for enjoyment. Tables 3.9 and Table 3.10 display the responses of the Maltese parents for each statement.

**Table 3.9:** Statements assessing reading behaviour of Maltese parents

Please indicate how much you agree with the following statements about reading	Agree a lot	Agree a little	Disagree a little	Disagree a lot
I read only if I have to	13.2%	16.0%	18.1%	52.6%
I like talking about what I read with other people	45.2%	37.8%	9.8%	7.2%
I like to spend my spare time reading	41.6%	34.3%	14.3%	9.9%
I read only if I need information	16.5%	21.4%	19.3%	42.7%
Reading is an important activity in my home	71.7%	21.4%	5.2%	1.7%
I would like to have more time for reading	79.8%	14.0%	4.0%	2.1%
I enjoy reading	74.1%	18.3%	5.1%	2.5%
Reading is one of my favourite hobbies	50.5%	27.6%	12.3%	9.5%

**Table 3.10:** Statement assessing reading enjoyment of Maltese parents

When you are at home, how often do you read for your own enjoyment?	Frequency	Percentage
Every day or almost every day	1353	40.4%
Once or twice a week	1127	33.7%
Once or twice a month	406	12.1%
Never or almost never	461	13.8%

Parents who enjoy reading very much had a score on the scale of at least 10.5, which corresponds to parents ‘agreeing a lot’ with four of the eight statements and ‘agreeing a little’ with the other four, as well as reading for enjoyment ‘every day or almost every day’, on average. Parents who do not like reading had a score no higher than 8.1, which corresponds to parents ‘disagreeing a little’ with four of

the eight statements and ‘agreeing a little’ with the other four, as well as reading for enjoyment only ‘once or twice a month’, on average. All other parents somewhat enjoyed reading.

**Figure 3.10:** Parents’ reading enjoyment, clustered by country

Country	Very Much Like		Somewhat Like		Do Not Like		Average Scale Score	Difference in Average Scale Score from 2011	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement			
Ireland	47 (1.1)	588 (2.9)	40 (1.0)	560 (2.9)	13 (0.7)	544 (5.2)	10.3 (0.05)	-0.4 (0.07)	⬇️
Netherlands	46 (1.5)	566 (2.8)	39 (1.2)	548 (3.1)	16 (0.9)	525 (4.3)	10.0 (0.05)	-0.4 (0.08)	⬇️
Malta	45 (0.8)	471 (2.3)	42 (0.9)	451 (2.6)	13 (0.5)	439 (3.9)	10.2 (0.03)	-0.4 (0.05)	⬇️
Denmark	44 (1.1)	564 (2.3)	38 (1.0)	542 (2.7)	17 (0.7)	530 (3.6)	10.1 (0.05)	-0.6 (0.06)	⬇️
Sweden	44 (1.1)	576 (2.9)	42 (1.1)	551 (3.0)	13 (0.8)	529 (4.4)	10.1 (0.05)	-0.8 (0.07)	⬇️
Azerbaijan	44 (1.3)	481 (5.1)	46 (1.1)	470 (4.4)	10 (0.9)	453 (6.8)	10.4 (0.06)	0.7 (0.08)	⬆️
Norway	42 (1.0)	574 (2.6)	44 (0.9)	556 (2.5)	15 (0.9)	532 (3.9)	10.1 (0.05)	-	
Trinidad and Tobago	41 (1.0)	499 (3.6)	49 (0.9)	478 (4.3)	10 (0.6)	468 (6.1)	10.2 (0.04)	-0.5 (0.06)	⬇️
Finland	41 (1.0)	585 (2.2)	43 (0.9)	563 (2.5)	16 (0.7)	542 (3.4)	10.0 (0.05)	-0.5 (0.07)	⬇️
Spain	41 (0.8)	545 (2.1)	43 (0.7)	524 (2.3)	16 (0.7)	512 (2.5)	10.0 (0.04)	0.0 (0.05)	
Israel	40 (1.1)	554 (3.1)	47 (0.9)	522 (3.2)	13 (0.6)	519 (6.4)	10.0 (0.04)	-0.5 (0.06)	⬇️
Austria	40 (1.1)	564 (2.3)	42 (0.8)	534 (2.7)	18 (0.8)	516 (3.7)	9.9 (0.05)	-0.4 (0.08)	⬇️
Canada	40 (0.8)	566 (2.1)	46 (0.7)	540 (2.5)	15 (0.5)	531 (3.3)	10.0 (0.03)	-0.5 (0.05)	⬇️
Bulgaria	39 (1.4)	587 (3.1)	43 (1.4)	548 (4.2)	19 (1.7)	493 (9.1)	9.8 (0.09)	-0.2 (0.13)	
Hungary	38 (1.4)	583 (3.0)	45 (1.2)	547 (3.3)	17 (1.0)	516 (4.6)	9.8 (0.06)	-0.1 (0.08)	
Czech Republic	37 (1.0)	565 (2.4)	45 (0.7)	540 (2.2)	18 (0.8)	514 (4.2)	9.8 (0.05)	-0.2 (0.06)	⬇️
Italy	37 (1.0)	566 (2.5)	47 (0.9)	546 (2.7)	16 (0.8)	530 (3.8)	9.9 (0.04)	0.1 (0.06)	
Germany	36 (1.1)	578 (2.7)	44 (0.9)	540 (3.3)	20 (0.9)	509 (5.0)	9.7 (0.05)	-0.4 (0.08)	⬇️
Poland	35 (0.8)	581 (2.9)	50 (0.8)	561 (2.3)	14 (0.8)	540 (4.3)	9.9 (0.04)	-	
Slovak Republic	35 (1.0)	566 (2.6)	46 (1.0)	532 (3.2)	19 (1.0)	489 (9.5)	9.6 (0.06)	-0.3 (0.08)	⬇️
Portugal	35 (0.9)	546 (3.0)	50 (0.9)	522 (2.4)	15 (0.7)	510 (5.4)	9.8 (0.04)	0.2 (0.05)	⬆️
Georgia	32 (1.0)	512 (2.9)	60 (1.1)	482 (2.9)	8 (0.8)	460 (11.3)	9.9 (0.04)	-0.2 (0.06)	⬇️
Belgium (French)	29 (0.9)	526 (2.8)	48 (0.9)	495 (3.2)	23 (0.8)	473 (3.6)	9.4 (0.04)	-0.4 (0.07)	⬇️
Belgium (Flemish)	28 (0.8)	546 (2.0)	48 (0.8)	527 (2.1)	24 (0.7)	509 (2.9)	9.3 (0.04)	-	
Lithuania	27 (1.0)	572 (3.2)	48 (1.3)	546 (3.5)	25 (1.1)	530 (3.9)	9.3 (0.04)	-0.3 (0.06)	⬇️
Slovenia	27 (0.9)	571 (3.0)	58 (1.1)	539 (2.2)	16 (0.7)	517 (3.6)	9.5 (0.03)	-0.3 (0.05)	⬇️
Bahrain	26 (0.7)	471 (3.2)	60 (0.9)	444 (2.9)	14 (0.6)	417 (4.3)	9.6 (0.02)	-	
Kazakhstan	26 (1.1)	545 (3.2)	67 (1.1)	533 (2.9)	7 (0.5)	531 (4.7)	9.9 (0.04)	-	
Latvia	26 (0.8)	579 (2.6)	52 (0.9)	557 (2.2)	22 (0.8)	541 (3.3)	9.4 (0.04)	-	
Kuwait	25 (1.0)	425 (6.1)	57 (1.0)	395 (4.5)	18 (0.8)	378 (7.5)	9.5 (0.04)	-	
Russian Federation	25 (0.8)	602 (2.5)	56 (0.8)	578 (2.3)	20 (0.7)	560 (3.6)	9.4 (0.03)	-0.2 (0.05)	⬇️
Singapore	25 (0.6)	603 (3.3)	57 (0.7)	572 (3.2)	18 (0.6)	561 (4.0)	9.4 (0.02)	-0.3 (0.03)	⬇️
Iran, Islamic Rep. of	25 (1.1)	459 (4.9)	62 (1.1)	429 (3.5)	14 (1.0)	374 (11.2)	9.5 (0.05)	-0.3 (0.06)	⬇️
South Africa	24 (0.7)	359 (7.0)	63 (1.1)	322 (5.3)	13 (0.9)	307 (7.0)	9.7 (0.03)	-0.2 (0.05)	⬇️
Qatar	24 (0.7)	489 (3.3)	62 (0.8)	441 (2.0)	14 (0.4)	428 (4.3)	9.5 (0.02)	-0.2 (0.05)	⬇️
France	22 (0.8)	539 (3.2)	56 (0.8)	513 (2.2)	21 (0.9)	491 (4.0)	9.3 (0.04)	-0.2 (0.06)	⬇️
United Arab Emirates	22 (0.5)	496 (3.6)	65 (0.5)	445 (3.4)	13 (0.4)	436 (4.5)	9.5 (0.02)	-0.1 (0.03)	⬇️
Morocco	22 (0.9)	397 (4.3)	47 (1.5)	365 (4.4)	31 (1.8)	330 (6.0)	9.0 (0.06)	-0.3 (0.10)	⬇️
Chile	21 (0.8)	529 (3.3)	52 (0.9)	491 (2.8)	27 (0.9)	480 (3.7)	9.2 (0.04)	-	
Oman	21 (0.5)	450 (4.7)	67 (0.6)	418 (3.3)	12 (0.5)	380 (5.3)	9.5 (0.02)	0.0 (0.03)	
Saudi Arabia	21 (0.9)	454 (4.7)	62 (1.0)	428 (4.8)	17 (0.8)	414 (6.2)	9.4 (0.04)	-0.2 (0.06)	⬇️
Chinese Taipei	19 (0.8)	584 (2.9)	61 (0.7)	556 (2.5)	20 (0.8)	548 (2.8)	9.2 (0.03)	-0.2 (0.05)	⬇️
Hong Kong SAR	17 (0.8)	580 (3.1)	61 (0.9)	569 (3.2)	22 (0.8)	562 (3.5)	9.1 (0.03)	-0.2 (0.04)	⬇️
Macao SAR	17 (0.6)	563 (2.4)	62 (0.8)	544 (1.4)	22 (0.6)	538 (2.7)	9.1 (0.02)	-	
Egypt	13 (1.0)	385 (8.1)	54 (1.6)	345 (5.0)	33 (1.8)	286 (8.4)	8.7 (0.07)	-	
Northern Ireland	49 (1.5)	602 (3.9)	36 (1.5)	577 (5.1)	15 (1.0)	568 (6.0)	10.3 (0.07)	-0.4 (0.08)	⬇️
Australia	48 (1.4)	582 (3.5)	40 (1.3)	551 (3.6)	12 (0.9)	535 (5.3)	10.3 (0.06)	-0.4 (0.09)	⬇️
New Zealand	47 (1.6)	567 (3.0)	40 (1.5)	524 (4.0)	13 (0.7)	511 (6.2)	10.3 (0.06)	-0.6 (0.07)	⬇️
International Avg.	32 (0.1)	535 (0.5)	51 (0.1)	508 (0.5)	17 (0.1)	488 (0.8)			

Significantly higher than 2011 ⬆️      Significantly lower than 2011 ⬇️

Figure 3.11: Score distribution of reading enjoyment of Maltese parents

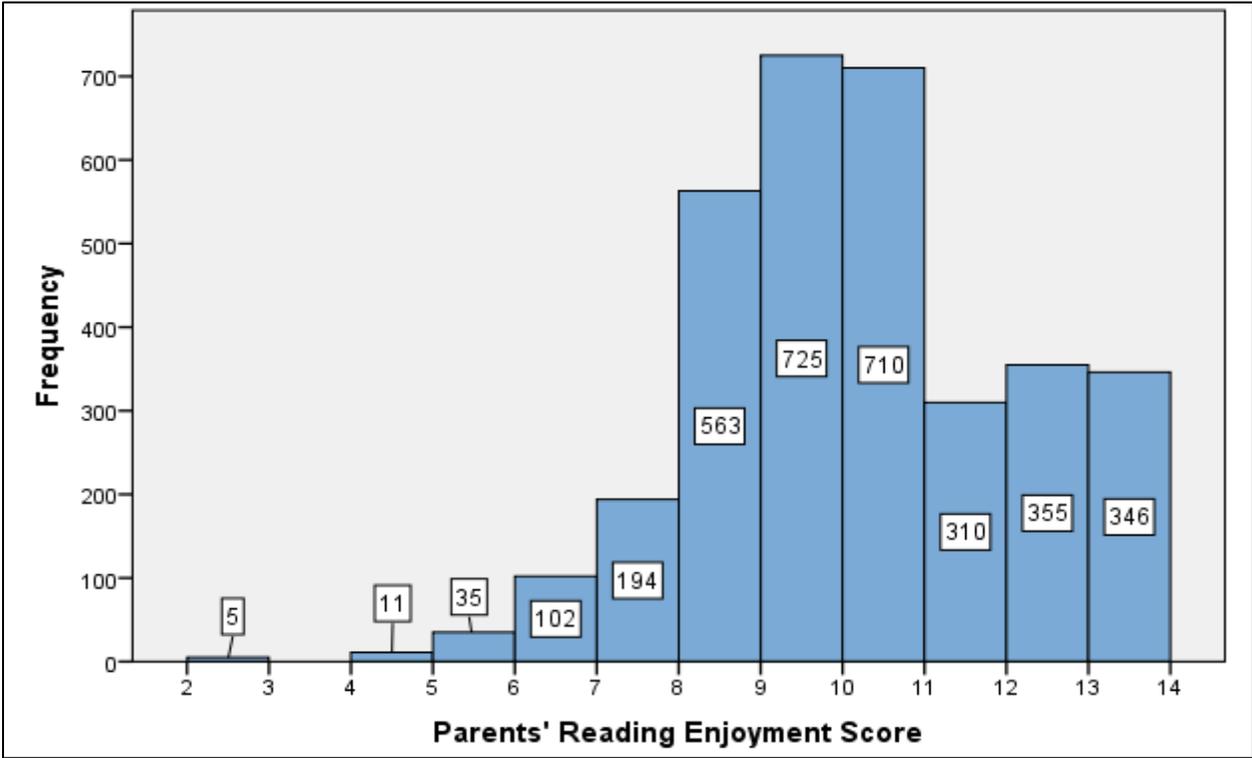


Figure 3.12: Mean parents' reading enjoyment score, clustered by school type

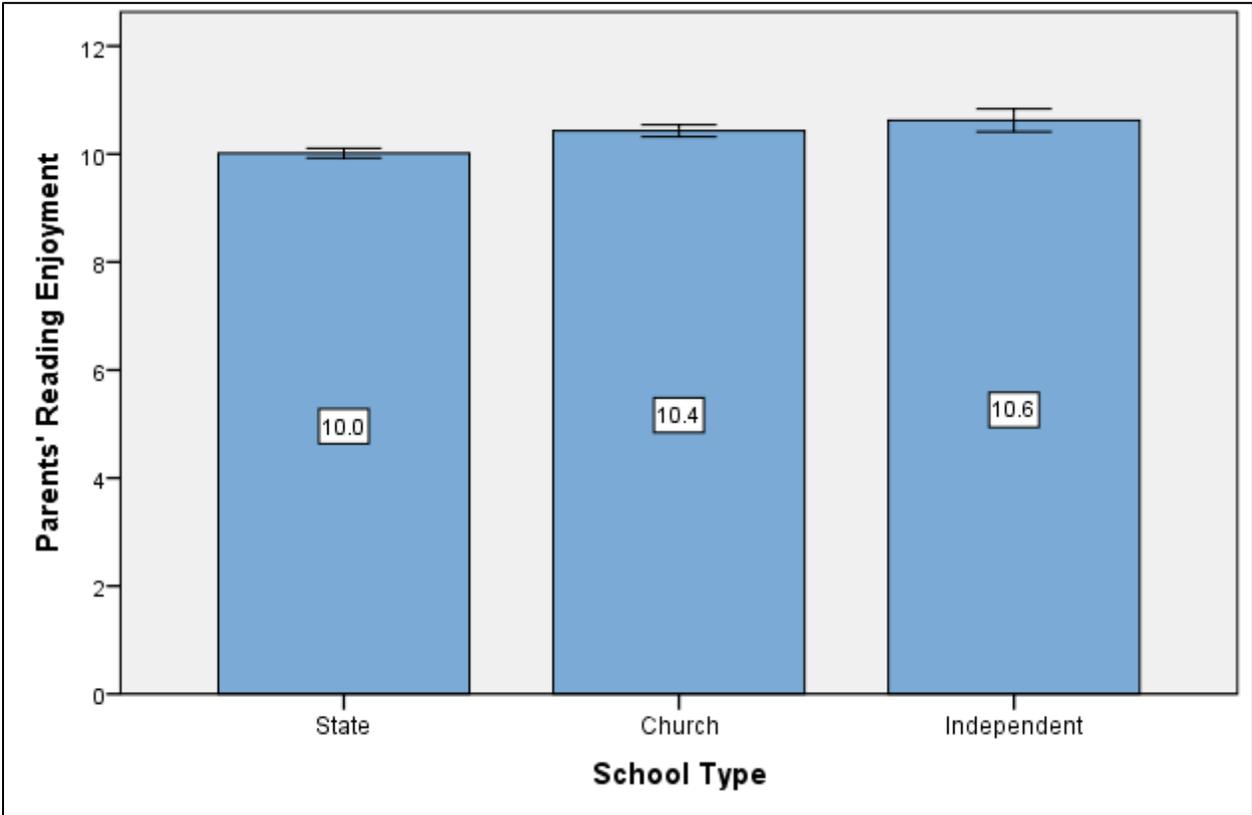


Figure 3.10 shows the home resources scale score for learning of each country. The percentage of Maltese parents who enjoy reading considerably (45%) is significantly larger than the international average (32%), the percentage of Maltese parents who somewhat enjoy reading (42%) or who do not like reading (13%) are significantly lower than the international averages (51% and 17% respectively). Parents from Azerbaijan (10.4), Northern Ireland (10.3), Ireland (10.3), Australia (10.3) and New Zealand (10.3) have the highest mean scale scores indicating higher aptitude and enjoyment to read and Egypt has the lowest mean scale score (8.7). Malta's mean scale score (10.2) is significantly lower than the corresponding PIRLS 2011 mean scale score (10.6). There is evidence of positive relationship between overall reading attainment and parents' reading enjoyment. Across all countries, the mean attainment reading scores of students whose parents enjoy reading 'Considerably', 'Moderately' or 'Dislike' reading are (535, 508 and 488) respectively and this pattern applies to all participating countries. The corresponding mean attainment reading scores of Maltese students are (471, 451 and 439) respectively. Figure 3.11 displays the score distribution of parents' reading enjoyment.

**Figure 3.13:** Relationship between parents' reading enjoyment and students' reading attainment by school type

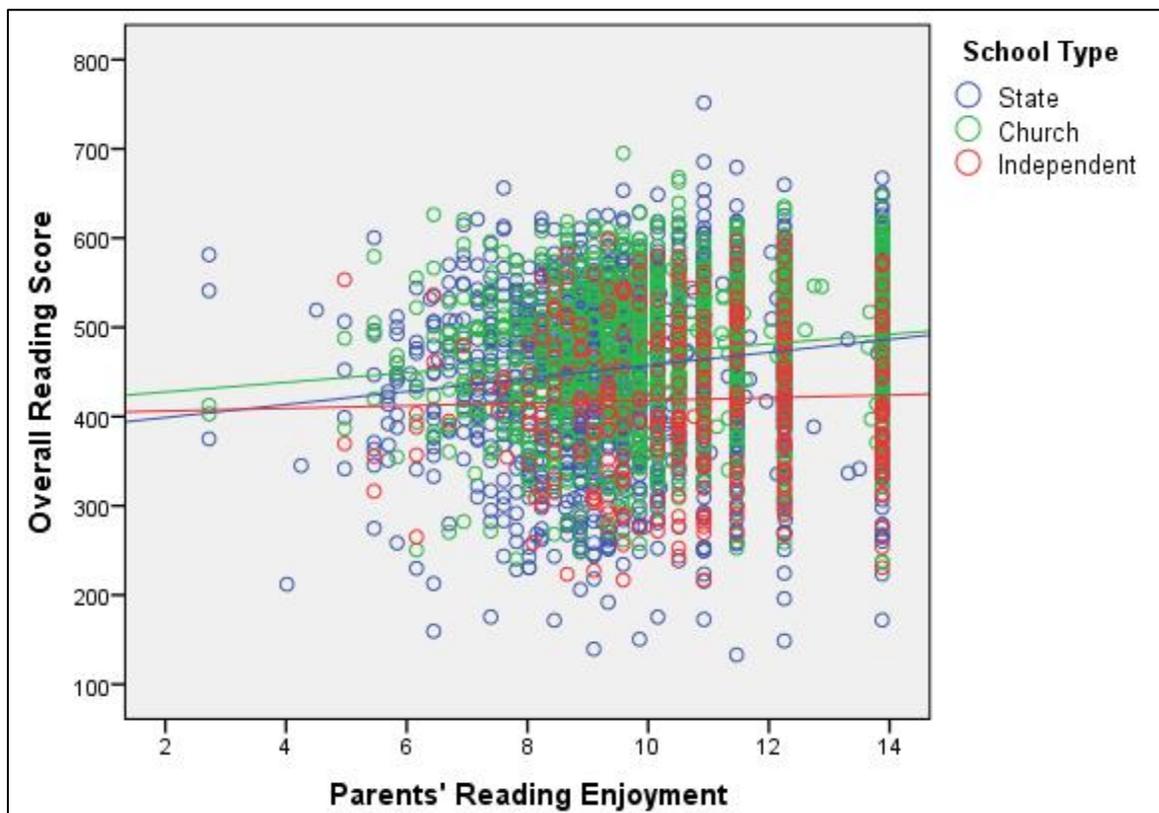


Figure 3.12 shows that the mean reading enjoyment scale score of parents whose students attend State schools is significantly smaller than the corresponding mean scale scores of parents whose students attend Church and Independent school. Figure 3.13 shows that reading attainment is positively related to parents' reading enjoyment and this applies mostly to students attending State and Church schools. This implies that students whose parents enjoy reading are more likely to perform well in reading comprehension.

### 3.6 Early Literacy Activities before Primary schooling

Early parental involvement in children’s literacy activities can impact early literacy development and can have long-lasting effects on children’s literacy as they age. Perhaps the most common and important early literacy activity involves adults and older children reading aloud with their young children. By reading with children, children are asked to engage with the text and pictures in books; they learn that printed text conveys meaning and that being able to read is valuable and worthwhile, and this experience can increase student motivation to read. In addition, a young child’s exposure to oral language is important for literacy acquisition. As children develop their capacity for oral language, they are learning the rules of language use, and this can facilitate the development of literacy skills. PIRLS 2011 showed that engaging children in literacy activities was an important explanatory link in the relationship between parental education and later student achievement at the fourth grade. PIRLS 2016 asks parents how often they engaged their child in early literacy activities, including reading books, telling stories, singing songs, playing with alphabet toys, talking about things they had done, talking about what they read, playing word games, writing letters or words, and reading aloud signs and labels.

A scale score for early literacy activities before primary schooling was generated by considering the parents’ responses to nine literacy activities. Tables 3.11 displays the responses of Maltese parents about how frequently each literacy activity was used.

**Table 3.11:** Engagement of Maltese parents in literacy activities prior to Primary school

Before primary schooling, how often did you or someone else in your home do the following activities with him or her?	Often	Sometimes	Never or almost never
Read books	55.3%	42.8%	1.9%
Tell stories	54.4%	42.4%	3.1%
Sing songs	58.5%	34.1%	7.4%
Play with alphabet toys	61.4%	33.9%	4.7%
Talk about things you had done	64.3%	33.9%	1.9%
Talk about what you had read	40.8%	53.4%	5.8%
Play word games	50.1%	43.9%	6.0%
Write letters or words	52.1%	40.9%	7.0%
Read aloud signs and labels	41.4%	45.3%	13.3%

Students were scored according to their parents’ frequency of doing the nine activities on the Early Literacy Activities scale. Students who often engaged in early literacy activities had a score on the scale of at least 10.7, which corresponds to their parents ‘often’ doing five of the nine activities with them and ‘sometimes’ doing the other four, on average. Students who never or almost never engaged in such activities had a score no higher than 6.2, which corresponds to parents ‘never or almost never’ doing five of the nine activities with them and ‘sometimes’ doing the other four, on average. All the remaining students had parents who sometimes engaged them in early literacy activities.

Figure 3.14 shows the frequency of early literacy activities before primary schooling of each country. The percentage of Maltese parents who often engaged in literacy activities prior to Primary education (51%) is significantly larger than the international average (39%); the percentage of Maltese

parents who sometimes or never engaged in literacy activities (49% and 0% respectively) are significantly lower than the international averages (58% and 3% respectively). Parents from Russia (11.3) and Kazakhstan (11.2) have the highest mean scale scores indicating higher frequency of literacy activities prior to primary schooling, and Macao has the lowest mean scale score (8.5). Malta's mean scale score (10.7) is significantly higher than the corresponding PIRLS 2011 mean scale score (10.4).

**Figure 3.14:** Early Literacy Activities before primary schooling, clustered by country

Country	Often		Sometimes		Never or Almost Never		Average Scale Score	Difference in Average Scale Score from 2011	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement			
Russian Federation	65 (1.0)	587 (2.3)	34 (1.0)	569 (3.1)	1 (0.1)	--	11.3 (0.04)	0.2 (0.07)	⬆
Kazakhstan	65 (1.3)	539 (2.7)	35 (1.3)	531 (3.0)	0 (0.1)	--	11.2 (0.06)	--	
Georgia	56 (1.5)	496 (3.0)	42 (1.4)	482 (3.5)	2 (0.4)	--	10.8 (0.06)	0.1 (0.09)	
Ireland	55 (0.8)	586 (2.4)	45 (0.8)	554 (2.9)	1 (0.2)	--	10.9 (0.04)	0.1 (0.06)	
Trinidad and Tobago	53 (1.3)	504 (3.5)	46 (1.2)	467 (4.0)	1 (0.2)	--	10.8 (0.05)	0.2 (0.07)	⬆
Slovak Republic	51 (0.9)	548 (3.1)	48 (0.8)	529 (3.7)	1 (0.5)	--	10.6 (0.05)	0.1 (0.07)	
Poland	51 (0.9)	572 (2.5)	49 (1.0)	558 (2.5)	0 (0.2)	--	10.7 (0.03)	--	
Malta	51 (0.9)	473 (2.4)	48 (0.9)	445 (2.3)	1 (0.1)	--	10.7 (0.03)	0.3 (0.05)	⬆
Israel	50 (1.1)	546 (2.9)	49 (1.0)	525 (3.2)	1 (0.2)	--	10.7 (0.05)	0.0 (0.06)	
Spain	50 (0.7)	542 (2.0)	49 (0.7)	519 (2.0)	1 (0.1)	--	10.6 (0.03)	0.3 (0.05)	⬆
Canada	50 (0.8)	561 (1.9)	49 (0.8)	539 (2.3)	1 (0.2)	--	10.7 (0.04)	0.0 (0.05)	
Latvia	50 (0.9)	566 (2.2)	50 (0.9)	552 (2.1)	0 (0.1)	--	10.7 (0.03)	--	
Italy	49 (1.0)	558 (2.1)	50 (1.0)	544 (2.9)	1 (0.2)	--	10.6 (0.04)	0.1 (0.05)	
Slovenia	48 (1.1)	557 (2.3)	51 (1.1)	532 (2.6)	1 (0.2)	--	10.6 (0.04)	0.0 (0.06)	
Czech Republic	46 (0.8)	552 (2.4)	54 (0.8)	539 (2.3)	1 (0.1)	--	10.5 (0.03)	0.2 (0.04)	⬆
Chile	45 (0.9)	513 (3.0)	54 (0.9)	483 (2.9)	1 (0.2)	--	10.4 (0.04)	--	
Bulgaria	43 (1.3)	580 (3.2)	49 (1.3)	545 (4.6)	8 (1.3)	453 (14.6)	10.0 (0.10)	0.3 (0.16)	
Hungary	42 (1.0)	562 (3.7)	57 (1.0)	553 (2.8)	2 (0.6)	--	10.3 (0.05)	0.0 (0.07)	
Netherlands	41 (1.3)	560 (2.7)	58 (1.3)	547 (2.6)	1 (0.2)	--	10.3 (0.04)	0.1 (0.05)	
Lithuania	41 (1.0)	560 (3.0)	58 (1.0)	544 (3.0)	1 (0.3)	--	10.3 (0.04)	0.2 (0.05)	⬆
Germany	39 (0.9)	561 (2.8)	60 (0.9)	539 (4.0)	1 (0.2)	--	10.2 (0.04)	0.0 (0.05)	
Norway	38 (0.7)	573 (2.5)	61 (0.7)	552 (2.6)	1 (0.2)	--	10.1 (0.03)	--	
Austria	38 (0.9)	557 (2.9)	61 (0.8)	534 (2.4)	1 (0.2)	--	10.1 (0.03)	0.1 (0.05)	⬆
France	38 (1.0)	523 (3.3)	61 (1.0)	510 (2.4)	2 (0.2)	--	10.1 (0.04)	0.1 (0.05)	
Portugal	38 (1.0)	542 (2.8)	61 (0.9)	521 (2.5)	1 (0.2)	--	10.1 (0.04)	0.2 (0.06)	⬆
Denmark	36 (1.0)	564 (2.8)	63 (1.0)	542 (2.3)	1 (0.2)	--	10.0 (0.04)	0.1 (0.05)	
Sweden	35 (0.9)	575 (2.9)	63 (0.9)	552 (2.7)	2 (0.3)	--	10.0 (0.03)	0.0 (0.05)	
South Africa	34 (1.6)	341 (7.8)	62 (1.4)	327 (5.0)	4 (0.7)	269 (13.0)	9.9 (0.08)	0.1 (0.10)	
Finland	32 (0.8)	583 (2.5)	67 (0.8)	562 (1.9)	1 (0.2)	--	9.9 (0.03)	0.2 (0.04)	⬆
United Arab Emirates	31 (0.7)	488 (3.7)	67 (0.6)	442 (3.3)	2 (0.2)	--	9.8 (0.03)	0.2 (0.04)	⬆
Bahrain	31 (0.6)	476 (3.2)	68 (0.6)	436 (2.5)	1 (0.2)	--	9.9 (0.02)	--	
Singapore	30 (0.7)	601 (2.9)	66 (0.7)	569 (3.3)	4 (0.2)	542 (7.1)	9.7 (0.03)	0.2 (0.05)	⬆
Belgium (French)	29 (0.8)	515 (3.0)	69 (0.8)	493 (3.0)	2 (0.3)	--	9.7 (0.04)	0.0 (0.05)	
Qatar	29 (0.6)	483 (2.7)	68 (0.6)	439 (2.1)	3 (0.2)	410 (9.8)	9.7 (0.02)	0.1 (0.05)	
Azerbaijan	28 (1.2)	490 (4.8)	67 (1.3)	468 (4.6)	5 (0.9)	447 (8.9)	9.5 (0.07)	0.0 (0.10)	
Kuwait	27 (0.9)	424 (5.7)	70 (0.8)	391 (4.6)	3 (0.3)	357 (13.7)	9.6 (0.03)	--	
Belgium (Flemish)	25 (0.6)	543 (2.8)	72 (0.7)	524 (1.9)	3 (0.3)	499 (7.3)	9.5 (0.03)	--	
Saudi Arabia	24 (0.8)	454 (4.4)	73 (0.8)	426 (4.5)	3 (0.5)	396 (13.6)	9.5 (0.04)	-0.1 (0.07)	
Oman	23 (0.7)	453 (4.3)	74 (0.7)	413 (3.5)	3 (0.2)	341 (6.5)	9.5 (0.03)	0.3 (0.04)	⬆
Egypt	21 (1.6)	384 (6.2)	63 (1.5)	331 (5.3)	16 (1.6)	260 (11.2)	8.7 (0.13)	--	
Iran, Islamic Rep. of	20 (1.0)	451 (5.7)	73 (1.2)	430 (3.5)	7 (1.1)	348 (13.8)	9.1 (0.08)	0.3 (0.10)	⬆
Chinese Taipei	17 (0.7)	586 (2.8)	75 (0.7)	556 (2.1)	7 (0.6)	536 (5.2)	9.0 (0.04)	0.3 (0.06)	⬆
Hong Kong SAR	13 (0.6)	580 (3.6)	81 (0.7)	568 (3.0)	6 (0.4)	568 (6.0)	8.9 (0.04)	0.2 (0.05)	⬆
Morocco	12 (0.6)	385 (7.0)	60 (1.3)	371 (3.9)	29 (1.5)	327 (6.3)	7.7 (0.09)	-0.7 (0.16)	⬇
Macao SAR	10 (0.4)	560 (3.7)	82 (0.6)	545 (1.2)	9 (0.4)	535 (3.3)	8.5 (0.03)	--	
Northern Ireland	65 (1.5)	597 (3.9)	34 (1.4)	571 (4.0)	0 (0.2)	--	11.5 (0.06)	0.3 (0.08)	⬆
New Zealand	57 (1.0)	560 (3.1)	42 (1.0)	521 (3.3)	1 (0.2)	--	11.1 (0.05)	0.1 (0.07)	
Australia	57 (1.4)	572 (3.9)	43 (1.4)	553 (3.3)	1 (0.2)	--	11.0 (0.07)	0.2 (0.09)	
International Avg.	39 (0.1)	529 (0.5)	58 (0.1)	505 (0.5)	3 (0.1)	419 (2.6)			

Significantly higher than 2011 ⬆

Significantly lower than 2011 ⬇

Figure 3.15: Score distribution of Maltese parents' engagement in early literacy activities

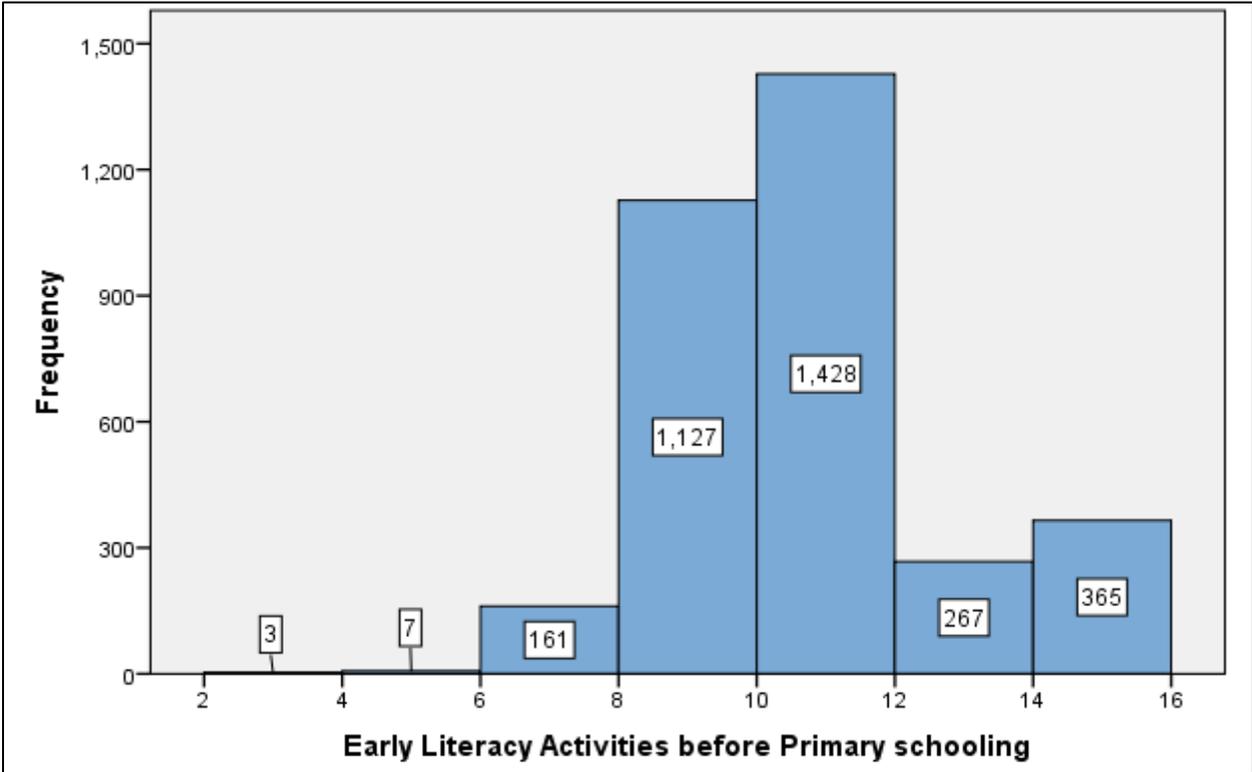
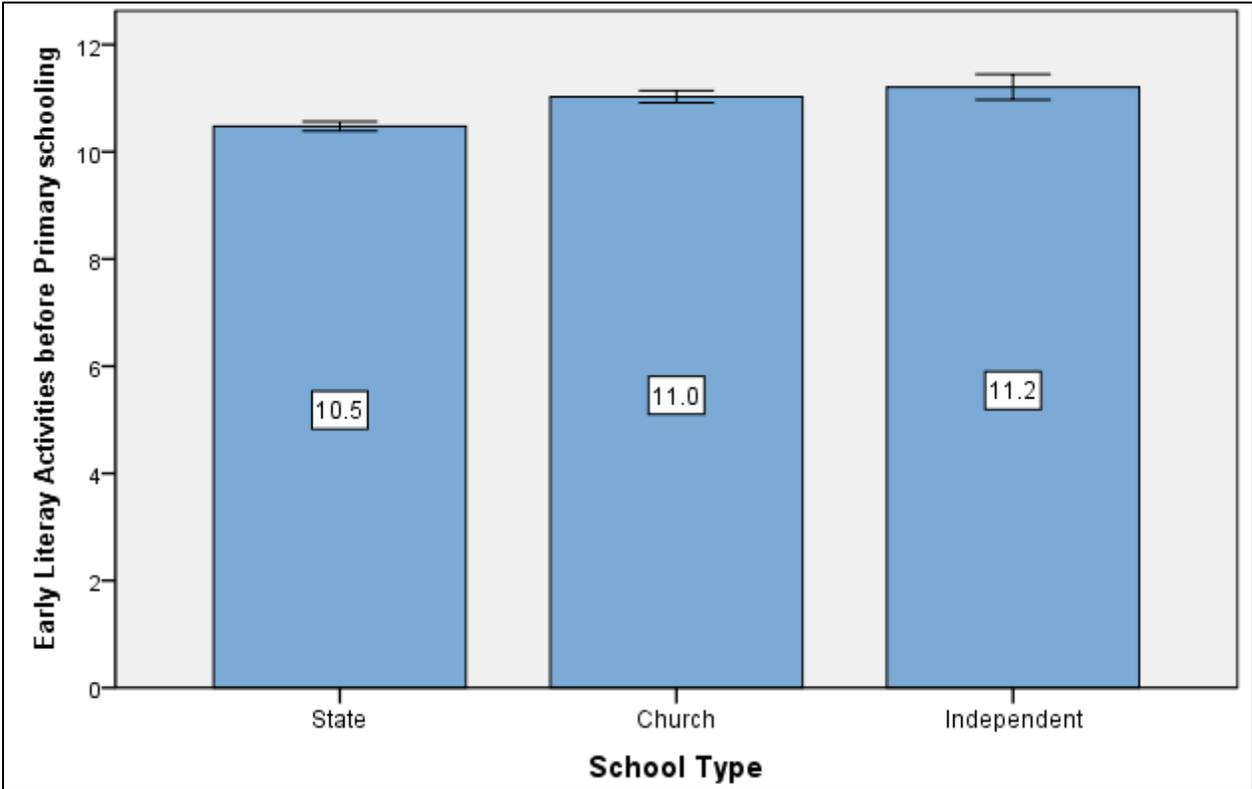


Figure 3.16: Mean parents' engagement in early literacy activities, clustered by school type



There is evidence of positive relationship between overall reading attainment and participation in early literacy activities before primary schooling. Across all countries, the mean reading scores of students whose parents ‘Often’, ‘Sometimes’ and ‘Never’ engage in early literacy activities are (529, 505 and 419) respectively and this pattern applies to all participating countries. The corresponding mean attainment reading scores of Maltese students are (473 and 445) respectively. The mean reading score of Maltese students whose parents ‘Never’ engaged in early literacy activities could not be computed because of insufficient data. Figure 3.15 displays the score distribution of parents’ engagement in literacy activities prior Primary schooling.

**Figure 3.17:** Relationship between parents’ engagement in literacy activities and reading scores by school type

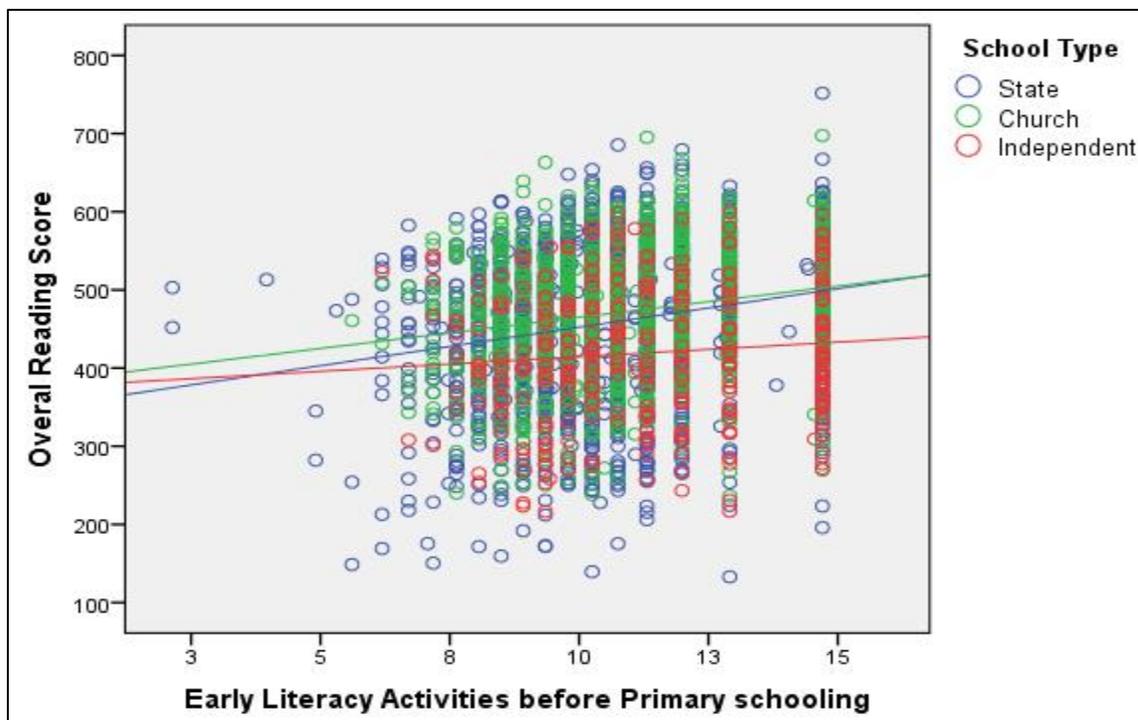


Figure 3.16 shows that parents whose students attend State schools engage significantly less in early literacy activities compared to parents whose students attend Church and Independent schools. Figure 3.17 shows that reading attainment is positively related to parents’ engagement in early literacy activities and this applies mostly to students attending State and Church schools.

### 3.7 Pre-Primary Education

Table 3.12 displays the percentage of Maltese students who received early childhood educational development and pre-Primary education.

**Table 3.12:** Preprimary education of Maltese students

Did your child attend the following before Year 1?	Yes	No
Early childhood educational development (program for children under 3 years)	49.6%	50.4%
Pre-primary education (program for children aged 3 years or older)	96.7%	3.3%

Figure 3.18: Participation in pre-Primary education, clustered by country

Country	Students Attended Preprimary Education							
	3 Years or More		2 Years		1 Year or Less		Did Not Attend	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Denmark	96 (0.4)	552 (2.1)	3 (0.3)	521 (9.0)	1 (0.2)	--	1 (0.2)	--
Hungary	93 (0.8)	558 (2.8)	4 (0.6)	535 (8.0)	2 (0.2)	--	1 (0.3)	--
Belgium (French)	93 (0.4)	502 (2.6)	5 (0.4)	480 (6.1)	2 (0.3)	--	0 (0.0)	--
Sweden	91 (0.6)	563 (2.3)	3 (0.3)	542 (7.9)	3 (0.4)	528 (7.4)	2 (0.3)	--
Belgium (Flemish)	89 (0.7)	532 (1.7)	5 (0.5)	506 (6.8)	3 (0.3)	508 (5.8)	3 (0.4)	488 (5.3)
Italy	87 (0.8)	555 (2.2)	8 (0.6)	528 (5.4)	3 (0.4)	531 (8.1)	3 (0.3)	530 (9.4)
Netherlands	84 (1.2)	555 (2.2)	11 (1.0)	538 (6.2)	3 (0.5)	538 (9.5)	2 (0.4)	--
Hong Kong SAR	84 (0.7)	570 (2.8)	3 (0.3)	574 (6.3)	7 (0.5)	568 (5.7)	5 (0.5)	566 (5.7)
Israel	83 (0.9)	549 (2.6)	10 (0.7)	477 (5.6)	4 (0.4)	477 (10.1)	3 (0.3)	456 (14.0)
Latvia	83 (0.9)	562 (1.7)	10 (0.8)	540 (4.5)	5 (0.4)	541 (6.2)	1 (0.2)	--
Norway (5)	82 (0.9)	565 (2.2)	5 (0.4)	530 (6.6)	10 (0.7)	549 (4.5)	3 (0.3)	537 (8.9)
Slovenia	81 (1.1)	549 (2.1)	9 (0.7)	524 (6.5)	5 (0.4)	525 (6.6)	5 (0.5)	512 (10.6)
Singapore	81 (0.6)	586 (2.9)	12 (0.4)	549 (5.0)	4 (0.2)	541 (6.8)	4 (0.3)	521 (8.0)
France	80 (0.8)	519 (2.5)	6 (0.5)	509 (5.7)	6 (0.4)	490 (5.1)	8 (0.5)	494 (5.6)
Czech Republic	80 (1.0)	549 (2.0)	13 (0.7)	542 (4.0)	5 (0.4)	523 (8.8)	3 (0.5)	481 (16.6)
Austria	79 (1.1)	548 (2.2)	14 (0.8)	533 (3.6)	5 (0.4)	524 (6.2)	2 (0.3)	--
Bulgaria	79 (1.7)	564 (3.9)	8 (0.6)	527 (8.8)	10 (1.1)	511 (9.1)	3 (0.6)	489 (14.5)
Macao SAR	77 (0.7)	547 (1.3)	7 (0.3)	547 (4.4)	12 (0.5)	541 (2.9)	5 (0.3)	533 (5.2)
Slovak Republic	76 (1.5)	550 (2.4)	11 (0.8)	517 (7.0)	9 (0.8)	507 (8.4)	5 (1.0)	415 (27.8)
Russian Federation	75 (1.1)	586 (1.9)	7 (0.5)	581 (4.6)	5 (0.3)	573 (5.6)	13 (0.9)	553 (5.3)
Portugal	73 (1.0)	532 (2.5)	15 (0.8)	527 (3.8)	6 (0.5)	525 (5.6)	5 (0.4)	503 (5.6)
Lithuania	69 (1.3)	558 (2.4)	7 (0.5)	546 (8.1)	16 (0.8)	520 (5.5)	9 (0.7)	534 (8.5)
Finland	68 (1.1)	569 (1.9)	12 (0.6)	565 (3.7)	18 (1.0)	571 (3.4)	1 (0.2)	--
Poland	65 (1.5)	572 (2.3)	19 (0.8)	556 (3.5)	16 (1.2)	546 (4.1)	0 (0.1)	--
Germany	64 (1.1)	555 (2.7)	9 (0.6)	542 (5.5)	17 (0.9)	541 (6.3)	10 (0.7)	520 (6.4)
Spain	60 (0.8)	538 (1.6)	17 (0.6)	528 (2.5)	13 (0.5)	519 (3.5)	10 (0.5)	513 (3.6)
Georgia	56 (1.4)	496 (3.1)	20 (0.9)	492 (4.6)	9 (0.7)	488 (6.7)	16 (1.4)	468 (6.5)
Chile	53 (1.3)	499 (2.9)	28 (0.9)	495 (3.4)	12 (0.7)	486 (5.7)	6 (0.6)	493 (7.0)
Chinese Taipei	53 (1.0)	564 (2.2)	35 (0.8)	561 (2.4)	8 (0.5)	549 (5.1)	4 (0.3)	523 (7.1)
South Africa	47 (1.4)	337 (6.8)	16 (0.9)	337 (8.2)	22 (0.8)	319 (5.5)	15 (0.9)	311 (4.8)
Canada	43 (0.8)	558 (2.0)	25 (0.7)	550 (2.6)	15 (0.5)	542 (2.9)	16 (0.6)	534 (2.6)
Kazakhstan	38 (1.7)	550 (3.1)	14 (0.8)	533 (3.2)	22 (1.5)	533 (3.9)	26 (1.6)	522 (3.7)
Bahrain	32 (0.8)	455 (3.5)	32 (0.8)	451 (3.0)	17 (0.7)	451 (5.8)	20 (0.8)	431 (3.9)
Ireland	31 (0.8)	578 (3.0)	40 (1.1)	573 (3.1)	24 (1.0)	565 (3.4)	4 (0.4)	543 (7.9)
Egypt	31 (2.1)	359 (6.2)	26 (1.8)	355 (6.7)	10 (1.0)	312 (9.3)	33 (2.3)	290 (9.6)
Malta	28 (0.8)	464 (3.5)	59 (0.8)	462 (2.1)	9 (0.5)	445 (4.9)	5 (0.4)	442 (7.0)
Trinidad and Tobago	27 (1.0)	479 (4.6)	55 (1.2)	494 (3.6)	11 (0.9)	482 (7.8)	6 (0.5)	466 (8.4)
Morocco	27 (1.2)	397 (3.4)	22 (1.1)	385 (4.8)	16 (0.9)	352 (5.3)	35 (1.7)	324 (6.5)
Qatar	25 (0.4)	461 (2.3)	33 (0.6)	464 (2.7)	22 (0.7)	459 (3.6)	20 (0.4)	413 (3.6)
Kuwait	20 (1.1)	409 (5.2)	39 (1.2)	396 (5.2)	18 (1.1)	412 (8.4)	22 (1.4)	390 (6.1)
Azerbaijan	20 (1.2)	490 (5.0)	10 (0.7)	493 (5.7)	16 (0.8)	480 (6.3)	55 (1.8)	462 (5.5)
United Arab Emirates	18 (0.4)	483 (4.2)	42 (1.0)	450 (3.5)	21 (0.7)	463 (4.3)	19 (0.9)	434 (4.0)
Oman	14 (0.5)	443 (6.0)	31 (0.8)	442 (3.9)	28 (0.8)	420 (4.2)	28 (0.8)	385 (3.7)
Iran, Islamic Rep. of	12 (0.7)	469 (5.9)	16 (0.8)	454 (5.8)	49 (1.6)	429 (4.5)	22 (1.1)	387 (6.4)
Saudi Arabia	6 (0.5)	453 (8.9)	15 (1.1)	454 (5.7)	35 (1.2)	434 (4.6)	45 (1.6)	422 (5.7)
New Zealand	60 (1.3)	549 (2.9)	31 (1.1)	544 (3.3)	6 (0.7)	525 (7.7)	3 (0.4)	507 (13.7)
Australia	41 (1.2)	565 (4.3)	33 (0.9)	568 (3.6)	22 (1.3)	565 (4.9)	5 (0.5)	525 (10.9)
International Avg.	59 (0.2)	520 (0.5)	18 (0.1)	507 (0.8)	12 (0.1)	498 (0.9)	11 (0.1)	472 (1.5)

Figure 3.18 shows that the majority of Maltese students (59%) received pre-primary education for 2 years which is significantly higher than the international average proportion (18%). However, the percentage of Maltese students who received pre-primary education for three years or more (28%) is significantly lower than the international average (59%). The percentage of Maltese

students who received pre-primary education for less than 1 year or who never received it (9% and 5% respectively) are significantly lower than the international average percentage (12% and 11% respectively). There is evidence that students who received longer pre-primary education tend to score higher in reading.

**Figure 3.19:** Engaging in early literacy activities in pre-Primary education, clustered by country

Country	Attended Preprimary Education Program for 3 Years or More				Attended Preprimary Education Program for 2 Years				Attended Preprimary Education Program for 1 Year or Less Including Did Not Attend			
	Often Engaged in Early Literacy Activities		Sometimes or Never Engaged in Early Literacy Activities		Often Engaged in Early Literacy Activities		Sometimes or Never Engaged in Early Literacy Activities		Often Engaged in Early Literacy Activities		Sometimes or Never Engaged in Early Literacy Activities	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Russian Federation	51 (1.2)	591 (2.2)	24 (0.8)	576 (3.0)	5 (0.3)	588 (5.4)	3 (0.3)	571 (7.7)	10 (0.7)	568 (5.0)	7 (0.6)	543 (6.3)
Israel	44 (1.0)	555 (3.2)	40 (0.9)	542 (3.2)	4 (0.3)	494 (7.4)	6 (0.5)	466 (6.3)	3 (0.3)	495 (10.7)	4 (0.5)	454 (8.5)
Italy	43 (1.1)	562 (2.2)	43 (1.0)	548 (3.0)	3 (0.4)	533 (8.7)	4 (0.4)	523 (6.0)	2 (0.3)	--	3 (0.4)	521 (8.7)
Latvia	42 (0.9)	569 (2.0)	42 (1.0)	556 (2.3)	5 (0.5)	549 (5.1)	5 (0.5)	531 (6.4)	3 (0.3)	549 (9.8)	3 (0.4)	536 (7.0)
Slovak Republic	40 (0.9)	556 (2.8)	36 (1.1)	543 (2.9)	5 (0.5)	531 (9.1)	6 (0.5)	504 (7.3)	6 (0.7)	508 (8.8)	7 (0.9)	448 (17.7)
Slovenia	40 (1.1)	561 (2.4)	42 (1.1)	538 (2.9)	4 (0.4)	541 (7.0)	5 (0.5)	510 (9.1)	4 (0.3)	540 (7.5)	6 (0.5)	505 (7.7)
Hungary	39 (0.9)	564 (3.6)	54 (1.1)	554 (2.8)	2 (0.4)	--	2 (0.4)	--	1 (0.2)	--	2 (0.3)	--
Czech Republic	37 (0.9)	555 (2.2)	43 (0.9)	543 (2.4)	6 (0.4)	554 (5.4)	7 (0.6)	533 (6.3)	3 (0.3)	518 (11.4)	4 (0.4)	502 (12.2)
Bulgaria	37 (1.3)	582 (3.1)	42 (1.3)	548 (5.2)	3 (0.3)	575 (7.2)	5 (0.5)	499 (11.3)	3 (0.4)	561 (10.7)	10 (1.4)	488 (11.1)
Netherlands	34 (1.3)	563 (2.9)	50 (1.4)	550 (2.8)	5 (0.7)	549 (9.0)	6 (0.7)	531 (7.4)	2 (0.4)	--	3 (0.5)	524 (8.2)
Denmark	34 (1.1)	565 (2.7)	61 (1.1)	544 (2.2)	1 (0.2)	--	2 (0.3)	--	1 (0.1)	--	1 (0.2)	--
Georgia	34 (1.3)	499 (3.5)	21 (1.1)	492 (4.1)	11 (0.7)	501 (5.0)	9 (0.6)	481 (6.4)	11 (0.9)	484 (6.2)	14 (1.2)	468 (5.8)
Poland	34 (1.1)	579 (2.6)	31 (1.2)	566 (3.0)	9 (0.5)	563 (5.2)	10 (0.6)	550 (5.5)	8 (0.7)	553 (5.3)	9 (0.8)	541 (6.3)
Sweden	33 (0.9)	576 (2.8)	58 (0.9)	555 (2.5)	1 (0.2)	--	2 (0.3)	--	1 (0.2)	--	4 (0.4)	513 (6.2)
Spain	32 (0.7)	548 (1.9)	28 (0.7)	525 (1.9)	8 (0.4)	538 (3.2)	9 (0.4)	518 (3.6)	10 (0.4)	529 (3.0)	13 (0.5)	506 (3.5)
France	31 (1.2)	526 (3.7)	49 (1.2)	515 (2.5)	2 (0.3)	--	4 (0.3)	506 (7.3)	4 (0.4)	510 (5.9)	9 (0.5)	484 (4.6)
Norway (5)	31 (0.7)	578 (2.7)	51 (0.9)	557 (2.6)	2 (0.3)	--	3 (0.3)	521 (7.8)	5 (0.4)	560 (6.0)	9 (0.6)	539 (4.6)
Austria	31 (0.9)	560 (3.1)	48 (1.0)	540 (2.2)	5 (0.4)	553 (5.4)	9 (0.7)	521 (3.8)	2 (0.2)	--	5 (0.4)	511 (7.2)
Portugal	30 (0.9)	546 (3.1)	44 (0.9)	522 (2.7)	5 (0.4)	536 (5.6)	10 (0.6)	522 (4.6)	3 (0.3)	530 (7.3)	8 (0.5)	511 (4.7)
Lithuania	29 (0.9)	564 (2.7)	40 (1.2)	554 (2.9)	3 (0.3)	557 (10.9)	4 (0.4)	539 (10.7)	9 (0.7)	546 (7.8)	15 (0.9)	515 (4.7)
Belgium (French)	28 (0.8)	518 (3.0)	65 (0.8)	495 (3.0)	1 (0.2)	--	4 (0.4)	477 (6.2)	1 (0.1)	--	1 (0.2)	--
Kazakhstan	28 (1.5)	552 (3.5)	11 (0.7)	544 (3.6)	9 (0.6)	533 (3.8)	5 (0.4)	534 (4.3)	28 (1.4)	529 (3.4)	20 (1.2)	524 (4.1)
Germany	26 (0.9)	568 (3.0)	38 (1.1)	546 (3.7)	3 (0.4)	556 (7.6)	5 (0.4)	533 (8.2)	10 (0.6)	545 (5.9)	18 (0.9)	527 (6.2)
Chile	25 (1.0)	516 (3.2)	28 (0.7)	486 (3.5)	13 (0.7)	512 (5.7)	16 (0.7)	483 (3.4)	7 (0.4)	507 (6.4)	11 (0.9)	478 (6.2)
Singapore	25 (0.7)	607 (2.8)	56 (0.7)	577 (3.2)	3 (0.2)	574 (7.3)	9 (0.4)	541 (5.3)	1 (0.1)	--	6 (0.3)	523 (6.2)
Finland	22 (0.9)	584 (2.4)	46 (0.9)	563 (2.2)	4 (0.3)	570 (6.2)	8 (0.5)	563 (4.5)	6 (0.4)	590 (5.6)	13 (0.8)	562 (4.0)
Belgium (Flemish)	22 (0.6)	547 (2.9)	66 (0.8)	527 (1.7)	1 (0.2)	--	4 (0.4)	504 (7.0)	2 (0.2)	--	5 (0.3)	488 (5.4)
Canada	22 (0.7)	567 (2.5)	21 (0.5)	548 (2.6)	14 (0.5)	562 (3.3)	12 (0.4)	536 (3.1)	14 (0.5)	550 (2.9)	18 (0.6)	527 (2.7)
Ireland	19 (0.8)	592 (3.5)	13 (0.6)	558 (4.2)	22 (0.8)	587 (3.2)	18 (0.7)	556 (4.1)	14 (0.8)	577 (4.8)	15 (0.7)	547 (3.9)
South Africa	18 (1.4)	350 (11.0)	30 (1.1)	333 (6.4)	5 (0.4)	363 (14.5)	11 (0.9)	332 (8.5)	12 (0.6)	330 (6.6)	25 (1.1)	314 (4.3)
Malta	15 (0.7)	482 (4.0)	13 (0.6)	441 (5.0)	30 (0.8)	472 (3.2)	29 (0.8)	451 (2.9)	6 (0.5)	457 (5.8)	7 (0.5)	434 (5.4)
Trinidad and Tobago	14 (0.7)	492 (6.0)	13 (0.7)	464 (5.6)	30 (1.2)	511 (4.1)	25 (0.9)	474 (4.3)	9 (0.6)	507 (7.6)	9 (0.7)	447 (8.3)
Hong Kong SAR	12 (0.6)	581 (3.8)	73 (0.9)	568 (3.0)	0 (0.1)	--	3 (0.3)	575 (6.5)	1 (0.2)	--	11 (0.6)	566 (4.8)
Bahrain	12 (0.5)	476 (5.2)	20 (0.6)	443 (3.9)	11 (0.4)	476 (5.0)	22 (0.7)	438 (3.7)	9 (0.5)	476 (5.5)	27 (0.9)	429 (4.5)
Egypt	10 (1.3)	397 (6.9)	21 (1.5)	342 (6.3)	6 (0.7)	388 (8.2)	20 (1.4)	344 (7.2)	5 (0.5)	353 (9.9)	38 (2.2)	289 (9.0)
Chinese Taipei	9 (0.6)	590 (3.3)	44 (0.9)	559 (2.3)	6 (0.4)	583 (4.3)	29 (0.9)	557 (2.5)	2 (0.3)	--	10 (0.6)	533 (4.5)
Qatar	8 (0.4)	495 (5.2)	16 (0.5)	445 (3.0)	11 (0.4)	492 (4.1)	23 (0.5)	452 (3.6)	10 (0.5)	468 (4.5)	32 (0.6)	427 (3.1)
Azerbaijan	8 (0.7)	506 (6.4)	12 (0.8)	480 (5.4)	3 (0.4)	507 (6.4)	6 (0.5)	485 (7.3)	16 (0.8)	480 (6.6)	54 (1.6)	462 (5.2)
Macao SAR	8 (0.4)	562 (4.6)	69 (0.7)	546 (1.4)	1 (0.1)	--	6 (0.4)	546 (5.4)	1 (0.2)	--	15 (0.6)	537 (2.5)
Kuwait	6 (0.6)	428 (9.5)	13 (0.8)	401 (5.1)	11 (0.7)	427 (6.0)	28 (1.1)	385 (6.3)	10 (0.6)	426 (11.1)	31 (1.2)	392 (6.3)
United Arab Emirates	6 (0.3)	512 (5.8)	11 (0.3)	468 (4.6)	13 (0.6)	483 (4.5)	29 (0.6)	434 (3.6)	12 (0.4)	482 (4.4)	29 (0.8)	437 (3.9)
Morocco	5 (0.4)	414 (7.1)	22 (1.0)	394 (3.3)	3 (0.2)	408 (9.4)	19 (1.0)	382 (4.8)	3 (0.5)	335 (11.3)	48 (1.7)	333 (5.4)
Oman	5 (0.2)	465 (8.0)	9 (0.4)	432 (7.0)	8 (0.4)	466 (5.1)	22 (0.7)	434 (4.4)	10 (0.5)	441 (5.1)	46 (1.0)	394 (3.7)
Iran, Islamic Rep. of	4 (0.4)	477 (8.0)	9 (0.6)	465 (7.3)	4 (0.3)	466 (9.3)	12 (0.7)	451 (5.9)	12 (0.7)	440 (6.4)	59 (1.4)	412 (4.7)
Saudi Arabia	2 (0.3)	--	4 (0.4)	440 (11.0)	5 (0.5)	465 (7.9)	10 (0.8)	447 (6.2)	17 (0.8)	450 (5.3)	62 (1.2)	421 (4.6)
New Zealand	35 (1.1)	565 (3.7)	25 (0.9)	528 (4.1)	18 (1.0)	560 (4.9)	13 (0.7)	521 (5.2)	4 (0.5)	547 (6.5)	5 (0.6)	497 (8.6)
Australia	24 (1.0)	571 (5.1)	16 (0.8)	556 (5.9)	19 (1.0)	575 (5.0)	13 (0.8)	558 (4.7)	13 (0.9)	573 (5.5)	14 (1.0)	542 (6.9)
International Avg.	24 (0.1)	535 (0.7)	34 (0.1)	511 (0.6)	7 (0.1)	518 (1.1)	11 (0.1)	496 (0.9)	7 (0.1)	500 (1.2)	16 (0.1)	481 (1.0)

Figure 3.19 shows that 51% of Maltese students often engaged in literacy activities during pre-primary education, while the remaining 49% of Maltese students sometimes or never engaged in early literacy activities. These percentages vary significantly with international averages, where only 38% of students often engaged in literacy activities during pre-primary education. There is evidence across all countries that students who frequently engaged in literacy activities during pre-primary education performed significantly better in reading attainment than their counterparts who seldom or never engaged in early literacy activities.

### 3.8 Performance in literacy tasks at entry into Primary school

As described in the previous section, a large number of children receive considerable exposure to literacy as part of their preprimary educational experience. Countries vary dramatically in their policies and practices with regard to early (preprimary) education. PIRLS 2011 supported research findings indicating that preprimary schools can have a positive effect on academic achievement during primary school with longer duration of preprimary education associated with higher achievement.

A scale score for performance in literacy tasks at entry in Primary schools was generated by considering the parents' responses on students' performance in six literacy tasks. Table 3.13 displays the responses of Maltese parents to how well their children performed in each task.

**Table 3.13:** Maltese students' performance in literacy tasks at entry into Primary schools

How well could your child do the following when he/she began Year 1 of primary school?	Very well	Moderately well	Not very well	Not at all
Recognize most of the letters of the alphabet	56.9%	32.5%	8.4%	2.3%
Read some words	28.9%	39.8%	21.2%	10.0%
Read sentences	13.6%	33.8%	29.2%	23.5%
Read a story	9.1%	26.2%	30.8%	33.9%
Write letters of the alphabet	43.4%	38.3%	13.2%	5.1%
Write some words	23.5%	37.6%	22.4%	16.4%

Students were scored according to their parents' responses to how well their children could do the six tasks on the Early Literacy Tasks scale. Students who could do literacy tasks very well had a score on the scale of at least 11.6, which corresponds to their parents reporting that the students could do three literacy tasks 'very well' and the other three 'moderately well', on average. Students doing the tasks not well had a score no higher than 9.5, which corresponds to parents reporting that students could do three tasks 'not very well' and the other three 'moderately well', on average. The remaining students could do the literacy tasks moderately well when they began primary school.

Figure 3.20 shows the performance of students in literacy tasks before primary schooling of each country. According to Maltese parents, the percentage of students who do very well, moderately well and not so well in literacy tasks are 24%, 37% and 39% respectively, which somewhat vary from the international averages (29%, 35% and 36% respectively). Ireland (12.0) has the highest mean scale scores indicating that according to Irish parents, their children could do literacy tasks better than others prior to primary schooling, while Slovak Republic has the lowest mean scale score (8.6). Malta's mean scale score (10.1) is marginally higher than the corresponding PIRLS 2011 mean scale score (10.0).

There is evidence of a positive relationship between the overall reading score and how well students do literacy tasks before primary schooling. Across all countries, the mean reading scores of students who could literacy tasks ‘very well’, ‘moderately well’ and ‘Not well’ prior to entry in Primary schools are 537, 510 and 485 respectively and this pattern applies to all partaking countries. The corresponding mean attainment reading scores of Maltese students are 490, 466 and 433 respectively.

**Figure 3.20:** Performance in literacy task at entry in Primary schools, clustered by country

Country	Very Well		Moderately Well		Not Well		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Ireland	61 (1.1)	590 (2.2)	29 (0.9)	548 (3.2)	10 (0.6)	519 (5.7)	12.0 (0.04)	--
Bahrain	53 (0.8)	477 (2.1)	31 (0.6)	432 (3.5)	16 (0.6)	383 (5.1)	11.5 (0.03)	--
Trinidad and Tobago	52 (1.1)	513 (3.3)	38 (1.0)	465 (3.7)	10 (0.7)	432 (7.3)	11.6 (0.04)	0.3 (0.05) ●
Singapore	50 (1.2)	608 (2.8)	38 (0.8)	561 (3.0)	12 (0.7)	503 (5.1)	11.6 (0.05)	0.5 (0.06) ●
Spain	48 (1.0)	551 (1.5)	35 (0.9)	519 (2.5)	17 (0.7)	496 (3.6)	11.3 (0.04)	0.4 (0.06) ●
Qatar	45 (0.7)	478 (2.3)	36 (0.7)	444 (2.7)	19 (0.5)	402 (4.4)	11.2 (0.02)	0.2 (0.04) ●
United Arab Emirates	44 (0.7)	492 (3.5)	36 (0.5)	451 (3.4)	20 (0.6)	388 (3.5)	11.1 (0.03)	0.5 (0.04) ●
Kuwait	43 (1.3)	432 (3.7)	34 (0.9)	393 (4.7)	23 (1.1)	352 (7.2)	10.9 (0.05)	--
Israel	42 (1.0)	539 (3.2)	31 (0.8)	531 (3.1)	26 (0.9)	535 (3.9)	10.9 (0.05)	0.0 (0.07)
Oman	42 (0.7)	459 (3.7)	39 (0.5)	409 (3.4)	20 (0.6)	358 (4.3)	11.0 (0.03)	0.2 (0.05) ●
Poland	41 (1.1)	587 (2.5)	35 (1.0)	558 (2.7)	24 (0.8)	540 (3.0)	10.9 (0.04)	--
Latvia	41 (1.1)	581 (1.9)	41 (0.9)	553 (1.9)	18 (0.8)	522 (3.5)	11.1 (0.04)	--
Saudi Arabia	37 (1.2)	453 (4.2)	36 (0.9)	426 (4.9)	27 (1.3)	414 (7.8)	10.7 (0.06)	0.0 (0.11)
South Africa	35 (1.0)	349 (6.5)	39 (0.8)	335 (6.1)	25 (1.3)	297 (7.0)	10.8 (0.06)	0.5 (0.07) ●
Canada	34 (0.7)	576 (2.0)	38 (0.7)	546 (2.1)	28 (0.7)	522 (3.0)	10.7 (0.03)	--
Macao SAR	33 (0.6)	570 (1.9)	52 (0.7)	539 (1.6)	15 (0.6)	513 (2.8)	11.0 (0.02)	--
Egypt	33 (1.8)	392 (5.0)	35 (1.3)	332 (5.3)	32 (2.0)	267 (9.4)	10.4 (0.10)	--
Chinese Taipei	33 (0.7)	586 (2.3)	52 (0.8)	555 (2.1)	16 (0.7)	520 (4.0)	11.0 (0.03)	0.4 (0.04) ●
Finland	31 (0.8)	602 (2.4)	25 (0.9)	569 (3.0)	44 (0.9)	546 (2.2)	10.3 (0.03)	0.1 (0.06)
Kazakhstan	31 (1.2)	553 (3.2)	47 (1.1)	532 (2.7)	22 (1.0)	523 (3.3)	10.8 (0.05)	--
Sweden	29 (0.9)	591 (2.8)	37 (1.1)	561 (2.8)	34 (1.2)	532 (2.9)	10.4 (0.04)	0.1 (0.06)
Chile	28 (0.8)	529 (3.6)	35 (0.8)	497 (3.3)	37 (0.9)	472 (2.7)	10.3 (0.04)	--
Morocco	28 (1.1)	417 (3.9)	32 (1.0)	362 (4.4)	40 (1.6)	321 (4.9)	9.8 (0.11)	-0.4 (0.15)
Denmark	27 (0.9)	579 (3.1)	42 (1.1)	550 (2.6)	31 (1.1)	524 (3.0)	10.5 (0.04)	0.2 (0.05) ●
Hong Kong SAR	27 (1.2)	591 (3.1)	57 (1.0)	572 (2.4)	16 (0.9)	524 (4.8)	10.9 (0.05)	-0.1 (0.06)
Lithuania	26 (0.7)	591 (2.9)	44 (1.0)	551 (3.4)	30 (0.9)	512 (3.2)	10.5 (0.03)	0.4 (0.05) ●
Bulgaria	25 (1.0)	591 (3.8)	34 (1.3)	567 (4.1)	40 (1.8)	518 (6.1)	9.9 (0.10)	0.1 (0.15)
Malta	24 (0.8)	490 (2.6)	37 (0.9)	466 (2.8)	39 (1.0)	433 (2.3)	10.1 (0.04)	0.1 (0.05)
Iran, Islamic Rep. of	24 (1.2)	453 (5.2)	31 (1.1)	433 (4.6)	46 (1.9)	415 (4.9)	9.7 (0.11)	0.0 (0.12)
Azerbaijan	23 (0.9)	495 (4.0)	33 (0.7)	479 (5.3)	44 (1.2)	460 (5.0)	9.8 (0.07)	0.3 (0.11)
Georgia	23 (1.1)	506 (3.7)	31 (0.9)	497 (3.4)	46 (1.4)	479 (3.4)	9.7 (0.08)	0.1 (0.09)
Russian Federation	23 (0.8)	613 (2.6)	39 (0.9)	587 (2.3)	39 (1.1)	556 (3.1)	10.1 (0.05)	0.3 (0.08) ●
Czech Republic	22 (0.7)	567 (3.5)	34 (0.9)	542 (2.8)	44 (0.9)	537 (2.4)	9.9 (0.04)	0.2 (0.05) ●
France	20 (0.7)	532 (2.9)	42 (1.0)	517 (2.8)	38 (1.1)	501 (3.1)	10.1 (0.04)	-0.1 (0.05)
Slovenia	14 (0.7)	585 (3.1)	25 (0.8)	556 (3.0)	61 (1.0)	530 (2.9)	9.1 (0.05)	-0.2 (0.06) ●
Netherlands	13 (0.8)	576 (4.4)	36 (1.2)	556 (3.1)	51 (1.4)	544 (2.4)	9.5 (0.05)	0.3 (0.07) ●
Italy	13 (0.7)	565 (3.6)	32 (0.9)	554 (3.3)	55 (0.8)	546 (2.5)	9.4 (0.04)	0.1 (0.05)
Portugal	13 (0.6)	548 (3.0)	36 (0.9)	531 (2.7)	51 (0.9)	522 (2.9)	9.6 (0.04)	0.2 (0.06) ●
Austria	13 (0.7)	549 (4.2)	26 (0.7)	535 (3.6)	62 (0.9)	545 (2.0)	9.2 (0.04)	0.1 (0.05)
Norway	12 (0.6)	594 (3.8)	24 (0.8)	569 (3.1)	64 (0.8)	550 (2.3)	9.1 (0.03)	--
Hungary	11 (0.5)	578 (6.1)	19 (0.7)	561 (4.5)	70 (1.0)	551 (2.8)	8.6 (0.06)	-0.2 (0.07) ●
Belgium (Flemish)	10 (0.6)	527 (4.7)	29 (0.9)	522 (2.6)	61 (1.2)	531 (1.7)	9.0 (0.05)	--
Belgium (French)	10 (0.6)	513 (4.2)	30 (0.8)	501 (3.5)	60 (1.0)	496 (2.8)	9.3 (0.04)	-0.1 (0.05)
Germany	8 (0.6)	571 (5.6)	25 (0.9)	549 (4.1)	67 (1.0)	545 (3.5)	9.0 (0.04)	-0.2 (0.05) ●
Slovak Republic	8 (0.6)	542 (9.0)	19 (0.6)	551 (3.4)	73 (0.7)	532 (3.8)	8.6 (0.04)	0.1 (0.06)
New Zealand	24 (1.1)	562 (5.2)	45 (1.2)	542 (4.0)	31 (1.1)	531 (3.7)	10.4 (0.05)	0.6 (0.07) ●
Australia	19 (1.0)	594 (5.5)	36 (1.2)	565 (4.0)	45 (1.1)	551 (3.6)	9.9 (0.04)	0.2 (0.06) ●
International Avg.	29 (0.1)	537 (0.6)	35 (0.1)	510 (0.5)	36 (0.2)	485 (0.6)		

Significantly higher than 2011 ●

Significantly lower than 2011 ●

Figure 3.21: Score distribution of Maltese student performance in early literacy tasks

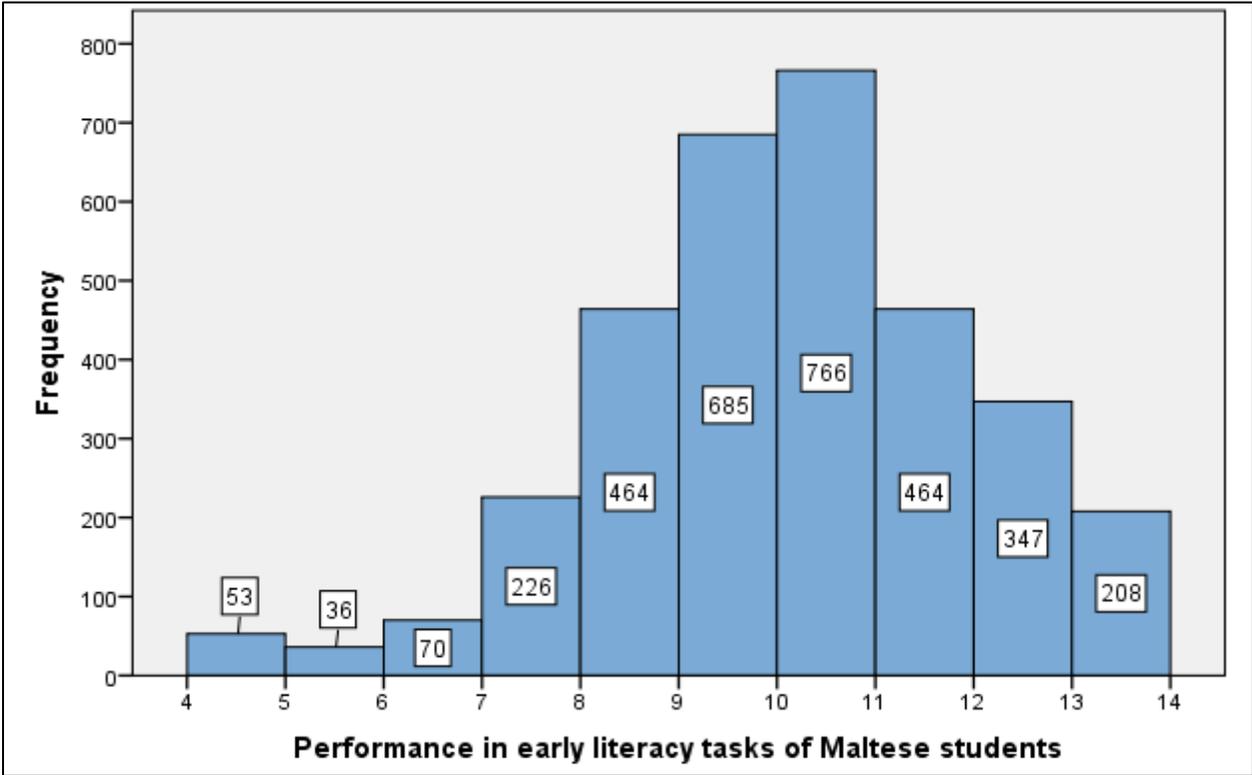


Figure 3.22: Mean student performance score in early literacy activities, clustered by school type

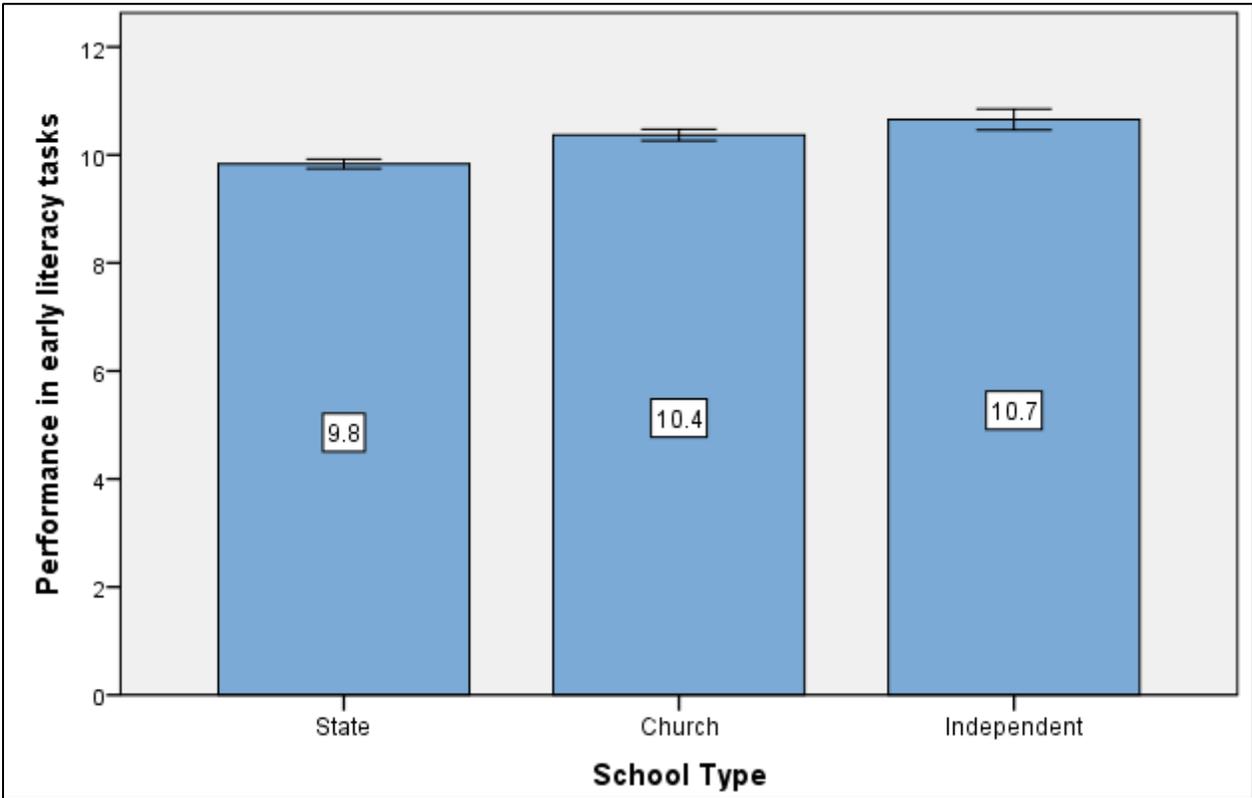
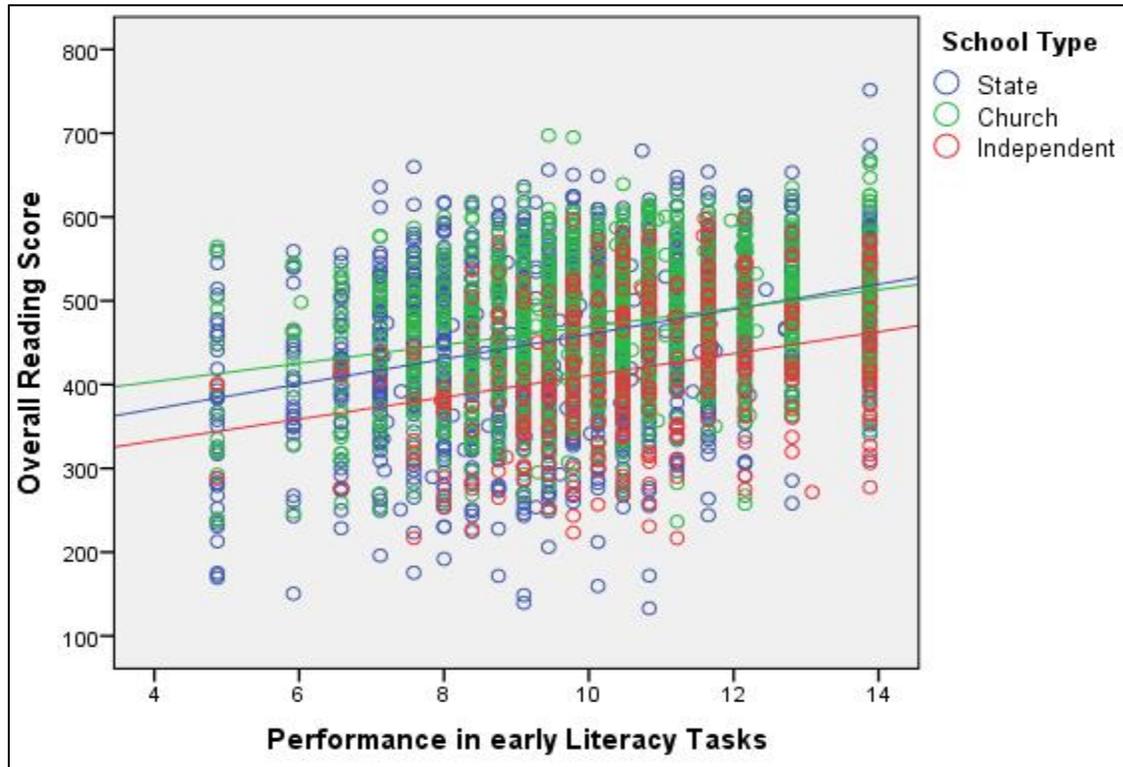


Figure 3.21 displays the score distribution of student' performance in literacy tasks prior to Primary schooling, according to their parents. Figure 3.22 shows that students attending Independent and Church schools performed better in early literacy tasks than students attending State schools. Figure 3.23 shows that reading attainment is positively related to students' performance in early literacy tasks and this applies to students attending State, Church and Independent schools.

**Figure 3.23:** Relationship between student performance in early literacy tasks and reading scores by school type



## 4

# The School Environment

## 4.1 Introduction

The school's environment and organization contexts can influence the ease and effectiveness of reaching curricular goals. An effective school is not simply a collection of discrete attributes, but rather a well-managed integrated system where each action or policy directly affects all other parts. This chapter provides information about the school environment supplied by the Heads of school and it discusses the school composition by students' socio-economic background, by the proportion of students speaking their native language and by the proportion of students having literacy skills at entry in Primary schools. This chapter also investigates how instruction is affected by reading resource shortage at school, size of school library, and availability of computers for instruction at school.

## 4.2 School Composition by Student Economic Background

There has been a great emphasis on how the socioeconomic status of the collective students in the school can influence individual student achievement. The correlation between lower socio-economic status and lower achievement may be partially explained by other school factors. For example, in some countries, schools with students from lower socioeconomic status are taught by less qualified teachers. Another theory purports that some schools with many socio-economically disadvantaged students can be overwhelmed by a culture of futility, in which education and schooling are viewed as an antagonistic exercise having little or no future value. To cluster schools by students' socio-economic background, it will be assumed that schools where more than 25% of students come from economically affluent homes and less than 25% of students come from economically disadvantaged homes are labelled as 'More Affluent'. On the other hand, schools where more than 25% of pupils come from economically disadvantaged homes and less than 25% of students come from economically affluent homes are labelled as 'More Disadvantaged'. All other possible response combinations are 'Neither more affluent nor more disadvantaged'.

**Table 4.1:** Maltese School Composition by Student Economic Background

Approximately what percentage of students in your school has the following backgrounds?	0-10%	11-25%	26-50%	51-100%
Coming from economically disadvantaged homes	66.0%	23.4%	6.4%	4.3%
Coming from economically affluent homes	35.8%	16.8%	15.8%	31.6%

Figure 4.1: School Composition by Student Economic Background

Country	More Affluent		Neither More Affluent Nor More Disadvantaged		More Disadvantaged	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	35 (3.2)	570 (4.6)	38 (3.3)	545 (3.2)	26 (2.9)	509 (4.3)
Austria	29 (4.0)	558 (3.5)	45 (3.9)	545 (2.3)	25 (3.6)	512 (5.7)
Azerbaijan	11 (2.1)	502 (13.6)	23 (4.0)	469 (8.5)	66 (4.1)	471 (4.9)
Bahrain	31 (1.6)	473 (5.5)	36 (3.0)	446 (3.4)	33 (3.0)	419 (5.4)
Belgium (Flemish)	67 (4.0)	535 (2.0)	23 (3.6)	515 (4.2)	10 (2.7)	487 (6.1)
Belgium (French)	56 (3.6)	515 (3.2)	24 (3.8)	493 (4.5)	21 (3.0)	461 (5.4)
Bulgaria	15 (3.5)	585 (7.9)	51 (4.3)	565 (5.4)	34 (3.6)	520 (7.9)
Canada	42 (2.7)	556 (2.2)	38 (2.3)	546 (2.9)	21 (2.1)	513 (4.5)
Chile	18 (2.3)	546 (3.1)	9 (2.7)	500 (9.3)	74 (3.1)	481 (3.5)
Chinese Taipei	23 (3.4)	575 (3.4)	62 (4.3)	558 (2.3)	15 (2.9)	536 (3.9)
Czech Republic	42 (3.7)	554 (2.6)	51 (4.1)	540 (2.5)	7 (1.9)	506 (15.8)
Denmark	63 (4.1)	554 (2.9)	29 (3.8)	538 (4.0)	7 (2.1)	538 (5.7)
Egypt	25 (3.7)	375 (14.6)	16 (3.6)	344 (14.9)	59 (4.7)	306 (7.4)
England	38 (3.6)	575 (3.5)	30 (3.9)	563 (3.3)	32 (3.7)	539 (3.5)
Finland	42 (3.7)	570 (3.0)	49 (4.1)	567 (2.9)	9 (1.8)	544 (8.0)
France	41 (4.5)	524 (3.4)	30 (4.1)	517 (4.4)	29 (3.3)	489 (3.9)
Georgia	23 (3.5)	507 (5.6)	31 (3.7)	484 (5.5)	46 (3.9)	486 (4.7)
Germany	22 (3.1)	560 (4.3)	48 (4.1)	547 (3.9)	30 (3.6)	504 (9.1)
Hong Kong SAR	32 (3.8)	570 (4.6)	28 (4.2)	573 (5.1)	39 (3.4)	571 (5.1)
Hungary	34 (3.6)	579 (4.9)	29 (4.2)	562 (4.1)	37 (3.5)	522 (5.2)
Iran, Islamic Rep. of	28 (3.9)	462 (6.8)	18 (3.0)	457 (8.1)	55 (4.2)	400 (7.0)
Ireland	43 (4.5)	582 (3.5)	32 (4.4)	570 (3.5)	25 (3.6)	534 (4.0)
Israel	30 (3.0)	561 (5.1)	33 (3.8)	549 (6.8)	36 (3.1)	489 (5.4)
Italy	32 (4.2)	555 (4.2)	50 (4.6)	547 (3.2)	18 (3.1)	539 (6.1)
Kazakhstan	70 (3.8)	542 (3.3)	24 (3.5)	517 (5.6)	6 (2.0)	524 (7.2)
Kuwait	39 (4.1)	408 (8.4)	27 (4.0)	382 (10.4)	34 (4.5)	385 (11.7)
Latvia	21 (3.7)	562 (4.7)	69 (4.4)	560 (2.3)	10 (2.4)	533 (7.8)
Lithuania	65 (3.4)	560 (2.8)	23 (3.3)	539 (5.3)	13 (2.6)	503 (8.7)
Macao SAR	37 (0.1)	541 (2.1)	26 (0.1)	548 (1.9)	36 (0.1)	549 (2.0)
Malta	39 (0.1)	441 (2.6)	58 (0.1)	461 (2.1)	3 (0.1)	415 (8.2)
Morocco	8 (1.9)	434 (14.1)	8 (1.7)	404 (13.2)	84 (1.9)	343 (5.0)
Netherlands	55 (4.9)	555 (2.4)	33 (4.8)	543 (3.3)	12 (3.1)	515 (7.2)
New Zealand	40 (3.4)	551 (2.9)	31 (3.6)	527 (6.0)	29 (3.0)	484 (7.5)
Northern Ireland	36 (5.2)	583 (4.3)	34 (5.8)	562 (5.1)	30 (3.9)	547 (5.0)
Norway	54 (4.7)	563 (3.2)	38 (4.3)	555 (2.9)	8 (2.2)	546 (6.8)
Oman	44 (3.1)	430 (5.6)	39 (3.1)	413 (5.2)	18 (2.7)	402 (5.4)
Poland	19 (3.9)	572 (6.3)	60 (4.7)	566 (2.6)	21 (3.2)	545 (5.6)
Portugal	14 (2.4)	543 (5.3)	45 (4.7)	529 (4.2)	42 (4.8)	521 (3.2)
Qatar	70 (0.4)	449 (2.4)	22 (0.4)	450 (3.8)	8 (0.2)	422 (11.9)
Russian Federation	71 (3.3)	585 (2.9)	24 (3.2)	578 (5.7)	5 (1.4)	558 (9.4)
Saudi Arabia	43 (3.7)	437 (8.8)	29 (3.8)	424 (9.0)	28 (4.1)	424 (10.6)
Singapore	42 (0.0)	597 (4.8)	44 (0.0)	568 (4.9)	13 (0.0)	536 (10.4)
Slovak Republic	37 (3.6)	551 (3.7)	51 (4.1)	542 (3.6)	11 (2.7)	449 (16.7)
Slovenia	35 (4.6)	546 (3.8)	38 (4.2)	543 (3.4)	27 (4.8)	537 (4.5)
South Africa	9 (2.0)	428 (23.1)	16 (3.0)	310 (17.3)	75 (3.7)	309 (4.8)
Spain	54 (3.0)	535 (1.9)	31 (2.7)	520 (4.3)	15 (2.1)	511 (5.1)
Sweden	78 (3.9)	562 (2.8)	18 (3.5)	539 (4.0)	4 (1.4)	508 (18.7)
Trinidad and Tobago	25 (3.7)	526 (6.8)	21 (3.8)	493 (8.6)	54 (4.5)	463 (5.7)
United Arab Emirates	50 (2.2)	473 (6.2)	25 (1.9)	453 (6.5)	25 (2.0)	409 (6.5)
United States	15 (3.0)	588 (4.3)	21 (3.7)	566 (5.4)	63 (4.0)	532 (3.7)
International Avg.	38 (0.5)	530 (0.9)	33 (0.5)	513 (0.9)	29 (0.4)	487 (1.1)

Table 4.1 shows that 47.4% of Maltese schools have more than 25% of students coming from economically affluent homes and 89.4% of Maltese schools have less than 25% of students coming from economically disadvantaged homes. By combining this information, it results that 39% of Maltese students are categorised as coming from economically affluent homes which is marginally higher than the international average (38%). On the other hand, 10.7% of Maltese schools have more

than 25% of students coming from economically disadvantaged homes and 52.6% of Maltese schools have less than 25% of students coming from economically affluent homes. By combining this information, it results that 3% of Maltese students are categorised as coming from economically disadvantaged homes which is significantly lower than the international average (29%).

Figure 4.1 shows that reading attainment is strongly related to student’s economic background. Students who come from economically affluent backgrounds perform better in reading tasks than those who come from more disadvantaged backgrounds. The mean reading scores of students coming from ‘More affluent’, ‘Neither more affluent nor disadvantaged’ and ‘More disadvantaged’ economic backgrounds are 530, 513 and 487 respectively. This trend is not so evident for Maltese students where the mean reading scores of students coming from the three socio-economic backgrounds are 441, 461 and 415 respectively.

**Table 4.2:** Schools clustered by students’ socio economic backgrounds and school type

		School Type			
		State	Church	Independent	
School composition by socio-economic background	More Affluent	Count	26	9	6
		Percentage	41.9%	36.0%	85.7%
	Neither More Affluent nor More Disadvantaged	Count	29	16	1
		Percentage	46.8%	64.0%	14.3%
	More Disadvantaged	Count	7	0	0
		Percentage	11.3%	0.0%	0.0%

Table 4.2 shows a larger percentage of Independent schools where students come from homes which are economically affluent, and a larger percentage of Church and State schools where students come from homes which are neither affluent nor disadvantaged. The few schools where students come from homes which are economically disadvantaged are all State schools.

### 4.3 Schools with students having the test language as native language

Figure 4.2 shows that 60% of Maltese schools have more than 90% of students who speak Maltese; 35% of the schools have between 51% and 90% and 5% of Maltese schools have less than 50% of students who speak Maltese. Students attending schools where more than 90% are Maltese-speaking students scored higher in the Maltese reading test (461) than their counterparts attending schools with lower percentages of Maltese-speaking students (446 and 382), which conforms to what we expect.

Across all countries, 63% of students attended schools where more than 90% spoke the language of the PIRLS assessment as their first language, 20% of students attended schools where 51% to 90% spoke the language of the test, while 18% of students attended schools where 50% or less spoke the language of the test as their first language. The first two groups of students have significantly higher mean reading scores (512 and 515 respectively) than the third group (493).

**Figure 4.2:** Schools with students having test language as their native language

Country	School has More than 90% of Students with Language of Test as Their Native Language		School has 51-90% of Students with Language of Test as Their Native Language		School has 50% or Less of Students with Language of Test as Their Native Language	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	50 (3.1)	552 (3.4)	28 (3.0)	535 (5.8)	23 (2.7)	538 (6.0)
Austria	29 (3.7)	552 (3.3)	46 (4.5)	546 (3.0)	25 (3.4)	519 (5.5)
Azerbaijan	84 (2.7)	465 (4.8)	12 (2.4)	505 (10.2)	4 (1.7)	497 (12.9)
Bahrain	62 (2.3)	435 (3.2)	15 (1.8)	470 (5.8)	23 (1.8)	462 (8.2)
Belgium (Flemish)	45 (3.4)	540 (2.1)	34 (4.2)	523 (3.6)	22 (3.5)	500 (4.9)
Belgium (French)	63 (3.0)	509 (2.9)	21 (2.9)	498 (5.2)	16 (2.3)	457 (7.0)
Bulgaria	55 (4.1)	580 (3.8)	25 (3.8)	545 (5.3)	20 (2.7)	482 (8.7)
Canada	47 (2.5)	545 (2.6)	34 (2.6)	545 (3.6)	19 (2.0)	536 (4.2)
Chile	98 (1.1)	494 (2.7)	2 (1.1)	~ ~	0 (0.0)	~ ~
Chinese Taipei	66 (4.2)	562 (2.4)	27 (3.9)	557 (3.7)	7 (2.2)	541 (7.4)
Czech Republic	92 (2.0)	543 (2.3)	7 (1.9)	547 (5.6)	0 (0.4)	~ ~
Denmark	60 (3.5)	553 (2.7)	31 (3.5)	541 (3.4)	9 (2.0)	532 (8.3)
Egypt	97 (1.4)	334 (5.6)	1 (1.0)	~ ~	1 (1.0)	~ ~
England	45 (3.6)	566 (3.3)	29 (3.6)	557 (4.2)	27 (3.3)	548 (3.8)
Finland	82 (2.7)	570 (1.8)	16 (2.8)	553 (6.1)	2 (1.3)	~ ~
France	65 (3.6)	519 (3.3)	26 (3.4)	499 (4.2)	9 (2.4)	492 (8.8)
Georgia	85 (2.1)	493 (3.0)	9 (1.5)	485 (8.8)	6 (1.8)	441 (18.6)
Germany	30 (2.8)	554 (3.9)	48 (3.4)	540 (5.6)	22 (2.9)	502 (7.2)
Hong Kong SAR	96 (1.9)	570 (2.9)	4 (1.9)	559 (10.0)	0 (0.0)	~ ~
Hungary	99 (0.4)	553 (2.8)	0 (0.4)	~ ~	0 (0.0)	~ ~
Iran, Islamic Rep. of	50 (3.6)	456 (5.0)	8 (1.5)	469 (7.6)	42 (3.3)	386 (8.3)
Ireland	57 (3.7)	573 (3.1)	32 (3.8)	563 (4.5)	11 (3.2)	546 (7.8)
Israel	69 (3.2)	523 (3.3)	23 (3.2)	556 (6.0)	8 (2.0)	527 (9.9)
Italy	60 (3.4)	547 (3.4)	39 (3.3)	552 (2.8)	1 (0.7)	~ ~
Kazakhstan	53 (2.7)	530 (3.3)	32 (3.3)	544 (5.1)	14 (2.8)	541 (6.7)
Kuwait	20 (3.7)	380 (7.6)	27 (3.2)	405 (10.2)	53 (3.5)	394 (5.8)
Latvia	47 (3.2)	557 (2.5)	26 (3.1)	549 (4.0)	27 (1.3)	568 (3.3)
Lithuania	87 (2.1)	548 (2.8)	11 (1.9)	567 (6.3)	2 (1.1)	~ ~
Macao SAR	87 (0.1)	550 (1.1)	2 (0.0)	~ ~	11 (0.1)	515 (3.9)
Malta	60 (0.1)	461 (2.2)	35 (0.1)	446 (2.4)	5 (0.1)	382 (7.3)
Morocco	9 (1.4)	398 (11.5)	14 (1.9)	397 (8.5)	77 (2.3)	346 (5.1)
Netherlands	72 (4.0)	550 (2.2)	22 (3.6)	542 (3.5)	6 (2.0)	518 (20.3)
New Zealand	56 (3.6)	531 (2.9)	28 (3.0)	529 (6.3)	16 (2.2)	495 (11.4)
Northern Ireland	81 (3.9)	565 (2.9)	14 (3.4)	561 (11.4)	5 (2.5)	560 (11.4)
Norway	63 (3.7)	559 (2.9)	32 (3.8)	560 (3.8)	5 (1.7)	551 (4.7)
Oman	82 (1.7)	415 (3.8)	5 (1.4)	409 (12.4)	13 (0.9)	445 (6.1)
Poland	100 (0.0)	565 (2.1)	0 (0.0)	~ ~	0 (0.0)	~ ~
Portugal	89 (2.5)	528 (2.1)	8 (2.1)	520 (6.5)	3 (1.4)	555 (48.0)
Qatar	41 (0.3)	405 (2.5)	10 (0.1)	453 (4.1)	49 (0.3)	471 (3.1)
Russian Federation	77 (2.6)	583 (2.8)	12 (2.3)	588 (5.5)	11 (1.7)	556 (8.3)
Saudi Arabia	31 (3.4)	439 (7.5)	26 (2.9)	437 (9.0)	43 (3.7)	420 (7.2)
Singapore	0 (0.0)	~ ~	0 (0.0)	~ ~	100 (0.0)	576 (3.2)
Slovak Republic	86 (2.7)	542 (3.0)	9 (1.8)	519 (10.0)	5 (1.9)	439 (25.2)
Slovenia	74 (4.4)	544 (2.1)	25 (4.3)	538 (5.0)	2 (1.1)	~ ~
South Africa	59 (2.6)	306 (4.5)	19 (2.6)	335 (11.6)	22 (2.3)	349 (12.2)
Spain	56 (2.7)	536 (1.7)	28 (2.7)	521 (3.5)	16 (2.2)	513 (7.1)
Sweden	47 (4.0)	563 (3.3)	37 (4.1)	550 (3.1)	16 (3.7)	541 (8.3)
Trinidad and Tobago	94 (2.1)	486 (3.4)	0 (0.0)	~ ~	6 (2.1)	475 (16.0)
United Arab Emirates	36 (1.2)	397 (3.9)	7 (1.1)	471 (17.9)	58 (1.2)	480 (5.0)
United States	55 (3.7)	557 (3.5)	30 (4.2)	550 (4.9)	15 (3.1)	517 (9.2)
International Avg.	63 (0.4)	512 (0.5)	20 (0.4)	515 (1.1)	18 (0.3)	493 (1.9)

## 4.4 Schools where students had early literacy skills

Before children enter formal schooling, literacy activities at home can complement what the child will learn at school. Parental intervention in literacy activities has been found to be especially efficacious when educators train parents in specific activities that they can do with their child to promote literacy acquisition. Parents can assist their children in their literacy development by listening to them when they tell stories, sing songs, read books and talk about things they have done or read; or by observing them when they play with alphabet toys or play with word games.

A scale score to measure the prevalence of students in Maltese schools with early literacy skills was generated by considering six literacy skills, which displayed in Table 4.3. Students were scored according to their heads of school's responses about the percentage of children in the school who begin Year 1 with the six key skills. Students who attend schools where more than 75% enter with skills had a score on the scale higher than 12.6, which corresponds to their heads of school reporting that over 75% of the students have three of the skills and 51-75% of the students have three of the skills, on average. Students who attend schools where less than 25% enter with skills had a score less than 9.2, which corresponds to their heads of school reporting that less than 25% of the students have three of the skills and 25-50% of the students have three of the skills, on average. All other students attended schools where 25% to 75% enter with skills.

**Table 4.3:** Prevalence of students in Maltese schools with early literacy skills

About how many of the students in your school can do the following when they begin Year 1 of primary school?	Less than 25%	25-50%	51-75%	More than 75%
Recognise most of the letters of the alphabet	8.6%	12.9%	29.0%	49.5%
Read some words	29.0%	30.1%	22.6%	18.3%
Read sentences	63.4%	19.4%	14.0%	3.2%
Read a story	81.7%	8.6%	7.5%	2.2%
Write letters of the alphabet	15.1%	25.8%	24.7%	34.4%
Write some words	53.8%	23.7%	11.8%	10.8%

Figure 4.3 shows that 11% of Maltese schools have more than 75% of students with early literacy skills; 60% of schools have 25-75% of students and 29% of Maltese schools have less than 25% of students with early literacy skills. These percentages differ significantly from the international averages, which are 22%, 47% and 31% respectively. Ireland (96%), Northern Ireland (94%) and Singapore (83%) have the largest percentage of schools with more than 75% of students having early literacy skills. Czech Republic (71%), Germany (71%) and Slovak Republic (70%) have the largest percentage of schools with less than 25% of students having early literacy skills. Malta's mean scale score (10.2) is significantly higher than the corresponding PIRLS 2011 mean scale score (9.4).

Figure 4.3 also show that reading attainment is weakly positive related to the percentage of students within a school having early literacy skills. The mean reading scores of students attending schools having 'more than 75%', '51-75%', '25-50%' and 'less than 25%' of students with early literacy skills are 516, 512 and 491 respectively. This weak relationship also applies to Malta were the mean reading scores of students attending schools having 'more than 75%', '51-75%', '25-50%' and 'less than 25%' of students with early literacy skills are 459, 454 and 444 respectively.

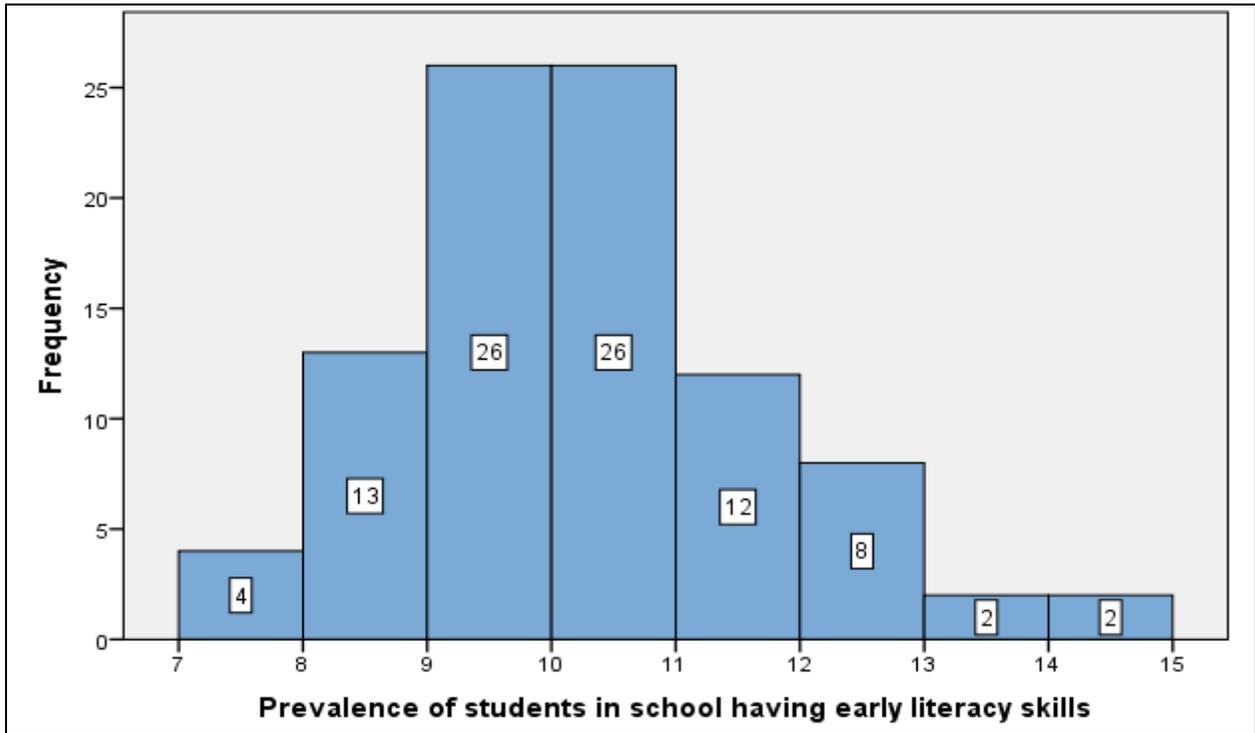
**Figure 4.3:** Prevalence of students in schools with early literacy skills, clustered by country

Country	Schools Where More than 75% Enter with Skills		Schools Where 25-75% Enter with Skills		Schools Where Less than 25% Enter with Skills		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Ireland	96 (1.5)	570 (2.7)	4 (1.5)	545 (18.4)	0 (0.1)	--	14.2 (0.07)	--
Northern Ireland	94 (1.9)	567 (2.7)	5 (1.7)	517 (14.4)	2 (0.8)	--	14.2 (0.09)	--
Singapore	83 (0.0)	580 (3.5)	15 (0.0)	553 (9.5)	2 (0.0)	--	13.8 (0.00)	0.9 (0.00) ●
Spain	62 (3.2)	533 (1.8)	36 (3.2)	519 (3.5)	2 (0.8)	--	12.8 (0.10)	0.4 (0.14) ●
United States	53 (4.8)	560 (3.8)	32 (4.4)	540 (6.0)	15 (3.2)	527 (7.9)	12.2 (0.22)	--
Latvia	53 (4.7)	560 (2.8)	44 (4.6)	557 (2.9)	3 (1.3)	525 (12.5)	12.5 (0.14)	--
Qatar	52 (0.3)	466 (2.4)	33 (0.3)	420 (2.7)	15 (0.2)	411 (6.0)	12.0 (0.01)	0.6 (0.13) ●
England	46 (4.0)	567 (3.3)	41 (4.1)	550 (3.8)	12 (2.6)	554 (5.6)	12.0 (0.17)	-0.2 (0.23)
Chinese Taipei	42 (3.5)	557 (3.4)	50 (3.4)	564 (2.3)	8 (2.1)	540 (5.5)	12.1 (0.16)	0.4 (0.21)
United Arab Emirates	41 (2.1)	497 (5.0)	43 (2.1)	426 (5.3)	16 (1.3)	394 (6.4)	11.7 (0.08)	0.5 (0.12) ●
Hong Kong SAR	38 (4.0)	567 (4.3)	50 (4.9)	575 (3.2)	12 (3.7)	556 (13.1)	11.9 (0.20)	-0.1 (0.25)
Denmark	36 (4.1)	553 (3.6)	59 (4.1)	546 (2.9)	5 (1.6)	530 (9.0)	11.9 (0.10)	0.3 (0.13)
Bahrain	33 (2.5)	466 (4.3)	46 (3.2)	444 (4.4)	21 (2.5)	418 (5.7)	11.1 (0.10)	--
Macao SAR	33 (0.1)	542 (1.9)	55 (0.1)	550 (1.4)	13 (0.1)	538 (3.3)	11.5 (0.00)	--
Canada	30 (2.5)	554 (3.2)	57 (2.6)	546 (2.0)	13 (1.8)	508 (8.0)	11.5 (0.10)	--
Kuwait	30 (4.6)	422 (10.4)	49 (5.0)	386 (7.8)	21 (3.6)	378 (8.8)	11.1 (0.16)	--
Egypt	25 (3.4)	356 (15.3)	61 (4.2)	321 (7.5)	14 (3.1)	322 (15.5)	11.3 (0.15)	--
Sweden	23 (3.8)	569 (5.1)	72 (4.1)	553 (2.6)	5 (1.8)	519 (8.5)	11.5 (0.11)	0.0 (0.18)
Kazakhstan	17 (2.6)	552 (8.0)	68 (3.5)	533 (3.2)	15 (2.9)	532 (7.2)	11.0 (0.12)	--
Chile	17 (3.4)	522 (6.8)	45 (4.3)	506 (4.3)	38 (4.2)	467 (5.0)	10.1 (0.20)	--
Poland	14 (3.3)	558 (6.1)	56 (4.9)	565 (2.9)	30 (4.2)	567 (5.1)	10.2 (0.18)	--
Bulgaria	12 (2.6)	573 (13.9)	60 (3.9)	567 (4.6)	28 (3.5)	509 (8.9)	10.3 (0.14)	0.6 (0.20) ●
Azerbaijan	12 (2.7)	481 (9.3)	42 (4.3)	472 (8.2)	45 (4.0)	468 (5.6)	9.7 (0.17)	0.8 (0.21) ●
Morocco	12 (2.0)	405 (9.7)	36 (2.8)	379 (5.5)	53 (3.1)	332 (5.7)	9.5 (0.13)	-0.5 (0.18) ●
Saudi Arabia	12 (2.3)	433 (12.4)	49 (3.8)	425 (7.1)	40 (3.6)	435 (7.2)	10.0 (0.14)	0.5 (0.21)
Georgia	11 (2.1)	495 (8.9)	30 (3.4)	494 (4.2)	59 (3.7)	485 (4.2)	9.4 (0.16)	0.0 (0.23)
Oman	11 (1.5)	435 (9.6)	61 (3.3)	420 (4.4)	28 (3.1)	408 (5.9)	10.2 (0.09)	0.6 (0.16) ●
Israel	11 (2.5)	506 (13.7)	53 (4.1)	546 (5.3)	36 (3.9)	515 (7.1)	10.0 (0.16)	-0.4 (0.21)
Malta	11 (0.1)	459 (4.7)	60 (0.1)	454 (2.2)	29 (0.1)	444 (3.0)	10.2 (0.00)	0.8 (0.01) ●
Finland	11 (2.7)	576 (5.3)	87 (3.0)	564 (2.1)	2 (1.2)	--	11.3 (0.08)	0.3 (0.15)
Russian Federation	10 (2.1)	599 (6.9)	63 (2.9)	588 (2.5)	27 (2.6)	556 (5.1)	10.3 (0.10)	-0.1 (0.16)
Portugal	9 (3.2)	535 (4.4)	36 (3.8)	530 (4.4)	55 (3.8)	525 (3.0)	9.3 (0.17)	0.5 (0.21)
Italy	8 (2.2)	542 (7.6)	52 (4.4)	552 (3.0)	40 (4.6)	545 (4.0)	9.8 (0.16)	0.1 (0.19)
Iran, Islamic Rep. of	8 (2.1)	405 (27.3)	20 (3.6)	432 (13.3)	72 (4.1)	429 (4.6)	8.6 (0.17)	-0.2 (0.22)
Lithuania	8 (2.1)	555 (6.0)	66 (3.6)	552 (3.4)	26 (3.5)	536 (4.8)	10.3 (0.13)	0.2 (0.16)
Austria	8 (2.2)	552 (5.2)	18 (3.5)	553 (4.9)	74 (3.8)	537 (3.0)	8.8 (0.16)	0.3 (0.19)
Trinidad and Tobago	7 (2.3)	532 (13.1)	60 (4.5)	491 (5.1)	32 (4.2)	461 (6.5)	10.3 (0.15)	-0.2 (0.19)
South Africa	7 (2.4)	338 (34.2)	59 (3.9)	317 (6.6)	34 (3.8)	318 (8.4)	10.0 (0.17)	0.3 (0.19)
France	6 (2.4)	512 (8.0)	85 (2.8)	514 (2.7)	8 (1.9)	482 (7.2)	10.8 (0.09)	-0.2 (0.13)
Australia	6 (1.4)	569 (7.8)	42 (3.1)	550 (4.7)	52 (3.2)	536 (3.3)	9.2 (0.12)	-0.1 (0.18)
New Zealand	5 (1.7)	523 (24.2)	51 (3.5)	545 (3.0)	44 (3.4)	502 (5.0)	9.4 (0.13)	0.3 (0.19)
Belgium (Flemish)	5 (1.9)	528 (5.1)	46 (4.7)	529 (3.0)	49 (4.7)	522 (3.8)	9.3 (0.18)	--
Belgium (French)	3 (1.6)	512 (14.9)	72 (3.7)	503 (3.0)	25 (3.5)	481 (6.2)	10.1 (0.13)	0.2 (0.19)
Norway	2 (1.4)	--	67 (4.2)	561 (2.8)	31 (4.1)	554 (3.3)	9.8 (0.14)	--
Hungary	2 (1.2)	--	13 (3.1)	575 (11.0)	85 (3.4)	550 (3.3)	8.0 (0.13)	0.1 (0.15)
Netherlands	2 (1.3)	--	64 (4.3)	549 (2.2)	35 (4.5)	540 (3.9)	9.9 (0.12)	0.2 (0.16)
Slovak Republic	0 (0.2)	--	30 (4.1)	548 (4.3)	70 (4.1)	529 (4.8)	8.5 (0.10)	0.1 (0.14)
Slovenia	0 (0.0)	--	47 (4.7)	547 (3.3)	53 (4.7)	539 (3.0)	9.1 (0.11)	-0.1 (0.16)
Czech Republic	0 (0.0)	--	29 (4.0)	550 (4.0)	71 (4.0)	541 (2.6)	8.6 (0.10)	0.2 (0.14)
Germany	0 (0.0)	--	29 (3.2)	552 (3.9)	71 (3.2)	530 (4.9)	8.5 (0.09)	-0.2 (0.13)
International Avg.	22 (0.4)	516 (1.6)	47 (0.5)	512 (0.8)	31 (0.4)	491 (1.0)		

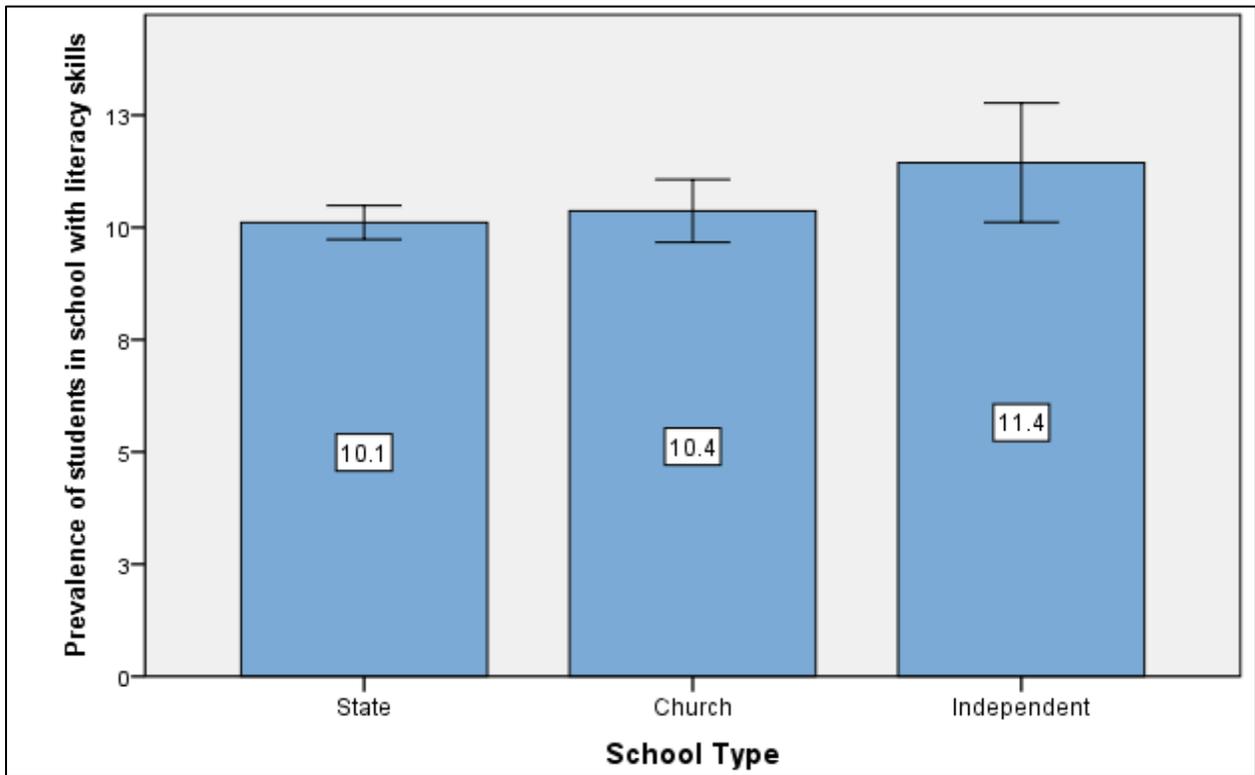
Significantly higher than 2011 ● Significantly lower than 2011 ▼

Figure 4.4 displays the score distribution of the prevalence of Maltese students in their school having early literacy skills. Figure 4.5 shows a significantly higher prevalence of students attending Independent schools having early literacy skills compared to students attending Church and State schools.

**Figure 4.4:** Score distribution of the prevalence of Maltese students having early literacy skills



**Figure 4.5:** Prevalence of students in schools with early literacy skills, clustered by school type



## 4.5 Effects of reading resource shortages on instruction

The extent and quality of school resources also are critical for quality instruction. These may include resources as basic as well-trained teachers or adequate classroom space and other school facilities. Results from PIRLS indicate that students in schools that are well resourced generally have higher achievement than those in schools where shortages of resources affect the capacity to implement the curriculum. Two types of resources (general and subject-specific) affect curriculum implementation. General resources include teaching materials, supplies, school buildings and grounds, heating/cooling and lighting systems, classroom space, audio-visual equipment such as electronic white boards and projectors, and computers, including tablets such as iPads. Subject-specific resources for reading include reading materials such as books and e-books, magazines and periodicals, and digital resources such as educational software/applications (apps) and subscriptions to educational websites. With the importance of online reading for informational purposes, student access to computers, the internet, and support for their online educational research are increasingly important to expanding literacy competencies.

A scale score for Reading Resource Shortages was generated by considering Heads' of school responses concerning twelve school and classroom resources, that are displayed in Tables 4.4 and 4.5. Instruction is less affected by resource shortages when the scale scores increase.

**Table 4.4:** Maltese school general resources

How much is your school's capacity to provide instruction affected by a shortage/inadequacy of school resources?	Not at all	A little	Some	A lot
Instructional materials	56.8%	17.9%	12.6%	12.6%
Supplies	63.2%	13.7%	10.5%	12.6%
School building and grounds	35.8%	26.3%	21.1%	16.8%
Heating/cooling and lighting systems	28.4%	37.9%	23.2%	10.5%
Instructional space	32.6%	29.5%	16.8%	21.1%
Technologically competent staff	17.9%	45.3%	26.3%	10.5%
Audio-visual resources for delivery of instruction	58.9%	17.9%	8.4%	14.7%
Computer technology for teaching and learning	34.7%	26.3%	27.4%	11.6%

**Table 4.5:** Maltese school resources for reading instruction

How much is your school's capacity to provide instruction affected by a shortage/inadequacy of reading resources?	Not at all	A little	Some	A lot
Teachers with a specialization in reading	21.1%	41.1%	26.3%	11.6%
Computer software/applications for reading instruction	22.1%	35.8%	32.6%	9.5%
Library resources	33.7%	27.4%	27.4%	11.6%
Instructional material for reading	42.1%	27.4%	20.0%	10.5%

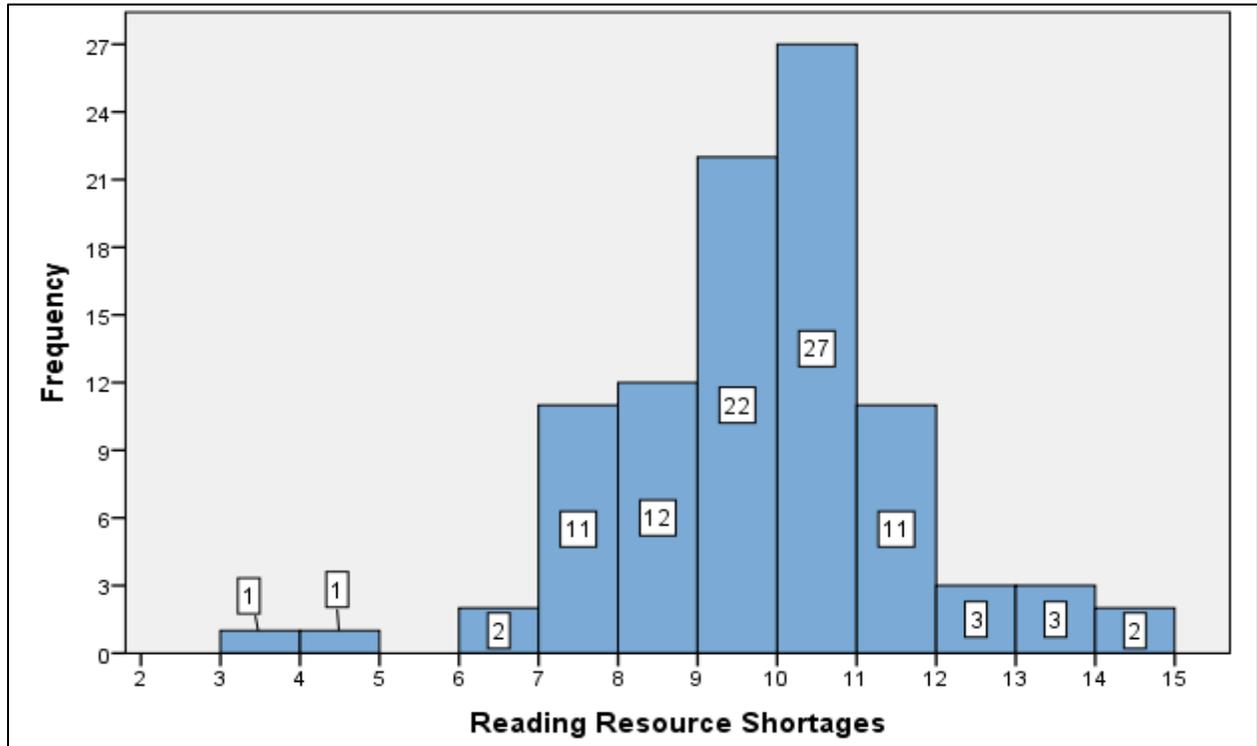
Students were scored according to their heads' of school responses. Students in schools where instruction was not affected by resource shortages had a score on the scale of at least 10.8, which corresponds to their heads of school reporting that shortages affected instruction 'not at all' for six of the twelve resources and 'a little' for the other six, on average. Students in schools where instruction was affected a lot had a score less than 7.1, which correspond to their heads of school reporting that shortages affected instruction 'a lot' for six resources and 'some' for the other six, on average. All other students attended schools where instruction was somewhat affected by resource shortages.

Figure 4.6: Instruction affected by reading resource shortages

Country	Not Affected		Somewhat Affected		Affected A Lot		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Australia	64 (3.4)	552 (3.1)	35 (3.3)	530 (4.7)	2 (0.9)	--	11.5 (0.15)	0.3 (0.21)
Singapore	63 (0.0)	574 (4.0)	32 (0.0)	575 (6.1)	6 (0.0)	601 (11.8)	11.2 (0.00)	0.8 (0.00) ⬆
Slovenia	62 (4.6)	545 (2.7)	38 (4.6)	539 (3.3)	0 (0.0)	--	11.3 (0.14)	-0.4 (0.18)
Netherlands	62 (4.4)	547 (2.4)	38 (4.4)	544 (4.6)	0 (0.0)	--	11.3 (0.10)	0.3 (0.15)
Sweden	55 (4.3)	560 (3.5)	44 (4.3)	549 (3.1)	0 (0.5)	--	11.3 (0.16)	0.6 (0.22)
Canada	55 (2.5)	545 (2.4)	44 (2.5)	542 (3.1)	2 (0.7)	--	11.0 (0.08)	0.2 (0.12)
Bulgaria	54 (3.7)	559 (5.7)	45 (3.6)	541 (6.8)	1 (0.7)	--	11.1 (0.12)	0.1 (0.18)
New Zealand	54 (3.7)	530 (4.2)	45 (3.7)	522 (5.3)	2 (1.0)	--	10.9 (0.12)	-0.3 (0.18)
Poland	53 (4.3)	568 (2.9)	47 (4.3)	561 (3.4)	0 (0.0)	--	11.0 (0.14)	--
United States	52 (4.0)	555 (4.0)	46 (4.1)	540 (5.3)	2 (1.0)	--	11.0 (0.16)	-0.2 (0.20)
Czech Republic	51 (3.4)	543 (2.5)	48 (3.4)	544 (3.5)	1 (0.6)	--	11.0 (0.10)	0.4 (0.16) ⬆
England	51 (4.1)	561 (2.9)	49 (4.1)	557 (3.2)	0 (0.0)	--	10.9 (0.12)	0.0 (0.22)
Denmark	47 (4.2)	550 (3.3)	53 (4.1)	545 (2.9)	0 (0.5)	--	10.9 (0.12)	0.0 (0.17)
Northern Ireland	44 (5.6)	564 (4.3)	54 (5.6)	564 (3.9)	2 (1.3)	--	10.6 (0.16)	0.0 (0.24)
Norway	42 (4.5)	566 (3.1)	57 (4.5)	554 (2.9)	0 (0.3)	--	10.7 (0.10)	--
Germany	40 (3.7)	547 (3.4)	59 (3.8)	530 (5.6)	1 (0.6)	--	10.5 (0.10)	0.0 (0.14)
Slovak Republic	40 (3.8)	535 (4.3)	59 (3.7)	534 (5.0)	1 (0.7)	--	10.4 (0.10)	0.5 (0.14) ⬆
Bahrain	38 (3.0)	463 (4.8)	48 (3.1)	432 (3.8)	14 (2.1)	449 (7.0)	10.0 (0.15)	--
Spain	36 (2.9)	537 (2.5)	62 (3.0)	524 (2.1)	2 (0.8)	--	10.5 (0.09)	-0.2 (0.17)
Finland	36 (4.0)	567 (3.8)	62 (4.1)	566 (2.5)	2 (1.2)	--	10.5 (0.12)	0.2 (0.20)
Austria	36 (4.1)	548 (3.5)	64 (4.0)	536 (3.1)	0 (0.5)	--	10.6 (0.11)	-0.2 (0.17)
Latvia	35 (4.3)	554 (3.5)	58 (4.2)	560 (2.5)	7 (2.0)	554 (10.8)	10.0 (0.16)	--
Ireland	34 (4.0)	570 (3.1)	66 (4.0)	565 (3.2)	0 (0.0)	--	10.3 (0.14)	-0.2 (0.20)
Chile	34 (4.6)	508 (5.2)	62 (4.8)	485 (3.8)	4 (1.9)	505 (8.5)	10.1 (0.16)	--
United Arab Emirates	31 (1.8)	495 (5.7)	53 (2.4)	426 (4.1)	16 (1.7)	448 (9.4)	9.7 (0.10)	0.1 (0.14)
Qatar	31 (0.4)	480 (3.8)	34 (0.3)	435 (2.8)	35 (0.3)	416 (2.8)	8.7 (0.02)	-0.4 (0.26)
Russian Federation	30 (3.4)	585 (5.0)	65 (3.6)	579 (3.1)	4 (1.4)	576 (15.2)	10.1 (0.14)	0.2 (0.21)
Lithuania	30 (3.8)	554 (4.8)	68 (3.9)	546 (3.7)	2 (1.3)	--	10.0 (0.11)	-0.2 (0.15)
Belgium (Flemish)	30 (3.9)	530 (4.3)	70 (3.9)	524 (2.7)	0 (0.2)	--	10.3 (0.11)	--
Georgia	29 (3.3)	500 (5.0)	70 (3.2)	485 (3.8)	1 (0.6)	--	10.2 (0.11)	-0.4 (0.19)
Kazakhstan	27 (4.2)	543 (5.0)	51 (4.2)	531 (4.3)	22 (3.5)	541 (5.2)	9.4 (0.22)	--
Israel	26 (3.7)	559 (4.6)	60 (4.3)	530 (5.1)	14 (2.7)	481 (10.6)	9.4 (0.16)	-0.2 (0.23)
Malta	24 (0.1)	454 (3.3)	72 (0.1)	451 (1.9)	5 (0.1)	464 (4.3)	9.7 (0.00)	-0.6 (0.01) ⬇
Oman	21 (2.3)	439 (5.3)	62 (2.9)	413 (4.3)	17 (2.3)	414 (7.1)	9.1 (0.12)	0.7 (0.15) ⬆
Belgium (French)	20 (3.3)	500 (4.9)	80 (3.3)	498 (3.3)	0 (0.0)	--	10.0 (0.09)	0.2 (0.14)
Portugal	20 (3.6)	537 (7.4)	78 (4.0)	526 (2.3)	2 (1.9)	--	9.7 (0.11)	0.0 (0.19)
Chinese Taipei	17 (3.3)	562 (4.2)	69 (4.1)	559 (2.3)	14 (2.9)	553 (5.3)	8.9 (0.14)	0.4 (0.21)
France	17 (3.3)	520 (5.3)	83 (3.3)	510 (2.8)	0 (0.0)	--	9.7 (0.10)	-0.2 (0.15)
Hungary	15 (3.1)	551 (10.5)	82 (3.5)	553 (3.0)	4 (1.6)	560 (19.2)	9.6 (0.13)	-0.9 (0.21) ⬇
Italy	11 (2.2)	553 (8.3)	88 (2.1)	548 (2.4)	1 (0.9)	--	9.5 (0.09)	-0.2 (0.13)
Egypt	10 (2.1)	366 (22.5)	81 (3.2)	329 (6.0)	9 (2.6)	308 (22.0)	9.0 (0.15)	--
Azerbaijan	8 (2.7)	439 (27.2)	84 (3.3)	471 (3.9)	7 (2.2)	514 (14.5)	8.8 (0.16)	0.5 (0.20)
Morocco	8 (2.3)	326 (12.8)	84 (3.1)	360 (4.1)	8 (2.3)	358 (23.8)	8.9 (0.13)	-0.7 (0.17) ⬇
Iran, Islamic Rep. of	7 (1.7)	482 (10.0)	78 (2.8)	425 (5.0)	15 (2.5)	414 (10.3)	8.7 (0.11)	0.3 (0.16)
Trinidad and Tobago	6 (2.2)	517 (21.1)	88 (3.1)	482 (4.1)	6 (2.2)	483 (13.1)	8.7 (0.12)	0.2 (0.16)
South Africa	6 (1.6)	410 (24.4)	89 (2.2)	314 (4.4)	4 (1.5)	302 (31.9)	9.1 (0.10)	0.0 (0.14)
Kuwait	4 (1.5)	444 (34.0)	59 (4.8)	388 (6.6)	37 (4.7)	400 (7.4)	7.6 (0.16)	--
Macao SAR	4 (0.0)	521 (3.9)	89 (0.1)	546 (1.1)	7 (0.1)	553 (4.3)	8.4 (0.00)	--
Saudi Arabia	2 (0.8)	--	77 (2.6)	426 (4.5)	21 (2.5)	446 (10.5)	8.1 (0.10)	-0.8 (0.21) ⬇
Hong Kong SAR	1 (0.8)	--	88 (2.5)	571 (2.9)	12 (2.4)	559 (6.8)	8.2 (0.08)	0.2 (0.11)
International Avg.	31 (0.5)	521 (1.4)	62 (0.5)	507 (0.6)	6 (0.2)	474 (2.8)		

Significantly higher than 2011 ⬆      Significantly lower than 2011 ⬇

**Figure 4.7:** Score distribution of reading resource shortages



**Figure 4.8:** Reading resource shortage, clustered by school type

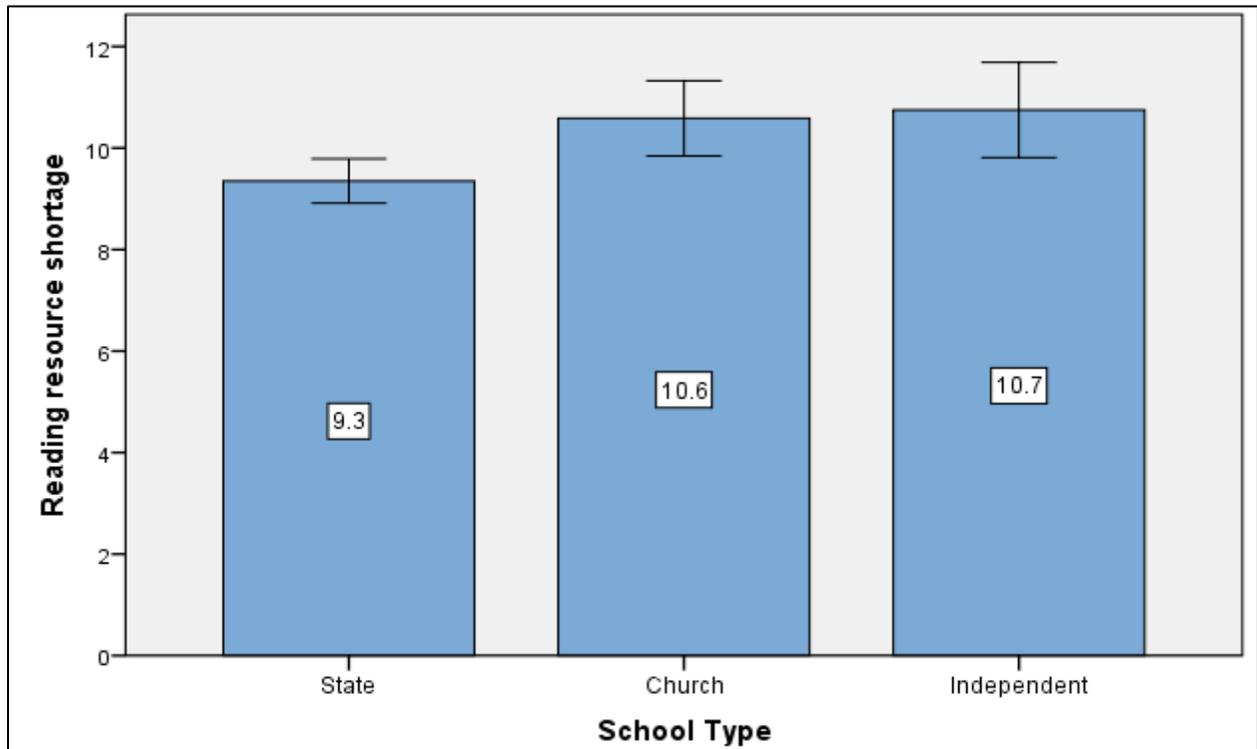


Figure 4.6 shows the reading resource shortage scale score of each country. The percentage of Maltese students ‘Not Affected’ (24%) by reading resource shortages is significantly lower than the international average (31%), the percentage Maltese students who are ‘Somewhat Affected’ (72%) is significantly larger than the international average (62%); while the percentage of students who are ‘Affected a lot’ (5%) by reading resource shortages is similar to the international average (6%). Australia (11.5), Slovenia (11.3) and Netherlands (11.3) Sweden (11.3) and Singapore (11.2) have the largest mean scale scores indicating that instruction is least affected by shortages in reading resources in these countries. Saudi Arabia (8.1), Hong Kong (8.2) and Macao (8.4) have the smallest mean scale scores. Malta’s mean scale score (9.7) is significantly lower than the corresponding PIRLS 2011 mean scale score (10.3), indicating that reading resource shortages have increased in the last four years, according to Maltese heads of school. Across all countries, the mean reading scores of students when instruction is ‘Not Affected’, ‘Somewhat Affected’ and ‘Affected a lot’ by reading resource shortages are 521, 507 and 474 respectively; however this trend does not apply to Malta. The mean reading scores of Maltese students when instruction is ‘Not Affected’, ‘Somewhat Affected’ and ‘Affected a lot’ by reading resource shortages are 454, 451 and 464 respectively. Figure 4.7 displays the score distribution of reading resource shortages in Maltese schools. Figure 4.8 shows that in State schools instruction is affected more by shortages in reading resources than in Church and Independent schools.

## 4.6 Size of School Library

For reading, a well-resourced school library or multi-media centre promotes student reading. The variety and richness of the reading material available to students forms the core of students’ reading experience in school. Research has shown that students use the library because there are books that interest them; therefore, ensuring that there are a variety of reading materials that would be of interest to the students at each grade is essential to promoting reading achievement. Libraries also are becoming multi-media centres, providing e-books, access to digital periodicals, and online resources that allow students to seek information on subjects of interest. While school libraries are common in most countries, some countries have moved towards classroom libraries. Regardless of where the library is located, research has indicated that the availability of books that students can choose from is positively related to reading achievement.

Figure 4.9 shows that reading attainment is positively related to the size of the school library; however, this relationship is weak for Malta. The international average indicates that the average reading scores of students is generally higher in schools which have larger libraries. This international mean reading score varies from 525 for students attending schools where libraries have more than 5000 book titles to 512 in schools where libraries have between 501 to 5000 book titles to 494 in schools where libraries have 500 book titles or less to 501 in schools which do not have a library.

According to heads of school, 16% of Maltese schools have more than 5000 book titles, 62% have between 500 to 5000, 7% have less than 500 book titles and 15% of Maltese schools have no library. The corresponding international averages are (32%, 40%, 15% and 13% respectively). Table 4.6 shows that there is a larger percentage of State schools (29.0%) with no school library compared to Church (8.0%) and Independent (12.5%) schools.

Figure 4.9: Size of School Library

Country	More than 5,000 Book Titles		501–5,000 Book Titles		500 Book Titles or Fewer		No School Library	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	57 (3.7)	544 (4.2)	40 (3.7)	546 (4.7)	2 (1.0)	--	1 (0.5)	--
Austria	3 (1.3)	551 (9.1)	57 (4.0)	542 (3.2)	19 (3.0)	540 (5.0)	21 (3.2)	538 (6.1)
Azerbaijan	40 (4.1)	477 (6.4)	46 (4.4)	475 (5.6)	14 (3.1)	449 (17.0)	0 (0.0)	--
Bahrain	47 (2.8)	465 (4.2)	44 (2.9)	433 (3.3)	8 (1.7)	426 (8.6)	1 (0.7)	--
Belgium (Flemish)	2 (1.1)	--	19 (3.2)	522 (5.2)	28 (4.2)	524 (4.1)	50 (4.2)	528 (3.6)
Belgium (French)	3 (1.2)	523 (16.8)	23 (3.9)	506 (5.4)	38 (4.6)	496 (3.9)	36 (4.0)	494 (4.7)
Bulgaria	33 (3.3)	572 (4.2)	31 (3.8)	548 (8.4)	16 (3.0)	540 (14.5)	20 (3.3)	531 (9.5)
Canada	51 (2.6)	547 (2.5)	46 (2.5)	540 (2.8)	2 (0.9)	--	1 (0.6)	--
Chile	18 (2.6)	514 (6.0)	58 (4.2)	492 (4.3)	22 (4.2)	481 (6.2)	3 (1.5)	508 (13.4)
Chinese Taipei	93 (2.1)	560 (2.0)	7 (2.1)	549 (10.0)	0 (0.3)	--	0 (0.0)	--
Czech Republic	7 (2.2)	551 (5.0)	56 (4.3)	541 (3.0)	13 (2.8)	541 (5.5)	24 (3.6)	547 (4.1)
Denmark	59 (3.5)	550 (2.8)	33 (4.0)	546 (4.6)	2 (1.0)	--	6 (2.0)	545 (8.6)
Egypt	15 (2.9)	358 (14.4)	56 (4.7)	338 (7.8)	22 (3.5)	307 (16.1)	7 (2.3)	316 (16.7)
England	18 (3.2)	565 (5.7)	62 (3.7)	558 (2.6)	13 (2.4)	556 (5.8)	8 (2.2)	562 (7.1)
Finland	3 (1.5)	573 (16.0)	40 (4.3)	567 (3.0)	26 (3.8)	562 (4.5)	30 (3.4)	568 (3.3)
France	4 (1.8)	485 (8.4)	39 (4.2)	512 (4.1)	31 (4.3)	507 (5.0)	25 (3.6)	523 (4.4)
Georgia	42 (3.2)	490 (3.5)	47 (3.7)	488 (4.7)	10 (2.2)	491 (9.3)	1 (0.7)	--
Germany	0 (0.0)	--	45 (3.6)	542 (3.3)	27 (3.5)	526 (10.3)	28 (3.3)	537 (7.1)
Hong Kong SAR	91 (2.3)	569 (3.1)	9 (2.2)	570 (8.6)	1 (0.7)	--	0 (0.0)	--
Hungary	50 (4.0)	563 (4.1)	34 (4.0)	550 (7.1)	1 (0.9)	--	16 (3.1)	537 (8.2)
Iran, Islamic Rep. of	1 (0.7)	--	31 (3.2)	471 (4.9)	43 (4.0)	417 (7.9)	24 (3.5)	387 (10.0)
Ireland	9 (2.6)	564 (6.8)	48 (4.5)	565 (3.2)	6 (2.2)	570 (5.8)	36 (4.5)	569 (5.8)
Israel	4 (1.7)	550 (24.6)	48 (4.3)	533 (5.0)	30 (4.0)	528 (7.7)	17 (3.2)	520 (10.6)
Italy	4 (1.8)	559 (9.7)	46 (4.1)	551 (3.4)	33 (4.3)	548 (4.1)	17 (3.4)	540 (6.9)
Kazakhstan	71 (3.9)	537 (3.1)	24 (3.9)	534 (5.6)	4 (1.6)	533 (11.1)	1 (0.6)	--
Kuwait	14 (3.4)	426 (16.6)	52 (6.1)	396 (8.4)	34 (5.5)	383 (9.8)	0 (0.0)	--
Latvia	55 (4.0)	562 (2.2)	36 (4.3)	558 (3.8)	8 (2.2)	531 (8.4)	1 (0.8)	--
Lithuania	46 (3.6)	548 (3.3)	45 (3.8)	549 (4.6)	8 (2.1)	548 (16.4)	1 (1.0)	--
Macao SAR	87 (0.1)	544 (1.1)	12 (0.1)	542 (2.7)	0 (0.0)	--	1 (0.0)	--
Malta	16 (0.1)	446 (3.5)	62 (0.1)	454 (2.0)	7 (0.1)	443 (7.0)	15 (0.1)	456 (3.3)
Morocco	0 (0.0)	--	9 (2.0)	404 (12.5)	28 (3.0)	389 (9.6)	63 (3.0)	337 (5.1)
Netherlands	2 (1.5)	--	48 (5.0)	543 (2.8)	24 (4.5)	542 (4.3)	26 (4.6)	553 (3.5)
New Zealand	44 (3.5)	528 (4.7)	51 (3.5)	527 (4.2)	3 (1.4)	498 (30.8)	1 (0.9)	--
Northern Ireland	3 (1.7)	561 (6.4)	59 (5.0)	562 (4.0)	12 (3.1)	571 (9.3)	26 (4.6)	571 (6.1)
Norway	25 (4.1)	560 (4.0)	63 (4.7)	560 (2.9)	7 (2.0)	553 (9.4)	4 (1.8)	549 (17.0)
Oman	21 (2.1)	426 (6.9)	63 (3.0)	419 (4.0)	10 (2.1)	407 (13.8)	5 (1.5)	417 (11.0)
Poland	73 (3.7)	565 (2.2)	22 (3.5)	563 (6.6)	1 (0.7)	--	4 (1.7)	589 (10.3)
Portugal	47 (4.1)	528 (2.9)	40 (3.8)	525 (3.8)	11 (1.4)	536 (6.8)	2 (1.6)	--
Qatar	58 (0.4)	443 (2.6)	33 (0.4)	446 (3.3)	7 (0.1)	426 (4.3)	2 (0.1)	--
Russian Federation	65 (3.5)	586 (3.2)	32 (3.7)	575 (4.6)	3 (1.0)	537 (13.0)	0 (0.2)	--
Saudi Arabia	1 (0.6)	--	17 (2.5)	404 (11.2)	51 (3.7)	438 (5.4)	31 (3.3)	431 (9.2)
Singapore	71 (0.0)	582 (3.6)	29 (0.0)	562 (6.6)	0 (0.0)	--	0 (0.0)	--
Slovak Republic	11 (2.7)	533 (15.6)	60 (3.8)	536 (3.7)	16 (2.4)	539 (8.4)	14 (2.9)	525 (14.0)
Slovenia	68 (3.7)	541 (1.6)	22 (3.7)	550 (4.5)	9 (2.2)	534 (14.3)	0 (0.1)	--
South Africa	6 (2.1)	393 (32.6)	12 (2.3)	375 (17.0)	20 (3.3)	320 (11.8)	62 (3.6)	301 (5.1)
Spain	17 (2.1)	540 (3.0)	67 (2.9)	528 (1.6)	13 (1.9)	518 (8.6)	4 (1.4)	505 (8.1)
Sweden	29 (4.1)	558 (4.7)	57 (4.6)	556 (3.0)	8 (2.7)	543 (10.1)	6 (1.8)	545 (10.3)
Trinidad and Tobago	2 (1.2)	--	32 (4.0)	480 (7.5)	45 (4.9)	492 (6.1)	21 (3.7)	472 (10.2)
United Arab Emirates	48 (2.0)	485 (5.5)	39 (2.3)	421 (4.7)	12 (1.7)	411 (10.6)	1 (0.4)	--
United States	52 (4.0)	556 (5.0)	43 (3.9)	543 (4.6)	3 (1.5)	561 (15.1)	3 (1.3)	515 (14.8)
International Avg.	32 (0.4)	525 (1.4)	40 (0.5)	512 (0.8)	15 (0.4)	494 (1.7)	13 (0.3)	501 (1.6)

**Table 4.6:** Size of school library, clustered by school type

		School Type			
		State	Church	Independent	
Size of School Library	More than 5,000 Book Titles	Count	4	6	2
		Percentage	6.5%	24.0%	25.0%
	501-5,000 Book Titles	Count	33	16	4
		Percentage	53.2%	64.0%	50.0%
	500 Book Titles or Fewer	Count	7	1	1
		Percentage	11.3%	4.0%	12.5%
	No School Library	Count	18	2	1
		Percentage	29.0%	8.0%	12.5%

## 4.7 Computers available for instruction in schools

The school student to computer ratio is computed by dividing the school enrolment of Year 5 students by the number of computers/tablets available for use by these students. Table 4.7 shows that almost all Maltese schools have computers available for instruction. 86.9% of State schools, 80% of Church schools and all Independent schools have one computer for 1-5 students. Figure 4.10 shows the number of computers that are available in schools for instruction purposes. Heads of Maltese schools report that 18% of students have a computer available for 1 to 2 students, which is substantially below the international average (51%). Denmark (90%) tops the list, followed by United States (89%), Singapore (87%), England (86%), Canada (85%), Australia (84%), Czech Republic (84%) and Sweden (84%). Malta has the largest percentage of schools (67%) that have one computer for 3-5 students. 14% of Maltese schools reported having one computer for at least 6 students. The results show that those students attending schools with no computers have lower achievement than the students attending schools with computer availability. The relationship between the reading scores of pupils and the number of computers available is very weak.

**Table 4.7:** Computers available for instruction in Maltese schools, clustered by school type

		School Type			
		State	Church	Independent	
Ratio of Students to Computers	1-2 Students per Computer	Count	7	10	4
		Percentage	11.5%	40.0%	57.1%
	3-5 Students per Computer	Count	46	10	3
		Percentage	75.4%	40.0%	42.9%
	6 or More Students per Computer	Count	8	4	0
		Percentage	13.1%	16.0%	0.0%
	No Computers Available	Count	0	1	0
		Percentage	0.0%	4.0%	0.0%

Figure 4.10: Schools with computers available for instruction

Country	1–2 Students per Computer		3–5 Students per Computer		6 or More Students per Computer		No Computers Available	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	84 (2.9)	545 (3.1)	13 (2.6)	544 (7.6)	3 (1.3)	539 (4.5)	0 (0.0)	--
Austria	18 (3.2)	541 (4.4)	22 (3.8)	550 (4.5)	58 (3.8)	536 (3.4)	1 (0.7)	--
Azerbaijan	22 (3.4)	461 (8.1)	35 (4.6)	469 (7.6)	31 (3.8)	496 (4.4)	12 (2.9)	422 (19.5)
Bahrain	42 (3.1)	451 (3.9)	34 (2.6)	431 (4.2)	24 (2.0)	460 (7.2)	0 (0.2)	--
Belgium (Flemish)	51 (3.6)	529 (2.5)	36 (3.9)	527 (4.1)	12 (2.9)	506 (6.7)	0 (0.0)	--
Belgium (French)	34 (3.9)	496 (4.5)	36 (4.8)	500 (4.4)	16 (3.3)	506 (9.4)	15 (3.2)	489 (7.6)
Bulgaria	39 (3.4)	529 (6.4)	37 (3.7)	568 (6.4)	21 (3.2)	551 (11.8)	4 (1.6)	574 (10.2)
Canada	85 (1.7)	543 (2.1)	13 (1.5)	548 (4.3)	2 (0.7)	--	0 (0.0)	--
Chile	74 (4.1)	489 (3.3)	20 (4.1)	508 (7.3)	5 (1.7)	494 (13.3)	1 (0.9)	--
Chinese Taipei	38 (3.2)	554 (3.7)	39 (3.7)	560 (3.0)	21 (3.0)	565 (3.1)	1 (1.0)	--
Czech Republic	84 (3.1)	541 (2.4)	12 (2.8)	550 (4.7)	3 (1.3)	566 (9.1)	1 (0.8)	--
Denmark	90 (2.5)	548 (2.3)	8 (2.1)	554 (10.7)	2 (1.3)	--	1 (0.5)	--
Egypt	3 (1.5)	294 (72.8)	6 (2.1)	421 (17.3)	85 (3.3)	322 (6.4)	7 (2.5)	355 (28.7)
England	86 (2.3)	559 (2.2)	10 (1.7)	561 (6.9)	4 (1.5)	564 (11.0)	0 (0.5)	--
Finland	75 (3.5)	566 (2.1)	17 (2.9)	565 (4.8)	8 (2.4)	567 (7.5)	0 (0.0)	--
France	40 (4.2)	514 (4.4)	41 (4.3)	512 (3.7)	13 (2.7)	502 (5.6)	6 (1.9)	508 (7.7)
Georgia	83 (3.1)	488 (3.2)	11 (2.7)	483 (8.3)	5 (1.8)	521 (9.6)	1 (0.7)	--
Germany	35 (3.7)	535 (5.5)	38 (4.0)	541 (3.7)	26 (3.3)	537 (10.1)	1 (0.7)	--
Hong Kong SAR	77 (4.2)	569 (3.5)	20 (4.1)	571 (5.3)	2 (1.2)	--	1 (0.8)	--
Hungary	46 (3.7)	535 (4.9)	26 (3.6)	572 (5.7)	17 (3.1)	569 (6.8)	11 (3.0)	561 (9.9)
Iran, Islamic Rep. of	1 (0.7)	--	3 (1.1)	385 (86.8)	44 (3.9)	445 (5.9)	52 (3.8)	416 (6.3)
Ireland	57 (4.6)	569 (3.1)	19 (3.6)	561 (6.7)	24 (4.2)	565 (5.9)	0 (0.0)	--
Israel	40 (3.8)	535 (6.2)	41 (4.1)	536 (6.5)	14 (2.9)	515 (13.0)	6 (2.1)	506 (21.3)
Italy	20 (3.2)	554 (5.4)	37 (4.1)	548 (4.2)	39 (3.8)	545 (3.5)	4 (1.7)	554 (8.7)
Kazakhstan	39 (3.7)	537 (4.1)	19 (3.3)	530 (6.3)	33 (3.7)	540 (5.6)	9 (2.5)	518 (10.1)
Kuwait	34 (5.1)	386 (11.7)	35 (4.0)	382 (7.1)	26 (4.8)	397 (9.8)	6 (3.0)	434 (39.2)
Latvia	49 (3.6)	546 (2.6)	29 (4.6)	569 (3.4)	20 (3.4)	566 (5.0)	3 (1.5)	573 (18.1)
Lithuania	47 (3.7)	540 (4.6)	25 (3.5)	548 (4.9)	26 (3.8)	560 (4.8)	2 (1.2)	--
Macao SAR	82 (0.1)	547 (1.2)	14 (0.1)	526 (3.5)	0 (0.0)	--	4 (0.0)	582 (2.9)
Malta	18 (0.1)	452 (3.7)	67 (0.1)	451 (2.1)	14 (0.1)	455 (3.1)	1 (0.0)	--
Morocco	5 (1.3)	458 (16.8)	6 (1.3)	422 (14.5)	22 (3.1)	374 (10.0)	67 (2.9)	339 (5.1)
Netherlands	65 (4.7)	547 (2.6)	17 (3.6)	544 (8.2)	17 (3.5)	543 (5.7)	1 (0.8)	--
New Zealand	78 (3.7)	524 (3.4)	20 (3.4)	531 (5.8)	2 (1.2)	--	0 (0.0)	--
Northern Ireland	82 (4.5)	562 (3.1)	10 (3.4)	574 (12.8)	8 (3.6)	582 (7.9)	0 (0.0)	--
Norway	79 (3.6)	558 (2.6)	16 (3.5)	565 (5.7)	4 (1.6)	555 (8.1)	1 (0.7)	--
Oman	25 (2.2)	422 (8.9)	20 (2.5)	420 (5.6)	50 (2.9)	425 (4.5)	5 (1.5)	399 (6.5)
Poland	68 (3.9)	563 (3.0)	26 (3.7)	571 (3.5)	6 (2.0)	581 (11.0)	0 (0.0)	--
Portugal	11 (1.9)	532 (6.4)	31 (4.2)	532 (3.2)	55 (4.1)	523 (3.8)	3 (1.3)	552 (7.7)
Qatar	52 (0.4)	431 (2.4)	24 (0.3)	445 (4.9)	23 (0.4)	479 (4.3)	0 (0.0)	--
Russian Federation	48 (3.3)	582 (4.3)	31 (2.7)	586 (4.0)	19 (2.8)	571 (5.7)	2 (0.9)	--
Saudi Arabia	12 (2.3)	435 (11.1)	10 (2.6)	430 (13.8)	45 (3.3)	423 (6.8)	33 (3.4)	448 (7.9)
Singapore	87 (0.0)	578 (3.4)	11 (0.0)	558 (11.7)	2 (0.0)	--	0 (0.0)	--
Slovak Republic	88 (3.0)	535 (3.3)	10 (2.7)	539 (17.9)	2 (1.3)	--	0 (0.1)	--
Slovenia	63 (4.2)	541 (2.6)	29 (3.8)	546 (3.6)	7 (2.6)	537 (6.6)	1 (0.8)	--
South Africa	11 (3.1)	365 (28.7)	19 (2.9)	375 (14.3)	13 (2.6)	306 (17.1)	57 (4.3)	305 (6.0)
Spain	59 (3.0)	525 (2.5)	26 (2.9)	532 (3.0)	11 (1.8)	525 (5.4)	4 (1.4)	528 (8.8)
Sweden	84 (3.6)	555 (3.0)	13 (3.4)	554 (5.6)	3 (1.5)	544 (10.5)	0 (0.0)	--
Trinidad and Tobago	10 (2.4)	491 (10.3)	25 (4.0)	491 (9.0)	20 (3.6)	507 (8.9)	46 (4.1)	470 (6.1)
United Arab Emirates	38 (2.1)	452 (5.3)	35 (2.5)	436 (6.1)	27 (2.3)	471 (7.2)	1 (0.0)	--
United States	89 (2.7)	551 (3.0)	9 (2.5)	538 (15.4)	2 (1.1)	--	0 (0.0)	--
International Avg.	51 (0.5)	514 (1.8)	23 (0.5)	515 (2.1)	19 (0.4)	508 (1.2)	7 (0.2)	477 (3.3)

## 5

# The School Climate

## 5.1 Introduction

A positive school climate is an essential condition for a good learning environment, where safety is guaranteed, teachers' and parents' perceptions of the school are high and students enjoy their time at school. In several studies, it has also been found that the climate in a school relates strongly with achievement. This chapter describes the views of heads of school and teachers regarding a number of school related aspects. It highlights the heads' and teachers' perspectives regarding emphasis on academic success; the parents' perceptions of their child's school, the importance given to reading and strategies in the early stages of primary schooling, teachers' job satisfaction and students' sense of belonging. A scale score is generated for five of these aspects which will be used to identify differences between participating countries and between school types for the local context.

## 5.2 Parents' perceptions of their child's school

The school climate plays a critical role in the academic development of the student learner and parents strongly influence that climate. It is essential that parents' impressions about the school as a learning environment are outstanding and their expectations and beliefs are high. This exceptional parents' perception of their child's school is equally critical for a good school climate.

**Table 5.1:** Maltese parents' perceptions of their child's school

What do you think of your child's school?	Agree a lot	Agree a little	Disagree a little	Disagree a lot
My child's school does a good job including me in my child's education	93.3%	5.8%	0.5%	0.4%
My child's school provides a safe environment	84.6%	13.0%	1.8%	0.5%
My child's school cares about my child's progress in school	88.2%	10.3%	1.2%	0.3%
My child's school does a good job informing me of his/her progress	92.9%	6.1%	0.8%	0.2%
My child's school promotes high academic standards	75.1%	21.8%	2.3%	0.8%
My child's school does a good job in helping him/her become better in reading	84.8%	12.0%	2.1%	1.0%

Figure 5.1: Parents' perceptions of their child's school

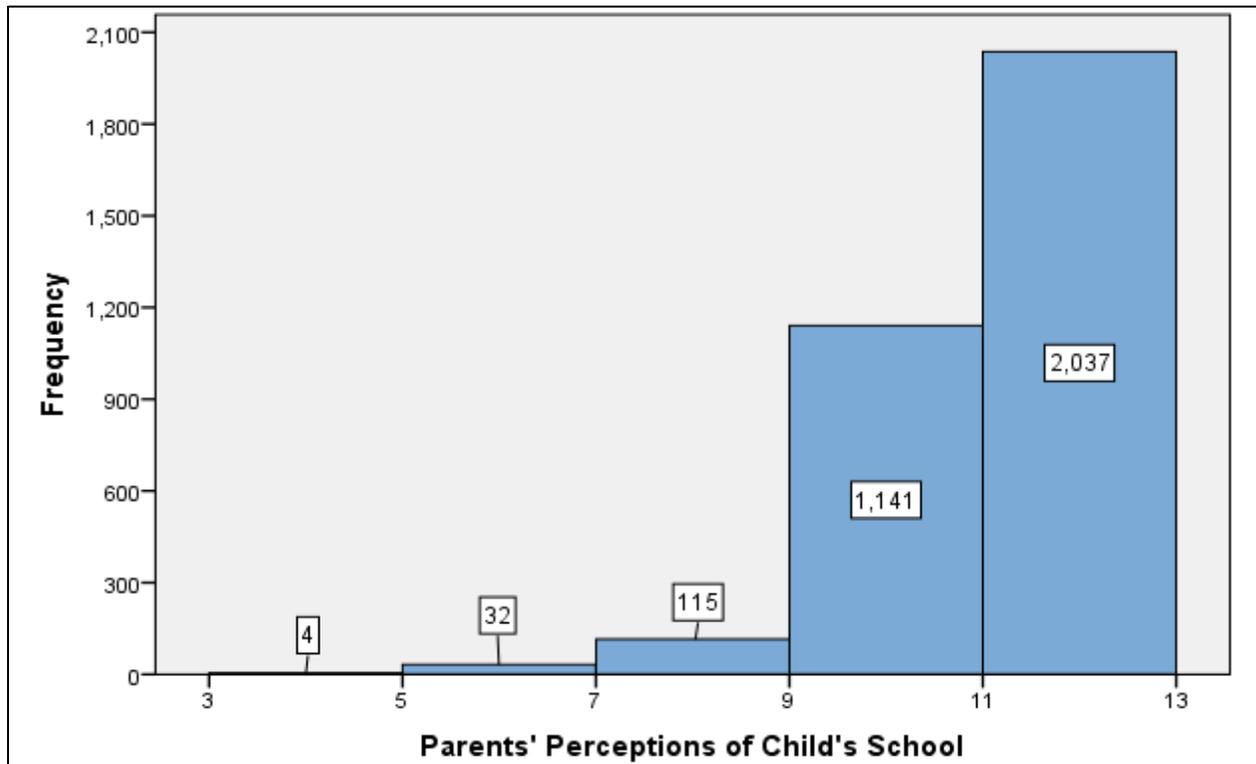
Country	Very Satisfied		Somewhat Satisfied		Less than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Malta	92 (0.6)	460 (1.7)	7 (0.5)	444 (6.1)	1 (0.1)	--	11.4 (0.02)
Kazakhstan	91 (0.6)	536 (2.5)	8 (0.6)	543 (4.9)	1 (0.1)	--	11.4 (0.04)
Georgia	88 (1.0)	491 (2.9)	11 (0.9)	484 (5.2)	1 (0.2)	--	11.2 (0.05)
South Africa	82 (1.0)	337 (5.4)	15 (0.9)	304 (7.5)	2 (0.3)	--	11.0 (0.05)
Ireland	82 (1.0)	572 (2.5)	16 (0.9)	568 (4.4)	2 (0.3)	--	10.9 (0.05)
Trinidad and Tobago	80 (1.3)	491 (3.6)	16 (1.1)	469 (6.0)	3 (0.4)	447 (12.3)	10.8 (0.06)
Azerbaijan	79 (1.3)	477 (3.7)	19 (1.1)	462 (7.7)	3 (0.4)	439 (14.5)	10.6 (0.06)
Saudi Arabia	78 (1.1)	439 (4.2)	19 (0.9)	411 (6.3)	4 (0.4)	402 (9.2)	10.6 (0.05)
Oman	76 (0.9)	426 (3.3)	21 (0.7)	407 (4.6)	3 (0.3)	360 (9.2)	10.5 (0.04)
Portugal	76 (1.0)	530 (2.7)	21 (0.9)	526 (2.8)	3 (0.3)	523 (8.3)	10.5 (0.05)
Bulgaria	76 (1.3)	551 (4.4)	21 (1.1)	562 (5.7)	3 (0.4)	556 (16.1)	10.5 (0.06)
Egypt	74 (1.8)	336 (6.2)	21 (1.5)	314 (7.7)	5 (0.6)	325 (12.7)	10.4 (0.09)
Spain	73 (1.1)	531 (1.6)	23 (0.9)	527 (3.7)	4 (0.3)	530 (5.4)	10.4 (0.05)
Macao SAR	71 (0.7)	550 (1.3)	26 (0.7)	536 (2.0)	3 (0.3)	519 (6.1)	10.3 (0.03)
Iran, Islamic Rep. of	71 (1.0)	426 (3.9)	25 (0.8)	435 (6.0)	4 (0.4)	427 (9.7)	10.1 (0.05)
Qatar	71 (0.8)	459 (2.0)	24 (0.8)	438 (4.2)	5 (0.3)	404 (6.8)	10.3 (0.03)
Chile	70 (1.5)	497 (2.8)	24 (1.1)	496 (3.7)	6 (0.6)	488 (10.1)	10.2 (0.08)
Lithuania	67 (1.4)	550 (3.2)	29 (1.2)	550 (3.4)	4 (0.4)	538 (7.0)	10.0 (0.05)
Slovak Republic	67 (1.3)	533 (3.9)	29 (1.0)	544 (4.9)	4 (0.5)	533 (9.4)	10.1 (0.06)
Israel	66 (1.2)	529 (2.8)	27 (0.9)	547 (4.0)	8 (0.7)	550 (6.0)	10.0 (0.06)
Italy	66 (1.2)	552 (2.5)	30 (1.0)	551 (3.0)	4 (0.4)	536 (5.7)	10.0 (0.05)
Morocco	65 (1.6)	376 (4.0)	28 (1.4)	337 (4.8)	6 (0.7)	310 (9.4)	9.8 (0.07)
Hong Kong SAR	65 (1.2)	573 (2.7)	31 (1.0)	563 (3.5)	4 (0.4)	545 (8.1)	10.1 (0.05)
Bahrain	65 (1.2)	461 (2.6)	30 (0.9)	430 (3.3)	5 (0.4)	397 (7.3)	10.0 (0.05)
Singapore	64 (0.7)	582 (3.2)	33 (0.7)	572 (3.4)	4 (0.3)	565 (6.4)	10.0 (0.03)
Canada	63 (0.8)	550 (1.9)	32 (0.7)	551 (2.4)	5 (0.4)	536 (7.2)	10.0 (0.04)
Russian Federation	63 (1.1)	580 (2.6)	34 (0.9)	583 (2.5)	4 (0.4)	574 (6.2)	10.0 (0.05)
United Arab Emirates	62 (0.7)	469 (3.7)	32 (0.6)	436 (3.6)	6 (0.3)	412 (6.0)	10.0 (0.03)
Norway	61 (1.4)	563 (2.5)	34 (1.2)	557 (2.6)	4 (0.4)	538 (7.0)	9.9 (0.07)
Kuwait	61 (1.1)	408 (4.3)	30 (1.0)	394 (5.3)	9 (0.6)	367 (8.5)	9.7 (0.06)
Austria	60 (1.3)	541 (2.9)	33 (1.1)	547 (3.0)	7 (0.6)	538 (3.8)	9.8 (0.06)
Netherlands	58 (2.2)	556 (2.9)	36 (1.9)	548 (2.9)	6 (0.6)	543 (5.8)	9.5 (0.08)
Hungary	57 (1.2)	555 (3.3)	36 (1.0)	556 (3.3)	7 (0.6)	560 (5.8)	9.7 (0.06)
Finland	55 (1.2)	569 (2.2)	42 (1.1)	570 (2.4)	4 (0.4)	560 (6.0)	9.5 (0.04)
Poland	54 (1.3)	562 (2.3)	42 (1.2)	570 (3.2)	4 (0.4)	564 (7.1)	9.7 (0.05)
Belgium (Flemish)	52 (1.0)	525 (2.3)	43 (0.9)	532 (2.1)	5 (0.4)	521 (4.8)	9.5 (0.04)
Denmark	51 (1.6)	553 (3.0)	36 (1.2)	550 (2.7)	13 (1.0)	537 (4.6)	9.2 (0.08)
Chinese Taipei	51 (1.1)	557 (2.9)	42 (1.0)	561 (2.2)	7 (0.4)	567 (3.7)	9.4 (0.04)
Latvia	51 (1.5)	557 (2.4)	42 (1.2)	562 (2.3)	7 (0.6)	552 (4.6)	9.4 (0.07)
Germany	48 (1.3)	551 (3.3)	41 (1.1)	549 (3.8)	11 (0.9)	526 (6.5)	9.2 (0.06)
Belgium (French)	47 (1.2)	498 (3.1)	44 (1.0)	504 (2.9)	9 (0.7)	488 (5.0)	9.2 (0.06)
Sweden	45 (1.5)	562 (3.1)	45 (1.1)	560 (2.6)	10 (0.8)	544 (5.3)	9.1 (0.08)
France	43 (1.1)	513 (2.5)	50 (1.0)	516 (2.8)	8 (0.5)	509 (6.8)	9.1 (0.05)
Czech Republic	40 (1.3)	538 (3.0)	49 (1.1)	549 (2.2)	10 (0.6)	552 (4.1)	8.9 (0.05)
Slovenia	32 (1.1)	536 (2.9)	60 (1.0)	549 (2.4)	7 (0.6)	546 (7.5)	8.7 (0.05)
Northern Ireland	86 (1.2)	589 (3.5)	13 (1.1)	583 (6.7)	2 (0.4)	--	11.2 (0.06)
New Zealand	71 (1.2)	545 (3.1)	24 (0.9)	536 (4.5)	5 (0.6)	539 (8.1)	10.3 (0.06)
Australia	64 (1.3)	565 (3.3)	30 (1.2)	563 (3.6)	6 (0.6)	553 (10.9)	10.0 (0.06)
International Avg.	65 (0.2)	515 (0.5)	30 (0.1)	509 (0.6)	5 (0.1)	500 (1.2)	

To measure parents' perception of their child's school, a scale score was generated by considering the six parents' perceptions displayed in Tables 5.1. Students whose parents are very satisfied had a score on the scale of at least 9.5, which corresponds to their parents 'agreeing a lot' with three of the six statements and 'agreeing a little' with the other three, on average. Students whose parents are less satisfied had a score less than 6.3, which corresponds to their parents 'disagreeing a little' with three of the six statements and 'agreeing a little' with the other three, on average. All other students had parents who were somewhat satisfied.

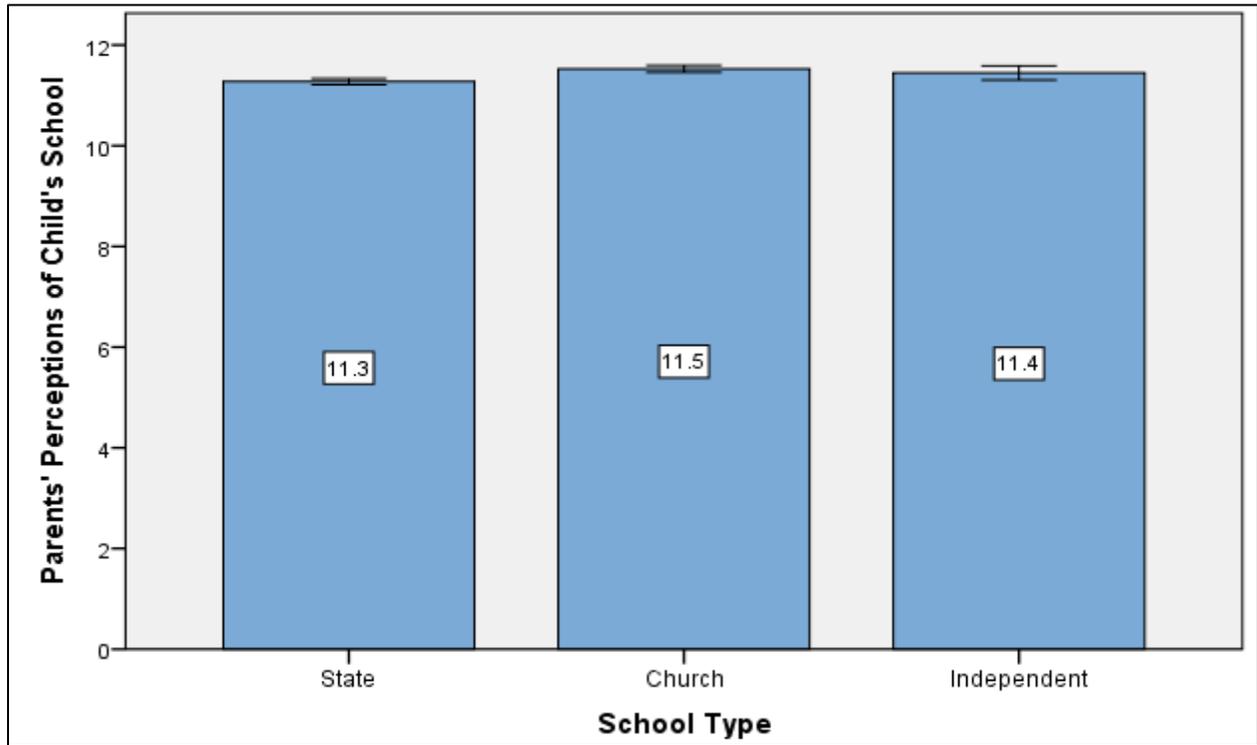
Figure 5.1 shows that 92% of Maltese parents are very satisfied with their child's school. Besides being well above the international average (65%), it was the highest percentage across all participating countries. Only 1% of Maltese parents were less satisfied with their child's school and the remaining 7% of parents were somewhat satisfied. Malta (11.4), Kazakhstan (11.4), Georgia (11.2), Northern Ireland (11.2) and South Africa (11.0) have the highest mean scale scores indicating that parents' perceptions of their child's school are very positive in these countries. Slovenia (8.7), Czech Republic (8.9), Sweden (9.1) and France (9.1) have the lowest mean scale scores.

Figure 5.2 displays the score distribution of Maltese parents' perceptions of their child's school. Figure 5.3 shows that the mean scale score of parents' perception of Church schools is marginally larger than the mean scale scores of State and Independent schools; however all scale scores are significantly above the international average. Figure 5.4 shows that reading attainment is positively related to parents' perception about their child's school and this applies for all school types. This implies that parents' good impression about the school enhances the learning environment.

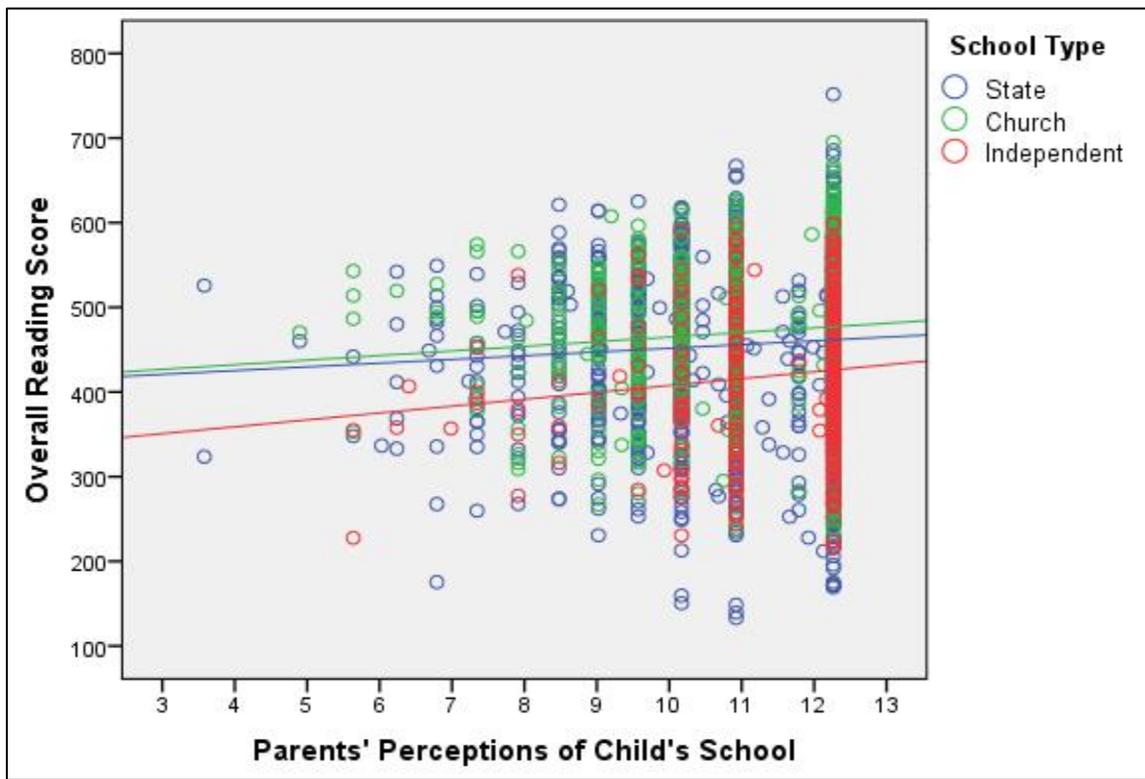
**Figure 5.2:** Score distribution of Maltese parents' perceptions of their child's school



**Figure 5.3:** Mean scale scores of parents' perceptions of their child's school, clustered by school type



**Figure 5.4:** Relationship between reading scores and parents' perception of school, by school type



### 5.3 Heads' of school perspectives regarding emphasis on academic success

The success of a school can also be attributable to the school's emphasis on academic success, or the school's expectation of academic excellence. The PIRLS 2011 school effectiveness study has shown an association between academic achievement and the school emphasis on academic success, a construct based on literature about academic optimism. Indicators of school emphasis on academic success include school administrators' and teachers' expectations for successful curriculum implementation and student achievement, parental support for student achievement, and the students' desire to achieve.

Collective efficacy among the school's teachers and general trust that faculty members have for parents and students are additional attributes of a well-functioning school. Schools that encourage and welcome parental involvement are more likely to have highly involved parents than schools that do not make an effort to keep parents informed and participating. High levels of parental involvement can improve student achievement, as well as students' overall attitude toward school. In effective schools, the head of school and teachers collaborate to ensure that the curriculum is appropriately implemented in the classrooms.

**Table 5.2:** Responses of heads of Maltese schools regarding the school emphasis on academic success

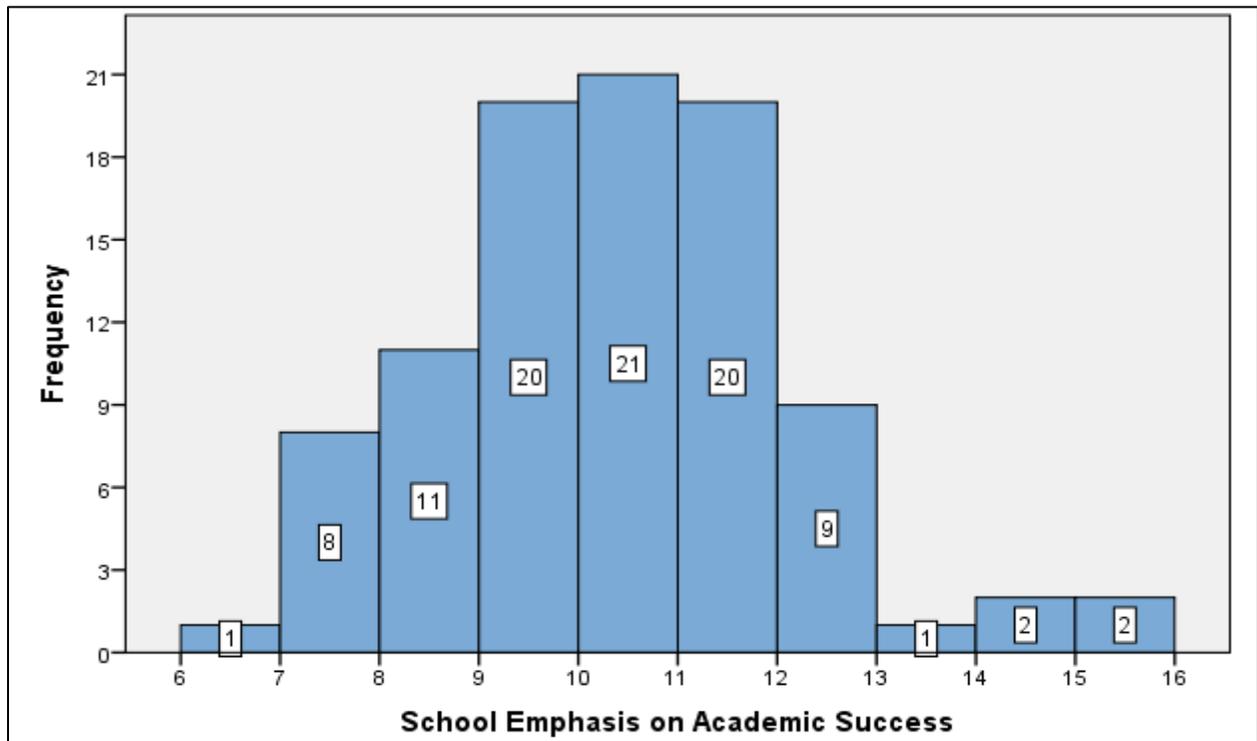
How would you characterize each of the following within your school?	Very high	High	Medium	Low	Very low
Teachers' understanding of the school's curriculum goals	25.5%	57.4%	16.0%	1.1%	0.0%
Teachers' degree of success in implementing the school's curriculum	18.1%	58.5%	23.4%	0.0%	0.0%
Teachers' expectations for student achievement	27.7%	55.3%	16.0%	1.1%	0.0%
Teachers' ability to inspire students	19.4%	55.9%	22.6%	2.2%	0.0%
Collaboration between school leadership and teachers to plan instruction	27.7%	54.3%	16.0%	1.1%	1.1%
Parental involvement in school activities	17.9%	38.9%	35.8%	6.3%	1.1%
Parental commitment to ensure that students are ready to learn	10.5%	46.3%	36.8%	5.3%	1.1%
Parental expectations for student achievement	23.2%	49.5%	25.3%	1.1%	1.1%
Parental support for student achievement	9.5%	40.0%	45.3%	32.2%	2.1%
Students' desire to do well in school	11.6%	51.6%	32.6%	3.2%	1.1%
Students' ability to reach school's academic goals	4.2%	42.1%	48.4%	4.2%	1.1%
Students' respect for classmates who excel academically	12.6%	47.4%	40.0%	0.0%	0.0%

To measure the school emphasis on academic success using the heads of school evaluations, a scale score was generated by considering twelve aspects of the school emphasis on academic success scale, displayed in Table 5.2. Students in schools where their heads of school reported a very high emphasis on academic success had a score on the scale of at least 12.9, which corresponds to their heads of school characterizing six of the twelve aspects as 'very high' and the other six as 'high', on average. Students in schools with a medium emphasis on academic success had a score less than 9.2, which correspond to their heads of school characterizing six of the twelve aspects as 'medium' and the other six as 'high', on average. All other students attended schools with a high emphasis on academic success. Figure 5.5 displays the responses of heads of schools across all participating countries regarding their school emphasis on academic success

**Figure 5.5:** Responses of heads of school regarding the school emphasis on academic success

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
United Arab Emirates	28 (1.9)	504 (7.3)	50 (2.5)	437 (4.2)	22 (1.8)	412 (6.8)	11.3 (0.07)
Qatar	25 (0.3)	468 (2.4)	62 (0.3)	439 (2.6)	13 (0.2)	405 (3.9)	11.6 (0.01)
England	24 (3.3)	572 (4.4)	62 (4.1)	559 (3.0)	15 (2.5)	535 (4.9)	11.3 (0.15)
Northern Ireland	23 (3.7)	571 (5.3)	67 (4.8)	565 (3.5)	9 (3.1)	547 (12.4)	11.7 (0.17)
Ireland	23 (3.0)	580 (3.6)	66 (4.0)	569 (2.9)	12 (2.9)	527 (5.9)	11.4 (0.17)
Bahrain	19 (1.7)	488 (5.1)	55 (2.8)	447 (3.1)	26 (2.5)	414 (5.5)	10.8 (0.11)
New Zealand	17 (3.1)	547 (5.1)	66 (3.9)	528 (3.2)	17 (2.8)	491 (9.5)	11.2 (0.14)
Saudi Arabia	16 (2.7)	468 (8.9)	54 (3.9)	438 (5.9)	30 (3.2)	397 (8.6)	10.5 (0.17)
Sweden	15 (3.5)	571 (5.1)	47 (4.1)	561 (3.8)	38 (4.0)	541 (3.2)	10.3 (0.20)
Australia	14 (2.3)	567 (6.0)	49 (3.8)	556 (3.8)	36 (2.9)	519 (4.4)	10.4 (0.15)
Oman	14 (1.9)	444 (9.6)	69 (2.6)	421 (3.7)	17 (2.1)	388 (8.5)	10.9 (0.10)
Iran, Islamic Rep. of	13 (2.7)	458 (11.4)	58 (3.8)	435 (4.6)	29 (3.3)	400 (10.8)	10.4 (0.18)
Singapore	12 (0.0)	615 (8.8)	59 (0.0)	576 (3.7)	30 (0.0)	560 (6.7)	10.4 (0.00)
Kuwait	11 (2.3)	433 (12.7)	54 (3.7)	409 (6.2)	35 (3.3)	359 (6.5)	10.2 (0.16)
United States	11 (1.9)	574 (8.4)	52 (4.2)	555 (4.4)	36 (4.1)	533 (5.1)	10.1 (0.17)
Kazakhstan	11 (2.4)	537 (8.8)	76 (3.2)	538 (3.0)	14 (2.7)	524 (8.2)	11.0 (0.14)
Israel	10 (2.5)	536 (12.6)	70 (3.9)	538 (4.0)	20 (3.5)	499 (9.5)	10.6 (0.14)
Malta	9 (0.1)	462 (5.1)	61 (0.1)	453 (2.1)	30 (0.1)	447 (2.6)	10.4 (0.01)
Lithuania	8 (2.2)	584 (3.8)	70 (3.7)	552 (3.1)	21 (3.1)	522 (6.7)	10.5 (0.12)
Chinese Taipei	8 (2.1)	575 (5.7)	69 (4.0)	561 (2.1)	24 (3.4)	546 (4.5)	10.6 (0.14)
Canada	8 (1.0)	564 (4.8)	63 (2.9)	551 (2.5)	30 (2.7)	523 (3.1)	10.3 (0.09)
Austria	7 (1.9)	569 (6.1)	66 (3.9)	547 (2.5)	28 (3.8)	519 (5.1)	10.3 (0.12)
Denmark	6 (1.8)	568 (6.2)	50 (3.6)	551 (3.2)	43 (3.7)	539 (3.2)	9.8 (0.13)
Spain	6 (1.1)	557 (4.8)	61 (2.6)	531 (1.6)	33 (2.2)	516 (3.8)	10.1 (0.08)
Poland	6 (2.0)	583 (15.0)	58 (4.2)	570 (2.6)	36 (3.7)	554 (3.9)	9.9 (0.12)
South Africa	5 (1.8)	396 (26.6)	37 (3.7)	311 (8.4)	58 (3.7)	319 (6.0)	9.2 (0.17)
Egypt	5 (1.7)	378 (9.7)	50 (4.2)	344 (10.0)	45 (4.2)	310 (8.1)	9.5 (0.18)
Finland	4 (1.7)	592 (8.2)	69 (4.2)	566 (2.4)	26 (3.9)	562 (4.4)	10.2 (0.13)
France	4 (1.7)	523 (12.3)	61 (4.0)	513 (3.0)	35 (3.5)	508 (4.9)	10.0 (0.13)
Bulgaria	4 (1.7)	596 (11.7)	49 (4.3)	572 (4.3)	47 (4.1)	526 (6.4)	9.5 (0.14)
Azerbaijan	4 (1.7)	461 (36.1)	48 (4.0)	481 (7.0)	48 (4.1)	464 (5.5)	9.5 (0.15)
Hungary	3 (1.6)	621 (6.7)	44 (3.9)	564 (5.1)	53 (3.6)	540 (3.9)	9.2 (0.11)
Latvia	3 (1.4)	548 (11.9)	64 (4.1)	565 (2.3)	33 (4.0)	546 (3.3)	10.0 (0.11)
Portugal	3 (1.3)	562 (6.9)	48 (3.8)	534 (3.8)	49 (3.6)	520 (3.3)	9.3 (0.10)
Chile	3 (1.2)	529 (17.0)	26 (3.9)	515 (6.1)	71 (3.9)	485 (3.3)	8.0 (0.19)
Slovenia	2 (1.6)	--	44 (4.5)	547 (3.7)	53 (4.5)	538 (2.4)	9.4 (0.13)
Italy	2 (0.8)	--	39 (3.9)	552 (3.5)	58 (3.8)	547 (3.0)	9.1 (0.11)
Russian Federation	2 (1.0)	--	48 (3.8)	594 (3.8)	49 (3.6)	568 (3.9)	9.5 (0.10)
Hong Kong SAR	2 (1.2)	--	56 (4.0)	571 (3.7)	42 (3.9)	566 (4.7)	9.6 (0.11)
Morocco	2 (1.0)	--	17 (1.9)	429 (7.0)	81 (2.0)	341 (4.3)	8.0 (0.11)
Trinidad and Tobago	2 (1.4)	--	32 (3.9)	513 (5.4)	66 (3.9)	469 (4.2)	8.7 (0.15)
Norway	2 (1.1)	--	56 (4.5)	566 (2.8)	42 (4.4)	548 (3.2)	9.6 (0.14)
Georgia	2 (1.0)	--	46 (3.6)	492 (4.6)	52 (3.6)	485 (3.5)	9.4 (0.11)
Netherlands	2 (1.2)	--	46 (4.6)	552 (2.9)	52 (4.6)	540 (2.7)	9.3 (0.12)
Belgium (Flemish)	2 (0.9)	--	62 (3.8)	532 (2.5)	36 (3.7)	515 (3.7)	9.7 (0.11)
Germany	2 (1.1)	--	62 (3.5)	552 (3.0)	37 (3.3)	509 (7.9)	9.7 (0.09)
Belgium (French)	1 (0.8)	--	51 (4.3)	512 (3.1)	48 (4.1)	483 (3.9)	9.3 (0.11)
Czech Republic	1 (0.9)	--	35 (3.8)	550 (3.2)	64 (3.9)	540 (2.7)	8.9 (0.12)
Slovak Republic	1 (0.7)	--	33 (3.7)	556 (4.4)	66 (3.8)	524 (4.7)	8.9 (0.09)
Macao SAR	0 (0.0)	--	63 (0.1)	553 (1.3)	37 (0.1)	533 (1.6)	9.6 (0.00)
International Avg.	8 (0.3)	531 (1.9)	54 (0.5)	518 (0.6)	38 (0.5)	494 (0.8)	

**Figure 5.6:** Score distribution of school emphasis on academic success (heads of school)



**Figure 5.7:** Mean scale score of school emphasis on academic success by school type (heads of school)

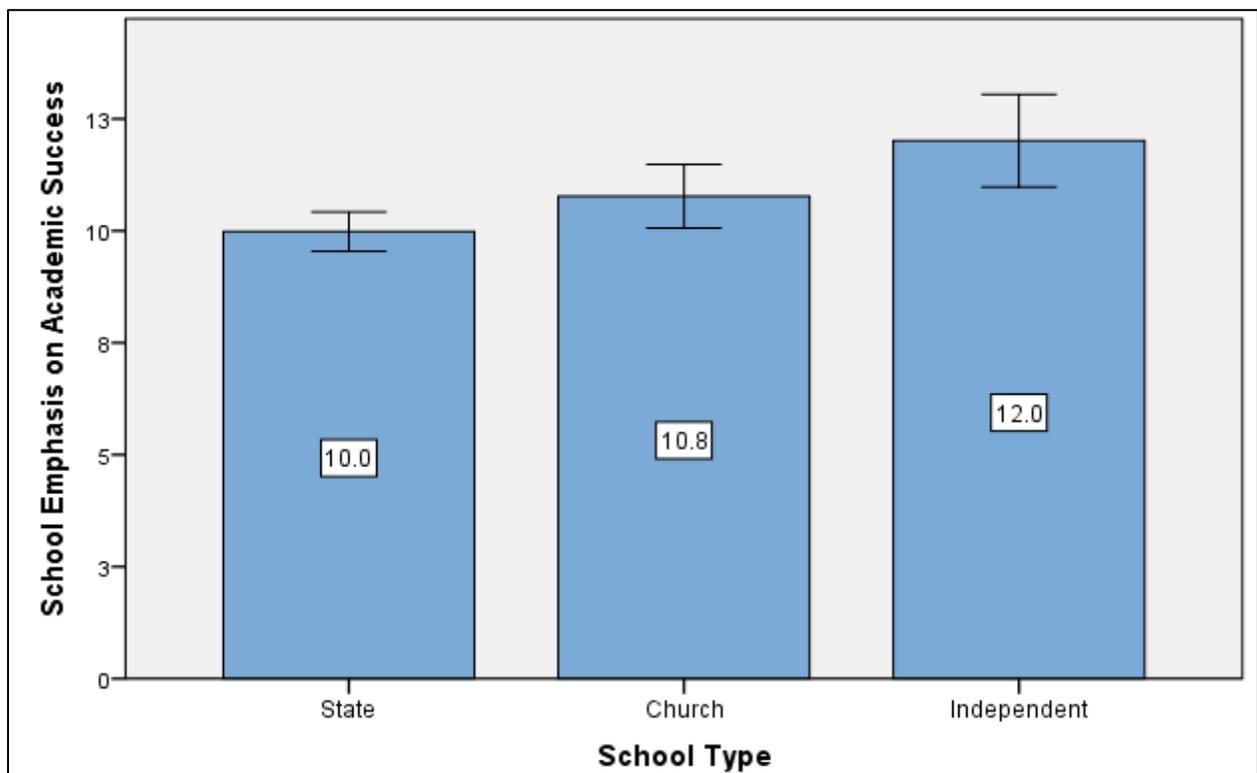


Figure 5.5 shows that according to heads of school, 9% of Maltese schools put very high emphasis on academic success, 61% put high emphasis and 30% put medium emphasis on academic success. The corresponding international averages (8%, 54% and 38%) indicate that Maltese schools tend to put higher emphasis on academic success than most of the other participating countries. Northern Ireland (11.7), Qatar (11.6), Ireland (11.4), United Arab Emirates (11.3) and England (11.3) have the highest mean scale scores indicating that, according to heads of school, these countries put more emphasis on academic success than other countries. Chile (8.0), Morocco (8.0), Trinidad and Tobago (8.7), Czech Republic (8.9) and Slovak Republic (8.9) have the lowest mean scale scores. Malta's mean scale score (10.4) is significantly higher than the international average.

Figure 5.6 displays the score distribution of school emphasis on academic success, according to Maltese heads of school. Figure 5.7 shows that according to heads of school, school emphasis on academic success is highest in Independent schools and lowest in State schools, where the mean scale scores vary significantly between school types.

## 5.4 Teachers' perspectives regarding emphasis on academic success

Research also has found that teacher collaboration can increase student learning. Teachers who discuss their work with colleagues and collaborate in planning and implementing lessons usually feel less isolated and are less likely to leave teaching. The collective education of a school's teachers also can be essential to its academic success. From as early as first grade, research has linked the collective teacher education in a school to student achievement, suggesting that collaboration among teachers with strong educational backgrounds can create an emphasis on academic success within the school and facilitate the implementation of the curriculum. In addition to testing and value-added models, research has found that classroom observations and student surveys can provide important information about the effectiveness of teaching practices.

A similar scale was used to measure the school emphasis on academic success using teachers' evaluations. The scale score was generated by considering the same twelve aspects on the school emphasis on academic success scale, displayed in Tables 5.3.

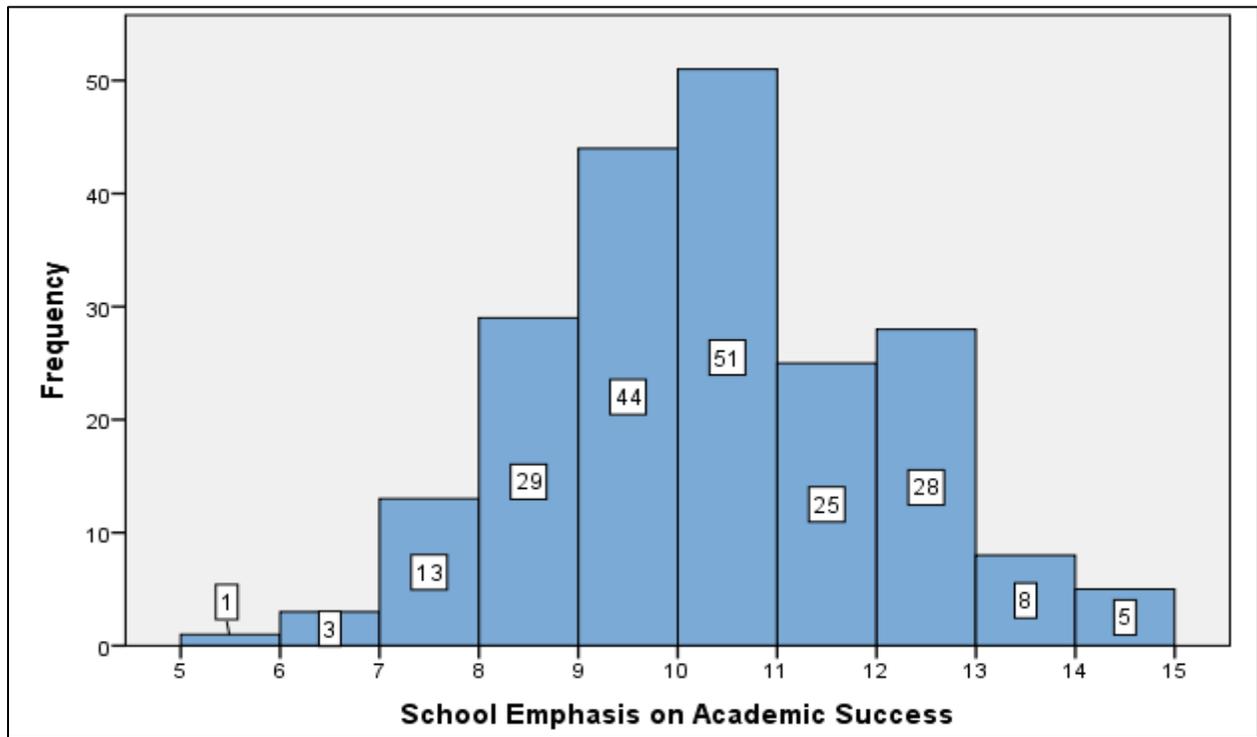
**Table 5.3:** Responses of Maltese teachers regarding the school emphasis on academic success

How would you characterize each of the following within your school?	Very high	High	Medium	Low	Very low
Teachers' understanding of the school's curriculum goals	40.6%	52.7%	5.8%	1.0%	0.0%
Teachers' success in implementing the school's curriculum	34.8%	53.6%	11.1%	0.5%	0.0%
Teachers' expectations for student achievement	36.7%	54.6%	8.2%	0.5%	0.0%
Teachers' ability to inspire students	35.7%	54.1%	9.7%	0.5%	0.0%
Collaboration of heads of school with teachers to plan instruction	30.0%	31.9%	30.4%	5.8%	1.9%
Parental involvement in school activities	13.2%	41.5%	38.0%	3.9%	3.4%
Parental commitment to ensure that students are ready to learn	10.2%	33.7%	41.0%	9.8%	5.4%
Parental expectations for student achievement	22.0%	44.4%	26.8%	6.3%	0.5%
Parental support for student achievement	5.4%	35.8%	44.1%	9.8%	4.9%
Students' desire to do well in school	9.3%	42.4%	43.9%	2.4%	2.0%
Students' ability to reach school's academic goals	5.4%	44.4%	46.3%	3.9%	0.0%
Students' respect for classmates who excel academically	11.7%	45.4%	37.6%	3.9%	1.5%

Figure 5.8: Responses of teachers regarding the school emphasis on academic success

Country	Very High Emphasis		High Emphasis		Medium Emphasis		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Oman	26 (2.6)	441 (6.3)	60 (3.2)	411 (4.1)	14 (2.1)	407 (8.5)	11.4 (0.14)
United Arab Emirates	24 (2.1)	485 (7.8)	59 (2.6)	452 (4.6)	17 (1.7)	409 (6.2)	11.3 (0.10)
Qatar	23 (2.2)	459 (7.9)	63 (2.4)	438 (3.6)	14 (1.6)	435 (9.7)	11.5 (0.12)
Bahrain	22 (2.0)	482 (5.8)	53 (2.8)	445 (3.4)	25 (2.5)	417 (7.1)	10.9 (0.16)
Kazakhstan	21 (2.8)	535 (7.1)	74 (3.1)	536 (3.2)	5 (1.4)	547 (14.3)	11.6 (0.12)
England	19 (2.6)	568 (4.4)	62 (3.7)	559 (2.6)	18 (3.1)	548 (4.7)	11.0 (0.14)
Northern Ireland	19 (3.1)	579 (5.6)	68 (3.9)	561 (3.0)	14 (3.0)	556 (8.2)	11.4 (0.15)
Ireland	16 (2.7)	579 (6.7)	67 (3.5)	571 (2.9)	17 (2.6)	539 (6.1)	11.0 (0.16)
South Africa	15 (2.6)	324 (10.3)	42 (3.7)	326 (8.9)	43 (3.8)	313 (8.5)	10.1 (0.20)
Saudi Arabia	15 (2.5)	451 (10.8)	53 (3.9)	442 (5.8)	32 (3.7)	403 (8.9)	10.3 (0.17)
Australia	15 (2.1)	584 (6.7)	59 (3.1)	546 (3.0)	27 (2.7)	523 (4.4)	10.6 (0.14)
Israel	14 (3.2)	540 (12.9)	66 (3.6)	533 (3.9)	20 (3.0)	515 (10.3)	10.7 (0.17)
New Zealand	13 (2.3)	545 (6.9)	65 (2.8)	532 (3.0)	23 (2.5)	501 (5.7)	10.7 (0.13)
Kuwait	12 (3.4)	407 (21.0)	61 (4.4)	400 (6.0)	27 (3.7)	377 (10.2)	10.5 (0.22)
Spain	10 (1.8)	544 (4.1)	62 (3.6)	531 (2.3)	28 (3.3)	516 (3.5)	10.5 (0.10)
Iran, Islamic Rep. of	9 (2.7)	440 (14.6)	56 (4.1)	436 (6.4)	34 (3.8)	412 (8.8)	10.1 (0.18)
Egypt	9 (2.6)	397 (18.0)	44 (4.4)	341 (8.2)	47 (4.5)	308 (8.4)	9.7 (0.19)
United States	9 (2.2)	562 (7.1)	58 (3.5)	563 (3.3)	33 (3.3)	524 (5.4)	10.0 (0.16)
Azerbaijan	9 (1.8)	476 (12.0)	67 (3.3)	478 (5.2)	24 (3.2)	456 (8.3)	10.4 (0.12)
Austria	9 (2.1)	563 (4.9)	63 (3.5)	546 (2.4)	28 (3.1)	523 (4.8)	10.3 (0.13)
Malta	8 (0.1)	451 (4.9)	63 (0.1)	461 (1.9)	29 (0.1)	433 (2.9)	10.4 (0.00)
Canada	8 (1.3)	556 (6.6)	56 (2.4)	549 (2.2)	36 (2.4)	532 (3.5)	10.2 (0.10)
Sweden	7 (2.3)	567 (8.8)	55 (4.2)	560 (3.1)	38 (3.9)	547 (3.4)	10.0 (0.14)
Georgia	7 (2.0)	511 (12.0)	70 (3.3)	490 (3.1)	23 (3.1)	480 (7.4)	10.4 (0.14)
Poland	6 (2.1)	568 (11.4)	53 (3.9)	568 (3.1)	41 (4.1)	559 (3.9)	9.8 (0.16)
Portugal	5 (1.5)	547 (5.4)	53 (3.7)	534 (3.4)	41 (3.4)	518 (3.0)	9.7 (0.11)
Trinidad and Tobago	5 (2.0)	499 (27.2)	36 (3.6)	502 (6.9)	59 (3.6)	465 (5.1)	8.9 (0.18)
Singapore	5 (1.3)	610 (16.3)	49 (2.7)	588 (4.4)	46 (2.7)	560 (4.4)	9.6 (0.09)
Lithuania	5 (1.4)	574 (8.3)	78 (3.2)	552 (2.7)	17 (2.8)	524 (8.3)	10.5 (0.09)
Latvia	4 (1.8)	564 (7.4)	66 (3.7)	562 (2.4)	30 (3.7)	549 (3.6)	10.0 (0.12)
Bulgaria	4 (1.3)	577 (11.3)	61 (3.6)	569 (4.3)	35 (3.5)	519 (8.9)	9.9 (0.12)
France	4 (1.6)	537 (10.3)	51 (3.4)	518 (2.9)	44 (3.2)	502 (4.0)	9.6 (0.11)
Denmark	4 (1.9)	564 (11.4)	54 (3.6)	553 (3.1)	42 (3.5)	540 (3.0)	9.7 (0.12)
Italy	3 (1.4)	556 (12.6)	55 (3.7)	551 (3.3)	42 (3.4)	546 (3.1)	9.6 (0.12)
Hong Kong SAR	3 (0.9)	578 (11.4)	50 (3.6)	572 (4.1)	47 (3.5)	564 (4.3)	9.3 (0.10)
Hungary	3 (1.1)	587 (20.4)	49 (4.1)	570 (3.5)	49 (4.2)	536 (5.2)	9.3 (0.13)
Chinese Taipei	3 (0.8)	556 (7.3)	57 (3.9)	562 (2.6)	40 (4.0)	556 (3.1)	9.7 (0.11)
Slovak Republic	3 (0.9)	567 (12.2)	48 (2.6)	550 (3.2)	49 (2.6)	518 (5.6)	9.4 (0.10)
Morocco	3 (1.0)	422 (19.0)	23 (2.2)	412 (6.9)	74 (2.2)	338 (4.6)	8.2 (0.11)
Finland	2 (0.8)	~ ~	66 (2.8)	570 (2.0)	32 (2.9)	558 (3.7)	9.9 (0.10)
Chile	2 (1.0)	~ ~	11 (2.3)	491 (6.6)	87 (2.5)	496 (3.2)	7.6 (0.14)
Germany	2 (1.0)	~ ~	54 (3.5)	555 (2.7)	44 (3.3)	512 (6.6)	9.4 (0.09)
Netherlands	2 (1.2)	~ ~	50 (3.5)	550 (2.4)	48 (3.6)	539 (2.6)	9.5 (0.10)
Czech Republic	2 (0.8)	~ ~	38 (3.2)	551 (2.9)	60 (3.2)	538 (2.8)	9.1 (0.11)
Macao SAR	1 (0.0)	~ ~	49 (0.1)	554 (1.5)	50 (0.1)	537 (1.4)	9.5 (0.00)
Belgium (Flemish)	1 (0.6)	~ ~	53 (3.9)	532 (2.3)	46 (3.9)	517 (3.1)	9.4 (0.10)
Russian Federation	1 (0.7)	~ ~	53 (3.2)	592 (2.7)	46 (3.3)	567 (3.7)	9.5 (0.10)
Belgium (French)	1 (0.6)	~ ~	49 (3.8)	511 (2.9)	51 (3.7)	485 (3.8)	9.2 (0.12)
Norway	1 (0.6)	~ ~	58 (3.6)	563 (2.7)	41 (3.7)	551 (3.4)	9.6 (0.11)
Slovenia	1 (0.4)	~ ~	43 (3.4)	546 (3.2)	56 (3.5)	540 (2.2)	9.1 (0.10)
International Avg.	8 (0.3)	522 (1.9)	55 (0.5)	518 (0.6)	37 (0.4)	497 (0.9)	

**Figure 5.9:** Score distribution of school emphasis on academic success (teachers)



**Figure 5.10:** Mean scale score of school emphasis on academic success by school type (teachers)

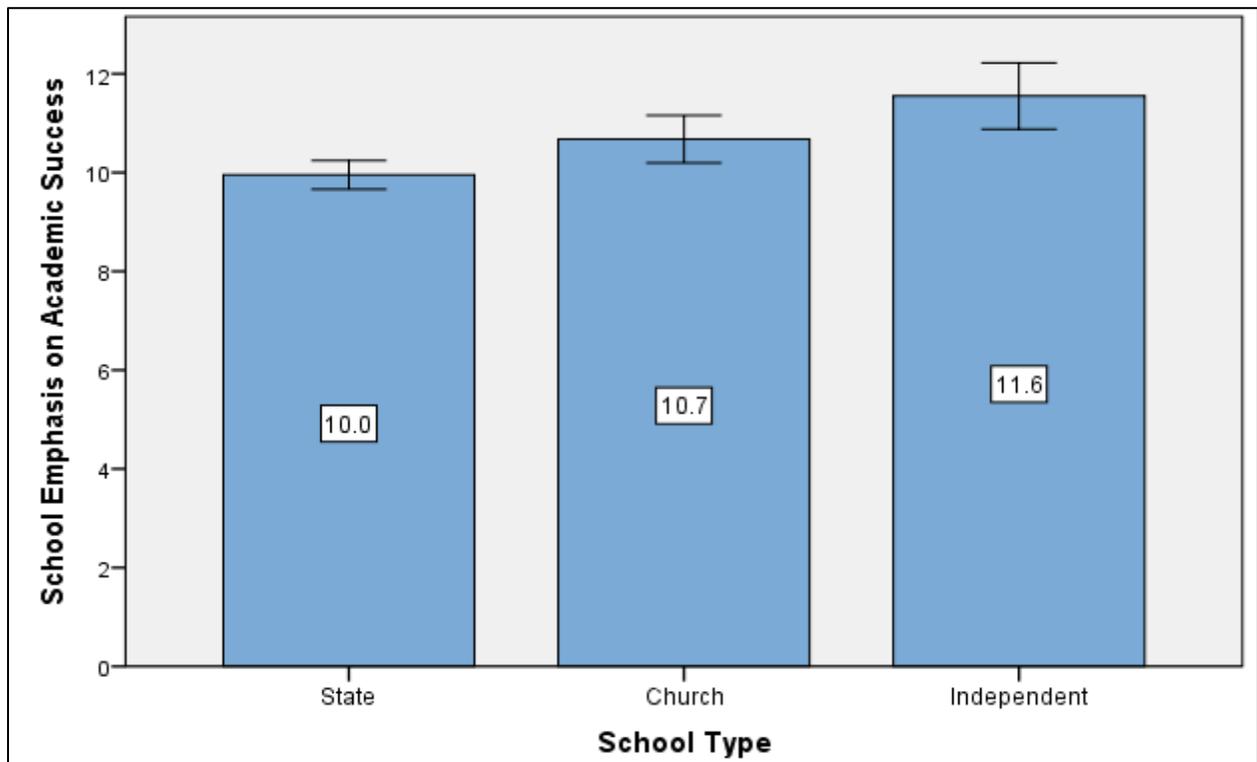


Figure 5.8 shows that according to teachers, 8% of Maltese schools put very high emphasis on academic success, 63% put high emphasis and 29% put medium emphasis on academic success, which implies that teachers and heads of school have similar views regarding this issue. The corresponding international averages (8%, 55% and 37%) indicate that Maltese schools tend to put higher emphasis on academic success than most of the other participating countries. Kazakhstan (11.6), Qatar (11.5), Ireland (11.4), Northern Ireland (11.4) Oman (11.4) and United Arab Emirates (11.3) have the highest mean scale scores indicating that, according to teachers, these countries put more emphasis on academic success than other countries. Chile (7.6), Morocco (8.2), Trinidad and Tobago (8.9), Czech Republic (9.1) and Slovak Republic (9.1) have the lowest mean scale scores. Malta's mean scale score (10.4) is significantly higher than the international average.

Figure 5.9 displays the score distribution of school emphasis on academic success, according to Maltese teachers. Figure 5.10 shows that according to teachers, school emphasis on academic success is highest in Independent schools and lowest in State schools, where the mean scale scores vary significantly between school types.

## 5.5 Teachers' Job Satisfaction

PIRLS 2011 results showed higher achievement for schools that provide good working conditions for teachers. A manageable workload, adequate facilities, and the availability of instructional materials are important ingredients to fostering productive working conditions and promoting teacher satisfaction. In addition, a positive school environment can lead to greater job satisfaction and teacher self-efficacy, which in turn can increase student learning. Schools can support teachers and increase retention by providing competitive salaries, a reasonable number of teaching hours, adequate workspace, and good equipment.

While the physical conditions of the school are important, the social conditions of the school can be essential to retaining teachers and fostering student achievement. Important social factors in a school include a positive school culture, collaboration among teaching staff, and the leadership of the head of school. The transition from university to a school teaching position can be difficult. Consequently, in many countries a large percentage of new teachers leave the profession after only a few years of teaching. The extent to which schools take an active role in the acculturation and transition of new teachers may be important for maintaining a stable teaching force. Mentoring programmes, modeling of good teacher practice by peers, and induction programmes designed by experienced teachers within the school may be important aids to the beginning teacher.

**Table 5.4:** Responses of Maltese teachers regarding their job satisfaction

How often do you feel the following way about being a teacher?	Very often	Often	Sometimes	Never or rarely
I am content with my profession as a teacher	60.5%	31.2%	7.8%	0.5%
I find my work full of meaning and purpose	57.1%	35.1%	7.8%	0.0%
I am enthusiastic about my job	62.0%	32.7%	5.4%	0.0%
My work inspires me	58.0%	34.6%	6.3%	1.0%
I am proud of the work I do	74.6%	22.4%	2.4%	0.5%

Figure 5.11: Teachers' job satisfaction across participating countries

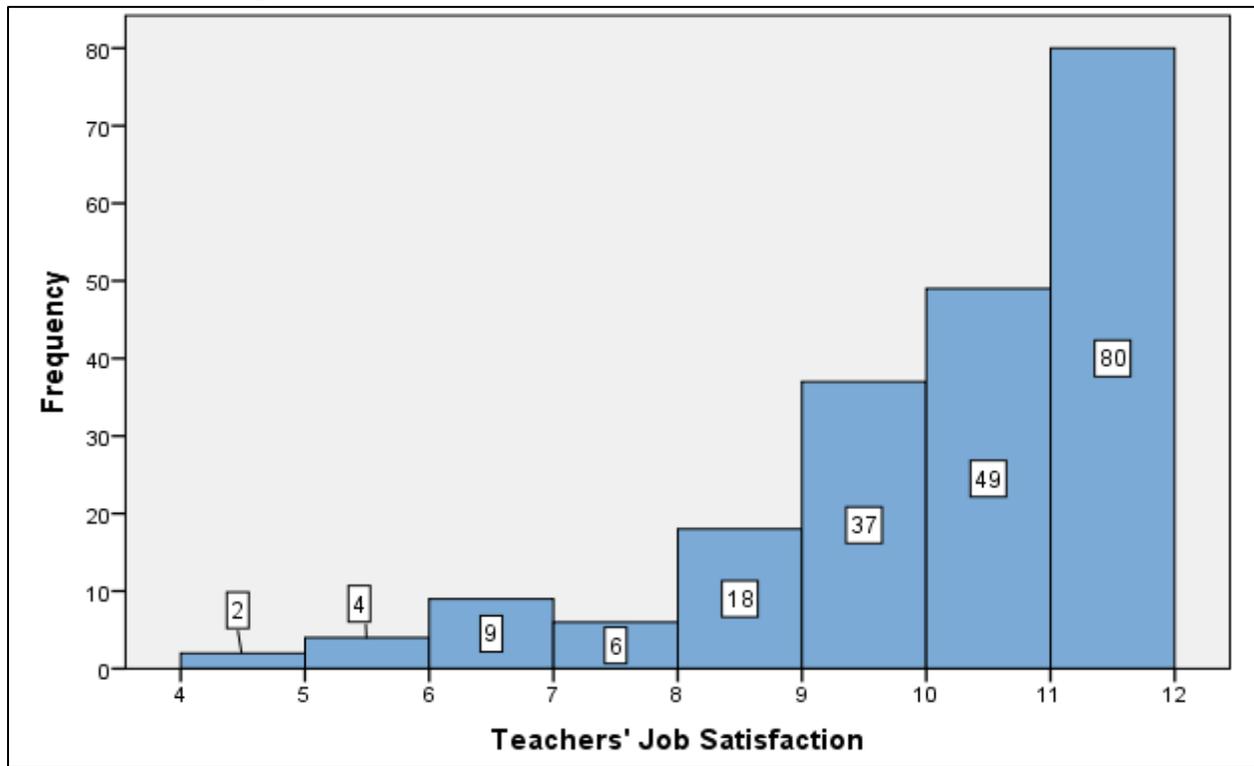
Country	Very Satisfied		Somewhat Satisfied		Less than Satisfied		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Iran, Islamic Rep. of	88 (2.3)	428 (4.1)	10 (2.2)	427 (14.7)	2 (0.9)	~ ~	11.2 (0.08)
Saudi Arabia	87 (2.3)	436 (4.8)	11 (2.4)	391 (10.2)	2 (1.1)	~ ~	11.3 (0.08)
Oman	86 (2.0)	419 (3.5)	14 (2.0)	415 (10.4)	0 (0.4)	~ ~	11.3 (0.07)
Chile	84 (3.3)	497 (3.4)	16 (3.3)	497 (10.2)	0 (0.0)	~ ~	11.3 (0.11)
Kuwait	82 (4.6)	390 (5.4)	16 (4.5)	408 (13.7)	2 (1.1)	~ ~	11.1 (0.13)
Qatar	82 (1.9)	440 (2.3)	17 (2.0)	453 (10.9)	1 (0.6)	~ ~	11.1 (0.07)
Egypt	81 (3.0)	329 (6.7)	18 (3.1)	335 (15.2)	0 (0.4)	~ ~	11.1 (0.09)
United Arab Emirates	79 (2.0)	450 (3.8)	19 (2.0)	464 (7.3)	2 (0.6)	~ ~	11.0 (0.07)
Azerbaijan	79 (3.0)	475 (4.8)	21 (3.0)	464 (9.2)	0 (0.4)	~ ~	10.9 (0.09)
Bahrain	75 (3.2)	448 (2.9)	24 (3.1)	442 (6.7)	1 (0.8)	~ ~	10.9 (0.12)
Spain	73 (3.0)	529 (2.4)	25 (3.1)	524 (3.4)	2 (0.9)	~ ~	10.7 (0.08)
Morocco	73 (3.1)	367 (4.9)	24 (3.3)	333 (7.9)	3 (0.9)	339 (15.7)	10.7 (0.10)
Israel	72 (3.7)	527 (3.9)	25 (3.6)	543 (8.7)	3 (1.3)	496 (46.4)	10.7 (0.14)
Georgia	72 (3.1)	492 (3.4)	28 (3.1)	484 (5.4)	0 (0.3)	~ ~	10.8 (0.09)
Kazakhstan	68 (3.1)	538 (3.1)	31 (3.2)	532 (4.8)	1 (1.0)	~ ~	10.7 (0.10)
South Africa	65 (3.3)	325 (6.1)	28 (3.7)	297 (7.9)	7 (2.1)	376 (20.4)	10.2 (0.13)
Malta	64 (0.1)	458 (2.2)	31 (0.1)	441 (2.9)	5 (0.1)	453 (6.5)	10.3 (0.00)
Northern Ireland	62 (4.7)	564 (3.4)	31 (4.2)	567 (4.0)	7 (2.5)	548 (9.0)	10.2 (0.20)
Ireland	60 (3.6)	570 (3.8)	36 (3.5)	561 (3.9)	4 (1.3)	561 (8.9)	10.1 (0.16)
Austria	59 (3.9)	542 (2.8)	40 (3.8)	540 (3.7)	1 (0.6)	~ ~	10.3 (0.13)
Australia	58 (3.6)	546 (3.6)	39 (3.6)	545 (4.3)	2 (0.8)	~ ~	10.3 (0.13)
Italy	58 (3.4)	549 (3.1)	38 (3.4)	547 (3.8)	3 (1.6)	559 (11.2)	10.2 (0.13)
United States	57 (4.1)	554 (3.8)	37 (3.9)	547 (5.8)	6 (1.8)	522 (9.2)	10.1 (0.15)
New Zealand	57 (2.6)	531 (3.0)	40 (2.6)	521 (4.4)	4 (1.0)	527 (15.8)	10.1 (0.11)
Canada	56 (2.4)	542 (2.4)	40 (2.3)	545 (2.6)	4 (1.0)	542 (8.4)	10.2 (0.09)
Belgium (Flemish)	53 (3.5)	526 (2.9)	44 (3.3)	524 (2.8)	3 (1.2)	532 (13.9)	10.0 (0.13)
Trinidad and Tobago	52 (3.9)	485 (5.7)	37 (4.0)	472 (6.1)	11 (2.7)	481 (15.2)	9.7 (0.17)
England	51 (3.7)	558 (3.4)	42 (3.8)	559 (2.8)	7 (2.0)	563 (7.1)	9.8 (0.14)
Belgium (French)	51 (3.3)	503 (3.5)	40 (3.4)	494 (4.3)	9 (2.3)	484 (10.2)	9.6 (0.16)
Portugal	49 (3.7)	531 (2.8)	41 (3.8)	526 (4.9)	10 (2.1)	523 (4.2)	9.4 (0.14)
Hungary	48 (3.9)	556 (4.7)	49 (3.6)	553 (4.5)	3 (1.6)	537 (13.0)	9.6 (0.16)
Chinese Taipei	47 (3.8)	558 (3.0)	40 (3.7)	558 (3.0)	12 (2.3)	563 (4.9)	9.4 (0.17)
Russian Federation	47 (3.4)	582 (3.5)	52 (3.4)	579 (3.7)	2 (0.9)	~ ~	9.7 (0.12)
Macao SAR	45 (0.1)	553 (1.5)	46 (0.1)	537 (1.6)	9 (0.1)	551 (3.3)	9.4 (0.00)
Slovak Republic	45 (3.7)	534 (4.6)	45 (3.7)	536 (4.6)	11 (2.5)	531 (11.3)	9.4 (0.15)
Netherlands	44 (4.0)	542 (3.3)	53 (4.0)	549 (2.2)	3 (1.1)	528 (11.9)	9.7 (0.13)
Latvia	44 (3.6)	564 (2.2)	54 (3.7)	554 (2.7)	2 (1.1)	~ ~	9.7 (0.13)
Poland	43 (4.1)	563 (3.8)	44 (3.7)	566 (2.9)	12 (2.9)	564 (6.0)	9.4 (0.20)
Denmark	43 (3.6)	548 (3.5)	45 (3.9)	546 (3.3)	11 (2.5)	551 (5.1)	9.3 (0.15)
Norway	42 (4.1)	560 (3.3)	53 (3.9)	560 (2.6)	4 (1.2)	544 (19.4)	9.6 (0.15)
Lithuania	42 (3.7)	555 (3.7)	51 (4.1)	546 (4.1)	7 (2.1)	527 (17.4)	9.7 (0.13)
Sweden	41 (4.3)	554 (4.0)	52 (4.6)	557 (3.3)	6 (2.1)	549 (9.4)	9.5 (0.16)
Finland	41 (3.5)	565 (2.6)	49 (3.2)	567 (2.6)	11 (1.8)	568 (4.4)	9.4 (0.15)
Bulgaria	40 (3.8)	557 (6.2)	52 (3.6)	548 (6.5)	8 (2.2)	543 (12.4)	9.3 (0.16)
Singapore	40 (2.4)	576 (6.2)	46 (2.7)	573 (4.5)	14 (1.9)	587 (6.6)	9.3 (0.12)
Slovenia	38 (3.4)	544 (2.4)	53 (3.4)	539 (2.9)	9 (2.0)	550 (8.6)	9.4 (0.15)
Germany	38 (3.6)	544 (4.8)	53 (4.0)	533 (5.4)	10 (2.3)	524 (10.0)	9.2 (0.14)
Hong Kong SAR	34 (4.2)	568 (5.9)	47 (4.2)	572 (3.5)	19 (2.9)	561 (6.4)	8.8 (0.20)
Czech Republic	33 (3.8)	545 (3.1)	53 (3.8)	543 (2.8)	13 (2.3)	540 (8.4)	8.9 (0.17)
France	26 (2.8)	513 (4.4)	62 (3.3)	511 (2.8)	12 (2.2)	506 (6.6)	8.7 (0.12)
International Avg.	57 (0.5)	513 (0.6)	37 (0.5)	508 (0.9)	6 (0.2)	525 (2.3)	

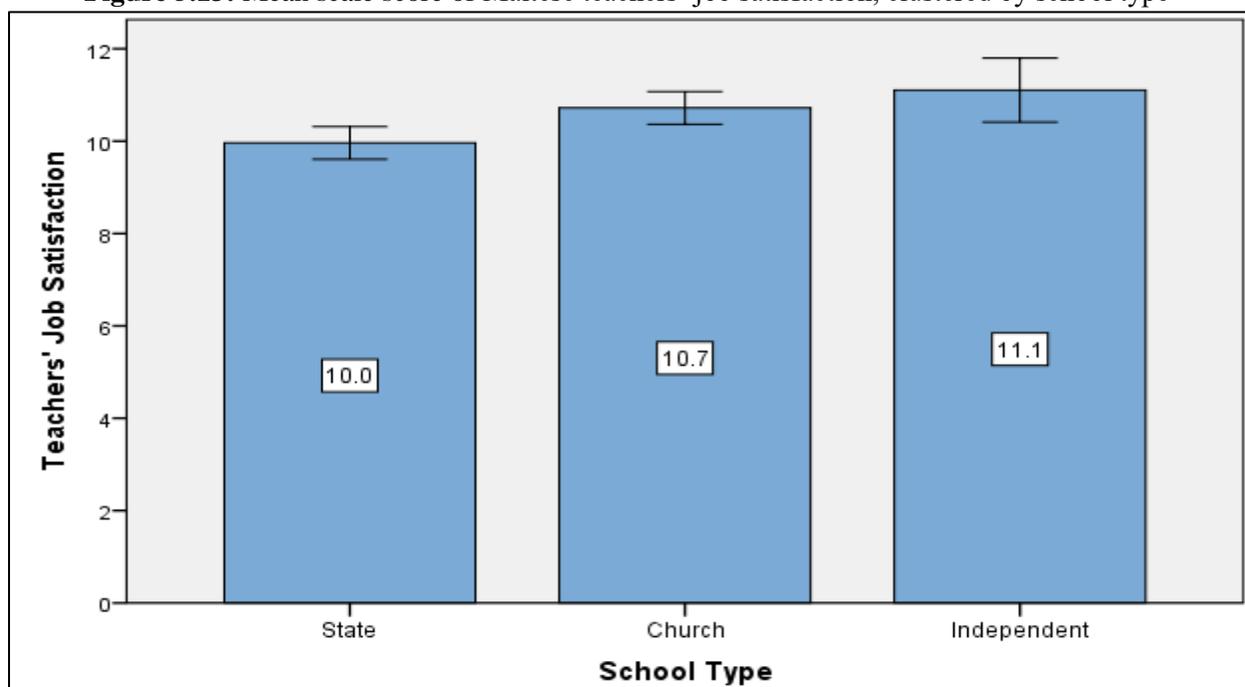
To measure the teachers’ job satisfaction, a scale score was generated by considering how teachers responded positively to the five statements on the Teacher Job Satisfaction scale, displayed in Table 5.4. Very satisfied teachers had a score on the scale of at least 10.2, which corresponds to responding ‘very often’ to three of the five statements and responding ‘often’ to the other two, on average. Less satisfied teachers had a score less than 6.2, which corresponds to responding ‘sometimes’ to three of the five statements and ‘often’ to the other two, on average. All other teachers were somewhat satisfied with their job.

Figure 5.11 shows that 64% of Maltese teachers are very satisfied with their job, 31% are somewhat satisfied and 5% are less satisfied with their job. The corresponding international averages (57%, 37% and 6%) indicate that Maltese teachers are more satisfied with their job than the teachers of most of the other participating countries. Saudi Arabia (11.3), Oman (11.3), Chile (11.3), Iran (11.2), Qatar (11.1), Kuwait (11.1), Egypt (11.1) and United Arab Emirates (11.3) have the highest mean scale scores indicating that teachers in these countries are more satisfied with their job than other countries. France (8.7), Hong Kong (8.8), Czech Republic (8.9), Germany (9.2), Bulgaria (9.3), Singapore (9.3) and Denmark (9.3) have the lowest mean scale scores. Malta’s mean scale score (10.3) is significantly higher than the international average.

Figure 5.12 displays the score distribution of Maltese teachers’ job satisfaction. Figure 5.13 shows that the mean job satisfaction score of State school teachers is significantly lower than the mean job satisfaction scores of Church and Independent school teachers, however mean job satisfaction scores vary marginally between Independent and Church school teachers.

**Figure 5.12:** Score distribution of Maltese teachers’ job satisfaction



**Figure 5.13:** Mean scale score of Maltese teachers' job satisfaction, clustered by school type

## 5.6 Students' Sense of Belonging

Students' sense of school belonging is central to both their psychosocial well-being and their academic success. Students' sense of school belonging is a psychological state in which students 'view schooling as essential to their long-term well-being, as reflected in their participation in academic and nonacademic pursuits' and 'relations with school staff and other students'. Students with a higher sense of school belonging frequently show higher cognitive and psychosocial functioning. Adolescents with a higher sense of school belonging tend to show higher academic performance, higher intrinsic motivation, more positive attitudes toward school, and tend to have fewer psychological health and social problems, specifically lower rates of delinquency, reduced social rejection from peers, lower depression, fewer incidences of dropping out of school, and less use of illicit drugs.

**Table 5.5:** Maltese students' sense of school belonging

During this year, how often have other students from your school done any of the following things to you?	Few times a week	1-2 times a month	Few times a year	Never
Made fun of me or called me names	16.1%	8.5%	26.7%	48.7%
Left me out of their games or activities	12.9%	12.2%	23.0%	51.9%
Spread lies about me	13.0%	11.7%	21.9%	53.4%
Stole something from me	7.0%	6.8%	17.1%	69.2%
Hit or hurt me (shoving, hitting, kicking)	11.7%	9.9%	20.7%	57.8%
Made me do things I didn't want to do	8.5%	7.9%	19.3%	64.3%
Shared embarrassing information about me	8.7%	7.5%	18.5%	65.3%
Threatened me	8.3%	6.8%	15.4%	69.4%

Figure 5.14: Students' sense of school belonging across participating countries

Country	High Sense of School Belonging		Some Sense of School Belonging		Little Sense of School Belonging		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Egypt	87 (1.2)	331 (5.8)	12 (1.1)	335 (9.7)	2 (0.2)	--	11.6 (0.08)
Kazakhstan	84 (0.8)	537 (2.5)	15 (0.7)	533 (3.5)	1 (0.2)	--	11.4 (0.04)
Morocco	82 (1.1)	362 (4.4)	16 (1.0)	345 (5.7)	2 (0.2)	--	11.4 (0.06)
Azerbaijan	82 (0.9)	480 (3.7)	16 (0.7)	458 (5.7)	2 (0.3)	--	11.2 (0.05)
Portugal	82 (0.9)	532 (2.4)	15 (0.8)	511 (4.2)	3 (0.3)	510 (9.2)	11.2 (0.05)
Georgia	75 (1.0)	493 (3.0)	21 (0.8)	483 (3.7)	3 (0.4)	469 (9.3)	10.8 (0.06)
Bulgaria	74 (1.3)	551 (4.5)	22 (1.1)	557 (5.3)	4 (0.5)	547 (13.2)	10.8 (0.06)
Saudi Arabia	70 (1.6)	444 (4.3)	25 (1.3)	415 (5.4)	6 (0.6)	386 (10.1)	10.7 (0.08)
Oman	69 (1.1)	433 (3.4)	25 (0.9)	396 (3.6)	6 (0.4)	383 (6.9)	10.6 (0.06)
Spain	69 (0.8)	532 (1.4)	26 (0.7)	521 (3.6)	5 (0.3)	511 (4.5)	10.4 (0.03)
Norway	69 (1.3)	565 (2.4)	27 (1.1)	550 (3.0)	4 (0.5)	530 (7.1)	10.4 (0.06)
Kuwait	66 (1.3)	404 (3.8)	28 (1.2)	385 (6.3)	7 (0.5)	366 (9.6)	10.4 (0.06)
Malta	64 (0.8)	465 (2.0)	29 (0.8)	436 (3.5)	7 (0.4)	411 (6.8)	10.3 (0.03)
Northern Ireland	63 (1.5)	575 (2.4)	30 (1.2)	554 (3.3)	7 (0.6)	520 (7.6)	10.2 (0.06)
Finland	63 (1.3)	574 (2.0)	32 (1.1)	558 (2.5)	5 (0.5)	526 (7.3)	10.2 (0.05)
New Zealand	62 (0.9)	532 (2.6)	31 (0.7)	514 (3.3)	6 (0.5)	497 (5.8)	10.2 (0.04)
Netherlands	62 (1.3)	552 (1.9)	32 (1.1)	539 (2.1)	7 (0.7)	512 (6.8)	10.1 (0.06)
Lithuania	61 (1.3)	554 (2.7)	34 (1.2)	542 (3.5)	5 (0.4)	532 (7.4)	10.1 (0.05)
Ireland	61 (1.4)	577 (2.5)	31 (1.0)	557 (3.4)	8 (0.8)	533 (5.7)	10.1 (0.06)
Chile	61 (1.2)	507 (2.7)	28 (0.9)	485 (4.1)	11 (0.6)	465 (5.4)	10.1 (0.06)
Iran, Islamic Rep. of	61 (1.6)	421 (4.8)	34 (1.4)	445 (4.4)	5 (0.4)	415 (10.7)	10.4 (0.08)
South Africa	59 (1.1)	331 (3.6)	31 (0.9)	314 (6.2)	9 (0.6)	300 (8.6)	10.2 (0.06)
Denmark	59 (1.4)	558 (2.4)	34 (1.1)	537 (3.0)	7 (0.6)	519 (5.2)	10.0 (0.06)
Sweden	58 (1.5)	563 (2.8)	35 (1.2)	549 (3.0)	7 (0.7)	533 (5.7)	10.0 (0.06)
Bahrain	58 (1.4)	461 (3.0)	33 (1.0)	435 (2.8)	10 (0.6)	415 (6.3)	10.0 (0.07)
Australia	57 (1.0)	554 (3.1)	33 (0.9)	537 (3.2)	10 (0.5)	517 (4.6)	9.9 (0.04)
Hungary	57 (1.5)	560 (3.4)	35 (1.2)	548 (3.5)	8 (0.8)	537 (5.7)	9.9 (0.06)
Canada	57 (0.9)	551 (2.1)	35 (0.8)	540 (2.5)	8 (0.4)	515 (3.8)	9.9 (0.04)
England	56 (1.4)	569 (2.1)	35 (1.0)	552 (2.3)	9 (0.7)	526 (4.5)	9.9 (0.06)
United Arab Emirates	56 (0.8)	473 (3.4)	34 (0.7)	433 (3.9)	10 (0.4)	406 (6.0)	10.0 (0.04)
Belgium (Flemish)	56 (1.2)	533 (2.2)	36 (1.0)	520 (2.6)	7 (0.5)	496 (4.6)	9.9 (0.05)
Italy	56 (1.2)	554 (2.3)	36 (1.0)	543 (2.7)	8 (0.5)	532 (4.3)	9.8 (0.05)
Russian Federation	54 (1.3)	582 (2.7)	40 (1.2)	582 (2.5)	6 (0.4)	572 (4.3)	9.8 (0.05)
Trinidad and Tobago	54 (1.8)	490 (3.9)	35 (1.4)	471 (4.3)	10 (0.8)	456 (6.6)	9.8 (0.08)
United States	54 (1.3)	562 (3.1)	34 (1.0)	544 (3.6)	13 (0.8)	526 (5.3)	9.8 (0.06)
Austria	52 (1.1)	547 (2.5)	38 (0.9)	537 (2.8)	10 (0.6)	524 (4.4)	9.7 (0.05)
Israel	51 (1.4)	529 (2.8)	35 (1.2)	534 (3.9)	15 (1.0)	536 (5.8)	9.6 (0.07)
Qatar	50 (0.8)	465 (2.0)	35 (0.7)	437 (3.0)	15 (0.6)	404 (3.5)	9.6 (0.04)
Slovak Republic	50 (1.1)	534 (4.6)	41 (1.0)	539 (3.1)	9 (0.6)	525 (4.8)	9.6 (0.05)
Latvia	49 (1.4)	560 (2.2)	43 (1.1)	559 (2.2)	8 (0.7)	538 (5.3)	9.6 (0.06)
Singapore	49 (0.9)	583 (3.5)	42 (0.8)	574 (3.3)	9 (0.4)	550 (4.9)	9.6 (0.04)
Germany	47 (1.7)	556 (2.7)	41 (1.2)	536 (3.9)	12 (0.7)	516 (6.3)	9.4 (0.07)
Slovenia	44 (1.4)	544 (2.7)	46 (1.2)	542 (2.4)	10 (0.9)	537 (4.1)	9.3 (0.05)
Belgium (French)	43 (1.3)	503 (3.0)	42 (1.1)	497 (3.0)	15 (1.0)	482 (4.1)	9.3 (0.06)
France	43 (1.6)	512 (2.7)	48 (1.2)	514 (2.6)	9 (0.8)	492 (5.1)	9.4 (0.05)
Czech Republic	42 (1.1)	547 (3.2)	48 (1.0)	545 (2.3)	9 (0.5)	525 (4.1)	9.3 (0.04)
Poland	42 (1.4)	562 (2.6)	46 (1.1)	569 (2.8)	12 (0.8)	560 (4.4)	9.3 (0.06)
Chinese Taipei	41 (1.3)	569 (2.3)	46 (1.1)	557 (2.5)	13 (0.6)	537 (3.7)	9.2 (0.05)
Macao SAR	37 (0.7)	557 (1.8)	50 (0.7)	541 (1.7)	13 (0.6)	532 (3.2)	9.1 (0.03)
Hong Kong SAR	35 (1.2)	580 (3.4)	48 (1.0)	567 (2.9)	17 (1.0)	553 (5.5)	8.9 (0.06)
International Avg.	59 (0.2)	518 (0.4)	33 (0.1)	505 (0.5)	8 (0.1)	495 (0.9)	

To measure the students' sense of school belonging, a scale score was generated by considering students' agreement with five statements about their Sense of School Belonging, displayed in Table 5.5. Students with a high sense of school belonging had a score on the scale of at least 9.7, which corresponds to their 'agreeing a lot' to three of the five statements and 'agreeing a little' to each of the other two statements, on average. Students with little sense of school belonging had a score less than 7.3, which corresponds to their 'disagreeing a little' to three of the five statements and 'agreeing a little' to each of the other two statements, on average. All other students had some sense of school belonging.

Figure 5.14 shows that 64% of Maltese students have a high sense of school belonging, 29% have some sense and 7% have little sense of school belonging. The corresponding international averages (59%, 33% and 8%) indicate that Maltese students have a higher sense of school belonging than students of most of the other participating countries. Egypt (11.6), Kazakhstan (11.4), Morocco (11.4), Azerbaijan (11.2) and Portugal (11.2) have the highest mean scale scores indicating that students in these countries have a higher sense of school belonging than other countries. Hong Kong (8.9), Macao (9.1) and Chinese Taipei (9.2) have the lowest mean scale scores. Malta's mean scale score (10.3) is significantly higher than the international average.

Figure 5.15 displays the score distribution of Maltese students' sense of school belonging. Figure 5.16 shows that sense of school belonging is significantly higher for Maltese females than males; however sense of school belonging varies marginally between school types. Figure 5.17 shows that reading attainment is positively related to students' sense of school belonging and this applies for all school types.

**Figure 5.15:** Score distribution of Maltese students' sense of school belonging

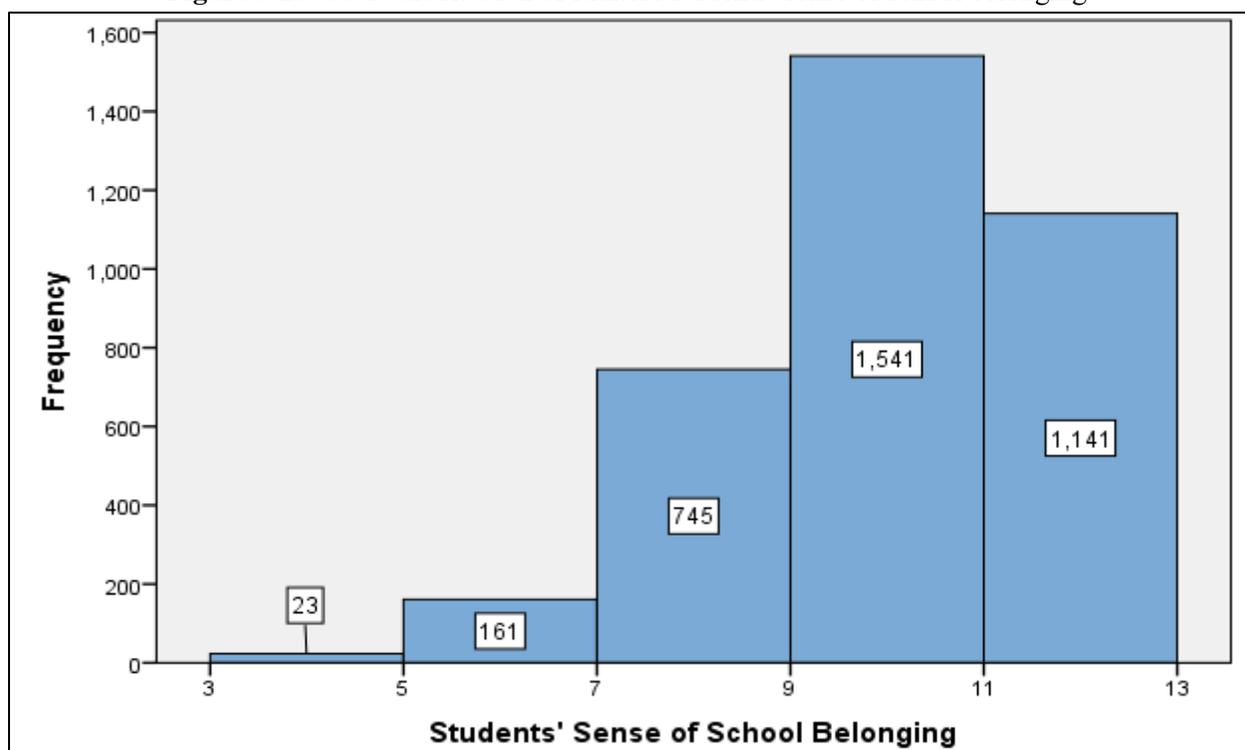


Figure 5.16: Mean scale score of students' sense of school belonging, clustered by gender and school type

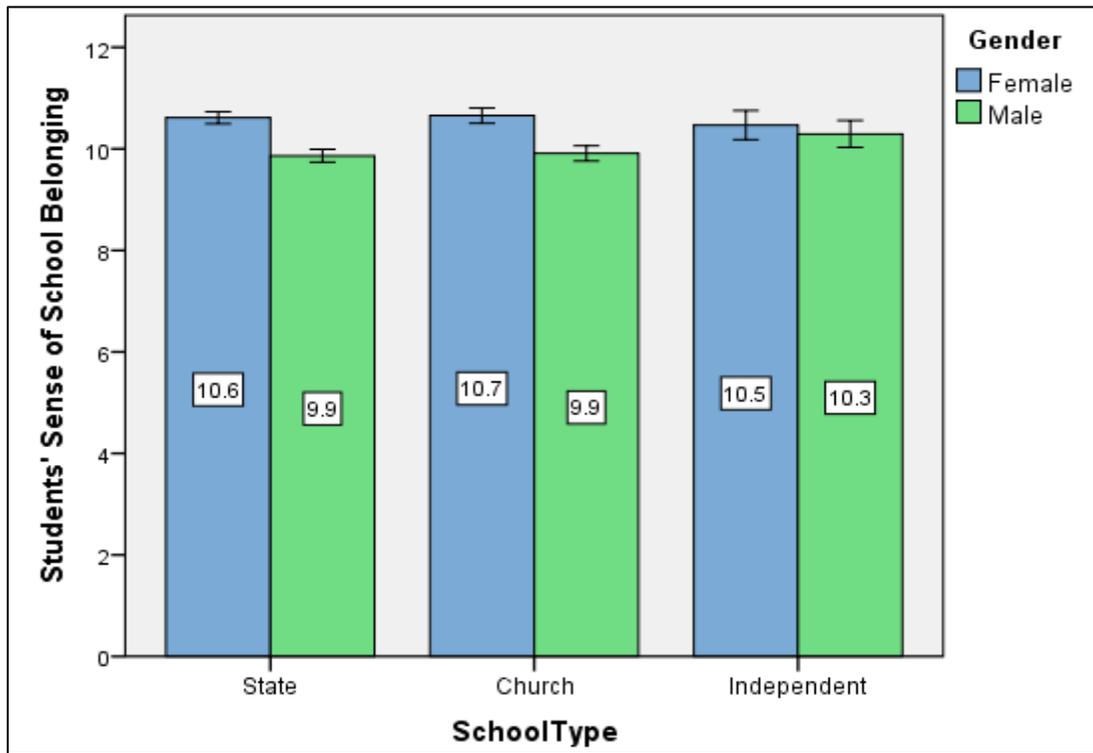
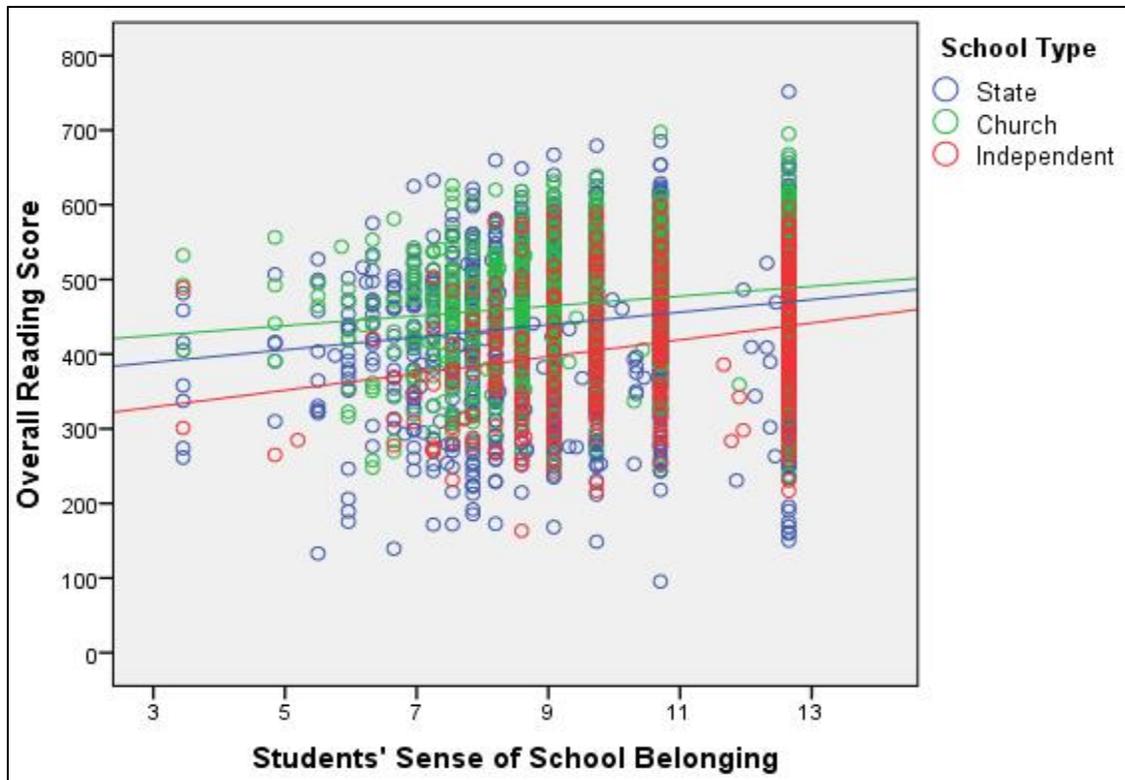


Figure 5.17: Relationship between reading scores and sense of school belonging, by school type



## 5.7 Emphasis on reading skills and strategies in early grades

Figure 5.18 displays the grade in which reading skills and strategies are emphasized to at least 50% of the students for each participating country.

**Figure 5.18:** Emphasis in early grades on reading skills and strategies across countries

Countries	Grade by Which Skill or Strategy Is Emphasized for at Least 50% of the Students (Country Median)													
	Knowing Letters of the Alphabet	Knowing Letter-Sound Relationships	Reading Words	Reading Isolated Sentences	Reading Connected Text	Locating Information Within the Text	Identifying the Main Idea of a Text	Explaining or Supporting Understanding of a Text	Comparing a Text with Personal Experience	Comparing Different Texts	Making Predictions About What Will Happen Next in a Text	Making Generalizations and Drawing Inferences Based on a Text	Describing the Style or Structure of a Text	Determining the Author's Perspective or Intention
Australia	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Austria	1	1	1	1	1	2	2	2	2	3	2	3	4	4
Azerbaijan	1	1	1	1	2	2	2	2	3	3	3	3	4	4
Bahrain	1	1	1	1	2	2	3	2	3	3	3	3	4	4
Belgium (Flemish)	1	1	1	1	1	2	2	2	2	3	2	3	4	4
Belgium (French)	1	1	1	1	2	2	2	2	3	3	2	3	4	4
Bulgaria	1	1	1	1	1	2	2	2	3	3	3	3	3	4
Canada	1	1	1	1	1	1	2	2	2	2	1	2	3	3
Chile	1	1	1	1	1	2	2	2	2	2	2	2	3	3
Chinese Taipei	1	1	1	1	2	2	3	3	3	4	3	4	4	4
Czech Republic	1	1	1	1	1	2	2	2	2	3	2	3	4	4
Denmark	1	1	1	1	1	2	2	3	2	3	2	3	3	4
Egypt	1	1	1	2	3	3	4	4	4	4	N	N	N	N
England	1	1	1	1	1	1	1	1	1	2	1	2	2	3
Finland	1	1	1	1	2	2	2	3	3	3	3	3	4	4
France	1	1	1	1	2	2	2	3	3	3	3	4	4	4
Georgia	1	1	1	1	1	2	2	2	3	3	3	3	4	4
Germany	1	1	1	1	1	2	2	2	3	3	3	3	4	4
Hong Kong SAR	1	1	1	1	1	2	2	3	3	4	3	4	4	4
Hungary	1	1	1	1	2	2	2	2	2	3	2	3	3	4
Iran, Islamic Rep. of	1	1	1	1	2	2	3	3	4	4	4	4	4	4
Ireland	1	1	1	1	1	1	2	2	2	3	1	3	3	4
Israel	1	1	1	1	1	1	2	2	2	2	2	2	2	3
Italy	1	1	1	1	1	2	2	2	2	3	3	3	4	4
Kazakhstan	1	1	1	1	1	2	2	2	2	2	2	2	3	3
Kuwait	1	1	1	1	2	2	4	3	4	4	4	4	N	4
Latvia	1	1	1	1	1	1	1	1	1	2	1	2	3	2
Lithuania	1	1	1	1	1	2	2	2	2	2	2	2	3	3
Macao SAR	1	1	1	1	2	2	3	3	4	4	3	4	4	4
Malta	1	1	1	1	1	1	2	1	2	2	2	3	3	4
Morocco	1	1	1	1	2	3	4	4	N	N	N	N	N	N
Netherlands	1	1	1	1	1	2	2	2	2	3	2	3	4	4
New Zealand	1	1	1	1	1	1	1	1	1	2	1	2	2	3
Northern Ireland	1	1	1	1	1	1	1	2	2	2	1	2	3	3
Norway (5)	1	1	1	1	2	2	2	2	2	3	2	3	4	4
Oman	1	1	1	1	1	2	2	2	3	3	3	4	4	4
Poland	1	1	1	1	1	1	2	2	2	3	2	3	4	3
Portugal	1	1	1	1	1	2	2	2	2	2	2	3	3	3
Qatar	1	1	1	1	2	2	2	2	3	3	3	3	3	4
Russian Federation	1	1	1	1	1	1	2	2	2	2	2	2	3	3
Saudi Arabia	1	1	1	1	2	3	3	3	4	4	4	4	4	4
Singapore	1	1	1	1	1	1	2	2	2	3	1	3	3	4
Slovak Republic	1	1	1	1	1	2	2	2	2	3	2	3	4	4
Slovenia	1	1	1	1	2	2	3	3	3	3	3	3	4	4
South Africa	1	1	1	1	2	2	3	3	3	4	3	4	4	4
Spain	1	1	1	1	1	1	2	2	2	3	2	3	4	4
Sweden	1	1	1	1	1	1	2	1	1	2	1	2	3	3
Trinidad and Tobago	1	1	1	1	1	2	2	2	2	3	2	3	3	4
United Arab Emirates	1	1	1	1	2	2	2	2	3	3	3	3	4	4
United States	1	1	1	1	1	1	1	2	1	2	1	2	2	2
International Mode	1	1	1	1	1	2	2	2	2	3	2	3	4	4

It should be noted that for Malta, Grade 1 in Figure 5.18 signifies Year 1 and 2; Grade 2 signifies Year 3; Grade 3 signifies Year 4 and Grade 4 signifies Year 5. In Maltese schools, at least 50% of students are expected to know the letters of alphabet, know letter-sound relationships, read words, read isolated sentences, read connected text, locate information within the text, and explain/support understanding of a text by the end of Year 2. At least 50% of students are expected to identify the main idea of a text, compare a text with a personal experience, compare different texts, and make predictions about what will happen next in a text by the end of Year 3. At least 50% of students are expected to make generalizations and drawing inferences based on a text, and describe the style or structure of a text by the end of Year 4. At least 50% of students are expected to determine the author's perspective/intention by the end of Year 5. The targeted grade in which these reading skills and strategies are mastered is in line with the international mode.



# 6

# School Discipline and Safety

## 6.1 Introduction

An essential part of a positive school climate that is supportive of student engagement and learning is how safe students feel when at school. Previous studies have shown that there exist a relationship between student reading achievement, school discipline, safety at school and student bullying behaviour. This chapter describes the views of heads of school, teachers and students regarding a number of school-related issues. It investigates the heads’ and teachers’ perspectives regarding school discipline, safety and order, and examines student bullying at school. A scale score is generated for each of these issues which will be used to identify differences between participating countries and between school types for the local context.

## 6.2 School Discipline

A general lack of discipline, especially if students and teachers are afraid for their safety, does not facilitate learning and is associated with lower academic achievement. Schools where there are clear rules and more fairness have an atmosphere of greater discipline and safety, which surely enhances learning. A scale score for School Discipline was generated by considering the heads’ of school responses concerning ten potential school problems on the School Discipline scale. Table 6.1 displays the responses of the Maltese heads of school for each of the ten issues.

**Table 6.1:** Responses of Maltese heads of school regarding ten disciplinary problems

To what degree of the following a problem among Year 5 students in your school?	Not a problem	Minor problem	Moderate problem	Serious problem
Arriving late at school	50.5%	40.0%	9.5%	0.0%
Absenteeism	63.2%	31.6%	3.2%	2.1%
Classroom disturbance	29.5%	44.2%	23.2%	3.2%
Cheating	72.6%	22.1%	3.2%	2.1%
Swearing	68.4%	27.4%	2.1%	2.1%
Vandalism	84.2%	10.5%	1.1%	4.2%
Theft	90.5%	7.4%	0.0%	2.1%
Intimidation or verbal abuse among students	51.6%	42.1%	3.2%	3.2%
Physical fights among students	46.3%	43.2%	8.4%	2.1%
Intimidation or verbal abuse of teachers or staff	90.5%	6.3%	1.1%	2.1%

Table 6.1: School disciplinary problems across countries

Country	Hardly Any Problems		Minor Problems		Moderate to Severe Problems		Average Scale Score	Difference in Average Scale Score from 2011
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Hong Kong SAR	93 (2.2)	571 (3.0)	7 (2.2)	547 (10.1)	0 (0.0)	~ ~	11.9 (0.10)	0.5 (0.16) ●
Macao SAR	89 (0.1)	548 (1.1)	11 (0.1)	531 (3.4)	0 (0.0)	~ ~	11.4 (0.00)	--
Northern Ireland	85 (3.5)	566 (2.8)	15 (3.5)	557 (10.8)	0 (0.0)	~ ~	11.2 (0.12)	0.1 (0.17)
Kazakhstan	85 (3.1)	538 (2.8)	10 (2.7)	520 (9.2)	5 (1.6)	537 (7.7)	11.4 (0.14)	--
Lithuania	84 (2.5)	549 (2.9)	15 (2.4)	548 (5.6)	0 (0.5)	~ ~	10.9 (0.10)	0.3 (0.15)
Ireland	83 (3.4)	571 (2.5)	15 (3.5)	550 (8.8)	2 (0.9)	~ ~	11.0 (0.13)	-0.1 (0.18)
England	82 (3.4)	563 (2.1)	18 (3.4)	539 (4.1)	0 (0.0)	~ ~	11.1 (0.11)	0.3 (0.18)
Finland	78 (3.3)	567 (1.9)	22 (3.3)	564 (4.9)	0 (0.0)	~ ~	10.6 (0.09)	0.3 (0.15)
Chinese Taipei	77 (3.6)	560 (2.2)	23 (3.6)	557 (4.8)	0 (0.0)	~ ~	11.1 (0.13)	-0.3 (0.18)
Georgia	77 (3.0)	490 (3.1)	11 (2.3)	492 (8.6)	12 (2.3)	479 (9.7)	10.6 (0.15)	-0.3 (0.20)
Spain	76 (2.6)	531 (1.5)	18 (2.5)	520 (3.4)	6 (1.1)	505 (16.2)	10.7 (0.12)	0.0 (0.20)
Czech Republic	75 (3.5)	545 (2.3)	23 (3.5)	539 (4.8)	1 (0.7)	~ ~	10.4 (0.10)	0.1 (0.14)
Azerbaijan	75 (3.4)	467 (5.4)	16 (2.8)	496 (7.2)	9 (2.2)	461 (7.8)	10.5 (0.15)	0.9 (0.30) ●
United Arab Emirates	72 (2.1)	463 (4.5)	23 (2.0)	423 (6.3)	5 (1.0)	392 (10.1)	10.7 (0.08)	0.7 (0.13) ●
Latvia	72 (4.0)	562 (2.1)	26 (4.3)	547 (4.2)	2 (1.3)	~ ~	10.5 (0.11)	--
Bahrain	70 (2.7)	454 (3.1)	20 (2.6)	429 (6.4)	10 (0.9)	424 (8.7)	10.2 (0.09)	--
Norway	70 (4.4)	562 (2.7)	28 (4.3)	554 (4.2)	2 (1.1)	~ ~	10.4 (0.14)	--
Russian Federation	70 (3.0)	580 (3.0)	30 (3.0)	583 (4.0)	0 (0.0)	~ ~	10.5 (0.08)	0.2 (0.12)
New Zealand	69 (3.4)	539 (3.0)	29 (3.4)	497 (6.2)	2 (1.0)	~ ~	10.6 (0.10)	0.0 (0.15)
Bulgaria	69 (4.1)	562 (4.5)	26 (3.8)	532 (9.6)	5 (2.1)	521 (23.3)	10.4 (0.15)	-0.2 (0.21)
Canada	68 (2.7)	550 (2.1)	31 (2.7)	532 (4.4)	2 (0.7)	~ ~	10.4 (0.07)	0.1 (0.10)
Australia	67 (3.8)	556 (3.2)	29 (3.6)	525 (4.1)	4 (1.6)	475 (12.3)	10.3 (0.11)	-0.2 (0.16)
Singapore	67 (0.0)	580 (4.3)	33 (0.0)	569 (6.2)	0 (0.0)	~ ~	10.8 (0.00)	0.0 (0.00)
Slovak Republic	66 (3.7)	542 (3.0)	31 (3.8)	531 (7.5)	3 (1.5)	420 (24.7)	10.4 (0.13)	0.3 (0.18)
Qatar	65 (0.4)	443 (2.5)	28 (0.3)	450 (2.7)	7 (0.1)	403 (5.4)	10.5 (0.01)	0.4 (0.14) ●
United States	65 (4.6)	561 (3.4)	31 (4.3)	529 (6.0)	4 (1.5)	520 (9.3)	10.4 (0.12)	0.0 (0.15)
Belgium (Flemish)	64 (3.7)	531 (2.4)	34 (3.7)	515 (4.9)	1 (0.9)	~ ~	10.5 (0.14)	--
Iran, Islamic Rep. of	63 (4.2)	443 (4.7)	30 (4.1)	406 (12.2)	7 (2.0)	390 (16.2)	10.3 (0.12)	-0.5 (0.16) ▼
Belgium (French)	63 (3.6)	503 (3.5)	33 (3.4)	495 (4.7)	5 (1.6)	461 (12.4)	10.2 (0.11)	0.1 (0.19)
Malta	62 (0.1)	459 (2.1)	34 (0.1)	441 (2.5)	5 (0.1)	446 (6.3)	10.2 (0.00)	0.0 (0.01)
Italy	59 (3.6)	550 (3.0)	28 (3.4)	547 (4.5)	12 (2.5)	543 (4.8)	9.9 (0.13)	0.3 (0.19)
Hungary	58 (4.2)	565 (3.6)	36 (4.1)	542 (5.5)	6 (1.7)	512 (9.4)	10.1 (0.12)	0.3 (0.18)
Slovenia	58 (4.0)	543 (3.1)	38 (3.7)	542 (2.9)	4 (1.9)	544 (8.6)	10.1 (0.14)	0.0 (0.18)
Portugal	57 (4.0)	534 (3.2)	38 (3.7)	523 (2.6)	6 (1.8)	501 (10.2)	10.1 (0.10)	-0.3 (0.20)
Israel	54 (3.9)	548 (5.2)	34 (3.5)	520 (6.4)	12 (2.1)	475 (9.0)	9.6 (0.16)	0.5 (0.26)
Sweden	53 (4.6)	562 (3.3)	44 (4.6)	548 (4.0)	3 (1.1)	522 (15.7)	10.1 (0.13)	0.3 (0.18)
France	52 (3.5)	519 (3.3)	41 (3.5)	508 (3.6)	7 (1.9)	484 (11.7)	9.9 (0.11)	-0.4 (0.17) ▼
Denmark	52 (3.9)	552 (3.0)	47 (3.9)	543 (3.2)	1 (0.7)	~ ~	10.1 (0.10)	-0.1 (0.14)
Chile	52 (4.5)	506 (4.3)	37 (5.0)	490 (5.6)	11 (3.2)	447 (10.4)	9.7 (0.13)	--
Saudi Arabia	51 (3.7)	455 (5.8)	25 (3.1)	416 (8.0)	24 (3.6)	393 (8.2)	9.5 (0.18)	0.2 (0.26)
Austria	51 (4.5)	548 (2.9)	45 (4.3)	536 (3.8)	4 (1.7)	509 (12.4)	9.9 (0.12)	0.3 (0.18)
Netherlands	43 (5.1)	551 (2.9)	54 (5.2)	543 (2.5)	3 (1.0)	498 (32.9)	9.6 (0.11)	0.5 (0.15) ●
Germany	43 (3.8)	553 (2.8)	50 (3.7)	529 (5.1)	7 (2.0)	489 (26.2)	9.4 (0.10)	-0.2 (0.13)
Poland	42 (4.2)	569 (3.7)	57 (4.2)	562 (3.0)	1 (0.1)	~ ~	9.7 (0.10)	--
Oman	40 (2.6)	430 (5.1)	32 (2.8)	415 (5.5)	28 (2.9)	407 (6.3)	8.9 (0.15)	0.4 (0.21)
Kuwait	37 (5.0)	413 (9.5)	41 (5.3)	388 (9.8)	23 (3.5)	378 (12.0)	9.1 (0.14)	--
Trinidad and Tobago	33 (3.9)	497 (7.2)	52 (4.4)	481 (6.0)	15 (3.4)	462 (10.6)	9.2 (0.12)	-0.2 (0.17)
Egypt	19 (2.9)	356 (14.9)	39 (4.2)	336 (10.3)	42 (3.6)	314 (8.7)	7.9 (0.13)	--
South Africa	18 (2.6)	348 (13.7)	55 (3.7)	319 (6.4)	27 (3.6)	295 (7.9)	8.6 (0.10)	-0.3 (0.13)
Morocco	17 (2.6)	368 (10.1)	21 (3.1)	354 (11.5)	62 (3.0)	357 (4.5)	7.4 (0.14)	0.2 (0.21)
International Avg.	62 (0.5)	518 (0.7)	30 (0.5)	503 (0.9)	8 (0.3)	455 (2.4)		

Significantly higher than 2011 ●

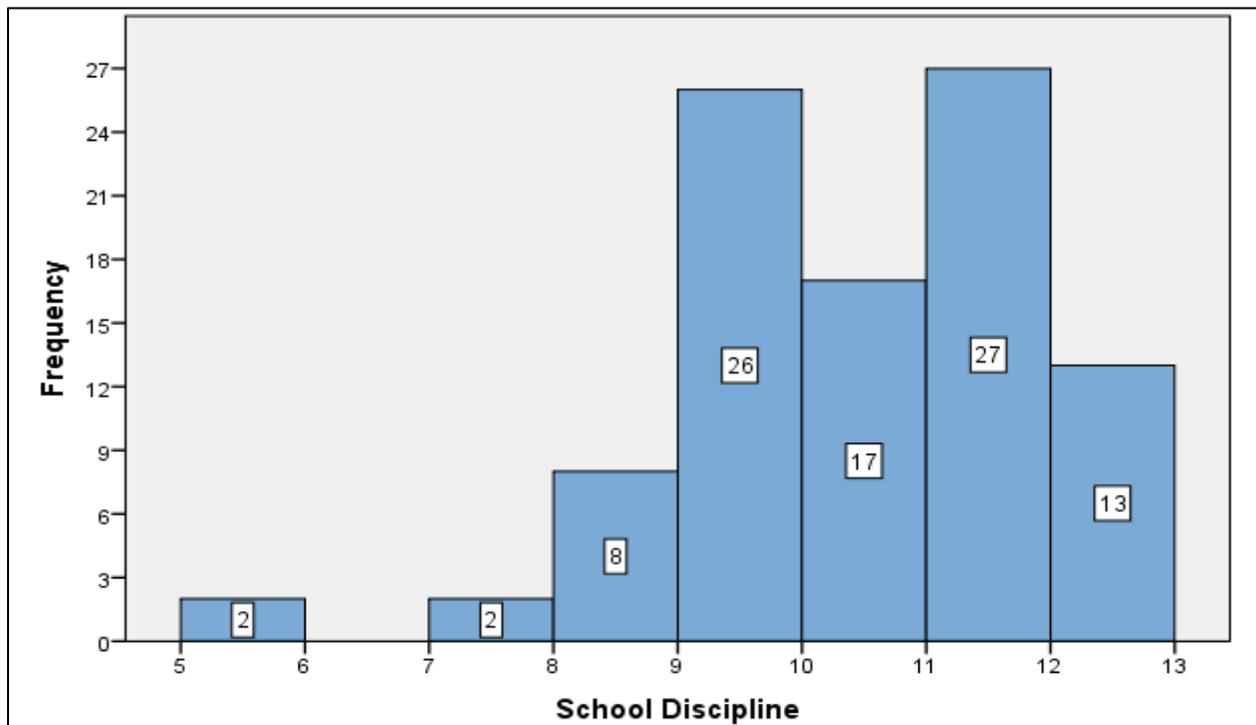
Significantly lower than 2011 ▼

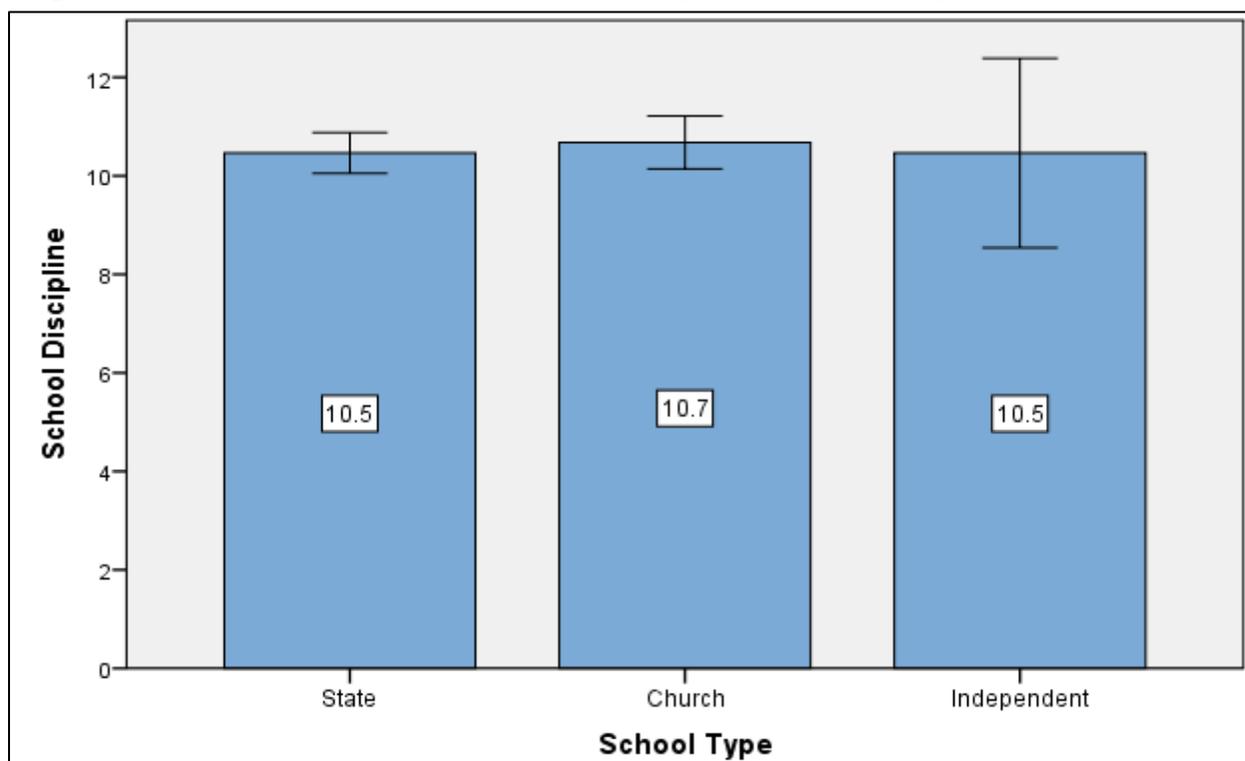
On the School Discipline scale, students in schools with hardly any problems had a score on the scale of at least 9.9, which corresponds to their head of school reporting ‘not a problem’ for five of the ten issues and ‘minor problem’ for the other five, on average. Students in schools with moderate to severe problems had a score less than 7.7, which correspond to their heads of school reporting ‘moderate problem’ for five of the ten issues and ‘minor problem’ for the other five, on average. All other students attended schools with minor problems. The smaller the scale scores the larger are the school disciplinary problems.

Figure 6.1 shows that 62% of Maltese heads of school claimed almost no disciplinary problems in their schools, 34% claimed minor problems and 5% claimed moderate to severe disciplinary problems. The corresponding international averages (62%, 30% and 8%) indicate that disciplinary problems in Maltese schools are typical when compared to other schools abroad. Hong Kong (11.9), Macao (11.4), Kazakhstan (11.4), Northern Ireland (11.2), England (11.1), Chinese Taipei (11.1) and Ireland (11.0) have the highest mean scale scores indicating fewer disciplinary problems in these countries. Morocco (7.4), Egypt (7.9), South Africa (8.6), Oman (8.9), Kuwait (9.1) and Trinidad and Tobago (9.2) have the lowest mean scale scores, indicating more severe disciplinary problems in these countries. Malta’s mean scale score (10.2) is identical to the corresponding PIRLS 2011 mean scale score (10.2) implying no change in the prevalence of disciplinary problems in Maltese schools.

Figure 6.2 displays the score distribution of Maltese heads’ of school perceptions of disciplinary problems in their schools. Figure 6.3 shows that mean scale scores for disciplinary problems vary marginally between State, Church and Independent schools, implying that disciplinary problems exist in all school types.

**Figure 6.2:** Score distribution of Maltese heads’ of school perceptions of school disciplinary problems



**Figure 6.3:** Mean scale scores of heads' of school perceptions of disciplinary problems, by school type

### 6.3 Safe and Orderly Schools

Respect for individual students and teachers, a safe and orderly environment and constructive interactions among administrators, teachers, parents, and students all contribute to a positive school climate and lead to higher student achievement. The sense of security that comes from having few behavioral problems and little or no concern about student or teacher safety at school promotes a stable learning environment. Table 6.2 displays the responses of the Maltese teachers regarding safety and order in their schools.

**Table 6.2:** Responses of Maltese teachers regarding safety and order in their schools

Indicate the extent to which you agree or disagree with the following statements?	Agree a lot	Agree a little	Disagree a little	Disagree a lot
This school is located in a safe neighbourhood	74.3%	17.5%	5.8%	2.4%
I feel safe at this school	71.8%	21.4%	5.8%	1.0%
This school's security policies and practices are sufficient	43.2%	38.8%	15.0%	2.9%
The students behave in an orderly manner	32.5%	43.2%	17.5%	6.8%
The students are respectful of the teachers	35.0%	42.7%	18.4%	3.9%
The students respect school property	33.0%	44.2%	20.9%	1.9%
This school has clear rules about school conduct	48.1%	36.9%	14.1%	1.0%
School's rules are enforced in a fair/consistent manner	45.1%	34.0%	16.5%	4.4%

Table 6.4: Safety and order in schools across countries

Country	Very Safe and Orderly		Somewhat Safe and Orderly		Less than Safe and Orderly		Average Scale Score	Difference in Average Scale Score from 2011	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement			
Kazakhstan	92 (2.2)	536 (2.5)	8 (2.2)	537 (9.5)	0 (0.0)	~ ~	12.4 (0.10)	--	
Georgia	88 (2.3)	491 (3.2)	12 (2.3)	479 (8.0)	0 (0.0)	~ ~	11.7 (0.11)	0.6 (0.17)	○
Azerbaijan	84 (2.7)	473 (4.7)	16 (2.7)	471 (7.9)	1 (0.4)	~ ~	11.5 (0.13)	0.2 (0.18)	
Northern Ireland	83 (3.0)	567 (2.6)	16 (3.1)	547 (7.3)	1 (0.9)	--	12.1 (0.14)	0.7 (0.19)	○
England	82 (2.7)	562 (2.4)	17 (2.7)	543 (4.4)	0 (0.5)	--	11.5 (0.12)	0.7 (0.18)	○
Israel	80 (2.9)	531 (3.0)	17 (2.9)	532 (9.4)	2 (1.2)	--	11.2 (0.16)	0.2 (0.22)	
Norway	80 (2.8)	562 (2.4)	19 (2.6)	549 (5.5)	1 (0.8)	--	11.3 (0.14)	--	
Qatar	80 (1.9)	444 (2.6)	19 (1.9)	432 (9.5)	1 (0.5)	--	11.4 (0.09)	0.8 (0.16)	○
Ireland	79 (2.9)	570 (3.0)	19 (2.8)	555 (4.8)	2 (1.0)	--	11.6 (0.15)	0.4 (0.21)	
Australia	78 (3.0)	551 (2.9)	20 (3.0)	526 (5.9)	2 (0.6)	--	11.4 (0.14)	0.4 (0.21)	
Netherlands	78 (3.6)	549 (2.2)	21 (3.7)	535 (4.5)	1 (1.1)	--	11.1 (0.13)	0.3 (0.20)	
New Zealand	77 (2.4)	536 (2.4)	21 (2.3)	497 (6.1)	2 (0.8)	--	11.4 (0.12)	0.5 (0.17)	○
Oman	76 (2.7)	421 (3.7)	23 (2.7)	411 (7.4)	0 (0.2)	--	11.0 (0.11)	1.0 (0.14)	○
Spain	76 (3.1)	532 (1.8)	23 (3.0)	517 (4.0)	2 (0.8)	--	11.2 (0.13)	1.7 (0.20)	○
Macao SAR	75 (0.1)	548 (1.2)	23 (0.1)	535 (2.2)	2 (0.0)	--	10.9 (0.00)	--	
Portugal	72 (3.4)	532 (2.8)	26 (3.3)	519 (3.6)	2 (0.9)	--	10.9 (0.13)	1.4 (0.23)	○
Kuwait	71 (3.8)	398 (5.0)	29 (3.8)	387 (9.2)	0 (0.1)	--	10.7 (0.16)	--	
United Arab Emirates	71 (2.1)	469 (3.9)	28 (2.0)	411 (5.6)	1 (0.7)	--	11.0 (0.09)	0.2 (0.12)	
Bulgaria	68 (3.7)	563 (4.7)	31 (3.6)	530 (8.4)	1 (0.6)	--	10.3 (0.13)	0.4 (0.19)	
Saudi Arabia	68 (3.6)	439 (4.6)	29 (3.5)	414 (10.9)	3 (1.3)	385 (13.1)	10.8 (0.14)	0.7 (0.20)	○
Singapore	67 (2.1)	578 (4.1)	30 (2.1)	573 (5.5)	2 (0.6)	--	10.8 (0.09)	0.5 (0.13)	○
Iran, Islamic Rep. of	66 (3.8)	433 (4.9)	30 (3.7)	417 (10.1)	4 (1.4)	425 (35.4)	10.6 (0.14)	0.4 (0.20)	
Egypt	63 (4.1)	340 (7.3)	35 (4.0)	313 (10.4)	2 (1.0)	--	10.5 (0.16)	--	
Hong Kong SAR	63 (4.5)	571 (3.6)	36 (4.6)	565 (4.7)	1 (0.9)	--	10.5 (0.17)	0.6 (0.24)	
Bahrain	62 (3.2)	460 (3.2)	34 (3.2)	422 (5.2)	3 (1.4)	420 (16.2)	10.7 (0.13)	--	
United States	62 (3.9)	563 (3.3)	30 (3.6)	531 (7.1)	8 (2.1)	517 (8.8)	10.3 (0.19)	0.0 (0.21)	
Austria	62 (4.0)	547 (2.7)	36 (3.9)	532 (4.0)	1 (0.7)	--	10.3 (0.13)	0.4 (0.18)	
Canada	62 (2.3)	548 (2.1)	36 (2.2)	538 (2.7)	3 (0.8)	497 (16.8)	10.6 (0.11)	0.2 (0.17)	
Lithuania	60 (3.8)	550 (2.7)	40 (3.8)	549 (4.4)	1 (0.8)	--	10.2 (0.13)	0.6 (0.18)	○
Russian Federation	59 (3.2)	581 (3.2)	40 (3.3)	580 (4.0)	1 (0.7)	--	10.2 (0.12)	0.5 (0.21)	
Slovak Republic	58 (3.1)	542 (3.8)	38 (3.2)	530 (5.0)	3 (1.1)	472 (34.4)	10.0 (0.11)	0.7 (0.13)	○
Poland	57 (4.3)	566 (3.1)	42 (4.3)	562 (3.1)	1 (0.5)	--	10.0 (0.13)	--	
Denmark	56 (4.0)	554 (2.9)	40 (3.9)	539 (3.2)	4 (1.5)	546 (8.2)	10.1 (0.16)	-0.4 (0.20)	
Latvia	56 (3.8)	559 (2.6)	43 (3.9)	556 (3.0)	1 (0.8)	--	9.8 (0.11)	--	
Czech Republic	53 (3.2)	548 (2.4)	45 (3.3)	541 (3.2)	2 (0.9)	--	9.8 (0.10)	0.3 (0.16)	
Chile	52 (4.4)	510 (4.4)	41 (4.4)	491 (4.1)	7 (2.5)	435 (11.3)	10.0 (0.20)	--	
Hungary	51 (3.9)	563 (4.8)	46 (4.0)	548 (4.5)	3 (1.5)	497 (18.2)	9.7 (0.13)	0.0 (0.18)	
Germany	48 (3.8)	554 (3.2)	48 (3.7)	524 (5.8)	4 (1.7)	461 (29.5)	9.8 (0.13)	0.2 (0.17)	
Morocco	48 (3.3)	385 (5.9)	43 (3.3)	333 (5.5)	9 (1.8)	333 (7.9)	9.8 (0.15)	1.2 (0.21)	○
Sweden	47 (3.9)	564 (3.4)	49 (3.8)	551 (3.0)	4 (1.3)	512 (12.4)	9.9 (0.16)	0.4 (0.22)	
South Africa	47 (3.7)	326 (8.2)	43 (3.7)	319 (8.2)	11 (1.9)	314 (13.9)	9.6 (0.16)	0.6 (0.20)	○
Chinese Taipei	46 (4.2)	554 (2.8)	52 (4.2)	563 (2.7)	2 (1.0)	--	9.7 (0.15)	0.8 (0.21)	○
Belgium (Flemish)	45 (3.8)	533 (2.3)	52 (3.7)	521 (3.1)	3 (1.1)	488 (12.0)	9.5 (0.12)	--	
Malta	44 (0.1)	459 (2.5)	47 (0.2)	449 (2.2)	9 (0.1)	436 (5.6)	9.6 (0.01)	-0.4 (0.01)	⊖
Belgium (French)	40 (3.7)	507 (3.7)	51 (3.8)	496 (3.7)	9 (2.0)	466 (10.0)	9.2 (0.14)	0.4 (0.22)	
Finland	40 (3.5)	569 (2.7)	52 (3.5)	565 (2.7)	7 (1.6)	559 (4.9)	9.4 (0.11)	0.2 (0.17)	
France	40 (3.2)	521 (4.2)	57 (3.4)	507 (3.2)	4 (1.1)	482 (7.2)	9.5 (0.13)	0.1 (0.17)	
Trinidad and Tobago	38 (4.1)	493 (6.6)	48 (4.0)	474 (4.8)	14 (2.4)	464 (11.7)	9.1 (0.19)	0.7 (0.27)	○
Slovenia	21 (3.1)	545 (4.2)	71 (3.3)	540 (2.1)	8 (1.8)	555 (5.6)	8.7 (0.13)	-0.1 (0.17)	
Italy	20 (3.0)	556 (4.0)	76 (3.3)	548 (2.9)	4 (1.3)	523 (13.4)	8.8 (0.11)	0.2 (0.14)	
International Avg.	62 (0.5)	517 (0.5)	35 (0.5)	502 (0.8)	3 (0.2)	466 (3.6)			

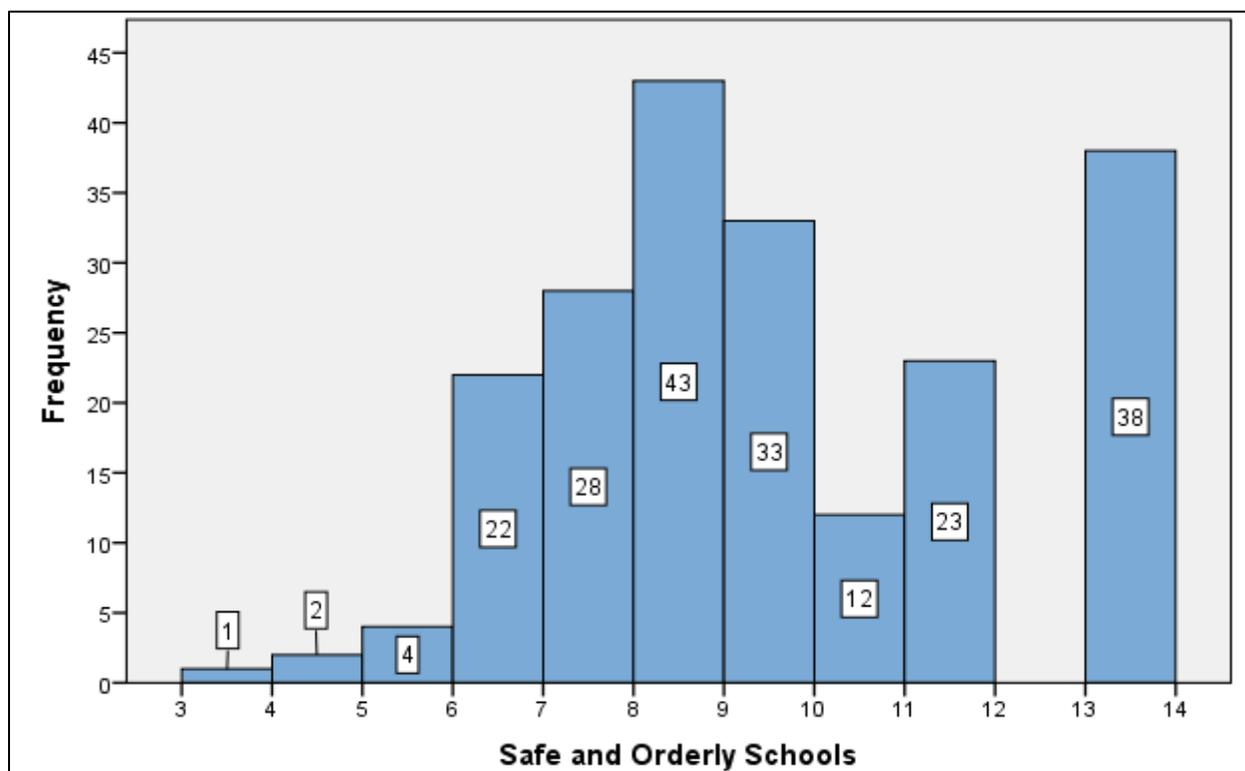
Significantly higher than 2011 ○ Significantly lower than 2011 ⊖

Students attending very safe and orderly schools had a score on the scale of at least 9.9, which corresponds to their teachers ‘agreeing a lot’ with four of the eight qualities of a safe and orderly school and ‘agreeing a little’ with the other four, on average. Students attending less safe and orderly schools had a score less than 6.6, which correspond to their teachers ‘disagreeing a little’ with four of the eight qualities and ‘agreeing a little’ with the other four, on average. All other students attended somewhat safe and orderly schools. The larger the scale scores the safer and orderly are the schools.

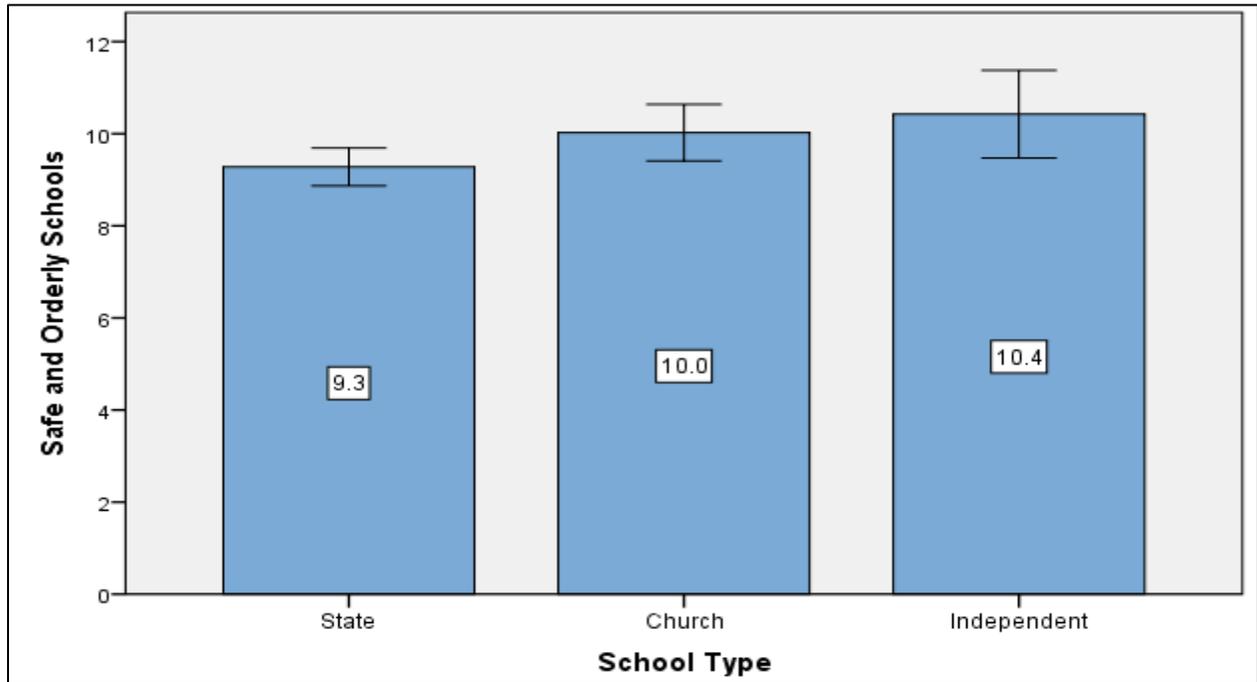
Figure 6.4 shows that 44% of Maltese teachers claimed that their schools are very safe and orderly, 47% claimed that their schools are somewhat safe and orderly and 9% claimed that their schools are less than safe and orderly. The corresponding international averages (62%, 35% and 3%) indicate that safety and order in Maltese schools is more problematic when compared to other schools abroad. Kazakhstan (12.4), Northern Ireland (12.1), Georgia (11.7), Ireland (11.6), England (11.5) and Azerbaijan (11.5) have the highest mean scale scores indicating fewer safety issues in these countries. Slovenia (8.7), Italy (8.8), Trinidad and Tobago (9.1) and Belgium (French) (9.2) have the lowest mean scale scores, indicating more severe safety issues in these countries. Malta’s mean scale score (9.6) is significantly lower than the corresponding PIRLS 2011 mean scale score (10.0) implying that safety issues and order in Maltese schools have worsened.

Figure 6.5 displays the score distribution of Maltese teachers’ perceptions regarding safety and order in their schools. Figure 6.6 shows that mean scale score for safety and order in State schools is significantly lower than Church and Independent schools, which implies that safety and order in State schools is more problematic than in Church and Independent schools.

**Figure 6.5:** Score distribution of Maltese teachers’ perceptions of safety and order in their schools



**Figure 6.6:** Mean scale scores of teachers’ perceptions of safety and order in their schools, by school type



## 6.4 Student Bullying

Bullying among students is a threat to the school learning environment. Bullying is aggressive behaviour that is intended to harm students who are physically or psychologically less strong and takes a variety of forms ranging from name calling to inflicting physical harm. Bullying causes distress to victims, leads to low self-esteem, and makes victims feel like they do not belong. Research shows that bullied students are less likely to achieve in school. With the prevalence of the internet, cyberbullying is a new form of bullying that unfortunately appears to be common among students; and, like other bullying, cyberbullying leads to low self-esteem, distress, and poor achievement. Unlike bullying, the process of cyberbullying can be shrouded in a cloud of anonymity for the internet bully. Table 6.3 displays the Maltese students’ responses regarding school bullying.

**Table 6.3:** Responses of Maltese students regarding school bullying

During this year, how often have other students from your school done any of the following things to you?	Few times a week	1-2 times a month	Few times a year	Never
Made fun of me or called me names	16.1%	8.5%	26.7%	48.7%
Left me out of their games or activities	12.9%	12.2%	23.0%	51.9%
Spread lies about me	13.0%	11.7%	21.9%	53.4%
Stole something from me	7.0%	6.8%	17.1%	69.2%
Hit or hurt me (shoving, hitting, kicking)	11.7%	9.9%	20.7%	57.8%
Made me do things I didn't want to do	8.5%	7.9%	19.3%	64.3%
Shared embarrassing information about me	8.7%	7.5%	18.5%	65.3%
Threatened me	8.3%	6.8%	15.4%	69.4%

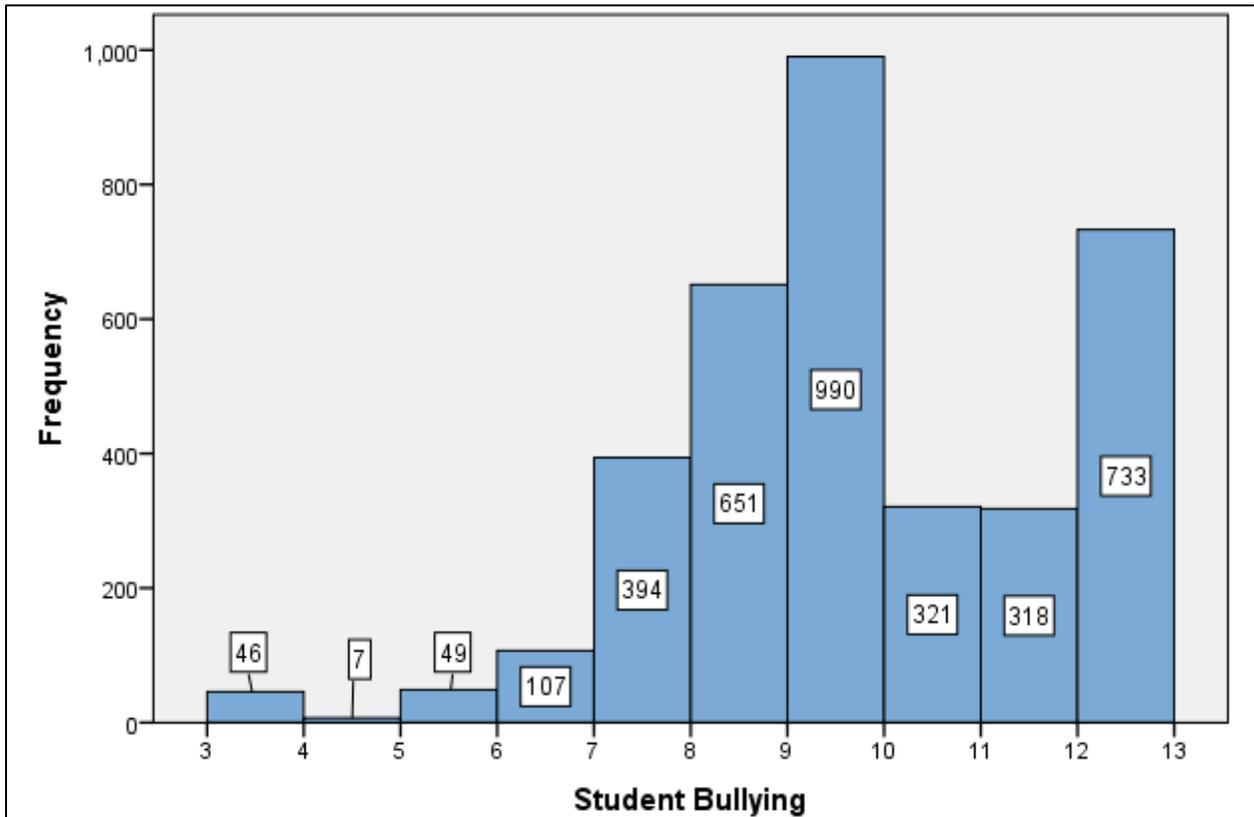
Table 6.7: School bullying across countries

Country	Almost Never		About Monthly		About Weekly		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Kazakhstan	77 (1.2)	540 (2.5)	17 (0.8)	527 (3.7)	6 (0.5)	519 (5.8)	11.2 (0.07)
Finland	75 (1.0)	571 (1.9)	21 (0.9)	557 (3.4)	5 (0.4)	532 (6.1)	10.7 (0.05)
Ireland	74 (1.1)	575 (2.3)	20 (0.9)	551 (3.8)	5 (0.5)	526 (7.6)	10.8 (0.05)
Norway	74 (1.0)	564 (2.3)	21 (0.8)	552 (3.8)	5 (0.4)	524 (6.5)	10.6 (0.05)
Georgia	74 (1.4)	497 (2.8)	18 (1.0)	484 (4.0)	8 (0.6)	439 (5.9)	10.9 (0.06)
Egypt	73 (2.0)	337 (5.9)	18 (1.5)	325 (8.1)	9 (1.0)	294 (13.5)	10.9 (0.10)
Poland	72 (1.0)	573 (2.0)	20 (0.8)	550 (3.6)	7 (0.5)	523 (6.4)	10.7 (0.04)
Azerbaijan	72 (1.2)	483 (4.2)	20 (0.8)	469 (4.1)	8 (0.6)	429 (6.7)	10.9 (0.06)
Sweden	71 (1.0)	562 (2.7)	23 (0.7)	547 (2.9)	6 (0.5)	526 (6.3)	10.5 (0.05)
Denmark	67 (1.2)	552 (2.2)	27 (0.9)	543 (3.4)	7 (0.6)	526 (5.3)	10.3 (0.05)
Iran, Islamic Rep. of	66 (1.9)	430 (4.8)	23 (1.2)	430 (7.4)	10 (1.0)	417 (6.6)	10.6 (0.11)
France	66 (1.2)	518 (2.2)	26 (0.9)	506 (3.8)	8 (0.6)	476 (5.3)	10.4 (0.06)
Chile	64 (1.2)	506 (2.4)	23 (0.9)	493 (3.7)	13 (0.8)	448 (4.7)	10.3 (0.05)
Austria	63 (1.0)	549 (2.4)	27 (0.9)	535 (3.3)	11 (0.6)	512 (4.0)	10.2 (0.04)
Czech Republic	62 (1.0)	549 (2.5)	28 (0.8)	541 (2.5)	10 (0.5)	517 (4.5)	10.3 (0.04)
Chinese Taipei	62 (1.1)	565 (2.4)	27 (0.8)	554 (2.7)	11 (0.5)	540 (3.8)	10.3 (0.05)
Portugal	60 (1.0)	533 (2.5)	28 (0.9)	525 (2.9)	12 (0.7)	509 (4.4)	10.2 (0.05)
Hungary	60 (1.2)	563 (3.1)	31 (0.9)	546 (3.8)	9 (0.7)	524 (5.8)	10.0 (0.04)
Hong Kong SAR	60 (1.4)	575 (2.6)	29 (1.1)	563 (4.2)	11 (0.7)	551 (4.8)	10.0 (0.05)
Lithuania	60 (1.4)	560 (2.8)	30 (1.1)	537 (4.0)	11 (0.7)	519 (4.8)	10.0 (0.06)
Northern Ireland	59 (1.3)	576 (2.6)	29 (1.0)	557 (2.9)	11 (0.8)	531 (5.7)	10.0 (0.06)
Netherlands	58 (1.1)	548 (2.0)	31 (0.9)	546 (2.3)	10 (0.6)	525 (3.7)	9.9 (0.04)
Germany	57 (1.1)	553 (2.9)	32 (0.9)	537 (2.8)	11 (0.6)	510 (5.7)	10.0 (0.04)
Slovak Republic	57 (1.2)	543 (3.4)	29 (1.1)	534 (3.5)	14 (0.8)	502 (6.1)	10.0 (0.05)
Morocco	57 (1.8)	373 (4.1)	29 (1.0)	347 (5.2)	14 (1.0)	325 (7.5)	10.1 (0.08)
Bulgaria	56 (1.8)	561 (5.0)	30 (1.2)	546 (4.3)	14 (1.0)	528 (6.6)	9.9 (0.07)
Slovenia	56 (1.1)	548 (2.3)	29 (0.8)	546 (2.6)	15 (0.7)	517 (4.4)	9.8 (0.04)
United States	56 (1.2)	561 (3.4)	30 (0.9)	549 (3.3)	15 (0.7)	521 (4.6)	9.9 (0.05)
Italy	55 (1.0)	554 (2.5)	31 (0.8)	544 (2.9)	14 (0.7)	538 (3.9)	9.9 (0.04)
Spain	54 (0.8)	536 (1.4)	31 (0.7)	524 (2.6)	15 (0.6)	506 (4.2)	9.9 (0.03)
Malta	54 (0.7)	468 (2.0)	30 (0.7)	445 (3.5)	16 (0.5)	418 (5.0)	9.8 (0.03)
Saudi Arabia	53 (1.8)	453 (4.5)	25 (1.1)	432 (5.5)	22 (1.3)	385 (6.9)	9.9 (0.09)
Belgium (Flemish)	52 (1.2)	531 (2.3)	34 (1.0)	523 (2.6)	13 (0.6)	508 (3.0)	9.7 (0.05)
England	52 (1.2)	569 (2.3)	33 (0.9)	558 (2.5)	15 (0.7)	531 (3.8)	9.7 (0.04)
Russian Federation	52 (1.4)	588 (2.7)	34 (1.1)	578 (2.6)	14 (0.8)	565 (3.5)	9.8 (0.06)
Singapore	50 (0.7)	590 (3.2)	33 (0.7)	572 (3.2)	16 (0.5)	543 (4.8)	9.6 (0.03)
Canada	50 (0.8)	554 (1.9)	33 (0.7)	539 (2.1)	16 (0.7)	521 (3.3)	9.7 (0.03)
Oman	48 (1.7)	437 (4.1)	32 (1.0)	417 (3.7)	20 (1.0)	387 (4.5)	9.7 (0.08)
Kuwait	47 (1.8)	410 (4.2)	37 (1.5)	391 (5.8)	16 (0.9)	367 (8.8)	9.6 (0.07)
Australia	46 (1.1)	557 (3.4)	35 (1.0)	544 (2.7)	19 (0.7)	519 (4.6)	9.5 (0.04)
Latvia	44 (1.2)	568 (2.2)	35 (1.0)	559 (2.3)	20 (0.9)	534 (3.1)	9.4 (0.04)
United Arab Emirates	43 (0.8)	477 (3.5)	32 (0.5)	454 (4.0)	25 (0.7)	408 (4.4)	9.4 (0.04)
Qatar	43 (1.3)	469 (2.3)	32 (0.6)	448 (3.0)	26 (0.9)	402 (4.2)	9.4 (0.06)
Macao SAR	42 (0.7)	555 (1.5)	42 (0.7)	541 (1.6)	16 (0.6)	532 (3.4)	9.3 (0.02)
Belgium (French)	42 (1.1)	505 (3.0)	38 (0.8)	497 (2.7)	20 (0.9)	484 (4.2)	9.3 (0.04)
New Zealand	40 (1.0)	541 (2.9)	36 (0.7)	525 (3.0)	24 (0.8)	494 (3.4)	9.2 (0.04)
Trinidad and Tobago	37 (1.5)	494 (3.6)	36 (1.0)	478 (4.2)	27 (1.4)	462 (4.7)	9.2 (0.07)
Bahrain	36 (1.1)	470 (3.3)	32 (0.7)	451 (3.5)	32 (1.0)	417 (3.4)	9.1 (0.05)
South Africa	22 (0.8)	349 (5.9)	35 (0.7)	332 (4.4)	42 (1.0)	299 (4.5)	8.4 (0.04)
Israel	--	--	--	--	--	--	--
International Avg.	57 (0.2)	521 (0.4)	29 (0.1)	507 (0.5)	14 (0.1)	482 (0.8)	

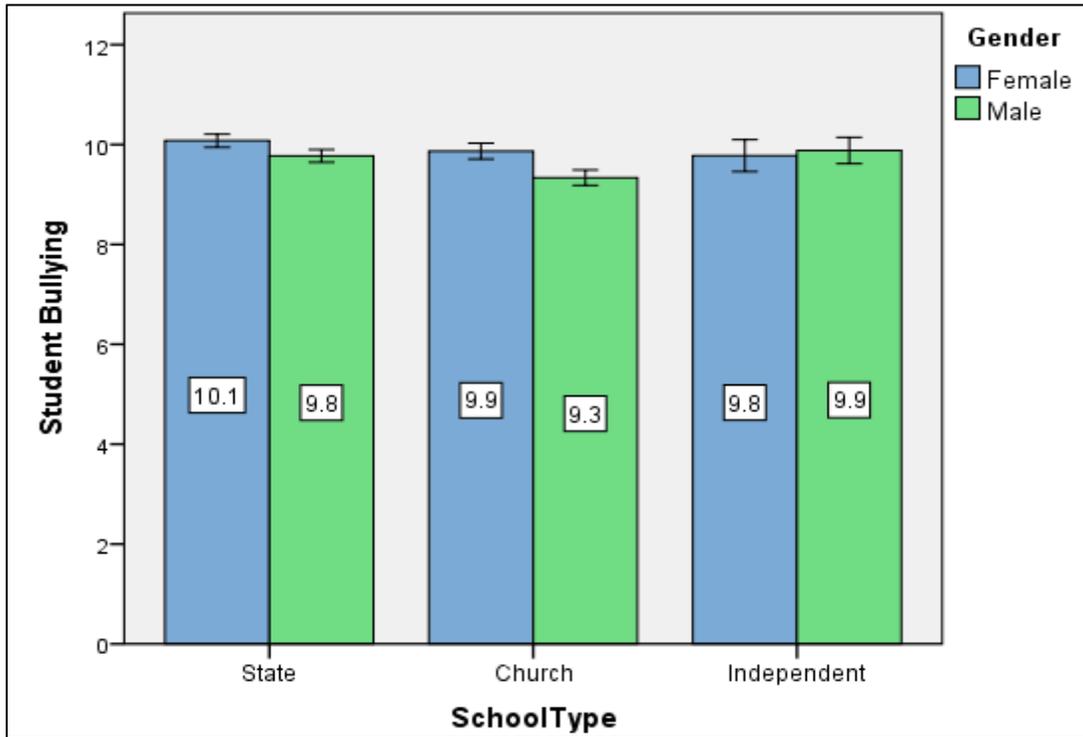
A scale score for School Bullying was generated by considering the students’ responses to how often they experienced eight bullying behaviours on the Student Bullying scale. Students who are almost never bullied had a score on the scale of at least 9.5, which corresponds to ‘never’ experiencing four of the eight bullying behaviours and experiencing each of the other four behaviors ‘a few times a year’, on average. Students who are bullied about weekly had a score less than 7.9, which correspond to their experiencing each of four of the eight behaviours ‘once or twice a month’ and each of the other four ‘a few times a year’, on average. All other students were bullied about monthly. The smaller the scale scores the more severe is the bullying at school.

Figure 6.7 shows that 54% of Maltese students claimed that they almost never experienced bullying at school, 30% claimed that they experienced bullying about monthly and 16% claimed that they experienced bullying about weekly. The corresponding international averages (57%, 29% and 14%) indicate that bullying in Maltese schools is typical when compared to other schools abroad. Kazakhstan (11.2), Georgia (10.9), Egypt (10.9), Azerbaijan (10.9), Ireland (10.8), Finland (10.7) and Poland (10.7) have the highest mean scale scores indicating a lower prevalence of school bullying in these countries. South Africa (8.4), Bahrain (9.1), New Zealand (9.2), Trinidad and Tobago (9.2), Macao (9.3) and Belgium (French) (9.3) have the lowest mean scale scores, indicating a higher prevalence of school bullying in these countries. Malta’s mean scale score (9.8) is marginally below the international average, implying that the prevalence of bullying in Maltese schools is similar to schools abroad.

**Figure 6.8:** Score distribution of Maltese students’ perceptions of school bullying



**Figure 6.9:** Mean scale scores of students' perceptions of school bullying, by school type and gender



**Figure 6.10:** Relationship between reading attainment and school bullying, clustered by school type

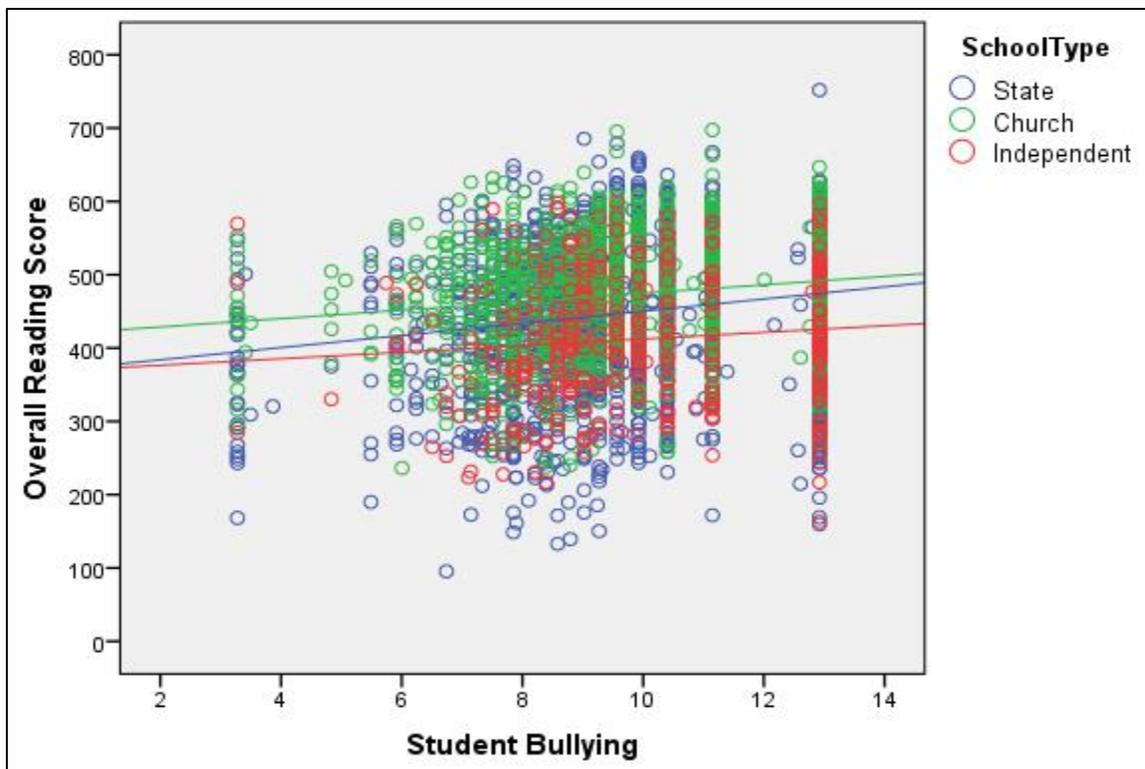


Figure 6.8 displays the score distribution of Maltese students' perceptions regarding school bullying. Figure 6.9 shows that bullying is less prevalent in Church schools than State and Independent schools. In State and Church schools, bullying is more prevalent amongst male students rather than females; however this gender discrepancy is not evident in Independent schools. Figure 6.10 shows that there is a positive relationship between reading attainment and lack of school bullying and this applies to all school types.



## 7

## Teachers' and Heads' of school Preparation

## 7.1 Introduction

Teachers' preparation and training can be an integral part of the teacher education curriculum or can be included in professional development programmes for practicing teachers. PIRLS collects information about how countries educate teachers in the content and pedagogical approaches specified in the curriculum. The requirements to become a primary teacher may include certain types of academic preparation, passing an examination, or meeting other certification criteria. Some countries also have induction or mentoring programmes for entering teachers and a number of opportunities for ongoing professional development in order to keep teachers informed of current developments. This chapter provides background information about the formal education and years of experience of teachers and heads of schools. Moreover, it provides information about the duration of teachers' professional development and the emphasis on language and reading areas in teachers' formal education.

## 7.2 Teachers' formal education

Teachers' education can facilitate the successful implementation of the intended curriculum. PIRLS collects information about the formal education of teachers across participating countries. Table 7.1 shows that 82.1% of Maltese teachers completed a Bachelor's degree, 7.7% completed a Master's degree or a PhD and the remaining 10.2% either completed Upper Secondary Education, obtained a MATSEC certificate or a VET National Diploma

**Table 7.1:** Formal education of Maltese teachers

What is the highest level of formal education you have completed?	Frequency	Percentage
Did not complete Upper Secondary Education/MATSEC Certificate or equivalent	1	0.5%
Completed Upper Secondary Education/MATSEC Certificate or equivalent	6	2.9%
Completed VET National Diploma or equivalent	6	2.9%
Completed Undergraduate Certificate or Diploma or VET Higher National Diploma	8	3.9%
Completed Bachelor's or VET degree or equivalent level	170	82.1%
Completed Master's or equivalent level	15	7.2%
Completed Doctorate or equivalent level	1	0.5%

Figure 7.1: Teachers' Formal Education

Country	Percent of Students by Teacher Education Level			
	Completed Postgraduate University Degree	Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree	Completed Post-Secondary Education but Not a Bachelor's Degree	No Further than Upper-Secondary Education
Australia	12 (2.3)	82 (2.8)	7 (2.0)	0 (0.0)
Austria	5 (1.2)	26 (3.0)	68 (2.9)	0 (0.3)
Azerbaijan	12 (2.6)	46 (3.9)	41 (3.8)	1 (0.6)
Bahrain	17 (3.5)	81 (3.6)	1 (0.5)	1 (0.7)
Belgium (Flemish)	2 (0.8)	96 (1.2)	2 (0.8)	0 (0.4)
Belgium (French)	2 (0.9)	98 (1.0)	0 (0.0)	0 (0.4)
Bulgaria	76 (3.0)	18 (2.7)	6 (1.6)	0 (0.0)
Canada	16 (1.8)	84 (1.8)	0 (0.0)	0 (0.0)
Chile	10 (2.5)	65 (4.3)	25 (3.9)	0 (0.0)
Chinese Taipei	42 (4.1)	58 (4.1)	0 (0.0)	0 (0.0)
Czech Republic	92 (1.5)	2 (0.7)	2 (0.7)	5 (1.1)
Denmark	4 (1.5)	79 (3.0)	15 (2.7)	2 (1.0)
Egypt	1 (0.8)	71 (3.9)	24 (3.8)	3 (1.1)
England	8 (2.2)	92 (2.1)	0 (0.0)	0 (0.3)
Finland	92 (1.8)	6 (1.5)	1 (0.5)	1 (0.4)
France	42 (4.0)	44 (3.8)	11 (2.4)	3 (1.1)
Georgia	82 (2.9)	9 (2.2)	9 (2.1)	0 (0.0)
Germany	90 (2.2)	2 (1.2)	7 (1.9)	0 (0.5)
Hong Kong SAR	37 (3.5)	59 (3.5)	4 (1.7)	0 (0.0)
Hungary	5 (1.7)	95 (1.8)	0 (0.2)	0 (0.0)
Iran, Islamic Rep. of	5 (1.5)	58 (4.1)	26 (3.1)	11 (2.8)
Ireland	26 (3.6)	74 (3.6)	0 (0.0)	0 (0.0)
Israel	34 (3.9)	61 (3.9)	4 (1.3)	0 (0.0)
Italy	2 (1.1)	16 (2.6)	19 (2.9)	63 (3.8)
Kazakhstan	1 (0.7)	84 (2.7)	12 (2.3)	3 (1.1)
Kuwait	9 (2.5)	89 (2.7)	2 (1.0)	0 (0.3)
Latvia	51 (4.1)	44 (4.2)	4 (1.6)	1 (0.2)
Lithuania	27 (3.6)	70 (3.8)	3 (1.2)	0 (0.0)
Macao SAR	9 (0.1)	81 (0.1)	9 (0.0)	1 (0.0)
Malta	7 (0.1)	84 (0.1)	6 (0.1)	3 (0.1)
Morocco	0 (0.4)	42 (3.4)	13 (2.4)	44 (3.5)
Netherlands	4 (1.4)	91 (2.1)	4 (1.4)	1 (0.7)
New Zealand	5 (1.3)	82 (2.4)	13 (2.3)	0 (0.0)
Northern Ireland	19 (3.4)	80 (3.5)	1 (0.7)	0 (0.0)
Norway	22 (3.2)	73 (3.2)	4 (1.4)	0 (0.3)
Oman	11 (1.8)	73 (3.1)	12 (2.4)	3 (1.0)
Poland	100 (0.3)	0 (0.0)	0 (0.3)	0 (0.0)
Portugal	13 (2.5)	83 (2.7)	5 (1.2)	0 (0.0)
Qatar	25 (2.0)	71 (2.1)	3 (0.7)	1 (0.6)
Russian Federation	43 (3.5)	37 (3.3)	19 (2.6)	0 (0.0)
Saudi Arabia	4 (1.7)	77 (3.6)	13 (2.7)	6 (1.8)
Singapore	9 (1.5)	72 (2.7)	18 (2.4)	1 (0.5)
Slovak Republic	98 (1.3)	2 (1.1)	1 (0.7)	0 (0.0)
Slovenia	2 (0.9)	62 (3.2)	36 (3.2)	0 (0.0)
South Africa	1 (0.9)	46 (4.0)	45 (3.9)	7 (1.8)
Spain	24 (2.9)	76 (2.9)	0 (0.1)	0 (0.0)
Sweden	13 (2.8)	81 (3.1)	5 (1.7)	0 (0.2)
Trinidad and Tobago	9 (2.2)	62 (4.0)	24 (3.5)	5 (1.9)
United Arab Emirates	22 (2.4)	71 (2.1)	7 (1.6)	0 (0.0)
United States	55 (4.0)	45 (4.0)	0 (0.0)	0 (0.0)
International Avg.	26 (0.3)	60 (0.4)	11 (0.3)	3 (0.1)

Figure 7.1 displays the percentage of teachers within each education level across participating countries. Since these percentages are weighted by the number of students in the class, they may differ slightly from those provided in Table 7.1. The percentage of Maltese teachers who completed a Master's degree or a PhD (7%) is significantly lower than the international average (26%). Poland (100%) tops the list, followed by Slovak Republic (98%), Czech Republic (92%), Finland (92%), and Germany (90%). On the other hand, the percentage of Maltese teachers with a Bachelor's degree (84%) is significantly higher than the international average (60%). Belgium (French) (98%) tops the list, followed by Belgium (Flemish) (96%), Hungary (95%), England (92%) and Netherlands (91%). The percentage of Maltese teachers who completed post-secondary education or a diploma (9%) is comparable to international average proportions (11%). Italy tops the list (82%), followed by Austria (68%), Morocco (57%) and South Africa (52%), Azerbaijan (42%) and Iran (37%).

### 7.3 Emphasis on language/reading areas in teachers' formal education

Table 7.2 shows the percentage of Maltese teachers who during their formal education and training made major, minor or no emphasis on a number of areas related to language, pedagogy, teaching reading and reading theory.

**Table 7.2:** Emphasis on language and reading areas by Maltese teachers in formal education/training

As part of your formal education and/or training, to what extent did you study the following areas?	Not at all	Introduction to topic	It was an area of emphasis
Maltese	5.8%	23.7%	70.5%
Literature	14.6%	43.4%	42.0%
Pedagogy/teaching reading	4.3%	16.4%	79.2%
Educational psychology	3.9%	26.1%	70.0%
Remedial reading	28.6%	55.3%	16.0%
Reading theory	19.0%	52.7%	28.3%
Special education	10.7%	54.9%	34.5%
Second language learning	17.0%	36.4%	46.6%
Assessment methods in reading	15.5%	58.3%	26.2%
Early childhood education	13.6%	38.8%	47.6%

Figure 7.2 shows that the percentage of Maltese teachers who emphasized language in their formal education or training (71%) is comparable to the international average (70%). Bulgaria (97%) tops the list, followed by Poland (94%), Slovak Republic (93%), Qatar (90%) and Czech Republic (89%). The percentage of Maltese teachers who emphasized pedagogy and teaching reading in their formal education or training (80%) is significantly higher than the international average (64%). Bulgaria (95%) tops the list, followed by Hungary (86%), Azerbaijan (85%), Russia (85%), Malta (80%), Lithuania (80%) and Singapore (80%). The percentage of Maltese teachers who emphasized reading theory in their formal education or training (28%) is significantly lower than the international average (32%). Azerbaijan (69%) tops the list, followed by Georgia (58%), Kazakhstan (56%), Lithuania (56%), Trinidad and Tobago (49%), Sweden (46%) and Russia (46%). It is evident that students' reading achievement scores are weakly related to whether the teachers received major or minor emphasis on language, pedagogical and reading areas in their formal education and training.

Figure 7.2: Emphasis on language and reading areas by teachers in formal education/training

Country	Language			Pedagogy / Teaching Reading			Reading Theory		
	Percent of Students	Average Achievement		Percent of Students	Average Achievement		Percent of Students	Average Achievement	
	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized	Area Emphasized	Area Emphasized	Area Not Emphasized
Australia	81 (2.8)	547 (3.1)	539 (6.7)	68 (3.2)	544 (3.1)	547 (4.8)	38 (3.1)	548 (4.0)	544 (3.5)
Austria	72 (3.1)	540 (2.9)	544 (4.3)	57 (3.4)	541 (3.4)	541 (3.2)	44 (3.2)	542 (3.5)	541 (3.0)
Azerbaijan	84 (2.4)	470 (5.0)	477 (9.2)	85 (2.8)	476 (4.0)	457 (17.5)	69 (3.3)	476 (5.0)	473 (7.6)
Bahrain	87 (2.4)	445 (2.9)	450 (11.8)	66 (4.2)	449 (3.5)	442 (7.2)	32 (3.8)	451 (6.0)	445 (3.5)
Belgium (Flemish)	77 (3.3)	526 (2.4)	523 (3.7)	63 (3.7)	525 (2.5)	525 (3.2)	43 (3.8)	529 (3.2)	523 (2.7)
Belgium (French)	76 (3.8)	496 (3.0)	505 (6.0)	57 (3.9)	501 (3.0)	494 (4.7)	25 (3.3)	498 (5.0)	498 (3.0)
Bulgaria	97 (1.1)	550 (4.3)	591 (16.0)	95 (1.7)	552 (4.4)	560 (12.6)	39 (3.8)	555 (6.4)	551 (6.3)
Canada	55 (2.3)	541 (2.3)	547 (2.3)	61 (2.2)	543 (2.3)	544 (2.7)	20 (1.8)	543 (3.9)	543 (2.1)
Chile	60 (4.6)	491 (4.2)	504 (4.8)	57 (4.8)	491 (4.4)	504 (5.4)	28 (4.3)	490 (6.9)	502 (3.6)
Chinese Taipei	22 (3.3)	556 (3.8)	560 (2.3)	48 (3.8)	560 (2.6)	558 (2.7)	14 (2.8)	555 (5.0)	559 (2.2)
Czech Republic	89 (2.0)	543 (2.2)	550 (6.0)	69 (3.2)	545 (2.3)	540 (3.9)	24 (2.2)	544 (3.9)	543 (2.3)
Denmark	77 (3.3)	548 (2.4)	545 (4.2)	57 (3.9)	547 (2.6)	548 (3.6)	42 (4.0)	548 (3.3)	548 (2.9)
Egypt	83 (3.6)	339 (6.5)	290 (18.4)	70 (4.1)	338 (7.5)	320 (11.2)	44 (4.5)	338 (11.0)	327 (8.2)
England	74 (3.5)	558 (2.3)	559 (4.1)	65 (3.5)	561 (2.8)	554 (4.2)	16 (2.6)	561 (7.7)	558 (2.5)
Finland	23 (2.9)	564 (3.3)	567 (2.1)	21 (2.5)	565 (3.0)	567 (2.2)	10 (2.1)	555 (5.1)	567 (2.1)
France	70 (3.6)	512 (2.6)	511 (4.8)	41 (3.8)	516 (3.9)	508 (2.5)	18 (3.3)	517 (6.7)	510 (2.3)
Georgia	73 (3.6)	491 (3.6)	489 (4.4)	82 (2.9)	488 (2.9)	498 (7.4)	58 (3.5)	486 (3.7)	497 (4.4)
Germany	60 (3.6)	542 (3.3)	530 (6.8)	44 (3.7)	537 (6.5)	538 (3.7)	24 (3.1)	540 (5.0)	537 (4.1)
Hong Kong SAR	79 (3.0)	571 (3.0)	559 (5.9)	58 (4.4)	572 (3.6)	564 (4.3)	14 (3.4)	568 (10.0)	570 (2.9)
Hungary	84 (2.8)	555 (3.1)	551 (10.8)	86 (3.0)	555 (3.3)	551 (11.2)	26 (3.5)	546 (5.6)	557 (3.9)
Iran, Islamic Rep. of	36 (3.1)	421 (7.8)	432 (5.4)	64 (3.4)	424 (5.9)	435 (6.0)	19 (3.2)	411 (9.9)	432 (5.0)
Ireland	69 (4.1)	568 (2.6)	563 (4.9)	76 (3.6)	567 (3.2)	565 (5.0)	36 (4.1)	565 (5.4)	567 (2.9)
Israel	66 (3.8)	519 (4.4)	551 (4.5)	68 (3.9)	529 (3.7)	530 (8.2)	42 (4.1)	520 (5.9)	538 (5.2)
Italy	33 (3.8)	554 (2.8)	546 (3.4)	30 (3.6)	548 (5.0)	549 (2.7)	13 (2.8)	553 (5.3)	548 (2.9)
Kazakhstan	60 (3.5)	543 (3.9)	528 (3.6)	74 (3.2)	539 (3.0)	531 (5.4)	56 (4.6)	540 (3.9)	533 (4.1)
Kuwait	81 (3.1)	396 (4.6)	388 (14.6)	64 (5.7)	395 (7.0)	399 (12.5)	32 (4.5)	383 (11.3)	401 (6.6)
Latvia	67 (3.6)	557 (2.1)	559 (3.9)	73 (3.6)	560 (2.1)	557 (4.1)	33 (3.6)	557 (3.3)	559 (2.4)
Lithuania	64 (3.7)	551 (3.2)	542 (5.1)	80 (3.1)	550 (3.0)	541 (6.9)	56 (4.2)	548 (3.7)	548 (4.2)
Macao SAR	53 (0.1)	554 (1.4)	535 (1.6)	38 (0.1)	561 (1.7)	536 (1.2)	9 (0.1)	548 (3.6)	545 (1.0)
Malta	71 (0.1)	453 (1.9)	449 (3.0)	80 (0.1)	454 (2.0)	444 (3.4)	28 (0.1)	460 (2.7)	449 (2.1)
Morocco	85 (2.4)	362 (4.4)	339 (13.1)	74 (3.3)	353 (5.9)	371 (9.6)	35 (3.4)	363 (7.7)	356 (6.3)
Netherlands	35 (4.4)	540 (3.9)	547 (2.3)	59 (4.0)	543 (2.8)	546 (2.5)	29 (3.4)	545 (5.0)	544 (2.0)
New Zealand	70 (2.9)	525 (2.7)	532 (4.8)	73 (2.6)	531 (2.9)	515 (6.3)	39 (3.1)	528 (4.2)	525 (4.2)
Northern Ireland	69 (3.8)	564 (2.9)	564 (4.8)	56 (5.0)	567 (3.6)	561 (3.7)	26 (4.3)	571 (5.9)	561 (2.8)
Norway	57 (3.5)	560 (2.7)	558 (3.2)	47 (4.0)	562 (3.4)	556 (2.8)	12 (2.3)	560 (6.2)	559 (2.4)
Oman	86 (2.2)	419 (3.7)	417 (7.8)	75 (3.0)	423 (4.1)	406 (5.3)	32 (2.9)	420 (6.7)	419 (4.1)
Poland	94 (1.8)	565 (2.3)	564 (9.5)	50 (4.0)	561 (3.2)	569 (3.1)	30 (3.8)	557 (4.4)	568 (2.5)
Portugal	67 (3.4)	527 (2.7)	532 (5.0)	63 (3.6)	527 (2.9)	530 (4.9)	29 (3.2)	529 (4.4)	528 (3.1)
Qatar	90 (1.4)	439 (2.4)	465 (13.8)	75 (2.3)	446 (2.7)	435 (7.0)	37 (3.0)	436 (6.5)	447 (4.7)
Russian Federation	75 (3.1)	583 (2.7)	571 (4.9)	85 (2.2)	582 (2.5)	574 (6.4)	46 (3.9)	579 (4.3)	582 (3.2)
Saudi Arabia	72 (3.5)	438 (5.1)	420 (9.1)	70 (4.1)	434 (6.2)	433 (9.2)	32 (4.7)	434 (9.2)	433 (7.8)
Singapore	83 (2.2)	578 (3.4)	567 (8.5)	80 (2.0)	580 (3.4)	560 (7.5)	28 (2.4)	591 (5.8)	571 (3.8)
Slovak Republic	93 (1.7)	535 (3.1)	532 (13.3)	76 (2.6)	536 (3.1)	532 (8.4)	36 (3.3)	535 (4.5)	535 (4.2)
Slovenia	59 (4.0)	544 (2.3)	540 (3.6)	24 (3.0)	543 (2.8)	542 (2.4)	6 (2.1)	544 (5.1)	542 (2.1)
South Africa	71 (3.7)	328 (6.7)	313 (10.2)	58 (4.1)	320 (7.8)	330 (9.7)	36 (4.1)	313 (6.3)	330 (8.7)
Spain	82 (2.5)	529 (2.0)	526 (4.9)	58 (3.4)	531 (2.0)	523 (3.4)	15 (2.2)	538 (3.3)	526 (2.1)
Sweden	82 (3.0)	555 (2.6)	559 (5.8)	56 (4.1)	556 (3.2)	555 (3.5)	46 (4.6)	556 (3.8)	555 (3.1)
Trinidad and Tobago	77 (3.1)	484 (4.3)	464 (6.5)	72 (3.7)	478 (4.7)	480 (7.7)	49 (4.3)	477 (5.1)	480 (6.6)
United Arab Emirates	85 (1.8)	450 (3.8)	470 (9.3)	69 (2.5)	454 (4.6)	457 (6.9)	43 (2.7)	456 (6.4)	454 (5.5)
United States	45 (3.7)	552 (4.9)	548 (4.1)	76 (3.0)	550 (3.5)	548 (7.2)	39 (3.4)	558 (4.1)	545 (4.3)
International Avg.	70 (0.4)	512 (0.5)	510 (1.1)	64 (0.5)	512 (0.6)	509 (0.9)	32 (0.5)	511 (0.8)	511 (0.6)

## 7.4 Teachers' teaching experience duration

Figure 7.3 displays the percentage of teachers, across participating countries, clustered by years of experience and the effect it has on students' reading attainment.

**Figure 7.3:** Teachers' teaching experience duration

Country	20 Years or More		At Least 10 but Less than 20 Years		At Least 5 but Less than 10 Years		Less than 5 Years		Average Years of Experience
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Australia	40 (3.3)	547 (4.4)	23 (2.9)	542 (4.2)	15 (2.7)	549 (7.4)	22 (2.8)	542 (7.6)	17 (0.8)
Austria	59 (3.7)	541 (3.1)	19 (2.9)	551 (5.3)	12 (2.2)	528 (6.8)	10 (2.0)	542 (6.8)	22 (0.9)
Azerbaijan	64 (3.3)	474 (5.7)	24 (2.9)	471 (9.6)	6 (1.8)	475 (17.7)	6 (1.6)	451 (10.0)	23 (0.7)
Bahrain	12 (2.5)	429 (9.9)	45 (4.8)	450 (4.8)	18 (3.9)	452 (9.0)	25 (2.6)	438 (7.8)	11 (0.5)
Belgium (Flemish)	37 (3.5)	529 (3.2)	37 (3.6)	529 (2.8)	10 (1.9)	516 (7.8)	17 (2.7)	514 (5.0)	17 (0.7)
Belgium (French)	47 (3.8)	503 (3.5)	31 (3.5)	494 (5.2)	15 (2.7)	494 (8.0)	6 (1.6)	479 (8.8)	19 (0.8)
Bulgaria	87 (2.9)	550 (4.7)	8 (2.3)	549 (13.1)	3 (1.2)	583 (8.8)	2 (0.8)	--	28 (0.7)
Canada	28 (2.1)	545 (3.4)	37 (2.4)	545 (3.0)	20 (1.9)	540 (3.9)	16 (1.7)	540 (6.4)	14 (0.4)
Chile	28 (4.6)	503 (5.1)	27 (4.4)	498 (6.7)	28 (4.6)	487 (7.8)	17 (3.3)	501 (8.4)	15 (1.1)
Chinese Taipei	42 (4.0)	556 (2.6)	45 (4.1)	561 (3.0)	8 (2.3)	565 (5.8)	4 (1.6)	549 (9.9)	18 (0.6)
Czech Republic	54 (3.5)	545 (3.0)	24 (3.0)	545 (3.9)	11 (2.4)	537 (7.9)	11 (2.1)	538 (4.4)	20 (0.7)
Denmark	31 (3.8)	554 (3.6)	38 (4.3)	543 (3.7)	21 (3.1)	547 (4.3)	10 (2.2)	546 (6.6)	16 (0.8)
Egypt	43 (4.4)	315 (9.3)	32 (3.9)	353 (9.5)	18 (3.6)	332 (16.9)	7 (1.9)	318 (29.5)	17 (0.9)
England	20 (3.0)	563 (4.7)	26 (3.3)	554 (4.6)	18 (2.8)	563 (4.3)	35 (3.3)	557 (4.1)	11 (0.7)
Finland	38 (3.1)	567 (3.2)	25 (2.5)	565 (4.9)	18 (2.5)	563 (3.6)	18 (2.8)	571 (3.4)	16 (0.8)
France	30 (3.6)	521 (3.6)	41 (3.7)	510 (3.3)	18 (2.6)	509 (8.1)	12 (2.2)	495 (7.0)	16 (0.7)
Georgia	67 (3.5)	488 (3.2)	23 (3.1)	492 (6.4)	7 (1.9)	486 (11.4)	3 (1.2)	518 (16.0)	23 (0.8)
Germany	38 (3.8)	536 (6.7)	32 (3.7)	544 (4.0)	17 (2.8)	527 (8.7)	13 (2.5)	544 (8.0)	18 (0.9)
Hong Kong SAR	34 (3.9)	576 (5.0)	40 (4.3)	570 (4.8)	13 (3.0)	563 (8.6)	13 (2.4)	561 (6.6)	15 (0.6)
Hungary	61 (4.0)	558 (4.1)	22 (3.2)	560 (6.4)	13 (2.5)	535 (11.2)	4 (1.5)	532 (20.2)	24 (1.0)
Iran, Islamic Rep. of	49 (3.6)	444 (5.6)	23 (3.4)	415 (11.0)	15 (2.2)	404 (14.6)	13 (2.6)	415 (12.0)	17 (0.7)
Ireland	20 (3.3)	567 (5.0)	29 (3.4)	569 (4.0)	34 (4.1)	567 (4.8)	17 (2.6)	563 (5.5)	13 (0.9)
Israel	34 (3.5)	547 (6.3)	34 (4.0)	520 (8.1)	23 (3.8)	525 (9.6)	9 (2.4)	520 (16.6)	16 (0.8)
Italy	71 (3.0)	552 (2.7)	22 (2.9)	543 (5.4)	3 (0.8)	530 (12.9)	4 (1.7)	524 (13.8)	25 (0.8)
Kazakhstan	50 (4.0)	540 (3.5)	30 (3.7)	536 (5.2)	9 (2.2)	535 (8.5)	10 (2.2)	521 (7.5)	20 (0.8)
Kuwait	14 (3.6)	398 (22.8)	40 (5.5)	400 (8.8)	23 (4.0)	383 (8.0)	23 (4.6)	399 (15.6)	11 (0.7)
Latvia	81 (2.9)	557 (2.1)	12 (2.3)	565 (5.5)	4 (1.6)	556 (8.7)	3 (1.1)	548 (7.6)	27 (0.7)
Lithuania	86 (2.4)	548 (2.7)	11 (2.1)	549 (13.0)	2 (1.0)	--	1 (0.6)	--	27 (0.6)
Macao SAR	30 (0.1)	547 (1.7)	28 (0.1)	545 (2.4)	18 (0.1)	546 (2.3)	23 (0.1)	542 (2.8)	14 (0.0)
Malta	19 (0.1)	462 (3.8)	35 (0.2)	464 (2.6)	17 (0.1)	448 (3.8)	30 (0.1)	434 (2.5)	11 (0.0)
Morocco	56 (2.8)	346 (5.0)	21 (2.8)	364 (8.8)	13 (2.5)	369 (16.9)	10 (2.4)	383 (19.2)	21 (0.6)
Netherlands	39 (3.9)	548 (2.7)	29 (3.2)	545 (3.6)	15 (3.0)	545 (4.7)	17 (2.9)	540 (7.3)	17 (0.9)
New Zealand	21 (2.3)	529 (5.9)	40 (2.6)	532 (3.6)	18 (1.9)	521 (6.0)	22 (2.6)	520 (7.7)	13 (0.6)
Northern Ireland	45 (4.2)	558 (3.3)	29 (4.2)	570 (5.2)	15 (3.6)	577 (6.0)	11 (2.6)	554 (8.6)	18 (0.9)
Norway	28 (3.5)	562 (4.0)	37 (4.1)	559 (2.8)	19 (3.3)	559 (4.5)	16 (2.9)	554 (5.2)	15 (0.8)
Oman	20 (2.9)	434 (8.0)	33 (3.1)	412 (4.4)	30 (3.2)	415 (7.2)	17 (2.2)	417 (5.4)	12 (0.5)
Poland	56 (3.8)	566 (2.9)	29 (3.3)	564 (4.0)	4 (1.3)	563 (8.8)	10 (2.6)	561 (8.2)	21 (0.9)
Portugal	46 (2.6)	529 (2.5)	48 (3.3)	527 (4.2)	4 (2.2)	538 (8.4)	2 (0.9)	--	21 (0.4)
Qatar	14 (1.7)	452 (9.8)	27 (2.0)	440 (4.7)	33 (2.2)	440 (6.5)	27 (2.2)	442 (7.0)	10 (0.4)
Russian Federation	75 (3.3)	583 (2.9)	12 (2.5)	572 (9.1)	7 (1.8)	582 (10.6)	6 (1.7)	570 (10.2)	25 (0.9)
Saudi Arabia	33 (4.0)	424 (7.9)	36 (4.0)	420 (7.7)	23 (3.8)	435 (11.0)	8 (2.2)	458 (23.0)	15 (0.6)
Singapore	19 (2.3)	580 (9.1)	36 (2.9)	578 (5.3)	22 (2.0)	579 (6.4)	22 (2.4)	567 (6.3)	13 (0.5)
Slovak Republic	56 (3.7)	540 (3.9)	27 (3.1)	527 (6.6)	9 (1.8)	536 (9.8)	8 (1.9)	520 (13.3)	22 (0.8)
Slovenia	66 (3.7)	543 (2.6)	25 (3.3)	539 (3.3)	6 (1.8)	543 (6.9)	3 (1.2)	562 (7.2)	24 (0.7)
South Africa	40 (4.0)	315 (7.8)	24 (3.3)	325 (7.6)	13 (2.5)	313 (17.9)	23 (3.1)	322 (11.4)	15 (0.7)
Spain	47 (3.2)	527 (2.3)	26 (2.5)	531 (3.2)	18 (2.5)	526 (7.5)	8 (1.6)	525 (4.4)	19 (0.8)
Sweden	19 (3.2)	554 (4.9)	43 (4.7)	559 (3.1)	17 (3.8)	563 (6.4)	21 (3.5)	544 (4.3)	13 (0.7)
Trinidad and Tobago	44 (3.9)	478 (5.8)	36 (3.6)	472 (7.5)	9 (2.0)	510 (14.7)	11 (2.9)	482 (14.8)	18 (0.8)
United Arab Emirates	12 (1.4)	444 (11.7)	34 (2.6)	433 (5.0)	30 (2.2)	465 (7.6)	24 (2.4)	471 (6.5)	10 (0.3)
United States	30 (3.4)	557 (4.9)	37 (3.8)	549 (5.7)	16 (3.3)	553 (6.9)	17 (2.4)	535 (8.7)	15 (0.8)
International Avg.	42 (0.5)	513 (0.9)	30 (0.5)	511 (0.9)	15 (0.4)	510 (1.3)	13 (0.3)	505 (1.6)	17 (0.1)

The percentage of Maltese teachers with less than 5 years teaching experience (30%) is significantly larger than the international average (13%). England (35%) tops the list, followed by Malta (30%), Qatar (27%), Bahrain (25%), United Arab Emirates (24%), Kuwait (23%), Macao (23%) and South Africa (23%). The percentage of Maltese teachers with 5 to 9 years teaching experience (17%) is marginally larger than the international average (15%). Ireland (34%) tops the list, followed by Qatar (33%), Norway (30%), Oman (30%), United Arab Emirates (30%), Chile (28%), Israel (23%), Kuwait (23%), South Africa (23%), Singapore (22%) and Denmark (21%). The percentage of Maltese teachers with 10 to 19 years teaching experience (35%) is significantly larger than the international average (30%). Portugal (48%) tops the list, followed by Bahrain (45%), Chinese Taipei (45%), Sweden (43%), France (41%), Hong Kong (40%) and New Zealand (40%). The percentage of Maltese teachers with 20 years or more teaching experience (19%) is significantly smaller than the international average (42%). Bulgaria (87%) tops the list, followed by Lithuania (86%), Latvia (81%), Russia (75%), Italy (71%), Georgia (67%), Slovenia (66%), Azerbaijan (64%), Hungary (61%) and Austria (59%).

**Table 7.3:** Teaching experience duration of Maltese teachers'

By the end of this year, how long have you been teaching altogether?	Frequency	Percentage
1-5 years	75	36.2%
6-10 years	29	14.0%
11-15 years	38	18.4%
16-20 years	40	19.3%
More than 20 years	25	12.1%

Table 7.3 displays the teaching experience duration of Maltese teachers. Around 50% of Maltese teachers have at most 10 years of teaching experiences and only 12% have more than 20 years of teaching experience. The average teaching experience duration of Maltese teachers (11 years) is significantly lower than the international average (17 years). United Arab Emirates and Qatar have the youngest teaching workforce (mean teaching experience duration is 10 years), followed Malta, Bahrain, England and Kuwait (mean teaching experience duration is 11 years). On the other hand, Bulgaria, Latvia, Lithuania, Italy and Russia have the eldest teaching workforce (24 years teaching experience) followed by Azerbaijan, Poland and Romania (mean teaching experience duration at least 25 years). There is a weak positive relationship between the students' reading attainment and the teachers' teaching experience duration. Across all countries, the mean reading scores of students taught by teachers with '20 years or more', '10 to 19 years', '5 to 9 years' and 'less than 5 years' teaching experience are 513, 511, 510 and 505 respectively. The corresponding mean reading scores of Maltese students are 462, 464, 448 and 434 respectively.

## 7.5 Time spent by teachers on professional reading development

Figure 7.4 and Table 7.4 show the time spent by foreign and Maltese teachers on professional reading development across participating countries and the effect it has on students' reading attainment. The percentage of Maltese teachers who spend 16 hours or more on professional reading development (29%) is significantly lower than the international average (36%). Georgia (68%) tops the list, followed by Azerbaijan (67%), Macao (62%), Kazakhstan (60%), Russia (59%), Iran (58%) and Qatar (57%).

Figure 7.4: Time spent by teachers on professional reading development

Country	16 Hours or More		6–15 Hours		Less Than 6 Hours		None	
	Percent of Students	Average Achievement						
Australia	49 (3.8)	542 (3.8)	27 (3.6)	544 (5.2)	21 (2.7)	556 (5.7)	3 (0.9)	536 (12.8)
Austria	28 (3.2)	542 (4.3)	49 (3.4)	539 (3.5)	16 (2.4)	547 (5.3)	7 (1.9)	544 (5.2)
Azerbaijan	67 (3.7)	477 (4.7)	22 (3.1)	468 (12.9)	6 (1.7)	455 (16.4)	5 (1.4)	455 (18.9)
Bahrain	42 (3.1)	460 (5.2)	27 (3.1)	433 (6.1)	20 (2.5)	439 (7.5)	11 (2.2)	422 (13.8)
Belgium (Flemish)	6 (1.5)	516 (9.7)	20 (3.2)	527 (4.8)	39 (3.5)	522 (3.5)	35 (3.6)	530 (3.4)
Belgium (French)	8 (1.8)	496 (7.3)	24 (3.4)	505 (6.0)	30 (3.3)	491 (4.8)	38 (3.7)	499 (4.2)
Bulgaria	33 (3.3)	556 (6.3)	35 (3.7)	552 (7.2)	18 (3.0)	550 (10.6)	13 (2.7)	540 (11.5)
Canada	34 (2.0)	537 (3.3)	30 (2.1)	545 (3.1)	29 (2.2)	546 (3.1)	8 (1.3)	556 (4.5)
Chile	49 (4.4)	496 (5.2)	28 (3.7)	495 (5.0)	15 (3.5)	490 (7.6)	9 (2.8)	518 (9.3)
Chinese Taipei	39 (4.1)	562 (2.9)	31 (3.9)	559 (4.1)	26 (3.6)	554 (2.8)	4 (1.7)	565 (11.6)
Czech Republic	12 (2.4)	543 (5.8)	36 (3.3)	542 (3.3)	30 (3.3)	546 (3.3)	22 (2.7)	542 (5.7)
Denmark	26 (3.2)	549 (5.0)	17 (3.3)	552 (4.7)	14 (2.7)	548 (6.9)	43 (3.6)	545 (2.7)
Egypt	52 (4.3)	328 (7.7)	29 (3.6)	328 (13.2)	14 (3.1)	342 (14.8)	5 (1.8)	328 (13.8)
England	20 (2.9)	551 (5.8)	29 (3.5)	560 (5.3)	34 (3.4)	556 (3.5)	18 (2.9)	566 (4.5)
Finland	5 (1.1)	549 (5.5)	12 (2.2)	563 (5.3)	24 (3.0)	562 (4.3)	59 (3.1)	569 (2.1)
France	6 (1.4)	502 (12.0)	18 (3.1)	515 (4.2)	38 (3.8)	509 (4.4)	38 (4.3)	514 (3.1)
Georgia	68 (3.9)	489 (3.5)	19 (2.9)	487 (6.9)	6 (2.1)	492 (11.9)	7 (2.0)	490 (11.0)
Germany	5 (1.8)	563 (9.4)	26 (3.3)	530 (9.4)	41 (3.8)	539 (4.3)	27 (3.4)	539 (5.4)
Hong Kong SAR	22 (3.7)	573 (7.7)	35 (4.0)	562 (4.5)	31 (4.1)	572 (4.7)	12 (2.8)	576 (9.3)
Hungary	25 (3.4)	551 (6.6)	15 (2.5)	567 (5.8)	25 (3.6)	564 (6.9)	36 (3.4)	544 (6.8)
Iran, Islamic Rep. of	58 (3.5)	426 (6.4)	15 (2.5)	417 (11.8)	13 (2.7)	439 (11.4)	14 (2.9)	435 (8.6)
Ireland	34 (3.3)	564 (5.9)	22 (3.3)	567 (4.8)	35 (3.6)	567 (4.2)	10 (2.2)	572 (6.2)
Israel	54 (3.5)	522 (5.0)	19 (3.4)	528 (10.8)	16 (2.9)	544 (7.5)	11 (2.5)	553 (7.2)
Italy	25 (3.7)	549 (4.1)	26 (3.2)	549 (4.7)	23 (3.3)	551 (4.9)	26 (3.4)	546 (5.4)
Kazakhstan	60 (3.5)	540 (3.6)	25 (3.3)	532 (4.4)	11 (2.4)	526 (8.4)	3 (1.4)	547 (19.0)
Kuwait	24 (3.2)	388 (12.1)	34 (5.8)	395 (11.5)	29 (4.4)	396 (10.6)	13 (4.0)	395 (18.9)
Latvia	48 (3.9)	558 (3.2)	33 (4.0)	552 (3.4)	14 (2.7)	570 (4.3)	5 (1.6)	564 (9.8)
Lithuania	27 (3.7)	544 (6.0)	48 (3.5)	550 (3.5)	21 (2.8)	552 (7.6)	5 (1.7)	538 (10.7)
Macao SAR	62 (0.1)	550 (1.3)	21 (0.1)	545 (2.0)	14 (0.1)	532 (2.9)	2 (0.0)	~ ~
Malta	29 (0.1)	442 (3.1)	38 (0.1)	460 (2.2)	29 (0.1)	449 (3.1)	5 (0.1)	463 (5.5)
Morocco	7 (1.7)	393 (21.6)	6 (1.4)	396 (17.3)	21 (2.9)	359 (11.1)	66 (3.0)	350 (5.2)
Netherlands	28 (3.9)	539 (4.1)	30 (4.0)	546 (3.8)	33 (4.4)	546 (4.0)	10 (2.0)	560 (4.1)
New Zealand	41 (2.7)	517 (4.0)	30 (2.5)	529 (3.8)	22 (2.2)	534 (5.5)	7 (1.4)	547 (8.3)
Northern Ireland	25 (4.4)	566 (5.6)	31 (4.8)	559 (5.1)	34 (4.9)	565 (4.2)	10 (2.7)	568 (8.5)
Norway	32 (3.5)	561 (3.6)	32 (3.5)	559 (4.0)	18 (3.1)	560 (4.7)	18 (2.7)	553 (4.0)
Oman	52 (3.0)	420 (4.8)	26 (2.6)	425 (5.5)	17 (2.6)	411 (6.2)	5 (1.5)	407 (8.8)
Poland	23 (3.7)	561 (5.2)	27 (2.9)	556 (4.6)	33 (3.5)	570 (2.9)	17 (3.4)	573 (6.4)
Portugal	33 (2.9)	531 (4.5)	20 (2.4)	529 (4.8)	20 (2.8)	529 (5.6)	28 (2.8)	523 (3.3)
Qatar	57 (2.6)	432 (3.2)	27 (2.7)	454 (6.3)	12 (1.5)	457 (7.9)	4 (1.0)	476 (20.3)
Russian Federation	59 (3.3)	582 (3.5)	16 (2.5)	577 (6.1)	15 (2.4)	581 (5.7)	10 (1.7)	580 (5.9)
Saudi Arabia	46 (4.0)	432 (6.5)	37 (3.9)	433 (8.2)	13 (2.2)	414 (13.9)	4 (1.5)	436 (15.8)
Singapore	46 (2.8)	584 (5.0)	31 (2.5)	571 (5.6)	16 (1.9)	573 (8.7)	7 (1.2)	562 (10.8)
Slovak Republic	24 (3.2)	523 (8.7)	15 (2.3)	544 (3.7)	24 (3.3)	540 (8.2)	37 (3.1)	535 (5.8)
Slovenia	13 (2.2)	542 (3.7)	39 (3.6)	542 (3.6)	32 (3.6)	541 (3.2)	15 (2.9)	544 (5.5)
South Africa	43 (3.8)	322 (7.6)	25 (3.0)	315 (13.7)	24 (3.3)	323 (9.1)	9 (1.9)	326 (21.2)
Spain	48 (2.9)	527 (2.1)	21 (2.0)	526 (5.8)	15 (2.4)	528 (4.4)	17 (2.3)	535 (3.3)
Sweden	37 (3.9)	555 (3.8)	25 (3.6)	556 (5.3)	24 (3.8)	557 (4.6)	15 (2.9)	554 (5.7)
Trinidad and Tobago	49 (4.1)	471 (5.8)	26 (3.5)	473 (6.7)	16 (3.0)	494 (10.5)	9 (2.6)	519 (17.7)
United Arab Emirates	50 (2.6)	437 (4.9)	31 (2.6)	457 (7.2)	17 (2.3)	484 (8.6)	2 (0.6)	~ ~
United States	55 (4.2)	539 (4.3)	28 (3.9)	566 (5.0)	15 (2.4)	556 (8.2)	2 (0.8)	~ ~
International Avg.	36 (0.5)	510 (0.9)	27 (0.5)	512 (1.0)	22 (0.4)	513 (1.1)	16 (0.4)	514 (1.5)

**Table 7.4:** Time spent by Maltese teachers on professional reading development

In the past two years, how many hours in total have you spent in formal professional development?	Frequency	Percentage
None	9	4.4%
Less than 6 hours	61	29.6%
6-15 hours	78	37.9%
16-35 hours	39	18.9%
More than 35 hours	19	9.2%

The percentage of Maltese teachers who spend 6 to 15 hours on professional reading development (38%) is significantly higher than the international average (27%). Austria (49%) tops the list, followed by Lithuania (48%), Slovenia (39%), Malta (38%), Saudi Arabia (37%), Czech Republic (36%), Bulgaria (35%), Hong Kong (35%) and Kuwait (34%). The percentage of Maltese teachers who spend less than 6 hours on professional reading development (29%) is significantly higher than the international average (22%). Austria (49%) tops the list, followed by Lithuania (48%), Slovenia (39%), Malta (38%), Saudi Arabia (37%), Czech Republic (36%), Bulgaria (35%), Hong Kong (35%) and Kuwait (34%). The percentage of Maltese teachers who spend no time on professional reading development (5%) is significantly lower than the international average (16%). Austria (49%) tops the list, followed by Lithuania (48%), Slovenia (39%), Malta (38%), Saudi Arabia (37%), Czech Republic (36%), Bulgaria (35%), Hong Kong (35%) and Kuwait (34%). Morocco (66%) tops the list, followed by Finland (59%), Denmark (43%), Belgium (French) (38%), France (38%), Slovenia (37%), Hungary (36%) and Belgium (Flemish) (35%). There is no relationship between the students' reading attainment and the time spent by teachers on professional reading development. Across all countries, the mean reading scores of students taught by teachers who spend '16 hours or more', '6 to 15 hours', 'less than 6 hours' and 'no time' on professional reading development are 510, 512, 513 and 514 respectively. The corresponding mean reading scores of Maltese students are 442, 460, 449 and 463 respectively.

## 7.6 Heads' of School formal education

Figure 7.5 and Table 7.5 display the percentage of foreign and Maltese heads of school within each formal education level across participating countries, where these percentages are weighted by the number of students in the school. The percentage of Maltese heads of school who completed a Master's degree or a PhD (58%) is significantly higher than the international average (48%). Slovak Republic (100%) tops the list, followed by Poland (99%), Czech Republic (99%), United States (98%), Georgia (96%), Bulgaria (95%), Chinese Taipei (95%), Latvia (92%), Israel (91%), Russia (90%), Germany (90%) and Finland (92%). The percentage of Maltese heads of school with a Bachelor's degree (40%) is significantly lower than the international average (45%). Belgium (Flemish) (95%) tops the list, followed by Belgium (French) (94%), Netherlands (92%), Kazakhstan (83%), Slovenia (82%), Iran (78%), Kuwait (77%), South Africa (74%), Denmark (73%) and Saudi Arabia (73%). The percentage of Maltese heads of school that completed post-secondary education or a diploma (2%) is significantly lower than the international average (7%). Austria tops the list (85%), followed by Egypt (39%), Morocco (34%), France (26%), South Africa (18%), Saudi Arabia (18%), Oman (16%), New Zealand (14%) and Kuwait (12%).

Figure 7.5: Formal education of heads of school

Country	Percent of Students by Principal Education Level			Current Requirements	
	Completed Postgraduate University Degree	Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree	Did Not Complete Bachelor's Degree	Teaching Experience	Completion of Specialized School Leadership Training Program
Australia	41 (3.3)	59 (3.3)	1 (0.4)	●	○
Austria	9 (2.1)	6 (2.0)	85 (2.9)	●	●
Azerbaijan	46 (3.8)	54 (3.8)	0 (0.0)	●	●
Bahrain	54 (2.9)	44 (2.9)	2 (0.9)	●	●
Belgium (Flemish)	4 (1.7)	95 (1.9)	1 (0.9)	●	○
Belgium (French)	6 (2.1)	94 (2.1)	0 (0.0)	●	●
Bulgaria	95 (1.3)	5 (1.3)	0 (0.0)	●	○
Canada	64 (2.3)	35 (2.3)	0 (0.3)	●	●
Chile	69 (4.4)	31 (4.4)	0 (0.0)	●	●
Chinese Taipei	95 (1.6)	5 (1.6)	0 (0.0)	●	●
Czech Republic	99 (0.8)	1 (0.8)	0 (0.0)	●	●
Denmark	18 (2.8)	73 (3.5)	9 (2.3)	○	○
Egypt	3 (1.4)	58 (4.0)	39 (4.0)	●	●
England	28 (3.8)	69 (3.9)	3 (1.4)	○	○
Finland	89 (2.3)	10 (2.2)	1 (0.5)	●	●
France	25 (3.5)	49 (4.0)	26 (3.8)	●	○
Georgia	96 (1.4)	3 (1.2)	1 (1.0)	○	○
Germany	90 (1.3)	1 (0.8)	9 (1.6)	●	○
Hong Kong SAR	62 (3.3)	37 (3.2)	1 (0.9)	●	●
Hungary	37 (3.7)	61 (3.7)	3 (1.3)	●	●
Iran, Islamic Rep. of	14 (2.4)	78 (2.7)	8 (1.7)	○	○
Ireland	42 (4.5)	58 (4.5)	1 (0.6)	●	○
Israel	91 (2.4)	9 (2.4)	0 (0.0)	●	●
Italy	37 (4.3)	59 (4.5)	4 (1.0)	●	○
Kazakhstan	11 (2.5)	83 (3.0)	6 (1.8)	●	○
Kuwait	11 (2.2)	77 (3.6)	12 (2.9)	●	○
Latvia	92 (2.0)	8 (2.0)	0 (0.0)	●	○
Lithuania	61 (4.0)	39 (4.0)	0 (0.0)	●	○
Macao SAR	62 (0.1)	36 (0.1)	2 (0.0)	○	●
Malta	58 (0.2)	40 (0.2)	2 (0.0)	●	●
Morocco	3 (1.0)	63 (3.6)	34 (3.8)	●	○
Netherlands	7 (2.5)	92 (2.5)	0 (0.5)	○	●
New Zealand	30 (3.0)	55 (3.6)	14 (2.7)	●	○
Northern Ireland	80 (3.7)	19 (4.1)	1 (0.8)	●	○
Norway	45 (4.5)	52 (4.4)	3 (1.5)	○	○
Oman	21 (2.1)	62 (2.7)	16 (2.5)	●	●
Poland	99 (0.7)	1 (0.7)	0 (0.0)	-	-
Portugal	37 (4.1)	62 (4.1)	1 (0.4)	●	●
Qatar	43 (0.4)	54 (0.4)	3 (0.1)	●	●
Russian Federation	90 (2.2)	10 (2.2)	0 (0.0)	●	●
Saudi Arabia	8 (2.0)	73 (3.7)	18 (3.3)	●	○
Singapore	61 (0.0)	37 (0.0)	1 (0.0)	●	●
Slovak Republic	100 (0.0)	0 (0.0)	0 (0.0)	●	●
Slovenia	13 (3.3)	82 (3.7)	5 (1.6)	●	●
South Africa	8 (2.3)	74 (3.7)	18 (3.2)	●	○
Spain	41 (2.6)	59 (2.6)	0 (0.1)	●	●
Sweden	29 (4.1)	66 (4.1)	4 (1.7)	○	●
Trinidad and Tobago	37 (4.2)	58 (4.3)	5 (1.9)	●	●
United Arab Emirates	59 (2.2)	33 (2.4)	8 (1.2)	●	●
United States	98 (1.2)	2 (1.2)	0 (0.0)	●	●
International Avg.	48 (0.4)	45 (0.4)	7 (0.2)		

● Yes   ○ No

**Table 7.5:** Formal education of Maltese heads of school

What is the highest level of formal education you have completed?	Frequency	Percentage
Did not complete Bachelor's degree, Vocational Education or Training Degree	2	2.1%
Completed Bachelor's degree, Vocational Education or Training Degree	39	41.1%
Completed Master's degree or equivalent level	53	55.8%
Completed Doctorate or equivalent level	1	1.1%

**Table 7.6:** Qualifications of educational leadership of Maltese heads of school

Do you hold the following professional qualifications in educational leadership?	Frequency	Percentage
Diploma	68	71.6%
Master's or equivalent level	31	33.0%
Doctorate or equivalent level	1	1.1%

Table 7.6 shows that 71.6% of Maltese heads of school completed a diploma in educational leadership, 33.0% completed a Master's degree and 1.1% completed a PhD.

## 7.7 Heads' of school years of experience

Table 7.7 shows the percentage of Maltese heads' of school, clustered by years of experience. 73.9% of Maltese heads of school have at most 10 years of headship experience, 20.6% have from 11 to 20 years of experience, while the remaining 5.4% have more than 20 years of headship experience.

**Table 7.7:** Years of experience of Maltese heads of school

By the end of this year, how long have you been a head of school altogether?	Frequency	Percentage
1-5 years	37	40.2%
6-10 years	31	33.7%
11-15 years	13	14.1%
16-20 years	6	6.5%
More than 20 years	5	5.4%

Figure 7.6 shows the percentage of heads' of school across participating countries, clustered by years of experience. These percentages are weighted by the number of students in the school. The percentage of Maltese heads of school with less than 5 years headship experience (34%) is significantly higher than the international average (28%). Lithuania (41%) tops the list, followed by Latvia (38%), Azerbaijan (32%), Macao (28%), Bulgaria (27%), Northern Ireland (27%) and New Zealand (26%). The percentage of Maltese heads of school with 5 to 9 years headship experience (36%) significantly higher than the international average (27%). Trinidad and Tobago (40%) tops the list, followed by Qatar (39%), Austria (38%), Kuwait (37%), Chinese Taipei (36%), Malta (36%), Bahrain (36%) and Hungary (35%). The percentage of Maltese heads of school with at least 20 years of headship experience (9%) is significantly smaller than the international average (14%). Lithuania (41%) tops the list, followed by Latvia (38%), Azerbaijan (32%), Macao (28%), Bulgaria (27%), Northern Ireland (27%) and New Zealand (26%).

Figure 7.6: Years of experience of heads of school

Country	Percent of Students by Principals' Years of Experience as a Principal				Average Years of Experience as a Principal
	20 Years or More	At Least 10 but Less than 20 Years	At Least 5 but Less than 10 Years	Less than 5 Years	
Australia	15 (2.9)	32 (3.8)	25 (2.9)	27 (3.1)	10 (0.5)
Austria	6 (1.8)	37 (4.4)	38 (4.2)	20 (3.8)	10 (0.5)
Azerbaijan	32 (3.6)	29 (3.3)	20 (3.5)	19 (3.2)	14 (0.8)
Bahrain	8 (1.1)	12 (2.0)	36 (2.6)	44 (2.9)	7 (0.4)
Belgium (Flemish)	8 (2.5)	39 (4.0)	34 (4.4)	19 (2.7)	10 (0.5)
Belgium (French)	5 (1.8)	34 (3.9)	34 (4.5)	27 (4.0)	9 (0.5)
Bulgaria	27 (3.6)	35 (4.1)	21 (3.7)	17 (3.4)	13 (0.8)
Canada	5 (0.9)	33 (2.5)	32 (2.7)	30 (2.3)	8 (0.3)
Chile	15 (3.4)	23 (3.4)	31 (5.3)	31 (4.7)	10 (0.9)
Chinese Taipei	4 (1.6)	36 (3.8)	36 (4.0)	24 (3.8)	9 (0.5)
Czech Republic	19 (3.1)	38 (3.5)	22 (3.4)	22 (3.4)	12 (0.6)
Denmark	10 (2.5)	37 (3.5)	24 (3.1)	30 (3.6)	10 (0.5)
Egypt	2 (0.4)	11 (2.9)	28 (3.7)	59 (4.3)	5 (0.3)
England	8 (2.3)	30 (3.6)	25 (3.5)	36 (3.8)	9 (0.6)
Finland	20 (3.6)	33 (4.0)	24 (3.8)	23 (3.2)	12 (0.7)
France	15 (3.3)	35 (4.3)	30 (4.5)	21 (3.6)	11 (0.7)
Georgia	11 (2.1)	28 (3.6)	29 (3.5)	32 (3.4)	9 (0.6)
Germany	12 (2.4)	29 (3.8)	24 (3.0)	35 (3.5)	9 (0.6)
Hong Kong SAR	10 (2.7)	42 (4.3)	27 (4.4)	22 (3.3)	10 (0.6)
Hungary	12 (3.1)	30 (4.1)	35 (3.5)	23 (3.8)	10 (0.6)
Iran, Islamic Rep. of	18 (2.9)	38 (3.6)	23 (2.5)	21 (3.6)	12 (0.6)
Ireland	13 (2.9)	30 (3.9)	31 (3.8)	25 (3.3)	10 (0.7)
Israel	10 (2.1)	26 (3.9)	31 (3.9)	33 (3.4)	9 (0.6)
Italy	13 (3.2)	21 (3.7)	25 (3.7)	41 (4.0)	9 (0.8)
Kazakhstan	11 (2.7)	21 (2.7)	27 (3.2)	41 (3.5)	9 (0.6)
Kuwait	8 (2.1)	19 (4.7)	37 (5.4)	36 (3.5)	8 (0.6)
Latvia	38 (4.0)	31 (3.6)	14 (3.0)	17 (3.2)	16 (0.8)
Lithuania	41 (3.7)	34 (3.6)	10 (2.3)	15 (2.7)	16 (0.7)
Macao SAR	28 (0.1)	24 (0.1)	26 (0.1)	21 (0.1)	14 (0.0)
Malta	9 (0.1)	21 (0.1)	36 (0.1)	34 (0.1)	9 (0.0)
Morocco	3 (1.0)	57 (3.2)	25 (2.6)	16 (2.3)	11 (0.3)
Netherlands	21 (3.4)	39 (4.9)	24 (4.7)	17 (3.4)	13 (0.8)
New Zealand	26 (3.0)	32 (3.7)	21 (3.3)	21 (3.0)	13 (0.7)
Northern Ireland	27 (4.5)	40 (4.5)	19 (4.2)	15 (3.3)	14 (0.8)
Norway	12 (2.7)	23 (3.7)	26 (3.9)	40 (4.6)	9 (0.7)
Oman	12 (2.1)	46 (2.8)	21 (2.7)	20 (2.5)	12 (0.5)
Poland	21 (3.7)	36 (3.5)	22 (3.5)	20 (3.9)	13 (0.7)
Portugal	14 (3.0)	32 (4.5)	27 (4.1)	26 (3.8)	10 (0.6)
Qatar	5 (0.1)	31 (0.4)	39 (0.3)	24 (0.3)	9 (0.0)
Russian Federation	15 (2.4)	32 (3.3)	26 (2.9)	26 (3.5)	11 (0.6)
Saudi Arabia	12 (2.3)	35 (3.2)	20 (2.8)	33 (3.8)	10 (0.6)
Singapore	1 (0.0)	41 (0.0)	30 (0.0)	28 (0.0)	9 (0.0)
Slovak Republic	8 (2.2)	41 (3.6)	27 (3.4)	24 (3.8)	10 (0.5)
Slovenia	9 (2.7)	44 (4.3)	29 (4.3)	17 (3.0)	11 (0.5)
South Africa	21 (3.4)	32 (4.1)	21 (3.0)	26 (3.6)	12 (0.7)
Spain	9 (1.6)	26 (2.5)	29 (2.9)	36 (2.9)	9 (0.5)
Sweden	10 (3.2)	28 (4.0)	32 (4.4)	30 (3.6)	9 (0.9)
Trinidad and Tobago	2 (1.5)	12 (2.4)	40 (4.5)	46 (4.2)	6 (0.4)
United Arab Emirates	15 (1.8)	35 (2.4)	24 (2.3)	25 (2.0)	11 (0.5)
United States	11 (2.5)	22 (3.8)	22 (3.6)	44 (4.5)	8 (0.6)
International Avg.	14 (0.4)	31 (0.5)	27 (0.5)	28 (0.5)	10 (0.1)

The average headship experience of Maltese heads of school (9 years) is marginally lower than the international average (10 years). The average years of headship experience is lowest in Egypt (5 years), followed by Trinidad and Tobago (6 years), Bahrain (7 years), Kuwait (8 years) and United States (8 years). The average years of headship experience is highest in Latvia and Lithuania (16 years), followed by Azerbaijan (14 years), Macao (14 years), Northern Ireland (14 years), Netherlands (13 years), Poland (13 years), Bulgaria (13 years) and New Zealand (13 years).

## 8

# Classroom Instruction

## 8.1 Introduction

Most of the teaching and learning in school takes place in the classroom and so successful learning is influenced by the classroom environment and instructional activities. PIRLS 2016 focuses on a number of facilities and practices that affect teaching and learning at school. These include instruction duration of language and reading, teachers' emphasis on reading comprehension skills and strategies, organizing students for reading instruction, availability of classroom libraries, reading of various types of literary and informational texts and availability of computers for reading lessons. Moreover, PIRLS 2016 examines a number of negative student attributes, including students' lack of preparedness and readiness to learn, students' absenteeism from school and the prevalence of tired and hungry students arriving at school.

## 8.2 Instruction time spent on Language and Reading

A wide variety of factors influence the relationship between amount of instructional time and student achievement, primarily the quality of the instruction and the students' readiness to learn. Nevertheless, instructional time remains a crucial component in considering students' opportunity to learn. At the school level, the relative emphasis and amount of time specified for reading instruction can greatly affect the opportunities to learn. Results from PIRLS show that there is variation between countries in the intended instructional time prescribed by the curriculum and the actual time of implementation in the classroom. On average, however, there is very close agreement between the curriculum guidelines and teachers' reports about implementation. Research has shown that it is especially important that instructional time be used effectively toward the learning goals, and not be spent on secondary activities unrelated to the instructional content. Homework is one way teachers can extend instruction and evaluate student learning. The types of homework assigned in reading classes regularly include independent reading, comprehension questions about what students have read, or some combination of the two. The amount of homework assigned for reading varies both within and across countries. In some countries, homework typically is assigned to students who need it the most. In other countries, students receive homework as an enrichment exercise. Strong students may spend less time on homework because they use their time more efficiently. For these reasons, it has been argued that the effect of homework may be better encapsulated by measures of homework frequency than homework time.

The total instruction duration, in hours, per year is the product of the number of school days per year by the number of instruction hours per day. The language instruction duration, in hours, per year is the product of the weekly language instruction duration, in hours, by the number of school days per year, divided by the number of schools days per week. The reading instruction duration, in hours, per year is the product of the weekly reading instruction duration, in hours, by the number of school days per year, divided by the number of schools days per week. Tables 8.1 to 8.4 display the responses of Maltese heads of school and Maltese teachers, which was required to compute the total instruction hours, the language instruction hours and the reading instruction hours per year.

**Table 8.1:** Number of school days per year, indicated by Maltese heads of school

How many days per year is your school open for instruction?	Frequency	Percentage
151-160	7	62.1%
161-170	31	23.2%
171-180	45	11.6%
181-200	2	2.2%
More than 200	6	6.6%

**Table 8.2:** Daily instruction duration, in minutes, indicated by Maltese heads of school

What is the total instructional time, excluding breaks, in a typical day?	Frequency	Percentage
200-250 minutes	1	1.1%
251-300 minutes	22	23.4%
301-350 minutes	64	68.1%
351-400 minutes	7	7.4%

**Table 8.3:** Weekly language instruction duration, in minutes, indicated by Maltese teachers

In a typical week, how much time do you spend on Maltese language instruction and/or activities with the students?	Frequency	Percentage
0-100 minutes	11	5.5%
101-200 minutes	37	18.4%
201-300 minutes	110	54.7%
301-400 minutes	22	10.9%
401-500 minutes	3	1.5%
More than 500 minutes	18	9.0%

**Table 8.4:** Weekly reading instruction duration, in minutes, indicated by Maltese teachers

In a typical week about how much time do you spend on reading instruction and/or activities with the students?	Frequency	Percentage
0-100 minutes	120	59.7%
101-200 minutes	53	26.3%
201-300 minutes	13	6.5%
301-400 minutes	3	1.5%
401-500 minutes	4	2.0%
More than 500 minutes	8	4.0%

Figure 8.1: Instruction duration on language and reading

Country	Total Instruction Hours per Year All Subjects	Language Instruction, Including Reading, Writing, Speaking, Literature, and Other Language Skills		Reading Instruction, Including Reading Across the Curriculum	
		Hours per Year	Percent of Total Instruction Time	Hours per Year	Percent of Total Instruction Time
South Africa	1180 (16.7)	240 (14.3)	20 (1.3)	122 (8.0)	10 (0.6)
Chile	1141 (17.9)	278 (20.1)	24 (1.7)	252 (22.3)	22 (1.9)
Netherlands	1092 (16.8)	363 (14.6)	34 (1.3)	205 (19.5)	19 (1.8)
Israel	1079 (13.5)	235 (9.4)	22 (0.8)	98 (8.7)	9 (0.8)
Italy	1064 (15.4)	290 (7.5)	28 (0.7)	148 (9.2)	14 (0.9)
United States	1061 (12.7)	301 (15.3)	30 (1.6)	327 (15.6)	32 (1.5)
Qatar	1045 (1.1)	327 (18.8)	31 (1.8)	182 (14.9)	18 (1.2)
Singapore	1040 (0.0)	278 (9.1)	27 (0.9)	124 (7.0)	12 (0.7)
Morocco	1036 (13.4)	224 (13.1)	21 (1.2)	109 (7.8)	11 (0.9)
Saudi Arabia	1034 (16.7)	179 (14.4)	18 (1.7)	175 (13.6)	16 (1.2)
United Arab Emirates	1018 (6.7)	234 (9.3)	23 (1.0)	139 (6.3)	13 (0.7)
Trinidad and Tobago	1008 (17.1)	361 (22.8)	36 (2.1)	299 (26.4)	30 (2.6)
Denmark	1006 (13.5)	231 (5.5)	23 (0.6)	132 (7.8)	13 (0.8)
Australia	1001 (6.7)	336 (7.9)	34 (0.8)	199 (9.9)	19 (1.0)
England	993 (10.5)	273 (9.5)	28 (0.9)	125 (11.3)	12 (1.1)
Oman	989 (12.1)	197 (7.4)	20 (0.9)	150 (7.5)	16 (0.9)
Hong Kong SAR	987 (10.3)	226 (14.8)	24 (1.9)	128 (7.1)	13 (0.8)
Northern Ireland	958 (10.5)	257 (10.7)	27 (1.3)	137 (7.8)	14 (0.8)
Belgium (Flemish)	956 (13.4)	248 (10.5)	26 (0.8)	84 (5.1)	9 (0.6)
Canada	952 (5.1)	292 (4.9)	31 (0.6)	206 (7.0)	22 (0.8)
Malta	942 (0.4)	178 (0.4)	19 (0.0)	83 (0.4)	9 (0.0)
Belgium (French)	940 (8.9)	320 (7.8)	34 (0.9)	247 (16.6)	27 (1.9)
Bahrain	934 (2.1)	202 (6.7)	22 (0.7)	114 (6.0)	12 (0.6)
Macao SAR	928 (0.2)	186 (0.2)	20 (0.0)	100 (0.2)	10 (0.0)
New Zealand	926 (4.0)	340 (8.6)	37 (1.0)	215 (8.9)	24 (1.0)
Egypt	924 (12.5)	297 (11.9)	34 (1.7)	161 (11.6)	18 (1.3)
Ireland	915 (0.3)	206 (5.2)	23 (0.6)	150 (7.2)	16 (0.8)
Portugal	895 (11.8)	288 (6.1)	32 (0.6)	301 (10.4)	34 (1.2)
France	883 (9.3)	330 (8.2)	37 (0.9)	165 (11.6)	19 (1.2)
Kuwait	860 (19.9)	178 (16.5)	21 (2.0)	139 (13.8)	17 (1.5)
Spain	853 (7.8)	212 (7.0)	25 (0.8)	136 (6.7)	16 (0.8)
Chinese Taipei	845 (9.2)	212 (4.0)	26 (0.6)	123 (8.0)	15 (1.0)
Germany	841 (10.7)	239 (9.9)	29 (1.2)	87 (7.3)	11 (1.0)
Kazakhstan	835 (21.8)	221 (10.7)	27 (1.1)	212 (11.0)	26 (1.3)
Norway	827 (11.1)	186 (6.0)	23 (0.8)	134 (7.5)	17 (1.0)
Hungary	826 (13.7)	284 (9.1)	35 (1.3)	201 (9.3)	25 (1.4)
Sweden	809 (6.4)	185 (6.9)	22 (0.8)	101 (8.0)	12 (1.0)
Slovak Republic	778 (9.5)	233 (5.6)	30 (0.6)	180 (9.5)	23 (1.2)
Czech Republic	769 (7.4)	242 (10.1)	31 (1.1)	143 (8.9)	19 (1.1)
Austria	768 (7.0)	260 (6.8)	34 (1.0)	95 (5.5)	13 (0.8)
Azerbaijan	755 (21.4)	226 (8.9)	31 (1.5)	141 (6.8)	19 (1.1)
Poland	754 (5.4)	140 (1.0)	19 (0.1)	33 (1.7)	4 (0.2)
Slovenia	734 (7.8)	193 (8.5)	26 (1.0)	84 (5.7)	12 (0.8)
Finland	731 (7.5)	186 (4.9)	26 (0.7)	122 (6.3)	17 (0.9)
Georgia	725 (13.2)	185 (9.3)	26 (1.0)	132 (9.5)	19 (1.3)
Bulgaria	692 (20.4)	213 (10.2)	33 (1.7)	247 (14.5)	39 (2.5)
Latvia	669 (11.9)	193 (8.2)	30 (1.3)	184 (10.3)	28 (1.6)
Russian Federation	652 (5.4)	263 (6.4)	41 (1.0)	171 (7.0)	27 (1.1)
Lithuania	627 (3.7)	183 (1.9)	29 (0.4)	144 (8.7)	23 (1.4)
Iran, Islamic Rep. of	627 (5.3)	143 (2.4)	23 (0.4)	124 (13.8)	20 (2.2)
International Avg.	898 (1.6)	242 (1.4)	27 (0.2)	156 (1.5)	18 (0.2)

Figure 8.1 presents heads' of school and teachers' reports about the instructional hours per year spent on language and reading instruction. On average, the fourth grade students in PIRLS 2016 received 898 hours per year of instruction across all subjects. On average, the total instructional hours per year in Maltese schools (942 hours) is significantly larger than the international average (898 hours). On average, the duration in hours devoted to language instruction each year in Maltese schools (178 hours), which includes reading, writing, speaking, literature, and other language skills is significantly lower than the international average (242 hours). On average, the duration in hours devoted to reading instruction each year in Maltese schools (83 hours), which includes reading across the curriculum is significantly lower than the international average (156 hours). The percentages of the total instruction duration devoted to language and reading (19% and 9% respectively) are less than the corresponding international percentage averages (27% and 18% respectively).

### 8.3 Teachers' emphasis on students' reading skills and strategies

Table 8.5 displays nine different reading comprehension skills/strategies adopted by Maltese teachers during lessons and how often they are used. 'Identifying the main ideas of what students read', 'locating information within the text', and 'explain/support students' understanding of what they read' are adopted by Maltese teachers more than other skills/strategies.

**Table 8.5:** Frequency of reading comprehension skills/strategies adopted by Maltese teachers

How often do you ask students to do the following things to help develop reading comprehension skills/strategies?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Locate information within the text	49.8%	46.8%	2.5%	1.0%
Identify the main ideas of what they have read	57.1%	39.9%	2.5%	0.5%
Explain or support their understanding of what they read	56.7%	39.4%	3.4%	0.5%
Compare what they have read with experiences they had	36.0%	52.2%	10.8%	1.0%
Compare what they have read with other things they read	30.2%	47.5%	18.3%	4.0%
Make predictions about what will happen next in the text they are reading	37.4%	50.2%	9.9%	2.5%
Make generalizations and draw inferences based on what they have read	24.1%	51.7%	17.7%	6.4%
Describe the style or structure of the text they have read	25.6%	43.8%	22.7%	7.9%
Determine the author's perspective or intention	18.2%	38.4%	29.6%	13.8%

Figure 8.2 presents teachers' reports about the reading skills and strategies that they emphasize in their reading instruction on a least a weekly basis. These teachers' responses are weighted by the number of students in their classes. Most of the students (94-96%) have lessons at least weekly on how to 'locate information within texts', 'identify main ideas', and 'explain or support their understanding of what they read'. Somewhat smaller percentages (75-83%) have at least weekly lessons that cover skills that 'compare what they have read to their own experiences', 'make comparisons across texts', 'make predictions about the texts' or 'make generalizations and draw inferences on what they read'. Only about two-thirds (66-69%) have at least weekly lessons that cover skills that 'describe text style or structure', or 'determine the author's perspective'. With the exception of 'make generalizations and draw inferences' and 'describe text style or structure', Maltese averages exceed international averages for the remaining seven skills/strategies.

**Figure 8.2:** Frequency of reading comprehension skills/strategies adopted by teachers in each country

Country	Percent of Students Whose Teachers Ask Them to Do the Following At Least Weekly								
	Locate Information Within the Text	Identify the Main Ideas of What They Have Read	Explain or Support Their Understanding of What They Have Read	Compare What They Have Read with Experiences They Have Had	Compare What They Have Read with Other Things They Have Read	Make Predictions About What Will Happen Next in the Text	Make Generalizations and Draw Inferences	Describe the Style or Structure of the Text	Determine the Author's Perspective or Intention
Australia	98 (0.7)	96 (1.3)	98 (0.8)	89 (1.7)	87 (2.0)	94 (1.5)	93 (1.4)	83 (2.4)	82 (2.1)
Austria	93 (1.3)	91 (1.9)	87 (2.7)	66 (3.3)	48 (3.5)	38 (3.1)	50 (3.3)	25 (3.0)	20 (2.6)
Azerbaijan	94 (1.7)	98 (0.9)	98 (1.0)	95 (1.5)	95 (1.6)	92 (1.8)	90 (1.8)	90 (2.2)	95 (1.5)
Bahrain	96 (1.3)	96 (1.1)	97 (1.2)	88 (1.7)	85 (2.5)	83 (2.1)	78 (2.4)	80 (2.3)	77 (2.5)
Belgium (Flemish)	87 (2.6)	76 (3.3)	90 (2.1)	65 (3.5)	45 (3.9)	61 (3.5)	59 (3.7)	48 (3.6)	48 (3.6)
Belgium (French)	92 (1.8)	86 (3.1)	87 (2.7)	42 (4.0)	35 (3.7)	53 (3.7)	56 (4.0)	45 (3.8)	41 (4.1)
Bulgaria	100 (0.0)	100 (0.0)	100 (0.0)	95 (1.8)	90 (2.5)	84 (2.7)	99 (0.8)	95 (1.9)	92 (2.3)
Canada	96 (0.8)	91 (1.3)	92 (1.2)	82 (1.9)	72 (1.9)	88 (1.5)	86 (1.6)	61 (2.5)	59 (2.5)
Chile	99 (1.2)	99 (1.0)	100 (0.0)	99 (1.2)	98 (1.0)	97 (1.5)	94 (2.2)	96 (1.9)	89 (3.0)
Chinese Taipei	91 (2.3)	87 (2.5)	82 (3.0)	76 (3.5)	63 (4.1)	52 (4.0)	67 (3.9)	74 (2.9)	76 (3.2)
Czech Republic	99 (0.5)	97 (1.0)	99 (0.8)	83 (2.7)	55 (3.0)	59 (3.1)	72 (2.8)	41 (2.8)	39 (3.1)
Denmark	90 (2.1)	92 (1.6)	88 (2.5)	68 (3.6)	66 (3.5)	61 (3.8)	64 (4.2)	49 (4.1)	46 (4.2)
Egypt	96 (1.7)	98 (1.2)	97 (1.3)	86 (3.1)	72 (3.8)	87 (3.0)	79 (3.5)	82 (3.5)	78 (3.6)
England	98 (1.3)	99 (1.0)	99 (0.2)	76 (3.3)	72 (3.6)	94 (2.3)	94 (2.2)	83 (3.4)	74 (4.0)
Finland	85 (2.6)	86 (2.2)	79 (3.2)	72 (3.0)	45 (3.2)	44 (3.7)	51 (3.3)	20 (2.7)	15 (1.9)
France	99 (0.7)	89 (2.2)	91 (1.8)	41 (4.0)	50 (4.4)	59 (3.4)	64 (3.0)	41 (3.7)	36 (4.2)
Georgia	99 (0.6)	100 (0.4)	100 (0.4)	98 (1.0)	97 (1.2)	96 (1.5)	99 (0.4)	94 (1.6)	98 (1.1)
Germany	96 (1.7)	89 (2.0)	95 (1.3)	69 (3.1)	45 (3.8)	52 (3.7)	63 (3.6)	24 (2.9)	32 (3.0)
Hong Kong SAR	97 (1.4)	94 (2.4)	91 (2.3)	78 (3.6)	66 (4.1)	75 (3.7)	80 (2.8)	71 (3.9)	79 (3.6)
Hungary	99 (1.0)	97 (1.5)	100 (0.0)	95 (1.4)	91 (2.5)	86 (2.5)	94 (1.9)	75 (3.4)	70 (3.5)
Iran, Islamic Rep. of	91 (2.0)	93 (1.7)	88 (2.4)	79 (2.8)	74 (3.2)	71 (3.3)	82 (2.7)	77 (3.1)	70 (3.4)
Ireland	98 (0.9)	99 (0.8)	97 (1.3)	90 (2.1)	82 (2.5)	96 (1.7)	88 (2.3)	66 (4.0)	62 (3.9)
Israel	99 (0.8)	99 (0.9)	99 (0.9)	91 (2.4)	89 (2.2)	89 (2.8)	95 (1.8)	92 (2.0)	88 (2.1)
Italy	100 (0.0)	99 (1.0)	98 (1.1)	91 (2.2)	82 (2.9)	84 (2.5)	78 (2.9)	83 (2.8)	78 (2.9)
Kazakhstan	100 (0.2)	100 (0.0)	100 (0.0)	97 (1.3)	99 (0.8)	93 (1.9)	100 (0.1)	98 (1.1)	100 (0.0)
Kuwait	95 (1.9)	90 (4.1)	98 (1.2)	95 (2.0)	85 (2.9)	74 (5.0)	79 (3.6)	75 (3.1)	68 (4.9)
Latvia	100 (0.0)	100 (0.4)	97 (1.3)	92 (2.1)	72 (3.6)	79 (2.9)	94 (1.8)	55 (3.7)	67 (3.6)
Lithuania	98 (1.2)	99 (0.5)	100 (0.0)	94 (1.9)	96 (1.5)	86 (2.2)	97 (1.2)	90 (2.1)	78 (3.0)
Macao SAR	89 (0.1)	90 (0.1)	85 (0.1)	68 (0.1)	52 (0.1)	68 (0.1)	74 (0.1)	62 (0.1)	63 (0.1)
Malta	96 (0.1)	97 (0.1)	96 (0.1)	89 (0.1)	78 (0.1)	87 (0.1)	75 (0.1)	69 (0.1)	57 (0.1)
Morocco	99 (0.3)	97 (0.9)	96 (1.1)	77 (3.0)	72 (2.8)	62 (2.8)	79 (2.7)	66 (3.3)	56 (3.7)
Netherlands	96 (1.6)	78 (3.3)	87 (2.8)	64 (3.6)	45 (4.1)	78 (3.4)	73 (3.5)	37 (4.4)	32 (4.2)
New Zealand	98 (0.6)	96 (1.1)	95 (1.2)	87 (2.0)	76 (2.6)	94 (1.1)	90 (2.1)	70 (2.5)	66 (2.7)
Northern Ireland	99 (0.7)	96 (2.1)	98 (1.1)	78 (3.7)	78 (3.3)	93 (2.2)	86 (3.2)	73 (4.3)	67 (4.2)
Norway	98 (1.0)	89 (2.6)	87 (2.4)	72 (3.2)	61 (3.3)	42 (3.7)	54 (3.8)	29 (3.3)	21 (3.2)
Oman	97 (1.0)	99 (0.8)	100 (0.2)	95 (1.2)	92 (1.4)	94 (1.3)	96 (1.1)	92 (1.8)	90 (2.1)
Poland	100 (0.0)	100 (0.3)	99 (0.5)	97 (1.1)	87 (2.4)	65 (3.5)	98 (0.9)	86 (2.2)	87 (2.3)
Portugal	100 (0.0)	99 (0.9)	99 (0.9)	92 (2.0)	85 (2.5)	92 (2.1)	92 (1.9)	98 (1.1)	89 (2.1)
Qatar	99 (0.7)	99 (0.6)	99 (0.6)	89 (1.7)	84 (1.8)	87 (1.5)	89 (2.4)	87 (1.8)	80 (2.8)
Russian Federation	100 (0.0)	100 (0.0)	100 (0.0)	97 (1.2)	93 (1.7)	90 (2.2)	100 (0.0)	90 (2.2)	99 (0.9)
Saudi Arabia	91 (2.0)	92 (2.0)	94 (1.9)	81 (3.0)	72 (3.2)	74 (3.1)	82 (2.6)	78 (2.9)	63 (3.0)
Singapore	93 (1.4)	89 (1.4)	91 (1.4)	81 (2.1)	79 (2.0)	90 (1.5)	87 (1.6)	66 (2.6)	62 (2.7)
Slovak Republic	99 (0.4)	98 (0.8)	99 (0.7)	94 (1.4)	85 (2.2)	75 (3.0)	85 (2.5)	62 (3.5)	72 (3.2)
Slovenia	94 (1.8)	90 (2.1)	93 (1.9)	82 (3.6)	57 (3.8)	57 (3.5)	71 (4.1)	47 (3.9)	33 (3.8)
South Africa	93 (1.8)	96 (1.4)	95 (1.6)	91 (2.0)	89 (2.1)	91 (2.1)	87 (2.3)	87 (2.3)	79 (3.1)
Spain	97 (1.0)	96 (1.5)	99 (0.3)	83 (2.4)	72 (2.9)	68 (2.8)	71 (2.4)	61 (2.8)	51 (2.8)
Sweden	89 (2.2)	79 (3.3)	79 (3.6)	67 (3.8)	53 (4.1)	68 (4.3)	71 (3.8)	36 (3.9)	28 (3.8)
Trinidad and Tobago	99 (0.7)	95 (2.0)	98 (1.3)	92 (2.0)	86 (2.9)	95 (1.8)	92 (1.9)	64 (4.0)	69 (3.9)
United Arab Emirates	97 (1.2)	98 (0.5)	99 (0.5)	92 (1.2)	89 (1.4)	90 (1.7)	87 (1.6)	83 (1.8)	81 (2.0)
United States	100 (0.0)	98 (1.3)	99 (0.9)	91 (2.1)	89 (2.5)	91 (2.5)	96 (1.8)	82 (3.0)	85 (2.9)
International Avg.	96 (0.2)	94 (0.2)	95 (0.2)	83 (0.4)	75 (0.4)	77 (0.4)	82 (0.4)	69 (0.4)	66 (0.4)

## 8.4 Different types of student groupings for reading instruction

Figure 8.3: Frequency of student groupings for reading instruction adopted by teachers in each country

Country	Percent of Students Whose Teachers Organize Students in the Following Ways											
	Teach Reading as a Whole-Class Activity			Create Same-Ability Groups			Create Mixed-Ability Groups			Have Students Work Independently on an Assigned Plan or Goal		
	Always or Almost Always	Often or Sometimes	Never	Always or Almost Always	Often or Sometimes	Never	Always or Almost Always	Often or Sometimes	Never	Always or Almost Always	Often or Sometimes	Never
Australia	14 (2.5)	83 (2.9)	3 (1.2)	34 (3.3)	62 (3.2)	3 (1.5)	7 (1.9)	87 (2.5)	6 (1.5)	13 (2.4)	84 (2.6)	2 (0.9)
Austria	20 (2.7)	75 (2.9)	5 (1.4)	4 (1.3)	80 (3.1)	15 (2.8)	4 (1.5)	85 (2.5)	11 (2.1)	23 (2.9)	73 (3.1)	4 (1.2)
Azerbaijan	31 (3.1)	69 (3.1)	0 (0.3)	10 (2.3)	82 (2.8)	8 (1.8)	9 (1.8)	90 (2.0)	1 (0.8)	22 (2.8)	78 (2.9)	0 (0.3)
Bahrain	33 (2.6)	66 (2.5)	1 (0.7)	13 (2.0)	63 (3.9)	25 (3.9)	50 (3.4)	49 (3.4)	0 (0.4)	30 (3.4)	69 (3.5)	1 (0.7)
Belgium (Flemish)	3 (1.6)	92 (2.1)	5 (1.4)	5 (1.9)	83 (2.8)	12 (2.4)	4 (1.6)	88 (2.6)	7 (2.0)	4 (1.4)	95 (1.4)	1 (0.4)
Belgium (French)	35 (3.7)	64 (3.8)	1 (0.7)	1 (0.5)	68 (4.1)	32 (4.0)	5 (1.9)	73 (3.8)	22 (3.7)	7 (2.1)	84 (3.0)	9 (2.4)
Bulgaria	60 (3.6)	40 (3.6)	0 (0.0)	6 (2.1)	92 (2.4)	2 (1.2)	4 (1.2)	91 (2.1)	5 (1.8)	25 (3.6)	75 (3.6)	0 (0.0)
Canada	21 (1.7)	78 (1.8)	1 (0.5)	11 (1.6)	84 (1.8)	5 (1.0)	4 (0.9)	91 (1.6)	6 (1.3)	5 (1.0)	92 (1.2)	3 (0.7)
Chile	66 (3.9)	33 (3.8)	1 (0.9)	12 (3.2)	74 (3.8)	14 (3.3)	16 (3.1)	72 (3.5)	13 (3.2)	23 (4.1)	73 (4.2)	4 (1.8)
Chinese Taipei	45 (3.4)	55 (3.4)	0 (0.0)	1 (0.7)	51 (4.5)	48 (4.5)	20 (3.0)	67 (3.5)	13 (2.2)	10 (2.2)	85 (2.5)	5 (1.2)
Czech Republic	19 (2.6)	79 (2.8)	2 (1.0)	1 (0.6)	83 (2.4)	17 (2.4)	2 (0.9)	90 (2.2)	8 (2.0)	1 (0.7)	93 (1.8)	6 (1.6)
Denmark	15 (2.7)	85 (2.7)	0 (0.2)	5 (1.5)	91 (2.3)	5 (1.7)	3 (1.1)	92 (2.1)	5 (1.8)	13 (2.8)	78 (3.7)	9 (2.2)
Egypt	52 (4.2)	47 (4.2)	1 (0.5)	18 (3.2)	63 (3.9)	19 (3.1)	24 (3.7)	65 (3.8)	11 (2.4)	15 (2.8)	75 (3.2)	11 (2.4)
England	12 (2.7)	85 (2.7)	3 (1.3)	26 (3.2)	72 (3.3)	3 (1.2)	7 (1.9)	90 (2.3)	3 (1.2)	9 (1.9)	87 (2.4)	4 (1.5)
Finland	26 (2.8)	70 (2.8)	3 (1.1)	1 (0.7)	83 (2.4)	15 (2.4)	4 (1.7)	86 (2.3)	10 (2.0)	6 (1.4)	90 (1.9)	5 (1.4)
France	32 (3.4)	65 (3.5)	3 (1.4)	6 (1.8)	78 (3.2)	16 (2.7)	3 (1.5)	67 (3.8)	29 (3.7)	5 (1.7)	68 (3.7)	28 (3.3)
Georgia	32 (3.5)	62 (3.6)	6 (1.7)	6 (1.7)	80 (3.0)	14 (2.6)	11 (2.4)	86 (2.6)	3 (1.1)	17 (2.8)	82 (2.7)	1 (0.5)
Germany	26 (2.9)	72 (3.0)	2 (1.0)	2 (1.0)	86 (2.5)	12 (2.4)	3 (0.9)	85 (2.8)	12 (2.6)	9 (1.9)	86 (2.4)	5 (1.7)
Hong Kong SAR	28 (4.4)	72 (4.3)	1 (0.7)	0 (0.0)	60 (4.6)	40 (4.6)	20 (3.3)	72 (3.7)	8 (2.4)	3 (1.6)	89 (2.9)	7 (2.5)
Hungary	7 (1.9)	93 (1.9)	0 (0.0)	2 (0.9)	93 (2.0)	5 (1.8)	7 (1.9)	91 (2.2)	2 (1.1)	3 (1.3)	97 (1.3)	0 (0.0)
Iran, Islamic Rep. of	64 (3.3)	36 (3.3)	0 (0.0)	7 (1.8)	50 (4.0)	43 (3.7)	44 (3.5)	49 (3.5)	7 (1.6)	20 (2.7)	77 (2.7)	4 (1.2)
Ireland	25 (3.3)	74 (3.3)	1 (0.4)	9 (2.0)	79 (3.0)	13 (2.5)	5 (1.6)	86 (2.6)	10 (2.1)	5 (1.7)	88 (2.5)	7 (1.8)
Israel	40 (4.0)	57 (4.2)	3 (1.5)	13 (2.7)	81 (3.2)	6 (2.0)	12 (2.5)	83 (3.1)	5 (1.8)	22 (3.5)	77 (3.6)	2 (1.0)
Italy	56 (4.0)	44 (4.0)	0 (0.0)	2 (1.2)	70 (3.5)	29 (3.6)	10 (2.7)	79 (3.6)	11 (2.4)	23 (3.4)	73 (3.4)	4 (1.4)
Kazakhstan	76 (3.4)	24 (3.4)	0 (0.0)	18 (2.6)	78 (2.9)	4 (1.5)	14 (2.4)	85 (2.4)	1 (0.6)	44 (3.5)	56 (3.4)	1 (0.7)
Kuwait	40 (4.2)	53 (4.4)	8 (1.8)	30 (4.8)	63 (5.0)	7 (2.2)	24 (3.7)	69 (4.1)	7 (2.2)	24 (5.1)	73 (5.1)	4 (1.4)
Latvia	51 (4.1)	48 (4.0)	1 (0.6)	3 (1.3)	89 (2.0)	7 (1.8)	4 (1.4)	90 (2.6)	6 (2.1)	8 (2.0)	91 (2.1)	1 (0.8)
Lithuania	20 (2.6)	75 (2.9)	5 (1.7)	3 (0.9)	89 (2.4)	8 (2.3)	6 (1.8)	93 (1.9)	1 (0.6)	9 (2.2)	90 (2.3)	1 (0.8)
Macao SAR	28 (0.1)	72 (0.1)	0 (0.0)	2 (0.0)	52 (0.1)	47 (0.1)	19 (0.1)	73 (0.1)	8 (0.1)	9 (0.1)	85 (0.1)	6 (0.0)
Malta	30 (0.1)	68 (0.1)	2 (0.0)	7 (0.1)	74 (0.1)	20 (0.1)	6 (0.1)	77 (0.1)	16 (0.1)	7 (0.1)	80 (0.1)	13 (0.1)
Morocco	38 (3.4)	52 (3.5)	10 (1.8)	10 (1.7)	71 (2.9)	20 (2.5)	12 (2.3)	68 (3.0)	20 (2.6)	25 (2.8)	61 (3.4)	14 (2.3)
Netherlands	7 (2.2)	84 (2.8)	9 (2.0)	17 (3.1)	71 (3.5)	11 (2.6)	7 (2.1)	80 (3.3)	14 (2.9)	11 (2.7)	82 (3.2)	7 (2.1)
New Zealand	2 (1.0)	84 (2.5)	14 (2.3)	43 (3.3)	55 (3.2)	2 (0.9)	6 (1.3)	83 (2.6)	11 (2.3)	14 (1.9)	82 (2.0)	3 (1.1)
Northern Ireland	6 (2.3)	85 (3.7)	9 (3.0)	55 (4.4)	44 (4.3)	1 (0.8)	1 (0.8)	87 (3.1)	12 (2.9)	10 (2.5)	84 (3.0)	6 (1.9)
Norway	24 (3.0)	76 (3.0)	0 (0.2)	3 (1.4)	78 (3.1)	19 (2.9)	4 (1.6)	87 (2.5)	9 (2.2)	6 (1.9)	86 (2.6)	8 (2.2)
Oman	32 (2.9)	62 (2.9)	6 (1.6)	13 (2.0)	64 (3.0)	23 (2.9)	45 (3.2)	52 (3.1)	2 (0.8)	34 (2.7)	66 (2.8)	1 (0.4)
Poland	24 (3.5)	68 (3.4)	9 (2.0)	1 (0.6)	76 (3.7)	23 (3.8)	14 (2.7)	81 (3.6)	5 (2.4)	10 (2.4)	90 (2.4)	0 (0.0)
Portugal	41 (3.7)	59 (3.7)	0 (0.3)	1 (0.4)	78 (2.8)	21 (2.8)	8 (2.1)	83 (2.8)	9 (2.0)	13 (2.7)	85 (2.8)	2 (1.0)
Qatar	28 (3.0)	67 (3.1)	5 (0.8)	19 (1.8)	66 (3.1)	15 (2.7)	34 (1.8)	61 (2.1)	4 (1.2)	23 (2.0)	74 (2.0)	3 (0.8)
Russian Federation	51 (3.7)	49 (3.7)	0 (0.0)	3 (1.1)	96 (1.4)	2 (0.9)	4 (1.2)	95 (1.5)	2 (1.0)	4 (1.5)	95 (1.6)	1 (0.6)
Saudi Arabia	42 (4.0)	56 (4.0)	2 (1.2)	36 (3.6)	56 (3.5)	8 (1.9)	50 (3.8)	46 (3.6)	4 (1.3)	30 (3.5)	65 (3.8)	5 (1.7)
Singapore	33 (2.8)	67 (2.9)	0 (0.2)	3 (1.0)	77 (2.0)	20 (2.1)	13 (1.9)	79 (2.3)	8 (1.4)	10 (1.4)	83 (2.0)	6 (1.3)
Slovak Republic	41 (3.3)	57 (3.4)	1 (0.7)	1 (0.6)	85 (2.3)	14 (2.4)	6 (1.7)	86 (2.1)	8 (1.6)	12 (2.0)	88 (2.0)	0 (0.2)
Slovenia	15 (3.3)	82 (3.4)	3 (1.1)	2 (0.8)	86 (2.5)	12 (2.4)	9 (2.2)	84 (2.8)	7 (1.8)	2 (1.0)	97 (1.3)	1 (0.8)
South Africa	47 (3.4)	52 (3.4)	0 (0.3)	20 (3.2)	70 (3.9)	10 (2.6)	28 (3.4)	69 (3.4)	3 (1.3)	33 (3.3)	66 (3.3)	0 (0.2)
Spain	55 (3.1)	45 (3.0)	0 (0.2)	2 (0.7)	70 (2.1)	29 (2.0)	8 (1.4)	71 (2.5)	22 (2.7)	8 (1.9)	77 (2.4)	15 (2.3)
Sweden	23 (3.5)	73 (3.6)	4 (1.7)	2 (1.1)	82 (2.9)	16 (2.8)	6 (2.0)	80 (3.0)	13 (2.7)	6 (2.1)	85 (3.3)	8 (2.7)
Trinidad and Tobago	26 (3.6)	74 (3.6)	0 (0.0)	7 (2.2)	83 (2.9)	10 (2.5)	10 (2.4)	87 (2.7)	4 (1.5)	13 (2.6)	84 (3.0)	4 (1.5)
United Arab Emirates	47 (2.3)	51 (2.3)	2 (0.7)	35 (2.2)	60 (2.2)	5 (1.0)	35 (2.1)	63 (2.4)	3 (0.9)	30 (2.6)	68 (2.1)	2 (0.7)
United States	28 (4.0)	72 (4.0)	0 (0.0)	20 (3.0)	77 (3.3)	3 (1.3)	9 (2.4)	88 (2.5)	2 (0.9)	15 (2.7)	81 (3.1)	4 (1.7)
International Avg.	32 (0.4)	65 (0.5)	3 (0.2)	11 (0.3)	74 (0.4)	15 (0.4)	13 (0.3)	79 (0.4)	8 (0.3)	14 (0.4)	81 (0.4)	5 (0.2)

**Table 8.6:** Frequency of student grouping for reading instruction adopted by Maltese teachers

When you have reading instruction and/or do reading activities, how often do you organize students?	Always	Often	Sometimes	Never
I teach reading as a whole-class activity	29.6%	47.8%	20.7%	2.0%
I create same-ability groups	6.9%	24.1%	49.7%	19.2%
I create mixed-ability groups	5.9%	29.2%	48.5%	16.3%
Students work independently on an assigned plan/goal	6.9%	31.5%	48.2%	13.3%

Figure 8.3 and Table 8.6 provide information about how often foreign and Maltese teachers use different types of grouping for reading instruction. These teachers' responses are weighted by the number of students in their classes. According to Maltese teachers, the percentage of Maltese students who are 'always or almost always', 'often or sometimes' and 'never' taught reading as a whole-class activity (30%, 68% and 2% respectively) are comparable to the international averages (32%, 65% and 3%). The percentage of Maltese students who are 'always or almost always', 'often or sometimes' and 'never' clustered by same-ability grouping (7%, 74% and 20% respectively) vary slightly from the international averages (11%, 74% and 15%). The percentage of Maltese students who are 'always or almost always', 'often or sometimes' and 'never' clustered by mixed-ability grouping (6%, 77% and 16% respectively) differ from the international averages (13%, 79% and 8%). The percentage of Maltese students who are 'always or almost always', 'often or sometimes' and 'never' assigned independent work (7%, 80% and 13% respectively) differ from the international averages (14%, 81% and 5%).

## 8.5 Types of texts assigned for reading instruction

Consistent with the two overarching purposes for reading emphasized in the PIRLS 2016 Assessment Framework, PIRLS inquired of teachers how frequently they asked their students to read various types of literary and informational texts.

**Table 8.7:** Frequency of literary text reading types adopted by Maltese teachers

How often do you have the students read the following literary reading materials?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Short stories	18.2%	70.9%	9.4%	1.5%
Longer fiction books with chapters	7.4%	50.3%	31.5%	10.8%
Plays	1.0%	6.4%	48.8%	43.8%

Table 8.7 and Figure 8.4 presents information about the types of literary texts Maltese and foreign teachers ask students to read. The percentage of Maltese students who are asked to read short stories 'at least once a week' and 'less than once a week' (89% and 11% respectively) differ a lot from the international averages (78% and 22%). The percentage of Maltese students who are asked to read longer fiction books with chapters 'at least once a week' and 'less than once a week' (58% and 42% respectively) differ considerably from the international averages (41% and 59%). The percentage of Maltese students who are asked to read plays 'at least once a week' and 'less than once a week' (7% and 93% respectively) are comparable to the international averages (9% and 91%).

**Figure 8.4:** Frequency of literary text reading types adopted by teachers in each country

Country	Short Stories				Longer Fiction Books with Chapters				Plays			
	Once a Week or More		Less than Once a Week		Once a Week or More		Less than Once a Week		Once a Week or More		Less than Once a Week	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	85 (2.4)	544 (2.9)	15 (2.4)	553 (6.7)	80 (2.4)	549 (2.8)	20 (2.4)	529 (6.5)	7 (1.8)	549 (7.7)	93 (1.8)	545 (2.7)
Austria	78 (2.9)	544 (2.4)	22 (2.9)	533 (5.5)	15 (2.5)	537 (5.7)	85 (2.5)	542 (2.7)	2 (0.9)	--	98 (0.9)	542 (2.4)
Azerbaijan	86 (2.4)	477 (3.9)	14 (2.4)	441 (17.3)	29 (2.8)	479 (7.7)	71 (2.8)	469 (5.0)	13 (2.6)	460 (14.5)	87 (2.6)	475 (4.5)
Bahrain	78 (2.3)	450 (3.3)	22 (2.3)	432 (6.2)	24 (2.0)	469 (6.4)	76 (2.0)	440 (2.9)	9 (1.7)	460 (12.5)	91 (1.7)	445 (2.8)
Belgium (Flemish)	64 (3.9)	526 (2.5)	36 (3.9)	524 (3.6)	29 (3.7)	525 (5.0)	71 (3.7)	525 (2.2)	1 (0.6)	--	99 (0.6)	525 (2.1)
Belgium (French)	71 (3.4)	499 (3.2)	29 (3.4)	495 (4.8)	13 (2.3)	496 (6.5)	87 (2.3)	498 (2.9)	0 (0.0)	--	100 (0.0)	498 (2.6)
Bulgaria	91 (2.3)	552 (4.4)	9 (2.3)	548 (13.3)	14 (2.3)	554 (9.2)	86 (2.3)	551 (4.7)	5 (1.6)	551 (17.1)	95 (1.6)	551 (4.5)
Canada	76 (1.9)	543 (2.1)	24 (1.9)	545 (4.0)	69 (2.2)	547 (2.3)	31 (2.2)	534 (2.5)	2 (0.8)	--	98 (0.8)	543 (2.0)
Chile	98 (1.4)	497 (3.0)	2 (1.4)	--	19 (3.2)	497 (5.5)	81 (3.2)	497 (3.7)	11 (2.6)	490 (8.9)	89 (2.6)	498 (3.4)
Chinese Taipei	67 (3.8)	559 (2.5)	33 (3.8)	558 (3.5)	20 (3.0)	569 (3.9)	80 (3.0)	556 (2.2)	7 (2.1)	559 (4.0)	93 (2.1)	559 (2.1)
Czech Republic	94 (1.5)	543 (2.0)	6 (1.5)	544 (9.7)	57 (3.3)	547 (2.5)	43 (3.3)	539 (4.0)	1 (0.6)	--	99 (0.6)	543 (2.2)
Denmark	74 (3.6)	548 (2.5)	26 (3.6)	546 (4.0)	55 (3.8)	551 (3.0)	45 (3.8)	544 (3.1)	1 (0.8)	--	99 (0.8)	549 (2.1)
Egypt	56 (4.5)	328 (7.6)	44 (4.5)	334 (10.2)	12 (2.8)	324 (19.6)	88 (2.8)	331 (6.3)	10 (2.8)	354 (21.2)	90 (2.8)	327 (6.0)
England	61 (3.9)	556 (2.7)	39 (3.9)	562 (3.8)	71 (3.5)	561 (2.5)	29 (3.5)	554 (4.0)	8 (2.0)	552 (7.3)	92 (2.0)	559 (2.3)
Finland	72 (3.2)	565 (2.3)	28 (3.2)	569 (3.2)	50 (3.3)	566 (2.7)	50 (3.3)	567 (2.8)	2 (0.8)	--	98 (0.8)	566 (1.9)
France	78 (3.2)	510 (2.7)	22 (3.2)	517 (4.5)	53 (3.6)	514 (2.8)	47 (3.6)	509 (4.1)	7 (2.1)	530 (9.1)	93 (2.1)	510 (2.3)
Georgia	93 (1.7)	491 (2.8)	7 (1.7)	457 (15.9)	31 (3.4)	490 (5.5)	69 (3.4)	488 (3.4)	5 (1.6)	497 (10.9)	95 (1.6)	489 (3.0)
Germany	55 (3.4)	540 (4.9)	45 (3.4)	530 (5.3)	19 (2.8)	537 (5.9)	81 (2.8)	536 (4.2)	2 (1.0)	--	98 (1.0)	536 (3.6)
Hong Kong SAR	55 (4.1)	570 (4.0)	45 (4.1)	567 (4.0)	8 (2.3)	573 (8.1)	92 (2.3)	568 (2.9)	3 (1.4)	567 (20.4)	97 (1.4)	569 (2.8)
Hungary	94 (2.1)	555 (2.8)	6 (2.1)	525 (11.1)	27 (3.4)	562 (6.4)	73 (3.4)	550 (3.5)	2 (1.0)	--	98 (1.0)	553 (2.7)
Iran, Islamic Rep. of	60 (3.4)	434 (6.7)	40 (3.4)	418 (7.9)	24 (2.7)	427 (8.7)	76 (2.7)	428 (4.8)	10 (2.4)	430 (14.6)	90 (2.4)	431 (4.7)
Ireland	88 (2.0)	567 (2.8)	12 (2.0)	565 (4.6)	76 (3.4)	564 (2.9)	24 (3.4)	575 (5.2)	1 (0.7)	--	99 (0.7)	567 (2.5)
Israel	88 (2.6)	531 (2.9)	12 (2.6)	526 (11.2)	39 (3.8)	549 (5.7)	61 (3.8)	518 (4.9)	8 (2.0)	497 (21.5)	92 (2.0)	532 (3.1)
Italy	94 (2.0)	550 (2.5)	6 (2.0)	538 (9.0)	41 (3.6)	550 (4.1)	59 (3.6)	549 (2.8)	5 (1.7)	540 (17.7)	95 (1.7)	550 (2.4)
Kazakhstan	97 (1.2)	536 (2.5)	3 (1.2)	529 (19.1)	84 (2.4)	536 (2.7)	16 (2.4)	538 (8.0)	65 (2.4)	527 (3.2)	35 (2.4)	551 (4.6)
Kuwait	67 (4.0)	392 (5.3)	33 (4.0)	395 (8.0)	25 (5.2)	397 (11.1)	75 (5.2)	391 (5.7)	11 (3.0)	369 (17.5)	89 (3.0)	396 (4.5)
Latvia	89 (2.3)	558 (1.7)	11 (2.3)	557 (5.9)	26 (3.9)	563 (3.3)	74 (3.9)	556 (2.3)	3 (1.2)	542 (7.3)	97 (1.2)	559 (1.8)
Lithuania	79 (3.5)	550 (3.2)	21 (3.5)	543 (5.3)	30 (3.5)	556 (6.0)	70 (3.5)	545 (2.7)	10 (2.0)	555 (8.8)	90 (2.0)	548 (2.9)
Macao SAR	77 (0.1)	549 (1.2)	23 (0.1)	535 (2.2)	21 (0.1)	559 (2.5)	79 (0.1)	542 (1.1)	7 (0.0)	563 (4.4)	93 (0.0)	544 (1.0)
Malta	89 (0.1)	454 (1.9)	11 (0.1)	447 (4.0)	58 (0.1)	461 (1.9)	42 (0.1)	441 (2.7)	7 (0.1)	455 (6.1)	93 (0.1)	453 (2.0)
Morocco	42 (3.1)	361 (7.0)	58 (3.1)	355 (5.5)	11 (2.5)	360 (13.2)	89 (2.5)	356 (4.3)	8 (1.6)	335 (18.4)	92 (1.6)	360 (4.0)
Netherlands	55 (4.4)	543 (2.6)	45 (4.4)	548 (3.3)	95 (1.6)	545 (1.8)	5 (1.6)	541 (8.5)	6 (2.2)	561 (6.0)	94 (2.2)	544 (1.8)
New Zealand	77 (2.4)	525 (2.9)	23 (2.4)	532 (5.2)	62 (3.3)	528 (3.3)	38 (3.3)	523 (5.2)	16 (1.8)	484 (7.7)	84 (1.8)	535 (2.2)
Northern Ireland	60 (4.2)	570 (3.1)	40 (4.2)	555 (4.2)	90 (3.2)	562 (2.3)	10 (3.2)	581 (6.9)	4 (2.1)	570 (16.3)	96 (2.1)	564 (2.4)
Norway	64 (3.9)	559 (2.8)	36 (3.9)	558 (3.6)	80 (3.3)	559 (2.5)	20 (3.3)	559 (4.9)	0 (0.3)	--	100 (0.3)	559 (2.3)
Oman	91 (1.9)	419 (3.5)	9 (1.9)	412 (9.8)	31 (2.5)	419 (5.2)	69 (2.5)	418 (4.6)	22 (2.8)	422 (5.2)	78 (2.8)	418 (3.9)
Poland	96 (1.4)	564 (2.1)	4 (1.4)	585 (8.0)	22 (2.9)	564 (3.9)	78 (2.9)	565 (2.5)	3 (1.2)	551 (10.2)	97 (1.2)	565 (2.2)
Portugal	90 (2.1)	529 (2.4)	10 (2.1)	521 (7.0)	26 (2.8)	536 (5.3)	74 (2.8)	525 (2.3)	13 (3.1)	542 (10.3)	87 (3.1)	526 (2.2)
Qatar	68 (2.6)	450 (3.8)	32 (2.6)	427 (6.3)	29 (2.1)	475 (5.4)	71 (2.1)	430 (3.1)	11 (1.3)	446 (9.9)	89 (1.3)	444 (2.3)
Russian Federation	90 (2.2)	582 (2.4)	10 (2.2)	569 (9.5)	61 (3.2)	584 (2.9)	39 (3.2)	575 (3.4)	6 (1.5)	596 (11.6)	94 (1.5)	580 (2.4)
Saudi Arabia	50 (3.8)	440 (6.6)	50 (3.8)	421 (6.4)	15 (3.0)	433 (14.3)	85 (3.0)	430 (4.9)	12 (3.0)	425 (15.5)	88 (3.0)	431 (4.6)
Singapore	75 (2.1)	577 (3.9)	25 (2.1)	572 (5.4)	35 (2.8)	594 (5.5)	65 (2.8)	567 (3.9)	3 (0.9)	590 (13.6)	97 (0.9)	576 (3.2)
Slovak Republic	93 (1.5)	534 (3.4)	7 (1.5)	541 (6.8)	26 (2.8)	552 (4.2)	74 (2.8)	529 (3.8)	5 (1.3)	556 (7.5)	95 (1.3)	534 (3.2)
Slovenia	82 (2.6)	542 (2.3)	18 (2.6)	543 (3.4)	14 (2.6)	544 (3.5)	86 (2.6)	542 (2.1)	6 (2.1)	548 (5.6)	94 (2.1)	542 (2.0)
South Africa	87 (2.3)	318 (5.1)	13 (2.3)	350 (20.6)	39 (3.5)	302 (6.3)	61 (3.5)	335 (7.2)	45 (3.8)	295 (5.8)	55 (3.8)	344 (6.8)
Spain	84 (2.0)	528 (2.0)	16 (2.0)	525 (3.9)	50 (3.2)	531 (1.9)	50 (3.2)	525 (3.2)	9 (2.0)	526 (5.4)	91 (2.0)	528 (2.0)
Sweden	62 (3.8)	556 (3.2)	38 (3.8)	554 (3.4)	93 (2.1)	555 (2.4)	7 (2.1)	563 (10.2)	3 (1.6)	552 (21.6)	97 (1.6)	555 (2.4)
Trinidad and Tobago	92 (2.4)	479 (3.5)	8 (2.4)	491 (7.4)	44 (4.1)	498 (5.7)	56 (4.1)	465 (5.6)	7 (2.1)	490 (15.5)	93 (2.1)	478 (3.9)
United Arab Emirates	85 (1.6)	451 (3.7)	15 (1.6)	464 (9.8)	36 (2.4)	472 (6.6)	64 (2.4)	442 (3.7)	22 (1.9)	460 (7.3)	78 (1.9)	451 (3.8)
United States	77 (3.5)	547 (3.6)	23 (3.5)	556 (7.4)	70 (4.0)	557 (3.3)	30 (4.0)	531 (5.4)	6 (1.7)	536 (15.0)	94 (1.7)	550 (3.3)
International Avg.	78 (0.4)	512 (0.5)	22 (0.4)	508 (1.2)	41 (0.4)	516 (0.9)	59 (0.4)	508 (0.6)	9 (0.3)	501 (2.0)	91 (0.3)	512 (0.4)

**Figure 8.5:** Frequency of informational text reading types adopted by teachers in each country

Country	Nonfiction Subject Area Books				Longer Nonfiction Books with Chapters				Nonfiction Articles			
	Once a Week or More		Less than Once a Week		Once a Week or More		Less than Once a Week		Once a Week or More		Less than Once a Week	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	83 (2.6)	545 (2.9)	17 (2.6)	541 (8.4)	50 (3.3)	550 (3.2)	50 (3.3)	540 (4.1)	67 (3.4)	545 (3.1)	33 (3.4)	546 (5.4)
Austria	72 (2.9)	542 (2.6)	28 (2.9)	540 (5.0)	17 (2.7)	539 (4.7)	83 (2.7)	542 (2.8)	52 (3.8)	539 (3.3)	48 (3.8)	544 (3.2)
Azerbaijan	63 (3.7)	479 (4.8)	37 (3.7)	460 (8.5)	18 (2.5)	474 (9.5)	82 (2.5)	471 (4.8)	44 (3.2)	485 (5.1)	56 (3.2)	463 (6.7)
Bahrain	74 (2.8)	451 (3.6)	26 (2.8)	432 (6.8)	29 (2.6)	456 (6.3)	71 (2.6)	442 (2.9)	41 (4.3)	456 (4.7)	59 (4.3)	439 (3.7)
Belgium (Flemish)	38 (3.2)	525 (3.7)	62 (3.2)	526 (2.6)	13 (2.5)	524 (6.1)	87 (2.5)	525 (2.2)	31 (3.0)	521 (2.8)	69 (3.0)	527 (2.5)
Belgium (French)	40 (3.4)	503 (3.4)	60 (3.4)	494 (3.9)	6 (2.2)	494 (9.7)	94 (2.2)	498 (2.8)	41 (3.8)	500 (3.7)	59 (3.8)	496 (3.8)
Bulgaria	71 (3.3)	555 (5.1)	29 (3.3)	544 (8.0)	10 (2.1)	571 (8.6)	90 (2.1)	550 (4.7)	29 (3.1)	553 (8.3)	71 (3.1)	552 (4.9)
Canada	89 (1.5)	542 (2.1)	11 (1.5)	550 (4.0)	37 (2.5)	543 (3.1)	63 (2.5)	543 (2.3)	50 (2.3)	543 (2.7)	50 (2.3)	543 (2.3)
Chile	81 (4.0)	495 (3.2)	19 (4.0)	507 (7.2)	18 (2.7)	504 (7.2)	82 (3.7)	495 (3.6)	65 (4.9)	493 (3.9)	35 (4.9)	504 (5.2)
Chinese Taipei	60 (3.8)	559 (2.7)	40 (3.8)	558 (2.7)	22 (3.5)	558 (4.6)	78 (3.5)	559 (2.2)	49 (3.8)	557 (2.6)	51 (3.8)	561 (2.9)
Czech Republic	68 (3.4)	547 (2.3)	32 (3.4)	535 (4.4)	19 (2.7)	549 (3.9)	81 (2.7)	542 (2.5)	23 (2.7)	545 (4.6)	77 (2.7)	543 (2.2)
Denmark	60 (3.3)	545 (2.8)	40 (3.3)	552 (3.3)	16 (2.6)	546 (7.3)	84 (2.6)	548 (2.1)	23 (3.1)	545 (3.8)	77 (3.1)	549 (2.5)
Egypt	60 (4.0)	329 (7.4)	40 (4.0)	334 (10.7)	18 (3.2)	308 (15.6)	82 (3.2)	335 (6.5)	30 (3.9)	337 (12.2)	70 (3.9)	327 (7.1)
England	67 (3.3)	556 (2.3)	33 (3.3)	564 (3.9)	33 (3.5)	556 (3.7)	67 (3.5)	560 (2.8)	51 (3.5)	555 (3.0)	49 (3.5)	562 (3.4)
Finland	93 (1.6)	567 (1.9)	7 (1.6)	562 (6.8)	11 (2.2)	569 (5.7)	89 (2.2)	566 (2.1)	14 (2.1)	564 (3.8)	86 (2.1)	567 (2.0)
France	55 (3.7)	512 (3.1)	45 (3.7)	511 (3.5)	8 (2.3)	524 (11.4)	92 (2.3)	511 (2.1)	37 (3.7)	508 (3.9)	63 (3.7)	514 (2.9)
Georgia	47 (3.9)	487 (4.1)	53 (3.9)	490 (4.1)	11 (2.1)	489 (11.6)	89 (2.1)	489 (2.9)	24 (3.5)	497 (5.5)	76 (3.5)	486 (3.2)
Germany	71 (3.4)	537 (5.3)	29 (3.4)	533 (5.5)	12 (2.3)	542 (5.6)	88 (2.3)	536 (4.3)	49 (3.8)	542 (4.5)	51 (3.8)	530 (5.3)
Hong Kong SAR	45 (4.5)	568 (4.6)	55 (4.5)	570 (3.5)	10 (2.7)	560 (9.0)	90 (2.7)	570 (2.8)	37 (4.6)	564 (5.7)	63 (4.6)	571 (3.0)
Hungary	74 (3.8)	550 (3.1)	26 (3.8)	560 (7.5)	12 (2.7)	552 (8.9)	88 (2.7)	553 (3.1)	25 (3.1)	553 (5.6)	75 (3.1)	553 (3.7)
Iran, Islamic Rep. of	52 (3.5)	432 (6.3)	48 (3.5)	424 (6.8)	22 (3.3)	417 (11.4)	78 (3.3)	432 (5.0)	26 (3.2)	429 (8.4)	74 (3.2)	428 (5.4)
Ireland	83 (2.8)	565 (2.9)	17 (2.8)	572 (5.9)	33 (3.8)	565 (4.4)	67 (3.8)	567 (3.5)	37 (3.6)	568 (3.5)	63 (3.6)	566 (3.2)
Israel	75 (3.2)	540 (3.7)	25 (3.2)	500 (9.3)	33 (3.9)	544 (7.0)	67 (3.9)	523 (4.0)	38 (3.9)	537 (6.0)	62 (3.9)	526 (4.3)
Italy	66 (4.0)	550 (3.1)	34 (4.0)	547 (3.5)	26 (3.5)	545 (4.6)	74 (3.5)	551 (2.7)	23 (3.3)	546 (5.8)	77 (3.3)	550 (2.4)
Kazakhstan	95 (1.5)	536 (2.5)	5 (1.5)	540 (11.8)	62 (3.7)	535 (3.4)	38 (3.7)	539 (4.5)	70 (3.5)	536 (2.6)	30 (3.5)	539 (6.2)
Kuwait	67 (5.5)	388 (6.9)	33 (5.5)	402 (11.5)	23 (3.8)	404 (8.7)	77 (3.8)	389 (5.1)	34 (5.3)	402 (10.0)	66 (5.3)	387 (6.5)
Latvia	68 (3.3)	562 (2.1)	32 (3.3)	551 (3.7)	9 (2.1)	565 (6.1)	91 (2.1)	557 (1.9)	22 (3.1)	562 (4.4)	78 (3.1)	557 (2.0)
Lithuania	59 (3.5)	550 (3.7)	41 (3.5)	546 (3.9)	14 (2.7)	542 (6.8)	86 (2.7)	549 (2.7)	33 (3.6)	548 (4.7)	67 (3.6)	548 (3.4)
Macao SAR	44 (0.1)	547 (1.4)	56 (0.1)	545 (1.5)	15 (0.1)	545 (3.1)	85 (0.1)	546 (1.3)	35 (0.1)	555 (1.7)	65 (0.1)	541 (1.2)
Malta	68 (0.1)	455 (1.9)	32 (0.1)	449 (2.9)	34 (0.1)	460 (2.4)	66 (0.1)	449 (2.2)	28 (0.1)	452 (2.6)	72 (0.1)	453 (2.0)
Morocco	57 (2.7)	367 (4.7)	43 (2.7)	345 (6.4)	15 (2.6)	353 (10.3)	85 (2.6)	358 (4.5)	15 (2.0)	375 (10.3)	85 (2.0)	354 (4.4)
Netherlands	78 (3.5)	546 (2.1)	22 (3.5)	540 (4.4)	50 (4.8)	545 (3.3)	50 (4.8)	544 (3.0)	50 (4.0)	545 (2.7)	50 (4.0)	545 (2.5)
New Zealand	83 (2.1)	527 (2.4)	17 (2.1)	526 (7.9)	38 (3.1)	523 (5.0)	62 (3.1)	528 (3.7)	65 (3.0)	527 (3.0)	35 (3.0)	526 (4.6)
Northern Ireland	69 (3.6)	564 (3.0)	31 (3.6)	563 (4.4)	37 (4.8)	556 (4.6)	63 (4.8)	569 (2.8)	34 (4.1)	572 (4.8)	66 (4.1)	560 (2.9)
Norway	92 (2.2)	559 (2.4)	8 (2.2)	557 (6.0)	27 (3.1)	559 (4.4)	73 (3.1)	559 (2.3)	38 (4.1)	559 (3.2)	62 (4.1)	559 (3.0)
Oman	82 (2.5)	419 (3.5)	18 (2.5)	417 (7.4)	27 (2.8)	426 (6.1)	73 (2.8)	416 (3.7)	44 (2.9)	423 (4.8)	56 (2.9)	415 (4.4)
Poland	86 (2.8)	565 (2.4)	14 (2.8)	561 (6.5)	21 (3.3)	568 (5.2)	79 (3.3)	564 (2.4)	20 (2.9)	555 (5.1)	80 (2.9)	567 (2.5)
Portugal	70 (3.6)	529 (2.1)	30 (3.6)	526 (6.8)	27 (3.1)	535 (4.3)	73 (3.1)	526 (3.0)	30 (3.5)	529 (4.3)	70 (3.5)	528 (3.3)
Qatar	78 (3.3)	442 (3.3)	22 (3.3)	446 (8.4)	31 (3.1)	458 (7.2)	69 (3.1)	438 (3.5)	36 (2.4)	457 (5.9)	64 (2.4)	436 (3.7)
Russian Federation	75 (3.0)	585 (2.7)	25 (3.0)	567 (5.1)	32 (3.0)	594 (4.2)	68 (3.0)	574 (2.9)	38 (3.3)	590 (3.9)	62 (3.3)	575 (3.4)
Saudi Arabia	63 (3.8)	437 (5.9)	37 (3.8)	420 (8.0)	20 (3.6)	428 (10.9)	80 (3.6)	432 (4.9)	28 (4.1)	431 (10.3)	72 (4.1)	430 (5.3)
Singapore	59 (2.8)	576 (4.3)	41 (2.8)	577 (5.2)	21 (2.2)	579 (6.4)	79 (2.2)	576 (3.6)	45 (2.6)	584 (4.7)	55 (2.6)	570 (4.5)
Slovak Republic	65 (3.5)	538 (4.4)	35 (3.5)	529 (5.4)	11 (2.1)	560 (8.2)	89 (2.1)	532 (3.3)	35 (3.4)	536 (6.0)	65 (3.4)	534 (3.5)
Slovenia	90 (1.9)	542 (2.1)	10 (1.9)	541 (4.9)	8 (2.2)	550 (5.2)	92 (2.2)	542 (2.1)	25 (3.1)	544 (3.8)	75 (3.1)	542 (2.3)
South Africa	73 (3.7)	318 (6.2)	27 (3.7)	323 (9.0)	40 (3.4)	313 (7.3)	60 (3.4)	326 (6.4)	69 (3.5)	313 (6.3)	31 (3.5)	334 (10.0)
Spain	84 (2.7)	528 (1.8)	16 (2.7)	528 (4.2)	33 (2.4)	527 (2.2)	67 (2.4)	528 (2.5)	39 (2.8)	527 (2.5)	61 (2.8)	528 (2.2)
Sweden	84 (2.9)	556 (2.6)	16 (2.9)	554 (6.2)	28 (3.5)	553 (4.5)	72 (3.5)	556 (2.9)	34 (3.8)	550 (4.3)	66 (3.8)	558 (2.8)
Trinidad and Tobago	90 (2.3)	481 (3.8)	10 (2.3)	466 (17.1)	44 (4.3)	496 (5.5)	56 (4.3)	467 (5.6)	48 (4.6)	481 (5.2)	52 (4.6)	478 (6.7)
United Arab Emirates	78 (2.2)	451 (3.6)	22 (2.2)	456 (8.4)	35 (2.4)	467 (6.5)	65 (2.4)	445 (3.6)	51 (2.3)	457 (5.2)	49 (2.3)	448 (5.4)
United States	94 (1.8)	550 (3.2)	6 (1.8)	541 (11.4)	33 (3.9)	545 (5.6)	67 (3.9)	551 (3.8)	79 (2.7)	550 (3.5)	21 (2.7)	548 (7.2)
International Avg.	71 (0.4)	512 (0.5)	29 (0.4)	508 (1.0)	24 (0.4)	513 (1.0)	76 (0.4)	510 (0.5)	39 (0.5)	513 (0.8)	61 (0.5)	510 (0.6)

**Table 8.8:** Frequency of informational text reading types adopted by Maltese teachers

How often do you have the students read the following informational reading materials?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Nonfiction subject area books or textbooks	21.7%	46.8%	26.1%	5.4%
Longer nonfiction books with chapters	4.4%	29.1%	38.4%	28.1%
Nonfiction articles (e.g. newspaper articles, brochures)	1.5%	26.6%	49.8%	22.2%

Table 8.8 and Figure 8.5 presents information about the types of informational texts Maltese and foreign teachers ask students to read. The percentage of Maltese students who are asked to read nonfiction subject area books or textbooks ‘at least once a week’ and ‘less than once a week’ (68% and 32% respectively) differ slightly from the international averages (71% and 29%). The percentage of Maltese students who are asked to read longer nonfiction books with chapters ‘at least once a week’ and ‘less than once a week’ (34% and 66% respectively) differ considerably from the international averages (24% and 76%). The percentage of Maltese students who are asked to read nonfiction articles ‘at least once a week’ and ‘less than once a week’ (28% and 72% respectively) differ a lot from the international averages (39% and 61%). There is no relationship between the types of literary and informational texts read in class and reading attainment.

## 8.6 Classroom libraries

A number of countries have invested in classroom libraries so that children can have ready access to books and magazines as part of the reading lessons and activities. Tables 8.9 to 8.14 provide information about the availability of classroom libraries in Maltese schools, number of books and magazines available and the frequency they are used.

**Table 8.9:** Availability of a library or reading corner in Maltese classrooms

Do you have a library or reading corner in your classroom?	Frequency	Percentage
Yes	193	95.1%
No	10	4.9%

**Table 8.10:** Number of books available in Maltese classroom libraries

If yes, about how many books are in your classroom library?	Frequency	Percentage
0-25	17	8.8%
36-50	66	34.2%
51-100	71	36.8%
More than 100	39	20.2%

**Table 8.11:** Number of magazines available in Maltese classroom libraries

About how many magazines with different titles are in your classroom library?	Frequency	Percentage
0	74	38.3%
1-2	42	21.8%
3-5	42	21.8%
More than 5	35	18.1%

Figure 8.6: Availability of libraries, books and magazines in classrooms across countries

Country	Have a Classroom Library			Percent of Students				
	Percent of Students	Average Achievement		With More than 50 Books in Their Classroom Library	With At Least 3 Magazine Titles in Their Classroom Library	Given Class Time to Use Classroom Library At Least Once a Week	Who Can Borrow Books From Classroom Library	Whose Teachers Take Them to Library Other than the Classroom Library At Least Once a Month
		Yes	Yes					
United States	98 (1.1)	550 (3.2)	~ ~	92 (1.9)	35 (3.6)	97 (1.3)	87 (2.7)	94 (1.9)
Macao SAR	98 (0.0)	546 (1.1)	--	62 (0.1)	74 (0.1)	86 (0.1)	66 (0.1)	40 (0.1)
Hong Kong SAR	97 (1.2)	569 (2.8)	546 (32.3)	78 (3.3)	46 (4.5)	82 (2.9)	47 (4.5)	59 (5.0)
New Zealand	97 (1.2)	527 (2.4)	533 (11.6)	36 (3.5)	42 (3.5)	95 (1.4)	60 (3.1)	91 (2.0)
Ireland	96 (2.0)	567 (2.6)	569 (18.7)	82 (3.7)	23 (3.0)	94 (2.2)	86 (3.1)	43 (4.6)
Belgium (Flemish)	96 (1.4)	526 (1.8)	510 (10.4)	79 (2.9)	22 (2.3)	87 (2.2)	59 (3.3)	51 (3.2)
Canada	95 (1.0)	542 (2.0)	564 (6.8)	84 (1.7)	47 (2.2)	94 (1.2)	76 (2.1)	93 (1.2)
Malta	94 (0.1)	452 (1.9)	463 (7.3)	54 (0.1)	40 (0.1)	90 (0.1)	71 (0.1)	82 (0.1)
France	94 (1.7)	512 (2.1)	502 (10.7)	57 (3.8)	68 (3.6)	84 (2.6)	64 (3.5)	47 (4.6)
Chinese Taipei	94 (2.0)	559 (2.1)	562 (6.2)	73 (3.7)	42 (3.9)	77 (2.8)	68 (3.4)	86 (2.8)
Spain	93 (1.0)	528 (1.8)	520 (4.8)	46 (2.7)	29 (2.9)	82 (2.4)	79 (2.2)	52 (2.6)
Northern Ireland	93 (2.4)	565 (2.3)	551 (14.1)	85 (3.0)	23 (3.6)	90 (3.0)	88 (3.1)	65 (4.5)
Belgium (French)	93 (1.9)	497 (2.7)	503 (9.4)	69 (3.3)	74 (3.2)	81 (2.8)	60 (3.9)	46 (4.1)
England	92 (2.2)	557 (2.1)	574 (7.8)	78 (3.3)	29 (3.3)	89 (2.6)	81 (3.0)	80 (2.8)
Australia	88 (2.2)	542 (2.7)	562 (9.0)	56 (3.6)	37 (3.0)	87 (2.4)	54 (3.5)	93 (1.5)
Germany	87 (2.5)	535 (4.0)	541 (6.2)	44 (3.9)	30 (3.8)	66 (3.4)	62 (3.6)	56 (3.8)
Singapore	84 (2.0)	575 (3.6)	584 (7.7)	33 (2.0)	33 (2.4)	70 (2.5)	63 (2.4)	50 (2.2)
Lithuania	84 (2.7)	549 (2.8)	543 (8.0)	31 (3.9)	49 (3.5)	72 (3.8)	82 (2.9)	78 (3.2)
Kazakhstan	83 (2.5)	533 (2.8)	549 (7.5)	22 (3.0)	76 (3.0)	80 (2.9)	79 (2.9)	95 (1.1)
Netherlands	80 (3.3)	547 (2.2)	539 (3.5)	50 (3.9)	34 (4.0)	78 (3.3)	18 (3.2)	64 (3.9)
Austria	79 (3.6)	540 (2.7)	546 (5.1)	43 (3.8)	27 (3.4)	73 (3.7)	68 (3.9)	69 (3.7)
Italy	77 (3.8)	550 (2.6)	543 (5.3)	27 (3.2)	14 (2.7)	56 (4.2)	73 (3.9)	37 (3.5)
Israel	75 (3.9)	529 (3.8)	534 (8.7)	15 (3.1)	31 (4.1)	66 (4.2)	57 (3.9)	61 (4.1)
Russian Federation	74 (3.2)	582 (2.6)	578 (4.9)	19 (2.6)	49 (3.2)	42 (3.5)	68 (3.7)	85 (2.6)
Czech Republic	74 (3.2)	544 (2.7)	542 (3.9)	20 (2.3)	29 (3.2)	56 (3.6)	55 (3.6)	40 (3.2)
Slovenia	72 (3.1)	541 (2.1)	545 (3.8)	10 (2.2)	31 (3.2)	57 (3.3)	45 (3.9)	76 (2.5)
Hungary	71 (3.7)	560 (3.6)	540 (6.3)	13 (2.8)	17 (2.7)	65 (3.6)	54 (3.8)	69 (3.9)
United Arab Emirates	71 (2.8)	454 (3.4)	450 (6.7)	23 (1.6)	31 (2.4)	67 (2.8)	57 (2.5)	82 (2.0)
Latvia	67 (3.7)	556 (2.3)	561 (3.3)	23 (3.1)	17 (2.8)	47 (3.6)	52 (3.9)	70 (3.6)
Qatar	66 (2.1)	450 (2.9)	428 (4.9)	14 (1.5)	35 (3.3)	51 (3.0)	52 (2.6)	88 (1.0)
Bulgaria	66 (3.9)	556 (5.2)	542 (8.6)	4 (1.4)	31 (3.4)	35 (3.8)	58 (3.9)	76 (3.2)
Azerbaijan	64 (3.4)	481 (4.2)	457 (9.1)	12 (2.3)	36 (3.2)	51 (3.6)	60 (3.2)	70 (3.1)
Slovak Republic	63 (3.3)	537 (4.1)	531 (5.8)	8 (1.8)	26 (3.3)	49 (3.3)	52 (3.4)	56 (3.6)
Trinidad and Tobago	61 (4.3)	479 (5.2)	479 (7.2)	16 (3.2)	27 (3.6)	57 (4.3)	38 (4.2)	59 (3.8)
Iran, Islamic Rep. of	60 (3.8)	450 (5.3)	395 (7.8)	19 (2.4)	22 (3.0)	46 (3.8)	60 (3.8)	40 (3.4)
Georgia	60 (3.5)	490 (3.7)	486 (4.6)	12 (2.0)	35 (3.3)	50 (3.6)	59 (3.6)	71 (3.2)
Oman	59 (2.8)	427 (4.4)	408 (4.2)	14 (2.2)	40 (3.4)	54 (3.0)	51 (2.8)	89 (2.0)
Bahrain	58 (3.4)	456 (3.4)	434 (4.0)	13 (2.2)	31 (3.0)	44 (3.8)	50 (3.5)	92 (1.7)
Chile	57 (4.4)	494 (4.1)	502 (5.3)	23 (4.2)	38 (4.7)	46 (4.1)	56 (4.2)	57 (4.6)
South Africa	54 (3.8)	332 (8.2)	308 (6.9)	24 (3.2)	31 (3.4)	46 (4.0)	41 (3.6)	53 (3.8)
Portugal	53 (3.4)	533 (3.2)	523 (3.3)	11 (2.5)	15 (2.4)	43 (3.5)	46 (3.5)	72 (3.1)
Morocco	51 (3.2)	371 (5.2)	343 (6.5)	10 (1.8)	25 (2.8)	29 (2.7)	44 (2.8)	15 (2.1)
Poland	48 (3.5)	562 (3.5)	567 (2.6)	11 (1.8)	9 (2.3)	15 (3.0)	21 (3.4)	70 (3.7)
Finland	45 (3.6)	563 (2.7)	568 (2.7)	19 (2.7)	8 (1.9)	40 (3.7)	23 (2.4)	72 (2.8)
Denmark	45 (3.9)	547 (3.3)	548 (2.8)	12 (2.0)	7 (2.1)	39 (3.9)	27 (3.6)	92 (1.5)
Kuwait	43 (4.2)	399 (6.6)	390 (6.0)	8 (2.6)	26 (5.1)	31 (5.0)	37 (3.8)	83 (2.9)
Sweden	41 (3.8)	552 (4.1)	557 (2.8)	19 (2.8)	11 (2.5)	35 (3.8)	26 (3.5)	71 (4.0)
Norway	38 (4.0)	564 (3.9)	556 (2.6)	9 (2.2)	16 (3.0)	36 (4.0)	33 (3.9)	81 (3.4)
Saudi Arabia	31 (3.3)	456 (7.9)	419 (5.5)	10 (2.3)	22 (3.0)	22 (3.2)	27 (3.1)	54 (4.4)
Egypt	14 (2.8)	349 (17.8)	325 (6.3)	0 (0.0)	8 (2.6)	12 (2.8)	12 (2.7)	61 (4.1)
International Avg.	72 (0.4)	514 (0.6)	507 (1.2)	33 (0.4)	32 (0.4)	61 (0.5)	55 (0.5)	67 (0.5)

**Table 8.12:** Frequency of classroom library use allowed by Maltese teachers

How often do you give your students time to use the classroom library?	Frequency	Percentage
Every day or almost every day	109	56.5%
Once or twice a week	74	38.3%
Once or twice a month	7	3.6%
Never or almost never	3	1.6%

**Table 8.13:** Number of Maltese teachers who allow their students borrow books from classroom library

Can students borrow books from classroom library/reading corner to take home?	Frequency	Percentage
Yes	146	75.6%
No	47	24.4%

**Table 8.14:** Frequency of library use other than the classroom library allowed by Maltese teachers

How often do you take/send students to a library other than the classroom library?	Frequency	Percentage
At least once or twice a year	121	59.6%
Once or twice a month	44	21.7%
A few times a year	10	4.9%
Never or almost never	28	13.8%

Figure 8.6 presents teachers' reports about the size and use of classroom libraries in their reading instruction, with the results ordered from high to low by the percentage of students with classroom libraries. These teachers' responses are weighted by the number of students in their classes. The percentage of Maltese students, who have a classroom library or a reading corner (94%), whose library has more than fifty books (54%), and at least three magazines (40%), whose teacher give them time to use the classroom library at least once a week (90%), who allows them to borrow books from class library to take home (71%) and who takes them to other libraries at least once a month (82%) all exceed by a large margin the corresponding international percentage averages 72%, 33%, 32%, 61%, 55% and 67% respectively.

There is substantial variation between participating countries where (95-98%) students from United States, Macao, Hong Kong, New Zealand, Ireland, Belgium (Flemish) and Canada have a classroom library. In Egypt, Saudi Arabia, Norway, Sweden, Kuwait, Denmark and Finland the percentage of students who have a classroom library range from 14 to 45%. The mean reading score of students who have a classroom library (514) is significantly higher than the mean reading score of students who do not have a reading corner (507).

## 8.7 Computers for reading lessons

Tables 8.15 to 8.16 provide information about the availability of computers/tablets in Maltese classrooms. Moreover they also provide information about students' access to computers as part of their reading lessons. Figure 8.7 displays the percentage of students who can use computers/tablets during reading lessons that are either available in class or in school. These teachers' responses are weighted by the number of students in their classes.

Figure 8.7: Access to computers for reading lessons across participating countries

Country	Computers Available for Students to Use for Reading Lessons			Percent of Students		
	Percent of Students	Average Achievement		Each Student has a Computer	The Class has Computers that Students can Share	The School has Computers that the Class can Sometimes Use
		Yes	Yes			
New Zealand	93 (1.6)	529 (2.5)	498 (15.9)	13 (2.5)	83 (2.5)	66 (2.8)
Denmark	92 (2.2)	548 (2.2)	540 (8.7)	38 (3.7)	8 (2.1)	64 (3.7)
Netherlands	87 (2.6)	545 (1.9)	545 (5.3)	17 (3.4)	79 (3.1)	77 (2.9)
Sweden	83 (3.3)	558 (2.6)	543 (5.3)	22 (4.0)	34 (4.4)	54 (4.3)
Northern Ireland	77 (3.6)	563 (3.0)	566 (4.4)	6 (2.2)	58 (4.9)	70 (3.7)
Georgia	75 (3.1)	487 (2.9)	490 (6.7)	60 (2.9)	18 (2.9)	65 (3.6)
Australia	75 (3.1)	546 (3.0)	542 (4.9)	17 (2.6)	58 (3.6)	64 (3.3)
Finland	72 (2.8)	566 (2.1)	566 (3.5)	9 (1.9)	26 (3.4)	70 (2.8)
United States	70 (3.8)	546 (3.6)	556 (5.7)	25 (4.0)	51 (4.0)	58 (4.4)
Norway	66 (3.9)	558 (2.8)	561 (2.8)	9 (2.6)	33 (4.1)	60 (4.2)
Canada	65 (1.8)	544 (2.5)	542 (2.4)	8 (0.9)	41 (2.0)	59 (2.2)
Germany	65 (3.6)	539 (4.5)	531 (6.4)	3 (1.3)	48 (4.0)	52 (3.8)
Israel	62 (4.2)	547 (4.6)	503 (6.3)	18 (3.3)	26 (3.9)	59 (4.3)
Russian Federation	56 (3.0)	588 (3.3)	572 (4.3)	9 (2.0)	21 (2.8)	50 (3.3)
England	55 (4.0)	554 (3.0)	564 (3.4)	11 (2.2)	36 (3.3)	46 (4.0)
Singapore	55 (2.4)	584 (4.2)	567 (5.5)	31 (2.4)	20 (2.0)	54 (2.4)
Belgium (Flemish)	54 (3.6)	525 (2.9)	525 (2.9)	3 (1.3)	40 (3.7)	45 (3.4)
Austria	53 (4.0)	537 (3.2)	546 (3.5)	1 (0.9)	48 (4.0)	25 (3.7)
Malta	49 (0.1)	452 (2.3)	453 (2.1)	2 (0.0)	46 (0.1)	12 (0.1)
Macao SAR	49 (0.1)	548 (1.5)	543 (1.3)	18 (0.1)	23 (0.1)	39 (0.1)
Kazakhstan	49 (3.5)	537 (3.6)	536 (4.1)	20 (2.6)	36 (3.5)	44 (3.3)
Bulgaria	48 (3.9)	548 (6.6)	554 (5.6)	4 (1.6)	16 (2.5)	47 (3.9)
Qatar	45 (3.2)	452 (4.6)	436 (3.5)	12 (1.0)	23 (2.7)	37 (2.6)
Ireland	39 (3.7)	564 (3.9)	568 (3.4)	2 (1.0)	18 (3.0)	33 (3.7)
Iran, Islamic Rep. of	38 (3.8)	447 (7.2)	417 (5.8)	3 (1.4)	6 (1.9)	28 (3.5)
Latvia	37 (4.1)	557 (3.2)	558 (2.6)	10 (2.5)	13 (2.5)	37 (4.1)
Hungary	37 (4.0)	556 (5.4)	553 (4.1)	4 (1.2)	15 (2.8)	32 (3.7)
Chile	36 (4.6)	494 (5.8)	499 (3.8)	16 (3.2)	17 (3.7)	36 (4.6)
Hong Kong SAR	35 (4.1)	572 (4.6)	566 (3.8)	14 (3.1)	16 (2.8)	31 (4.0)
United Arab Emirates	34 (2.0)	494 (6.1)	431 (4.4)	16 (1.2)	19 (1.6)	29 (1.9)
Chinese Taipei	34 (3.6)	560 (3.7)	559 (2.3)	7 (2.0)	18 (2.8)	31 (3.4)
Lithuania	30 (3.9)	548 (5.3)	548 (3.3)	3 (1.5)	14 (2.7)	27 (3.7)
Spain	30 (2.0)	523 (4.6)	530 (1.9)	6 (1.1)	15 (1.6)	24 (1.9)
Czech Republic	29 (3.1)	540 (5.0)	545 (2.4)	6 (1.5)	12 (2.1)	27 (3.0)
Bahrain	29 (2.6)	461 (5.6)	440 (3.3)	4 (1.0)	7 (1.5)	28 (2.6)
Saudi Arabia	26 (3.1)	423 (9.6)	433 (4.9)	3 (1.3)	8 (1.8)	20 (2.7)
Poland	25 (3.0)	566 (4.4)	565 (2.6)	5 (1.6)	4 (1.4)	24 (2.9)
France	25 (3.4)	515 (4.4)	511 (2.5)	2 (1.3)	15 (3.0)	20 (3.1)
Oman	24 (2.2)	420 (6.6)	417 (3.6)	3 (0.8)	9 (1.7)	19 (2.2)
Kuwait	22 (3.4)	400 (14.9)	392 (5.3)	6 (2.1)	3 (1.1)	18 (2.8)
Italy	21 (3.4)	546 (5.8)	549 (2.8)	3 (1.6)	15 (2.9)	18 (3.2)
Slovak Republic	19 (2.8)	543 (6.8)	533 (3.6)	8 (1.8)	7 (1.9)	17 (2.7)
Azerbaijan	18 (2.7)	485 (9.1)	469 (4.9)	2 (0.8)	9 (2.1)	16 (2.4)
Slovenia	17 (2.8)	541 (4.1)	543 (2.2)	4 (1.2)	10 (2.1)	17 (2.8)
Egypt	15 (3.1)	337 (18.3)	329 (6.3)	1 (0.7)	2 (0.9)	14 (3.0)
Portugal	14 (2.2)	524 (6.1)	529 (2.5)	1 (0.4)	6 (1.7)	12 (2.3)
Trinidad and Tobago	12 (2.6)	501 (10.0)	477 (3.9)	5 (1.9)	0 (0.0)	8 (2.2)
South Africa	8 (1.6)	372 (20.0)	316 (5.3)	1 (0.5)	1 (0.8)	6 (1.5)
Belgium (French)	7 (2.1)	506 (7.1)	497 (2.8)	0 (0.0)	2 (0.9)	6 (2.0)
Morocco	6 (1.8)	406 (14.3)	354 (4.2)	0 (0.3)	1 (0.7)	5 (1.7)
International Avg.	43 (0.4)	516 (1.0)	508 (0.7)	10 (0.3)	23 (0.4)	36 (0.4)

**Figure 8.8:** Computer activities during reading lessons across participating countries

Country	Percent of Students Whose Teachers Do the Following Computer Activities in Reading Lessons at Least Weekly					
	Ask Students to Read Digital Texts	Teach Students Strategies for Reading Digital Texts	Teach Students to Be Critical When Reading on the Internet	Ask Students to Look Up Information (e.g., facts, definitions, etc.)	Ask Students to Research a Particular Topic or Problem	Ask Students to Write Stories or Other Texts
Australia	57 (3.1)	39 (3.4)	43 (3.2)	59 (3.4)	50 (3.4)	51 (3.4)
Austria	13 (2.5)	9 (2.0)	11 (2.2)	20 (2.8)	12 (2.3)	19 (3.0)
Azerbaijan	8 (1.8)	8 (1.6)	9 (2.1)	12 (2.3)	9 (2.0)	10 (2.1)
Bahrain	17 (2.6)	15 (2.3)	14 (2.2)	16 (2.4)	14 (2.3)	15 (2.2)
Belgium (Flemish)	3 (1.4)	1 (0.7)	10 (2.4)	20 (2.7)	10 (2.2)	5 (1.1)
Belgium (French)	1 (0.7)	1 (0.7)	0 (0.4)	1 (0.7)	0 (0.1)	0 (0.3)
Bulgaria	20 (2.6)	15 (2.8)	20 (2.9)	31 (3.5)	22 (3.4)	4 (1.3)
Canada	30 (1.9)	16 (1.7)	22 (1.8)	36 (1.9)	29 (1.7)	27 (2.2)
Chile	9 (2.5)	6 (2.0)	10 (2.7)	15 (3.5)	9 (2.6)	11 (3.1)
Chinese Taipei	7 (2.0)	5 (1.9)	8 (2.3)	10 (2.5)	7 (2.1)	6 (1.9)
Czech Republic	4 (1.2)	2 (0.8)	6 (1.7)	12 (2.1)	13 (2.3)	5 (1.9)
Denmark	40 (3.6)	13 (2.3)	29 (3.3)	51 (3.8)	43 (3.8)	47 (3.6)
Egypt	8 (2.2)	6 (1.9)	3 (1.5)	8 (2.5)	6 (2.1)	4 (1.6)
England	26 (3.4)	13 (2.6)	25 (3.4)	40 (3.4)	35 (3.5)	16 (2.5)
Finland	21 (2.9)	8 (1.5)	28 (3.3)	32 (3.5)	24 (3.2)	22 (3.0)
France	6 (1.9)	3 (1.2)	4 (1.4)	8 (2.1)	7 (2.0)	5 (1.7)
Georgia	34 (3.3)	31 (3.1)	35 (3.0)	54 (3.7)	16 (2.8)	33 (3.5)
Germany	10 (2.3)	4 (1.5)	9 (2.2)	21 (3.0)	19 (2.9)	10 (2.1)
Hong Kong SAR	20 (3.8)	7 (1.8)	9 (2.7)	12 (3.0)	7 (2.3)	6 (1.9)
Hungary	15 (2.7)	13 (2.7)	21 (3.2)	23 (2.9)	23 (3.4)	12 (2.6)
Iran, Islamic Rep. of	16 (3.1)	14 (3.1)	16 (2.9)	26 (3.0)	27 (3.0)	22 (3.6)
Ireland	14 (2.5)	10 (2.2)	11 (2.7)	21 (3.0)	17 (2.6)	11 (2.3)
Israel	45 (4.4)	44 (4.4)	44 (4.4)	47 (4.3)	25 (3.8)	29 (4.1)
Italy	10 (2.7)	10 (2.7)	14 (3.0)	13 (3.0)	11 (2.6)	10 (2.8)
Kazakhstan	37 (3.3)	31 (3.0)	35 (3.1)	42 (3.6)	36 (3.4)	39 (3.3)
Kuwait	15 (3.2)	12 (2.8)	11 (2.9)	16 (3.2)	16 (3.2)	11 (2.8)
Latvia	6 (1.9)	4 (1.6)	10 (2.2)	20 (3.3)	8 (2.2)	9 (2.2)
Lithuania	10 (2.6)	7 (2.2)	9 (2.4)	20 (3.4)	13 (2.6)	8 (2.2)
Macao SAR	21 (0.1)	14 (0.1)	17 (0.1)	20 (0.1)	11 (0.1)	11 (0.1)
Malta	19 (0.1)	15 (0.1)	15 (0.1)	26 (0.1)	21 (0.1)	30 (0.1)
Morocco	2 (0.9)	1 (0.7)	2 (0.9)	3 (1.0)	3 (1.0)	1 (0.6)
Netherlands	47 (4.5)	31 (4.5)	15 (2.5)	46 (4.4)	32 (3.9)	25 (3.8)
New Zealand	57 (3.0)	30 (2.6)	44 (3.1)	78 (2.8)	70 (2.7)	64 (2.8)
Northern Ireland	33 (4.5)	14 (3.0)	25 (4.1)	54 (5.1)	41 (4.9)	21 (3.6)
Norway	25 (3.0)	8 (1.9)	29 (3.3)	33 (3.5)	22 (3.3)	31 (3.7)
Oman	14 (2.1)	13 (2.1)	14 (2.3)	17 (2.3)	18 (2.2)	18 (2.4)
Poland	5 (1.4)	5 (1.2)	9 (2.2)	10 (2.1)	8 (1.9)	2 (1.0)
Portugal	6 (1.7)	4 (1.3)	5 (1.3)	9 (2.2)	7 (1.8)	6 (1.6)
Qatar	28 (3.0)	22 (3.0)	22 (2.9)	31 (2.9)	26 (2.2)	24 (2.3)
Russian Federation	18 (2.6)	11 (2.3)	23 (2.6)	41 (3.2)	32 (3.3)	12 (2.2)
Saudi Arabia	17 (2.6)	19 (2.7)	17 (2.4)	20 (2.6)	18 (2.6)	15 (2.6)
Singapore	17 (1.8)	13 (1.4)	16 (1.7)	24 (2.2)	16 (1.9)	14 (1.9)
Slovak Republic	6 (1.4)	5 (1.4)	8 (1.8)	9 (1.6)	7 (1.6)	4 (1.3)
Slovenia	7 (1.9)	2 (0.9)	6 (2.2)	10 (2.4)	7 (2.2)	1 (0.8)
South Africa	4 (1.3)	4 (1.3)	2 (0.8)	4 (1.4)	3 (0.8)	3 (0.9)
Spain	13 (1.9)	8 (1.8)	12 (1.6)	15 (2.3)	11 (1.9)	11 (1.8)
Sweden	28 (4.0)	13 (3.3)	31 (3.7)	32 (3.6)	27 (3.8)	46 (4.2)
Trinidad and Tobago	3 (1.4)	3 (1.2)	3 (1.2)	6 (1.8)	6 (1.9)	4 (1.5)
United Arab Emirates	25 (1.9)	21 (1.9)	20 (1.8)	26 (1.9)	22 (1.6)	20 (1.4)
United States	46 (4.3)	30 (3.2)	28 (3.6)	40 (4.0)	26 (3.5)	37 (3.9)
International Avg.	19 (0.4)	13 (0.3)	17 (0.4)	25 (0.4)	19 (0.4)	17 (0.4)

**Table 8.15:** Computer/tablets available to use for reading lessons in Maltese classrooms

Do these students have computers/tablets available to use for reading lessons?	Frequency	Percentage
Yes	100	49.3%
No	103	50.7%

**Table 8.16:** Students' access to computer/tablets in Maltese classrooms

If yes, what access do the students have to computers/tablets?	Yes	No
Each student has a computer	2.6%	97.4%
The class has computers that students can share	46.4%	53.6%
The school has computers that the class can use sometimes	12.3%	87.7%

The percentage of Maltese students who have a computer/tablet available to use for reading lessons (49%) is significantly higher than the international average (43%). There is wide variation across the PIRLS countries between where (92-93%) students from New Zealand and Denmark have computer availability for use in reading lessons. In South Africa, Belgium (French), and Morocco, the percentage of students who have computers available for reading use range from 6 to 8%. Internationally, students with computers available for reading instruction have a significantly higher mean reading score (516) than their counterparts who do not have computers available for reading (508). In Malta, relatively few students (2%) learn in classrooms where every student has a computer, about half (46%) learn in classrooms where students share computers, and another one-tenth (12%) used computers available school-wide. The corresponding international averages are 10%, 23% and 36% respectively.

**Table 8.17:** Computer activities during reading lessons in Maltese classrooms

How often do you do the following computer activities during reading lessons?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Ask students to read digital texts	8.9%	10.7%	58.1%	22.3%
Teach students strategies for reading digital texts	3.6%	12.0%	46.9%	37.5%
Teach students to be critical when reading on the Internet	4.8%	10.9%	62.9%	21.4%
Ask students to look up information	7.3%	20.5%	70.4%	1.8%
Ask students to research a particular topic or problem	3.6%	17.5%	76.3%	2.7%
Ask students to write stories or other texts	6.3%	23.6%	58.6%	11.6%

Figure 8.8 and Table 8.17 show information, provided by Maltese and foreign teachers, about the prevalence and types of computer-based activities used as part of reading instruction. Students were asked to engage in various computer-based activities on at least a weekly basis without any one instructional use predominating. Asking students to read digital texts is most prevalent in Australia (57%) and New Zealand (57%); teaching students strategies for reading digital texts is most prevalent in Israel (44%) and Australia (39%); teaching students to be critical when reading text from the Internet is most prevalent in Israel (44%), New Zealand (44%) and Australia (43%); asking students to look up information is most prevalent in New Zealand (78%) and Australia (59%); asking students to research a problem is most prevalent in New Zealand (70%) and Australia (50%), and asking student to write stories or other texts is most prevalent in New Zealand (64%) and Australia (51%), The corresponding Maltese averages are 19%, 15%, 15%, 26%, 21% and 30% respectively and which are similar to the international averages 19%, 13%, 17%, 25%, 19% and 17% respectively.

## 8.8 Classroom instruction limited by student attributes

Teachers were asked to report the extent to which their classroom instruction in reading was limited by students' preparedness and readiness to learn. To assess classroom instruction limitations, a scale score was generated by using teachers' responses to, seven attributes of their students that could limit how they teach their class, which are displayed in Table 8.18.

**Table 8.18:** Classroom instruction limitations in Maltese schools

In your view, to what extent do the following limit how you teach this class?	Not at all	Some	A lot
Students lacking prerequisite knowledge or skills	10.9%	60.4%	28.7%
Students suffering from lack of basic nutrition	77.3%	18.2%	4.4%
Students suffering from not enough sleep	54.7%	37.4%	7.9%
Students absent from class	52.7%	31.0%	16.3%
Disruptive students	24.6%	46.8%	28.6%
Uninterested students	20.2%	50.7%	29.1%
Students with mental/emotional/psychological impairment	43.3%	48.8%	7.9%

Students with teachers who felt their teaching was hardly limited had a score on the scale of at least 11.0, which corresponds to their teachers feeling 'not at all' limited by four student attributes and to 'some extent' by the other three attributes, on average. Students with teachers who felt greatly limited had a score lower than 6.2, which correspond to their teachers feeling limited 'a lot' by four attributes and to 'some extent' by the other three attributes. All other students had teachers who felt their teaching was limited to some extent.

**Figure 8.9:** Score distribution of classroom instruction limitations affected by Maltese students

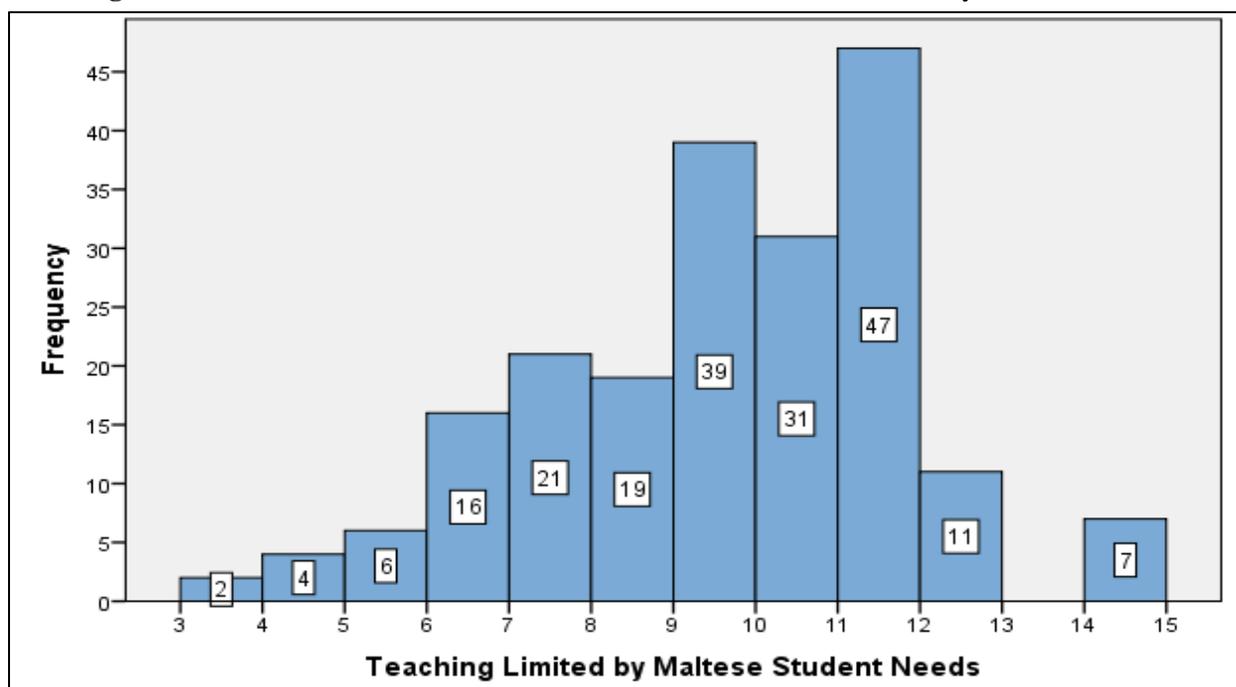


Figure 8.10: Classroom instruction limitations across participating countries

Country	Very Little		Some		A Lot		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Italy	63 (3.9)	550 (3.1)	37 (3.9)	546 (3.8)	0 (0.0)	~ ~	11.3 (0.12)
Netherlands	57 (4.2)	551 (2.2)	41 (4.2)	540 (2.8)	2 (0.7)	~ ~	11.0 (0.16)
Slovak Republic	57 (3.6)	548 (3.1)	42 (3.8)	521 (5.3)	1 (0.4)	~ ~	11.3 (0.13)
Czech Republic	56 (3.1)	549 (2.4)	44 (3.1)	536 (3.9)	0 (0.0)	~ ~	11.0 (0.09)
Kazakhstan	55 (3.0)	530 (3.7)	43 (3.2)	543 (4.6)	3 (1.1)	558 (9.1)	10.9 (0.15)
Belgium (Flemish)	53 (3.9)	535 (2.2)	47 (3.8)	514 (3.2)	1 (0.4)	~ ~	10.8 (0.13)
Finland	50 (3.6)	572 (2.3)	50 (3.6)	560 (2.5)	0 (0.1)	~ ~	10.9 (0.12)
Norway	48 (4.4)	569 (2.7)	52 (4.4)	549 (2.8)	0 (0.0)	~ ~	10.6 (0.16)
Poland	47 (3.7)	573 (3.3)	52 (3.8)	557 (2.8)	1 (0.5)	~ ~	10.7 (0.13)
Ireland	47 (3.6)	579 (3.0)	52 (3.6)	557 (3.2)	1 (0.8)	~ ~	10.6 (0.14)
Northern Ireland	45 (4.5)	575 (4.1)	54 (4.6)	556 (3.3)	1 (1.0)	~ ~	10.7 (0.19)
Azerbaijan	44 (3.3)	475 (5.8)	55 (3.3)	471 (6.6)	0 (0.3)	~ ~	10.6 (0.10)
Spain	43 (3.1)	537 (2.0)	54 (3.0)	521 (2.6)	3 (0.8)	524 (5.9)	10.4 (0.11)
Macao SAR	43 (0.1)	554 (1.4)	55 (0.1)	540 (1.5)	2 (0.0)	~ ~	10.4 (0.00)
Germany	42 (3.3)	557 (3.0)	57 (3.4)	521 (5.3)	2 (1.0)	~ ~	10.2 (0.14)
Austria	41 (3.7)	551 (2.9)	57 (3.6)	535 (3.2)	2 (0.9)	~ ~	10.3 (0.16)
Sweden	40 (4.2)	562 (3.0)	59 (4.3)	551 (3.6)	1 (0.7)	~ ~	10.5 (0.15)
Singapore	38 (2.7)	610 (4.7)	59 (2.8)	555 (4.0)	3 (0.8)	563 (21.8)	10.2 (0.12)
Bulgaria	38 (4.0)	575 (5.7)	60 (4.0)	538 (5.2)	1 (0.9)	~ ~	10.4 (0.13)
England	38 (3.5)	572 (3.1)	61 (3.7)	550 (2.8)	1 (0.9)	~ ~	10.3 (0.12)
New Zealand	37 (2.8)	551 (3.1)	61 (2.7)	516 (3.4)	3 (0.9)	489 (23.3)	10.1 (0.09)
Hong Kong SAR	36 (4.6)	579 (5.3)	63 (4.7)	562 (3.2)	1 (0.8)	~ ~	10.2 (0.12)
Israel	35 (3.3)	556 (6.0)	50 (3.9)	525 (4.6)	14 (2.8)	486 (10.9)	9.5 (0.18)
Hungary	35 (4.1)	574 (4.9)	64 (4.2)	545 (4.0)	2 (1.1)	~ ~	10.1 (0.18)
Georgia	34 (3.6)	496 (5.0)	61 (3.7)	484 (3.7)	6 (1.7)	495 (12.3)	9.9 (0.15)
United Arab Emirates	34 (2.1)	498 (6.1)	63 (2.1)	435 (4.4)	3 (0.8)	382 (12.3)	9.9 (0.08)
Malta	33 (0.1)	469 (2.3)	57 (0.1)	444 (2.6)	10 (0.1)	450 (4.2)	9.6 (0.01)
Denmark	32 (3.4)	553 (3.4)	66 (3.6)	546 (2.7)	2 (1.0)	~ ~	10.1 (0.16)
Australia	31 (3.5)	571 (4.8)	65 (3.6)	533 (3.2)	4 (1.2)	531 (9.7)	9.9 (0.15)
Latvia	30 (3.5)	560 (3.2)	64 (3.6)	555 (2.4)	6 (1.6)	577 (4.9)	9.8 (0.14)
Portugal	28 (2.7)	538 (5.7)	68 (2.6)	524 (2.2)	4 (1.2)	528 (12.0)	9.8 (0.12)
France	27 (3.2)	529 (3.5)	66 (3.6)	505 (2.9)	6 (1.9)	506 (9.6)	9.4 (0.14)
Qatar	27 (2.1)	479 (5.9)	70 (2.3)	430 (2.9)	3 (0.7)	411 (17.8)	9.8 (0.07)
Bahrain	25 (3.8)	470 (7.2)	72 (4.1)	440 (3.7)	3 (1.4)	432 (21.9)	9.5 (0.10)
Belgium (French)	24 (3.5)	516 (4.6)	73 (3.5)	494 (3.3)	3 (0.8)	454 (9.2)	9.7 (0.11)
Saudi Arabia	24 (3.7)	465 (8.3)	76 (3.7)	420 (4.7)	0 (0.0)	~ ~	9.6 (0.13)
Chinese Taipei	24 (3.6)	558 (3.6)	76 (3.6)	559 (2.5)	1 (0.6)	~ ~	9.9 (0.10)
Lithuania	21 (3.1)	557 (4.8)	69 (3.8)	547 (3.5)	9 (2.2)	534 (12.2)	9.2 (0.13)
Oman	21 (2.4)	436 (7.0)	64 (3.1)	415 (4.4)	15 (2.4)	410 (7.9)	8.8 (0.13)
Trinidad and Tobago	20 (2.7)	524 (7.3)	76 (2.9)	469 (4.1)	3 (1.5)	475 (24.0)	9.6 (0.15)
Canada	20 (2.1)	561 (3.9)	76 (2.3)	540 (2.2)	4 (0.8)	515 (8.8)	9.3 (0.09)
Iran, Islamic Rep. of	19 (2.9)	441 (9.5)	75 (3.2)	423 (5.6)	6 (1.6)	442 (14.7)	9.1 (0.13)
Russian Federation	19 (2.5)	590 (6.2)	65 (3.0)	583 (2.8)	17 (2.5)	563 (5.9)	8.6 (0.15)
United States	19 (3.0)	581 (4.8)	76 (3.4)	545 (3.4)	5 (1.8)	506 (12.3)	9.3 (0.13)
Kuwait	17 (3.8)	414 (16.5)	80 (4.9)	388 (6.6)	3 (3.0)	440 (88.4)	9.4 (0.17)
Slovenia	15 (2.9)	543 (3.6)	73 (3.6)	542 (2.5)	12 (2.5)	545 (6.1)	8.8 (0.16)
Chile	13 (2.8)	537 (5.7)	79 (3.7)	494 (3.3)	8 (2.8)	461 (13.4)	8.7 (0.16)
South Africa	13 (2.4)	342 (17.4)	83 (2.9)	318 (5.8)	4 (1.4)	309 (16.5)	9.0 (0.10)
Morocco	12 (2.0)	419 (12.8)	82 (2.3)	350 (4.4)	6 (1.2)	332 (9.0)	8.8 (0.09)
Egypt	9 (2.1)	384 (16.0)	85 (2.4)	326 (6.3)	6 (1.6)	323 (26.8)	8.7 (0.12)
International Avg.	34 (0.5)	528 (0.9)	63 (0.5)	504 (0.5)	4 (0.2)	473 (4.1)	

Figure 8.9 displays the score distribution of classroom instruction limitations affected by Maltese students. Figure 8.10 shows how students' needs affect classroom instruction across countries. The percentage of Maltese students who impact classroom instruction very little due to their lack of preparedness and readiness to learn (33%) is comparable to the international average (34%). Italy (66%) tops the list, followed by Netherlands (57%), Slovenia (57%), Czech Republic (56%) and Kazakhstan (55%). The percentage of Maltese students who impact classroom instruction to some extent (57%) is significantly lower than the international average (63%). Egypt (85%) tops the list, followed by South Africa (83%), Morocco (82%) and Kuwait (80%). The percentage of Maltese students who impact classroom instruction considerably (10%) is significantly higher than the international average (4%). Russia (17%) tops the list, followed by Oman (15%), Israel (14%) and Slovenia (12%). Italy (11.3), Slovenia (11.3), Netherlands (11.0) and Czech Republic (11.0) have the highest mean scale scores indicating that students from these countries have less impact on classroom instruction due to their lack of preparedness and readiness to learn. Malta's mean scale score (9.6) is significantly lower than the international average. There is a strong positive relationship between students' preparedness and readiness to learn and reading attainment. Across all countries, the mean reading scores where students' lack of preparedness and readiness to learn is 'negligible', 'to some extent' and 'a lot' are 528, 504 and 473 respectively and this pattern applies to most participating countries. The corresponding mean reading scores of Maltese students are 469, 444 and 450 respectively.

**Figure 8.11:** Maltese classroom instruction limitations, clustered by school type

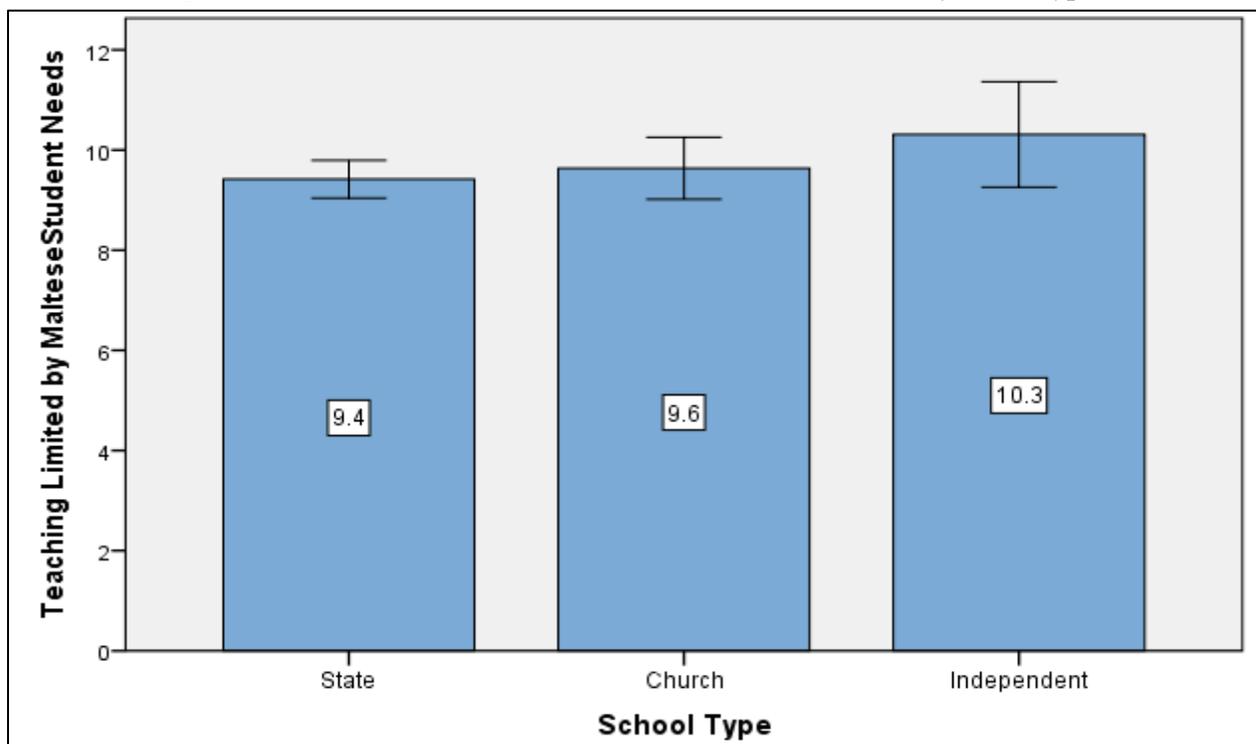


Figure 8.11 shows that students attending Independent schools have less impact on classroom instruction due to their lack of preparedness and readiness to learn (lack of skills, lack of sleep, poor nutrition, absence from class, disruptive, uninterested, has learning impairments) than State and Church school students.

## 8.9 Student absenteeism from school

Figure 8.12: Students' absenteeism from school across participating countries

Country	Never or Almost Never		Once a Month		Once Every Two Weeks		Once a Week or More	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Hong Kong SAR	89 (0.7)	573 (2.7)	8 (0.6)	558 (4.6)	1 (0.2)	--	2 (0.3)	--
Belgium (Flemish)	87 (0.7)	530 (1.8)	9 (0.5)	506 (5.0)	2 (0.2)	--	2 (0.3)	--
Portugal	86 (0.7)	531 (2.5)	7 (0.5)	523 (5.2)	2 (0.3)	--	5 (0.4)	483 (6.1)
Spain	85 (0.5)	532 (1.6)	7 (0.4)	522 (3.7)	3 (0.2)	510 (5.7)	5 (0.3)	482 (7.3)
Chinese Taipei	83 (0.7)	567 (2.1)	10 (0.5)	549 (3.5)	2 (0.2)	--	6 (0.5)	481 (5.2)
Lithuania	82 (0.7)	552 (2.5)	10 (0.7)	553 (5.6)	2 (0.2)	--	6 (0.6)	495 (7.6)
Germany	82 (0.7)	548 (2.9)	10 (0.5)	534 (5.6)	3 (0.3)	516 (7.8)	5 (0.4)	482 (7.4)
France	82 (0.8)	517 (2.2)	10 (0.5)	505 (4.9)	3 (0.4)	479 (7.5)	5 (0.4)	461 (5.0)
Austria	82 (0.7)	545 (2.2)	11 (0.6)	541 (4.9)	2 (0.3)	--	5 (0.4)	479 (5.6)
Russian Federation	82 (0.8)	584 (2.3)	11 (0.6)	580 (3.7)	3 (0.3)	564 (8.0)	5 (0.3)	531 (6.0)
Belgium (French)	82 (0.7)	503 (2.6)	9 (0.5)	490 (4.7)	3 (0.3)	466 (7.7)	7 (0.5)	457 (4.7)
Netherlands	82 (0.9)	549 (1.6)	11 (0.6)	542 (4.8)	2 (0.2)	--	6 (0.5)	499 (7.0)
Macao SAR	82 (0.7)	551 (1.1)	13 (0.6)	536 (3.5)	2 (0.2)	--	4 (0.3)	474 (6.6)
Singapore	79 (0.8)	588 (2.7)	12 (0.5)	560 (4.1)	2 (0.2)	--	6 (0.5)	481 (5.6)
Malta	79 (0.7)	465 (1.7)	10 (0.5)	437 (5.4)	3 (0.3)	374 (13.0)	8 (0.5)	392 (5.9)
England	76 (0.7)	566 (1.8)	17 (0.5)	552 (3.4)	3 (0.2)	516 (7.8)	4 (0.3)	483 (7.5)
Norway	76 (0.8)	562 (2.4)	17 (0.7)	552 (3.9)	3 (0.2)	561 (7.0)	4 (0.4)	528 (6.2)
Sweden	75 (1.0)	560 (2.4)	18 (0.8)	553 (3.6)	4 (0.4)	535 (6.8)	4 (0.4)	507 (7.9)
Northern Ireland	75 (1.0)	577 (2.4)	18 (0.8)	548 (3.5)	3 (0.4)	525 (8.3)	4 (0.4)	462 (8.7)
Ireland	71 (1.0)	577 (2.3)	21 (0.9)	556 (3.8)	3 (0.5)	522 (8.5)	5 (0.4)	489 (6.2)
Slovenia	71 (0.9)	548 (2.3)	17 (0.8)	548 (3.1)	5 (0.4)	524 (5.7)	8 (0.6)	496 (6.3)
United States	71 (0.9)	556 (3.1)	16 (0.6)	561 (3.8)	5 (0.4)	532 (6.6)	8 (0.6)	490 (5.8)
Latvia	71 (1.0)	562 (1.9)	17 (1.0)	555 (3.7)	5 (0.5)	555 (5.8)	7 (0.6)	529 (4.7)
Italy	70 (0.8)	555 (2.2)	16 (0.7)	548 (3.4)	5 (0.4)	526 (6.9)	9 (0.6)	509 (4.6)
Canada	69 (0.7)	550 (1.8)	18 (0.6)	546 (3.1)	5 (0.3)	530 (5.5)	7 (0.4)	486 (4.5)
Oman	69 (0.9)	434 (3.4)	13 (0.7)	406 (5.8)	5 (0.3)	363 (7.0)	13 (0.5)	380 (4.8)
Denmark	69 (0.9)	551 (2.1)	21 (0.8)	548 (4.0)	6 (0.4)	537 (6.1)	4 (0.4)	516 (7.7)
Morocco	69 (1.4)	372 (4.3)	14 (0.9)	340 (6.5)	5 (0.3)	321 (7.6)	12 (0.7)	325 (5.5)
Chile	66 (0.9)	499 (2.5)	11 (0.5)	507 (5.2)	7 (0.5)	493 (6.7)	16 (0.9)	468 (4.2)
Poland	66 (1.0)	574 (2.4)	19 (0.8)	560 (3.6)	6 (0.3)	541 (5.6)	9 (0.5)	520 (5.1)
Bulgaria	66 (1.4)	566 (3.4)	13 (0.7)	542 (6.3)	13 (0.7)	536 (8.0)	9 (0.8)	484 (7.3)
Australia	65 (1.0)	551 (2.5)	22 (0.8)	553 (3.1)	6 (0.3)	529 (6.8)	6 (0.5)	467 (6.2)
Israel	65 (1.0)	547 (2.6)	17 (0.7)	531 (4.7)	6 (0.4)	494 (10.9)	12 (0.6)	464 (4.8)
Iran, Islamic Rep. of	64 (1.5)	441 (3.8)	20 (1.1)	424 (8.8)	4 (0.4)	389 (11.3)	12 (0.7)	386 (7.0)
Kazakhstan	63 (1.2)	544 (2.6)	18 (0.9)	539 (3.2)	4 (0.3)	519 (5.7)	15 (0.7)	506 (4.0)
New Zealand	61 (0.9)	537 (2.2)	22 (0.9)	537 (3.7)	7 (0.4)	496 (5.1)	10 (0.6)	456 (5.6)
United Arab Emirates	60 (0.8)	474 (3.2)	16 (0.5)	453 (4.9)	7 (0.3)	391 (6.0)	17 (0.6)	398 (4.2)
Bahrain	59 (1.0)	464 (2.6)	16 (0.8)	450 (3.8)	6 (0.4)	410 (6.4)	19 (0.9)	402 (4.3)
Trinidad and Tobago	57 (1.2)	493 (3.7)	11 (0.6)	494 (5.4)	9 (0.6)	457 (5.7)	23 (1.0)	445 (4.6)
Qatar	57 (1.0)	469 (2.1)	16 (0.5)	442 (3.5)	8 (0.4)	393 (6.3)	19 (0.7)	392 (4.3)
Finland	56 (1.0)	575 (1.8)	36 (0.8)	562 (2.6)	5 (0.4)	547 (5.4)	3 (0.4)	503 (7.5)
Azerbaijan	55 (1.7)	483 (4.5)	24 (1.5)	478 (4.4)	6 (0.5)	441 (7.8)	15 (0.7)	441 (5.5)
Saudi Arabia	51 (1.4)	448 (4.3)	15 (0.8)	438 (6.9)	9 (0.6)	418 (8.4)	25 (1.1)	405 (5.2)
Czech Republic	51 (0.9)	552 (2.2)	33 (0.8)	546 (2.0)	7 (0.4)	532 (5.6)	9 (0.5)	495 (5.7)
South Africa	51 (1.2)	342 (5.2)	12 (0.7)	321 (6.1)	9 (0.4)	276 (5.8)	28 (0.9)	299 (4.7)
Hungary	50 (1.6)	569 (2.8)	35 (1.3)	554 (3.2)	6 (0.5)	518 (5.9)	8 (0.7)	489 (6.8)
Kuwait	50 (1.5)	415 (4.4)	18 (1.4)	388 (7.7)	9 (0.7)	361 (8.1)	23 (1.1)	374 (6.0)
Georgia	44 (1.3)	504 (3.2)	26 (1.1)	494 (3.3)	9 (0.5)	471 (6.0)	21 (0.8)	462 (4.3)
Slovak Republic	43 (1.3)	555 (3.2)	34 (1.0)	540 (3.0)	9 (0.5)	514 (8.6)	14 (0.7)	476 (6.6)
Egypt	41 (1.7)	348 (5.4)	22 (1.6)	330 (8.1)	10 (0.6)	325 (9.5)	27 (1.7)	314 (8.9)
International Avg.	68 (0.1)	521 (0.4)	17 (0.1)	509 (0.7)	5 (0.1)	476 (1.2)	10 (0.1)	459 (0.9)

**Table 8.19:** Absenteeism from Maltese schools

About how many often are you absent from school?	Frequency	Percentage
Once a week	295	8.2%
Once every two weeks	105	2.9%
Once a month	370	10.3%
Never or almost never	2832	78.6%

Table 8.19 and Figure 8.12 contain students' reports about their absences from school. The percentage of Maltese students who reported that they were never or almost never absent from school (79%) is significantly higher than the international average (68%). Hong Kong (89%) tops the list, followed by Belgium (Flemish) (87%), Portugal (86%), Spain (85%) and Chinese Taipei (83%). The percentage of Maltese students who reported that they were absent from school once monthly (10%) is significantly lower than the international average (17%). Finland (36%) tops the list, followed by Hungary (35%), Slovenia (34%) and Czech Republic (33%). The percentage of Maltese students who reported that they were absent from school bi-weekly (3%) is lower than the international average (5%). Bulgaria (13%) tops the list, followed by Egypt (10%), Slovak Republic (9%), Georgia (9%), Kuwait (9%), South Africa (9%), Saudi Arabia (9%) and Trinidad and Tobago (9%). The percentage of Maltese students who reported that they were absent from school at least once a week (8%) is lower than the international average (10%). South Africa (28%) tops the list, followed by Egypt (27%), Saudi Arabia (25%), Kuwait (23%), Trinidad and Tobago (23%) and Georgia (21%).

There is a direct significant relationship between absenteeism and reading attainment. The mean reading scores of Maltese students who are absent from school 'at least once a week', 'once every two weeks', 'once a month' and 'almost never' are 392, 374, 437 and 465 respectively. The corresponding international averages are 459, 476, 509 and 521 respectively.

## 8.10 Students arriving tired and hungry at school

Table 8.20 and Figure 8.13 contain students' reports about arriving at school feeling tired or hungry. The percentage of Maltese students who arrive at school not feeling tired (23%), sometimes feeling tired (44.5%) and feeling tired every day or almost every day (32.5%) show a better scenario compared to international averages (18%, 50% and 32% respectively). Internationally, students who reported that they feel tired sometimes scored significantly higher in reading comprehension (520) than students who almost always feel tired (501). Interestingly, students who never feel tired have an average reading score of 509, which is in between the moderate and daily frequencies of being tired. There may be many reasons why students might be sometimes tired ranging from too many video games to demanding travel schedules or having to walk to school.

**Table 8.20:** Maltese students arriving tired and hungry at school

How often do you feel this way when you arrive at school?	Everyday	Almost every day	Sometimes	Never
I feel tired	17.4%	15.1%	44.5%	23.0%
I feel hungry	23.4%	16.7%	32.4%	27.5%

Figure 8.13: Students arriving tired and hungry at school

Country	Students Feel Tired						Students Feel Hungry					
	Never		Sometimes		Every Day or Almost Every Day		Never		Sometimes		Every Day or Almost Every Day	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Australia	13 (0.6)	539 (5.4)	56 (1.0)	553 (2.7)	31 (0.9)	534 (3.3)	28 (1.0)	563 (3.7)	45 (0.8)	550 (2.7)	27 (0.9)	522 (3.5)
Austria	10 (0.6)	533 (4.7)	51 (0.9)	547 (2.8)	39 (1.0)	536 (2.8)	31 (0.9)	556 (3.0)	44 (0.8)	542 (2.6)	25 (0.8)	523 (3.4)
Azerbaijan	36 (1.6)	489 (3.7)	44 (1.2)	477 (4.6)	20 (1.1)	445 (7.1)	37 (1.2)	489 (4.2)	39 (1.1)	478 (4.3)	24 (1.3)	460 (5.2)
Bahrain	22 (1.3)	456 (5.0)	41 (1.0)	455 (3.0)	37 (1.1)	436 (3.1)	25 (1.0)	475 (3.7)	36 (0.9)	454 (3.0)	39 (1.2)	430 (2.8)
Belgium (Flemish)	15 (0.7)	523 (3.7)	60 (1.0)	529 (2.0)	24 (0.8)	517 (3.0)	40 (1.1)	535 (2.2)	40 (0.8)	524 (2.3)	19 (0.7)	509 (3.4)
Belgium (French)	--	--	--	--	--	--	--	--	--	--	--	--
Bulgaria	17 (1.2)	535 (7.8)	51 (1.4)	563 (4.4)	33 (1.5)	545 (4.8)	38 (1.9)	568 (4.5)	36 (1.1)	556 (4.8)	26 (1.5)	531 (5.5)
Canada	11 (0.4)	538 (4.7)	50 (0.6)	552 (2.0)	40 (0.7)	535 (2.7)	26 (0.7)	558 (2.6)	44 (0.7)	547 (2.2)	31 (0.8)	529 (2.6)
Chile	20 (1.0)	488 (3.8)	46 (1.1)	506 (2.8)	34 (0.9)	485 (3.5)	24 (0.7)	514 (3.5)	43 (0.9)	497 (3.1)	33 (0.9)	484 (3.4)
Chinese Taipei	26 (0.8)	553 (3.1)	55 (0.9)	563 (2.4)	18 (0.6)	557 (2.7)	40 (0.8)	569 (2.6)	46 (0.8)	556 (2.4)	14 (0.7)	540 (4.4)
Czech Republic	10 (0.5)	543 (4.8)	47 (0.9)	552 (2.3)	43 (0.8)	534 (2.4)	39 (0.8)	560 (2.5)	38 (0.8)	545 (2.7)	23 (0.7)	518 (3.5)
Denmark	7 (0.6)	542 (6.0)	55 (1.1)	553 (2.3)	38 (1.3)	542 (3.1)	35 (1.0)	564 (2.8)	45 (0.9)	544 (2.6)	20 (0.8)	528 (3.8)
Egypt	29 (1.7)	337 (8.1)	54 (1.8)	340 (6.1)	17 (1.3)	307 (7.8)	23 (1.7)	342 (6.8)	36 (1.9)	345 (7.6)	41 (2.4)	321 (6.5)
England	11 (0.6)	554 (4.6)	53 (0.9)	570 (2.3)	36 (0.9)	546 (2.6)	31 (0.8)	579 (2.6)	44 (0.8)	562 (2.3)	25 (0.8)	534 (2.9)
Finland	6 (0.4)	567 (5.6)	63 (0.9)	573 (2.0)	31 (1.0)	552 (2.8)	23 (0.7)	581 (2.8)	55 (0.9)	571 (2.1)	22 (0.7)	541 (3.1)
France	15 (0.9)	497 (4.1)	52 (1.1)	515 (2.5)	33 (1.4)	513 (3.1)	28 (1.0)	516 (3.4)	40 (1.0)	518 (2.7)	32 (1.2)	500 (2.8)
Georgia	22 (1.3)	502 (4.6)	51 (1.3)	493 (3.0)	27 (1.2)	475 (4.5)	23 (1.3)	505 (4.8)	42 (1.4)	492 (3.3)	35 (1.3)	484 (4.0)
Germany	10 (0.6)	527 (6.9)	40 (1.1)	553 (3.5)	50 (1.1)	538 (2.9)	35 (1.2)	556 (3.2)	44 (1.0)	550 (2.8)	22 (0.8)	517 (5.1)
Hong Kong SAR	21 (0.9)	573 (4.1)	53 (0.9)	571 (2.8)	25 (0.9)	562 (4.0)	31 (1.0)	573 (3.3)	47 (1.1)	569 (3.1)	22 (0.9)	564 (4.0)
Hungary	9 (0.5)	548 (8.0)	48 (1.1)	558 (3.2)	43 (1.3)	552 (3.1)	37 (1.3)	563 (3.9)	44 (1.1)	555 (3.7)	19 (0.9)	539 (4.3)
Iran, Islamic Rep. of	39 (1.7)	421 (6.4)	42 (1.5)	444 (5.2)	19 (0.9)	413 (5.9)	35 (1.2)	440 (6.0)	42 (1.5)	432 (6.4)	23 (1.2)	412 (5.8)
Ireland	12 (0.8)	560 (5.5)	55 (1.1)	577 (2.4)	33 (1.2)	554 (3.2)	41 (1.2)	584 (2.7)	42 (1.0)	565 (3.3)	17 (0.7)	543 (4.2)
Israel	14 (0.7)	514 (4.3)	45 (0.8)	544 (2.9)	41 (1.0)	525 (3.3)	21 (0.8)	537 (4.8)	42 (0.8)	544 (3.0)	37 (0.9)	518 (3.2)
Italy	12 (0.6)	539 (4.7)	53 (1.0)	554 (2.3)	35 (0.9)	544 (2.9)	27 (0.9)	571 (2.5)	36 (0.9)	549 (2.7)	37 (1.2)	533 (2.9)
Kazakhstan	37 (1.3)	539 (2.8)	47 (1.2)	541 (2.8)	17 (0.7)	519 (3.8)	42 (1.2)	543 (2.9)	44 (1.1)	534 (2.7)	14 (0.6)	528 (3.8)
Kuwait	24 (1.4)	395 (5.2)	48 (1.6)	409 (4.2)	28 (1.2)	376 (7.6)	24 (1.5)	419 (6.4)	39 (2.5)	403 (4.5)	37 (2.7)	380 (5.4)
Latvia	9 (0.5)	560 (4.4)	54 (1.0)	562 (2.1)	36 (1.0)	551 (2.5)	25 (0.9)	569 (2.9)	50 (1.0)	562 (2.2)	26 (0.9)	542 (2.7)
Lithuania	21 (1.2)	550 (5.3)	55 (1.2)	556 (2.7)	24 (0.9)	534 (3.7)	49 (1.3)	560 (3.3)	38 (1.2)	546 (3.3)	13 (0.7)	522 (4.3)
Macao SAR	20 (0.6)	550 (2.4)	57 (0.7)	548 (1.5)	23 (0.6)	537 (2.3)	31 (0.7)	549 (2.3)	49 (0.7)	547 (1.4)	20 (0.6)	539 (2.5)
Malta	23 (0.7)	458 (3.3)	44 (0.8)	465 (2.2)	32 (0.8)	436 (3.1)	28 (0.7)	470 (3.0)	32 (0.8)	462 (2.5)	40 (0.7)	437 (2.8)
Morocco	38 (1.3)	357 (4.7)	43 (1.2)	377 (4.7)	19 (1.0)	332 (4.7)	27 (1.3)	367 (5.8)	41 (1.5)	367 (4.0)	32 (1.4)	351 (5.5)
Netherlands	11 (0.6)	541 (5.0)	63 (1.1)	548 (1.8)	27 (1.0)	540 (2.8)	40 (1.1)	556 (2.1)	44 (0.9)	542 (2.2)	17 (0.8)	528 (3.5)
New Zealand	8 (0.4)	501 (6.7)	49 (0.9)	540 (2.4)	43 (0.9)	518 (2.6)	28 (1.0)	545 (4.0)	38 (1.1)	535 (2.9)	33 (1.1)	503 (3.2)
Northern Ireland	9 (0.5)	555 (5.3)	51 (1.2)	578 (2.6)	40 (1.3)	553 (2.9)	32 (1.2)	584 (3.2)	43 (0.9)	571 (2.5)	25 (1.1)	533 (3.3)
Norway	8 (0.5)	556 (4.6)	52 (1.0)	569 (2.6)	40 (1.1)	548 (2.5)	27 (0.9)	570 (2.7)	49 (0.9)	557 (2.8)	24 (1.0)	553 (3.5)
Oman	35 (1.0)	426 (3.6)	42 (0.9)	434 (4.1)	23 (0.9)	392 (4.4)	33 (1.2)	438 (3.5)	36 (1.0)	430 (4.5)	31 (1.1)	398 (4.2)
Poland	19 (0.9)	567 (2.9)	48 (0.9)	576 (2.7)	33 (1.1)	549 (3.2)	59 (1.1)	576 (2.4)	25 (0.9)	563 (3.4)	16 (0.7)	535 (4.5)
Portugal	33 (1.1)	522 (2.4)	45 (1.0)	536 (2.8)	22 (0.9)	520 (3.1)	57 (0.8)	535 (2.7)	28 (0.8)	525 (3.0)	14 (0.6)	511 (5.1)
Qatar	19 (0.5)	447 (3.1)	45 (0.8)	460 (2.2)	35 (0.7)	427 (3.1)	23 (0.6)	469 (3.7)	40 (0.5)	459 (2.6)	37 (0.6)	424 (2.5)
Russian Federation	26 (1.1)	578 (3.9)	52 (1.0)	586 (2.6)	23 (1.0)	574 (3.0)	46 (1.2)	584 (2.7)	37 (1.0)	585 (2.5)	17 (0.8)	570 (3.4)
Saudi Arabia	23 (1.0)	444 (5.3)	52 (1.3)	440 (4.5)	25 (1.0)	413 (5.6)	21 (1.0)	453 (5.1)	44 (1.5)	440 (4.6)	35 (1.3)	422 (5.5)
Singapore	12 (0.4)	576 (4.2)	50 (0.7)	582 (3.3)	39 (0.7)	570 (3.6)	34 (0.8)	597 (3.5)	42 (0.7)	577 (3.2)	24 (0.6)	548 (4.1)
Slovak Republic	9 (0.5)	525 (6.4)	49 (0.9)	541 (4.2)	42 (1.0)	532 (3.2)	32 (1.0)	548 (3.2)	42 (0.8)	536 (4.7)	26 (1.0)	522 (4.1)
Slovenia	10 (0.6)	537 (4.7)	52 (1.0)	551 (2.5)	38 (1.0)	532 (2.6)	34 (1.1)	556 (2.8)	42 (1.0)	545 (2.9)	24 (1.0)	523 (3.0)
South Africa	36 (1.0)	321 (3.5)	31 (0.9)	352 (5.6)	33 (0.8)	304 (6.4)	33 (1.1)	331 (4.9)	33 (0.8)	344 (4.6)	34 (0.9)	308 (4.9)
Spain	18 (0.6)	526 (2.3)	52 (0.7)	533 (1.6)	30 (0.7)	523 (2.7)	41 (0.8)	539 (1.8)	34 (0.7)	528 (2.0)	25 (0.7)	513 (3.1)
Sweden	7 (0.6)	555 (5.3)	55 (1.0)	561 (2.8)	37 (1.2)	548 (2.8)	36 (1.2)	573 (2.9)	45 (1.0)	553 (2.8)	19 (0.9)	534 (3.7)
Trinidad and Tobago	22 (1.0)	479 (4.4)	48 (1.3)	481 (3.7)	29 (1.2)	479 (4.7)	28 (1.1)	497 (4.5)	42 (1.1)	485 (3.5)	30 (1.1)	462 (3.7)
United Arab Emirates	24 (0.7)	460 (3.9)	46 (0.7)	462 (3.8)	31 (0.8)	435 (4.1)	25 (0.7)	479 (3.8)	41 (0.6)	461 (3.8)	34 (0.7)	428 (4.1)
United States	9 (0.6)	540 (5.8)	44 (1.0)	560 (3.5)	47 (1.0)	544 (3.4)	21 (0.9)	573 (3.8)	43 (0.8)	556 (3.5)	36 (0.9)	536 (3.6)
International Avg.	18 (0.1)	509 (0.7)	50 (0.2)	520 (0.5)	32 (0.1)	501 (0.6)	33 (0.2)	526 (0.5)	41 (0.2)	515 (0.5)	26 (0.2)	494 (0.6)

The percentage of Maltese students who arrive at school not hungry (27.5%), sometimes hungry (32.4%) and hungry every day or almost every day (40.1%) show a grimmer scenario compared to international averages (33%, 41% and 26% respectively). There is a direct relationship between the frequency of arriving at school hungry and average reading achievement. The mean reading scores of students who are ‘never hungry’, ‘sometimes hungry’ and ‘almost always hungry’ are 526, 515 and 494 respectively.

## 9

# Student Engagement and Attitudes

## 9.1 Introduction

Students who are motivated to read and have a strong reading self-concept tend to read more than their peers and have better reading comprehension. The process can be recurring, because students who are good readers, with strong reading skills, tend to read recreationally, which contributes to consolidating their reading ability by improving vocabularies and spelling abilities, amongst other skills. Recreational reading habits often are supported by the family and friends of young readers; thus, a supportive home environment can be influential in fostering children's reading habits. However, home support is not only important for children prior to their entry into primary school; home support also can be influential in promoting reading throughout children's schooling. This chapter investigates students' engagement during their reading lessons, examines their reading enjoyment and their confidence in their reading comprehension skills.

## 9.2 Students' Engagement in Reading

To assess how much teachers engage students in reading lessons, a scale score was generated by using students' responses to how much they agree with nine statements related to reading lessons, which are displayed in Table 9.1.

**Table 9.1:** Engaging Maltese students during reading lessons

How much do you agree with these statements about your reading lessons?	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I like what I read about in school	61.5%	28.4%	5.2%	4.9%
My teacher gives me interesting things to read	69.7%	21.0%	5.2%	4.1%
I know what my teacher expects me to do	70.5%	20.1%	5.8%	3.6%
My teacher is easy to understand	58.2%	30.5%	5.9%	5.3%
I am interested in what my teacher says	78.3%	15.7%	3.3%	2.7%
My teacher encourages me to say what I think about what I read	62.0%	25.2%	7.1%	5.8%
My teacher lets me show what I have learned	68.2%	20.5%	6.3%	5.0%
My teacher does a variety of things to help us learn	78.8%	14.1%	4.2%	2.9%
My teacher tells me how to do better when I make a mistake	84.2%	10.4%	2.9%	2.4%

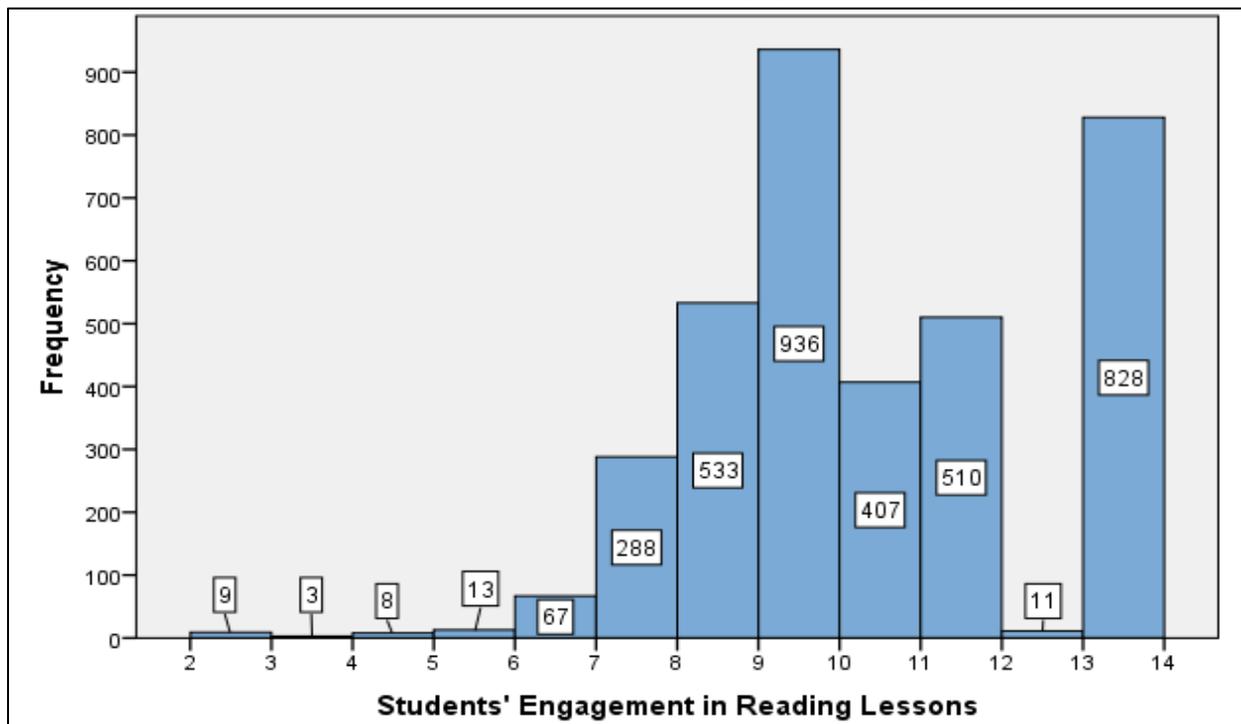
**Figure 9.1:** Engaging students in reading lessons, clustered by country

Country	Very Engaged		Somewhat Engaged		Less than Engaged		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Bulgaria	84 (1.1)	555 (3.9)	14 (0.9)	540 (8.5)	2 (0.3)	--	11.3 (0.06)
Portugal	83 (0.8)	531 (2.4)	16 (0.8)	514 (3.4)	1 (0.2)	--	11.1 (0.05)
Azerbaijan	83 (1.0)	482 (3.6)	15 (0.9)	450 (6.1)	2 (0.3)	--	11.4 (0.06)
Iran, Islamic Rep. of	82 (1.3)	434 (4.3)	15 (1.1)	410 (9.1)	3 (0.3)	360 (12.9)	11.3 (0.08)
Georgia	80 (1.1)	496 (2.8)	19 (1.0)	469 (4.7)	1 (0.2)	--	11.2 (0.06)
Kazakhstan	80 (1.0)	537 (2.5)	18 (0.9)	534 (3.9)	2 (0.3)	--	11.2 (0.06)
Egypt	79 (1.6)	340 (5.6)	19 (1.4)	304 (9.9)	2 (0.4)	--	10.9 (0.09)
Oman	75 (1.2)	430 (3.5)	22 (1.0)	395 (3.9)	3 (0.3)	348 (9.2)	10.8 (0.06)
Trinidad and Tobago	70 (1.6)	486 (3.7)	26 (1.4)	467 (4.8)	4 (0.4)	441 (9.9)	10.5 (0.08)
Kuwait	70 (1.4)	406 (4.0)	27 (1.3)	378 (6.3)	4 (0.4)	340 (10.2)	10.5 (0.07)
Spain	70 (1.1)	530 (1.4)	27 (1.0)	525 (3.1)	3 (0.2)	513 (6.4)	10.4 (0.05)
Morocco	69 (1.5)	366 (4.4)	29 (1.4)	345 (4.6)	2 (0.2)	--	10.6 (0.07)
Bahrain	68 (1.1)	459 (2.6)	28 (1.0)	429 (3.3)	5 (0.4)	392 (9.3)	10.4 (0.07)
Malta	67 (0.7)	465 (1.9)	29 (0.8)	435 (3.5)	4 (0.3)	387 (9.9)	10.3 (0.03)
Hungary	67 (1.3)	557 (3.3)	29 (1.2)	551 (3.3)	4 (0.4)	533 (7.3)	10.3 (0.06)
Russian Federation	65 (1.1)	582 (2.5)	32 (1.0)	580 (2.8)	3 (0.3)	568 (6.8)	10.2 (0.05)
South Africa	64 (1.3)	337 (4.1)	29 (1.0)	301 (5.5)	7 (0.5)	268 (6.9)	10.3 (0.06)
Saudi Arabia	63 (1.8)	446 (4.1)	32 (1.5)	416 (5.9)	5 (0.6)	375 (10.1)	10.3 (0.09)
United Arab Emirates	62 (0.8)	467 (3.2)	33 (0.7)	437 (4.3)	5 (0.2)	372 (8.3)	10.2 (0.04)
United States	62 (1.2)	556 (3.0)	32 (1.1)	549 (4.1)	6 (0.4)	521 (6.6)	10.1 (0.05)
Lithuania	62 (1.3)	554 (2.6)	35 (1.3)	544 (3.5)	3 (0.4)	503 (12.3)	10.0 (0.05)
Ireland	62 (1.4)	569 (2.6)	34 (1.2)	566 (3.3)	4 (0.5)	553 (8.4)	10.0 (0.06)
Northern Ireland	61 (1.5)	567 (2.6)	34 (1.3)	566 (3.1)	4 (0.5)	539 (10.4)	10.0 (0.06)
Qatar	60 (0.8)	462 (2.2)	32 (0.7)	431 (2.7)	8 (0.4)	384 (6.7)	10.1 (0.04)
Italy	59 (1.0)	552 (2.5)	37 (0.9)	544 (2.8)	4 (0.4)	530 (5.2)	9.9 (0.04)
Canada	58 (0.8)	550 (2.2)	37 (0.7)	540 (2.5)	4 (0.3)	512 (5.1)	9.9 (0.03)
Chile	58 (1.4)	503 (2.7)	32 (1.1)	494 (3.6)	10 (0.6)	461 (6.0)	9.9 (0.06)
New Zealand	58 (1.0)	526 (2.3)	38 (0.8)	524 (3.1)	4 (0.4)	501 (8.2)	9.9 (0.04)
England	57 (1.3)	562 (2.2)	38 (1.1)	558 (2.3)	5 (0.4)	530 (6.7)	9.8 (0.05)
Australia	56 (1.2)	547 (2.7)	39 (1.1)	544 (3.3)	5 (0.3)	529 (5.8)	9.8 (0.04)
Austria	56 (1.2)	542 (2.5)	37 (1.0)	542 (2.9)	6 (0.5)	529 (6.0)	9.8 (0.05)
Israel	55 (1.6)	527 (3.1)	36 (1.3)	538 (3.7)	9 (0.9)	529 (7.6)	9.8 (0.08)
Latvia	53 (1.3)	558 (2.3)	42 (1.2)	560 (2.2)	4 (0.5)	542 (6.6)	9.7 (0.05)
Norway	53 (1.5)	563 (2.5)	42 (1.3)	556 (2.9)	4 (0.5)	548 (6.3)	9.7 (0.05)
Germany	52 (1.4)	552 (2.5)	42 (1.2)	539 (3.6)	7 (0.6)	504 (8.8)	9.6 (0.06)
Belgium (French)	51 (1.4)	497 (3.3)	42 (1.0)	501 (2.8)	7 (0.9)	483 (5.7)	9.6 (0.06)
Slovak Republic	51 (1.3)	531 (4.6)	43 (1.2)	540 (3.2)	6 (0.5)	532 (5.1)	9.6 (0.05)
Belgium (Flemish)	49 (1.2)	527 (2.5)	47 (1.1)	525 (2.2)	4 (0.3)	505 (6.5)	9.5 (0.05)
Sweden	49 (1.2)	559 (3.1)	46 (1.1)	555 (2.9)	4 (0.5)	537 (5.1)	9.5 (0.05)
Slovenia	49 (1.1)	540 (2.9)	46 (1.0)	546 (2.3)	5 (0.6)	539 (7.6)	9.6 (0.05)
Poland	49 (1.3)	562 (2.3)	45 (1.1)	570 (3.0)	6 (0.5)	552 (5.9)	9.5 (0.05)
France	48 (1.5)	510 (2.4)	47 (1.4)	515 (2.8)	5 (0.5)	500 (8.1)	9.5 (0.06)
Czech Republic	48 (1.0)	540 (2.8)	46 (1.0)	550 (2.1)	6 (0.4)	527 (5.2)	9.5 (0.04)
Chinese Taipei	48 (1.5)	564 (2.1)	43 (1.1)	558 (2.8)	9 (0.7)	542 (4.4)	9.5 (0.06)
Macao SAR	44 (0.8)	551 (1.6)	47 (0.8)	544 (1.3)	9 (0.5)	529 (4.5)	9.3 (0.03)
Singapore	43 (0.8)	579 (3.6)	50 (0.7)	578 (3.2)	8 (0.5)	555 (5.3)	9.2 (0.04)
Denmark	41 (1.5)	560 (2.6)	51 (1.2)	543 (2.3)	8 (0.7)	523 (5.5)	9.2 (0.05)
Finland	39 (1.2)	569 (2.6)	54 (1.1)	568 (1.9)	7 (0.5)	539 (5.3)	9.1 (0.04)
Netherlands	37 (1.3)	549 (2.2)	56 (1.2)	545 (2.0)	7 (0.6)	528 (5.0)	9.0 (0.05)
Hong Kong SAR	34 (1.2)	574 (3.6)	52 (1.1)	572 (2.6)	14 (1.1)	548 (7.0)	8.9 (0.06)
International Avg.	60 (0.2)	516 (0.4)	35 (0.2)	506 (0.6)	5 (0.1)	490 (1.1)	

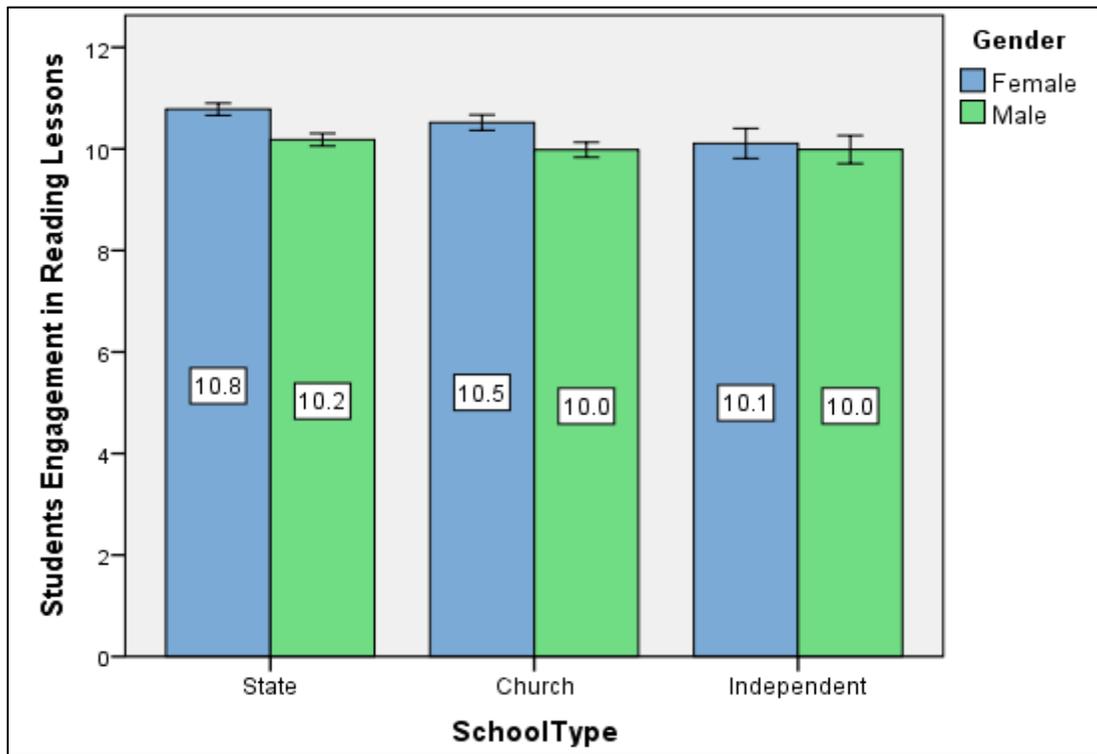
Students who are very engaged in reading lessons had a score on the scale of at least 9.5, which corresponds to their ‘agreeing a lot’ with five of the nine statements and ‘agreeing a little’ with the other four, on average. Students who were less than engaged had a score less than 7.1, which corresponds to their ‘disagreeing a little’ with five of the nine statements and ‘agreeing a little’ with the other four, on average. All other students were Somewhat Engaged in reading lessons.

Figure 9.1 shows students’ engagement during reading lessons, clustered by country. The percentage of Maltese students who are very engaged in reading lessons (67%) is significantly higher than the international average (60%). Bulgaria (84%) tops the list, followed by Portugal (83%), Azerbaijan (83%), Iran (82%), Georgia (80%), Kazakhstan (80%), Egypt (79%) and Oman (75%). The percentage of Maltese students who are somewhat engaged in reading lessons (29%) is significantly lower than the international average (35%). Netherlands (56%) tops the list, followed by Finland (54%), Hong Kong (52%), Denmark (51%) and Singapore (50%). The percentage of Maltese students who are less than engaged in reading lessons (4%) is marginally lower than the international average (5%). Hong Kong (14%) tops the list, followed by Chile (10%), Israel (9%), Chinese Taipei (9%) and Macao (9%). Azerbaijan (11.4), Bulgaria (11.3), Iran (11.3), Georgia (11.2), Kazakhstan (11.2) and Portugal (11.1) have the highest mean scale scores indicating that students from these countries are more engaged during reading lessons. Malta’s mean scale score (10.3) is lower than the corresponding PIRLS 2011 mean scale score (10.6). There is a strong positive relationship between students’ engagement during reading lessons and reading attainment. Across all countries, the mean reading scores of ‘Very engaged’, ‘Somewhat engaged’ and ‘Less than engaged’ students are 516, 506 and 490 respectively and this pattern applies to most participating countries. The corresponding mean reading scores of Maltese students are 465, 435 and 387 respectively.

**Figure 9.2:** Score distribution of Maltese students’ engagement during reading lessons



**Figure 9.3:** Mean engagement reading scores of Maltese students, by school type and gender



**Figure 9.4:** Relationship between reading attainment and engagement scores, by school type

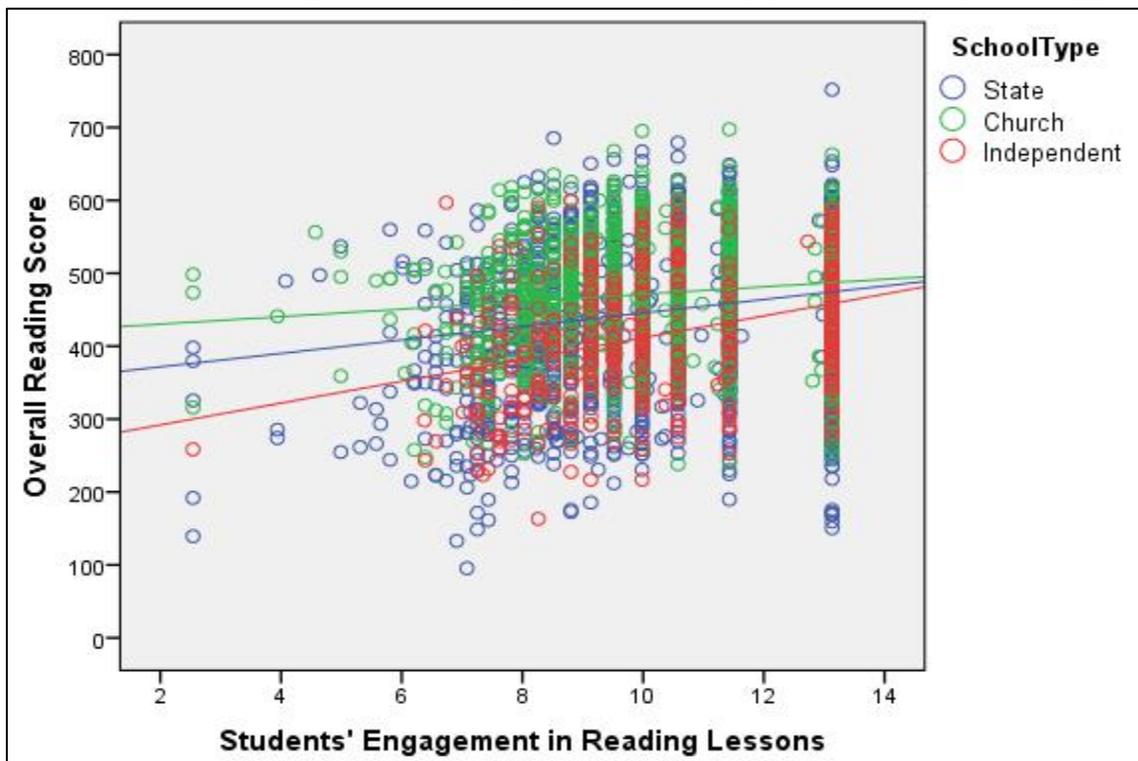


Figure 9.2 displays the score distribution of engagement during reading lessons of Maltese students. Figure 9.3 shows that female students score significantly higher in engagement during reading lessons than their male counterparts, particularly in State and Church schools. Figure 9.4 shows that reading attainment is positively related to engagement during reading lessons and this applies to all school types. This implies that students who are more engaged during reading lessons are more likely to perform well in reading comprehension.

### 9.3 Students' Reading Enjoyment

Students who find reading enjoyable are likely to read more than others who do not derive any enjoyment from reading. In terms of developing skills, children with a positive attitude are more likely to practise the reading skills they are learning at school. To assess students' enjoyment for reading, a scale score was generated according to their degree of agreement with eight statements related to reading and how often they did two reading activities outside of school, which are displayed in Tables 9.2 and 9.3.

**Tables 9.2:** Responses of Maltese student regarding reading behaviour

What do you think about reading? Tell how much you agree with each of these statements	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I like talking about what I read with other people	49.2%	29.2%	9.9%	11.7%
I am happy if someone gives me a book as a present	63.0%	23.6%	6.9%	6.6%
I think reading is boring	9.6%	12.3%	13.0%	65.0%
I would like to have more time for reading	45.6%	28.6%	12.1%	13.7%
I enjoy reading	58.5%	25.1%	7.7%	8.7%
I learn a lot from reading	76.2%	15.0%	5.3%	3.5%
I like to read things that make me think	61.2%	24.2%	7.1%	7.4%
I like it when a book helps me imagine other worlds	74.0%	15.5%	5.1%	5.5%

**Table 9.3:** Reading attitudes of Maltese students

How often do you do these things outside of school?	Few times a week	1-2 times a month	Few times a year	Never
I read for fun	51.8%	26.7%	9.8%	11.7%
I read to find out about things I want to learn	42.2%	30.9%	16.0%	10.9%

Students who enjoy reading a lot have a score at least 10.3, which corresponds to their 'agreeing a lot' with four of the eight statements and 'agreeing a little' with the other four, as well as doing both reading activities outside of school 'every day or almost every day', on average. Students who do not enjoy reading had a score less than 8.3, which corresponds to their 'disagreeing a little' with four of the eight statements and 'agreeing a little' with the other four, as well as doing both reading activities only 'once or twice a month', on average. All other students somewhat enjoy reading.

Figure 9.5 shows students' reading enjoyment across participating countries. The percentage of Maltese students who enjoy reading a lot (51%) is significantly higher than the international average (43%). Portugal (72%) tops the list, followed by Kazakhstan (71%), Iran (70%), Oman (65%), Georgia (64%) and Azerbaijan (64%).

Figure 9.5: Reading enjoyment, clustered by country

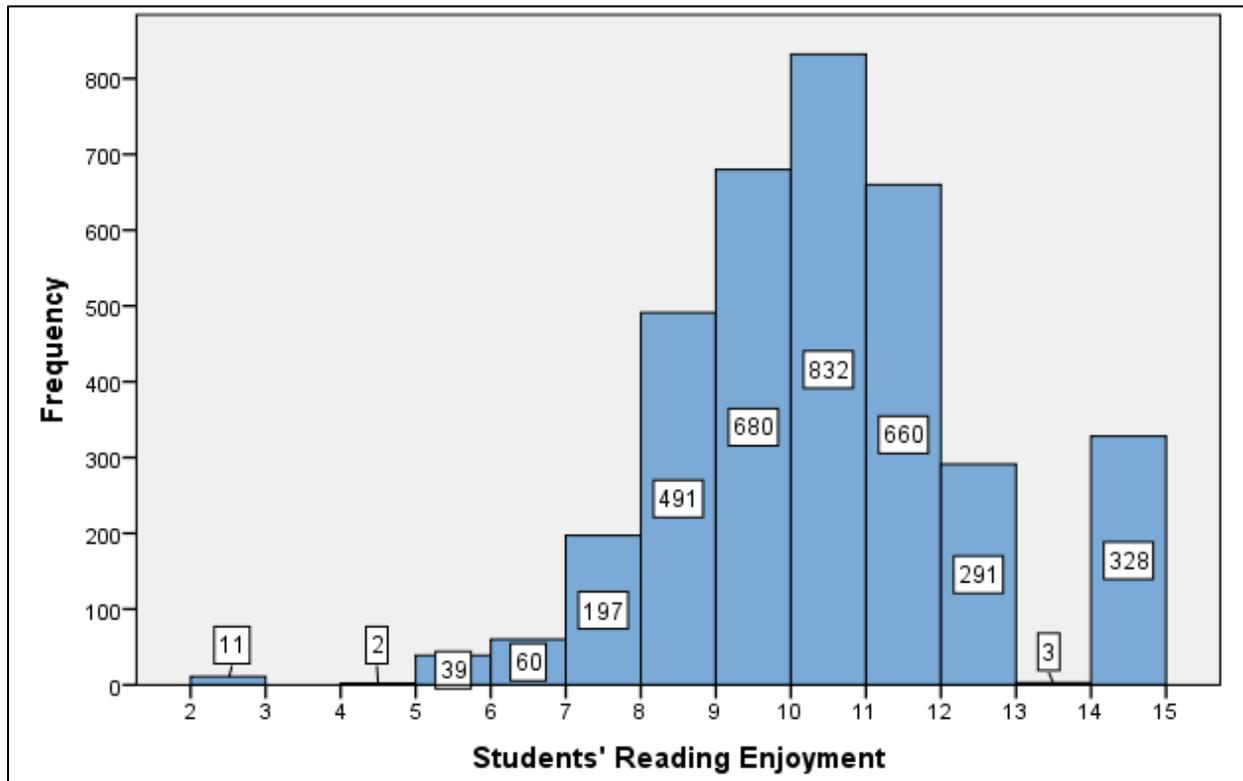
Country	Very Much Like Reading		Somewhat Like Reading		Do Not Like Reading		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Portugal	72 (1.1)	530 (2.4)	23 (1.0)	526 (3.2)	5 (0.4)	513 (5.3)	11.4 (0.05)
Kazakhstan	71 (1.2)	536 (2.7)	25 (1.0)	535 (3.0)	3 (0.4)	536 (7.8)	11.4 (0.06)
Iran, Islamic Rep. of	70 (1.8)	441 (4.5)	26 (1.4)	405 (7.5)	4 (0.7)	344 (30.4)	11.2 (0.08)
Oman	65 (1.0)	437 (3.3)	29 (0.8)	391 (4.2)	5 (0.4)	359 (7.7)	11.2 (0.05)
Azerbaijan	64 (1.3)	485 (3.6)	32 (1.2)	456 (5.7)	4 (0.4)	443 (8.7)	10.9 (0.05)
Georgia	64 (1.3)	496 (2.9)	31 (1.0)	483 (3.5)	5 (0.6)	460 (8.9)	10.9 (0.05)
Saudi Arabia	57 (1.5)	446 (3.9)	36 (1.2)	417 (6.2)	7 (0.6)	399 (9.0)	10.7 (0.07)
Kuwait	57 (1.5)	411 (4.1)	36 (1.3)	382 (5.2)	7 (0.7)	352 (11.1)	10.6 (0.06)
Morocco	56 (1.6)	380 (4.1)	39 (1.5)	333 (5.0)	5 (0.5)	306 (8.1)	10.8 (0.06)
Spain	56 (0.8)	534 (1.5)	34 (0.7)	523 (3.5)	10 (0.5)	512 (3.7)	10.7 (0.04)
Egypt	56 (2.0)	361 (5.8)	35 (1.5)	308 (6.4)	9 (1.2)	245 (14.3)	10.6 (0.09)
South Africa	55 (1.2)	340 (3.7)	36 (0.9)	302 (5.6)	9 (0.6)	282 (9.1)	10.6 (0.06)
Bulgaria	55 (1.9)	558 (4.7)	33 (1.2)	557 (4.6)	12 (1.3)	511 (11.8)	10.6 (0.10)
Bahrain	54 (1.2)	463 (3.1)	36 (1.1)	429 (3.0)	10 (0.6)	426 (5.5)	10.6 (0.05)
United Arab Emirates	54 (0.7)	471 (3.2)	37 (0.6)	433 (4.2)	9 (0.3)	409 (6.3)	10.6 (0.03)
Malta	51 (0.8)	470 (2.4)	37 (0.7)	442 (2.4)	12 (0.4)	418 (4.7)	10.4 (0.03)
Trinidad and Tobago	50 (1.3)	492 (3.7)	40 (1.1)	467 (4.1)	11 (0.8)	459 (8.6)	10.4 (0.06)
Qatar	48 (0.9)	463 (2.3)	39 (0.8)	432 (2.8)	12 (0.5)	412 (5.3)	10.3 (0.03)
Russian Federation	46 (1.4)	582 (2.9)	44 (1.1)	581 (2.5)	10 (0.7)	572 (3.4)	10.2 (0.06)
Ireland	46 (1.1)	580 (3.0)	40 (1.0)	565 (2.9)	15 (0.8)	534 (4.6)	10.0 (0.04)
New Zealand	44 (1.0)	535 (2.6)	42 (0.7)	520 (2.9)	14 (0.7)	508 (4.2)	10.1 (0.04)
Israel	43 (1.3)	531 (3.5)	36 (0.8)	527 (3.7)	21 (1.1)	538 (3.9)	9.9 (0.07)
Australia	43 (1.1)	558 (3.3)	41 (0.8)	543 (3.0)	16 (0.7)	517 (3.0)	10.0 (0.05)
Lithuania	42 (1.2)	551 (2.9)	46 (1.0)	550 (3.1)	13 (0.7)	535 (4.2)	10.0 (0.05)
Italy	41 (1.1)	554 (2.5)	44 (1.0)	546 (2.7)	16 (0.8)	539 (3.7)	9.9 (0.04)
France	40 (1.0)	519 (3.0)	46 (1.0)	510 (3.0)	14 (0.9)	497 (3.4)	10.0 (0.04)
Northern Ireland	39 (1.3)	580 (2.9)	42 (1.0)	567 (2.7)	19 (0.9)	531 (3.8)	9.7 (0.05)
Chinese Taipei	37 (1.0)	571 (2.5)	44 (0.8)	558 (2.2)	19 (0.7)	538 (2.9)	9.8 (0.05)
Chile	37 (1.1)	500 (3.3)	39 (0.8)	495 (3.1)	24 (1.0)	486 (3.3)	9.7 (0.06)
Austria	37 (1.1)	550 (3.1)	45 (0.8)	541 (2.6)	18 (0.8)	524 (3.4)	9.8 (0.05)
Canada	37 (0.7)	555 (2.2)	45 (0.6)	543 (2.1)	18 (0.5)	525 (2.9)	9.7 (0.03)
United States	36 (1.2)	557 (3.8)	42 (0.9)	553 (3.4)	22 (0.9)	538 (3.8)	9.7 (0.05)
Hong Kong SAR	36 (1.0)	583 (3.1)	44 (0.9)	567 (3.3)	21 (1.2)	549 (3.7)	9.7 (0.05)
England	35 (1.0)	575 (2.5)	45 (0.9)	559 (2.2)	20 (0.9)	530 (3.3)	9.7 (0.04)
Hungary	35 (1.4)	570 (3.7)	46 (1.0)	552 (3.5)	19 (1.2)	530 (3.7)	9.7 (0.05)
Latvia	33 (1.2)	563 (2.8)	47 (1.2)	559 (2.0)	21 (1.0)	548 (2.9)	9.6 (0.05)
Belgium (French)	33 (1.1)	504 (3.4)	44 (0.9)	500 (2.8)	23 (1.2)	484 (3.3)	9.6 (0.06)
Poland	32 (1.1)	570 (3.2)	45 (1.0)	567 (2.8)	23 (1.0)	553 (2.7)	9.6 (0.05)
Germany	32 (1.3)	563 (2.9)	43 (1.0)	548 (2.7)	25 (1.2)	510 (5.0)	9.4 (0.06)
Singapore	31 (0.8)	598 (3.6)	50 (0.6)	574 (3.3)	19 (0.6)	548 (3.7)	9.6 (0.03)
Macao SAR	31 (0.6)	564 (2.0)	50 (0.6)	543 (1.5)	19 (0.5)	522 (2.6)	9.5 (0.02)
Slovak Republic	30 (1.1)	546 (4.0)	47 (0.8)	538 (3.6)	23 (1.0)	513 (5.4)	9.5 (0.05)
Czech Republic	30 (0.8)	549 (3.2)	50 (0.8)	548 (2.2)	20 (0.8)	524 (2.7)	9.5 (0.04)
Slovenia	29 (1.1)	551 (3.2)	53 (1.2)	545 (2.7)	18 (1.1)	523 (3.2)	9.5 (0.04)
Finland	28 (0.9)	584 (2.3)	49 (0.8)	568 (2.3)	23 (0.7)	540 (2.5)	9.4 (0.04)
Belgium (Flemish)	24 (1.0)	536 (3.0)	45 (0.8)	529 (2.0)	31 (1.1)	513 (2.6)	9.1 (0.04)
Netherlands	24 (0.9)	560 (2.4)	46 (0.9)	550 (2.0)	31 (1.1)	527 (2.5)	9.1 (0.05)
Norway	22 (0.9)	575 (3.2)	51 (1.0)	565 (2.4)	27 (1.2)	536 (2.8)	9.1 (0.04)
Denmark	20 (0.8)	569 (2.9)	53 (1.0)	551 (2.4)	27 (1.2)	528 (3.2)	9.1 (0.04)
Sweden	18 (1.0)	572 (4.3)	50 (1.0)	563 (2.5)	31 (1.1)	535 (3.2)	8.9 (0.05)
International Avg.	43 (0.2)	523 (0.5)	41 (0.1)	507 (0.5)	16 (0.1)	486 (1.0)	

The percentage of Maltese students who somewhat enjoy reading (37%) is significantly lower than the international average (41%). Slovenia and Denmark (53%) top the list, followed by Norway (51%), Singapore (50%), Macao (50%), Czech Republic (50%) and Sweden (50%). The percentage of Maltese students who do not enjoy reading (12%) is significantly lower than the international average (16%). Netherlands, Belgium (Flemish) and Sweden (31%) top the list; followed by Norway (27%), Denmark (27%), Germany (25%), Chile (24%), Finland (23%), Slovenia (23%), Poland (23%) and Belgian (French) (23%).

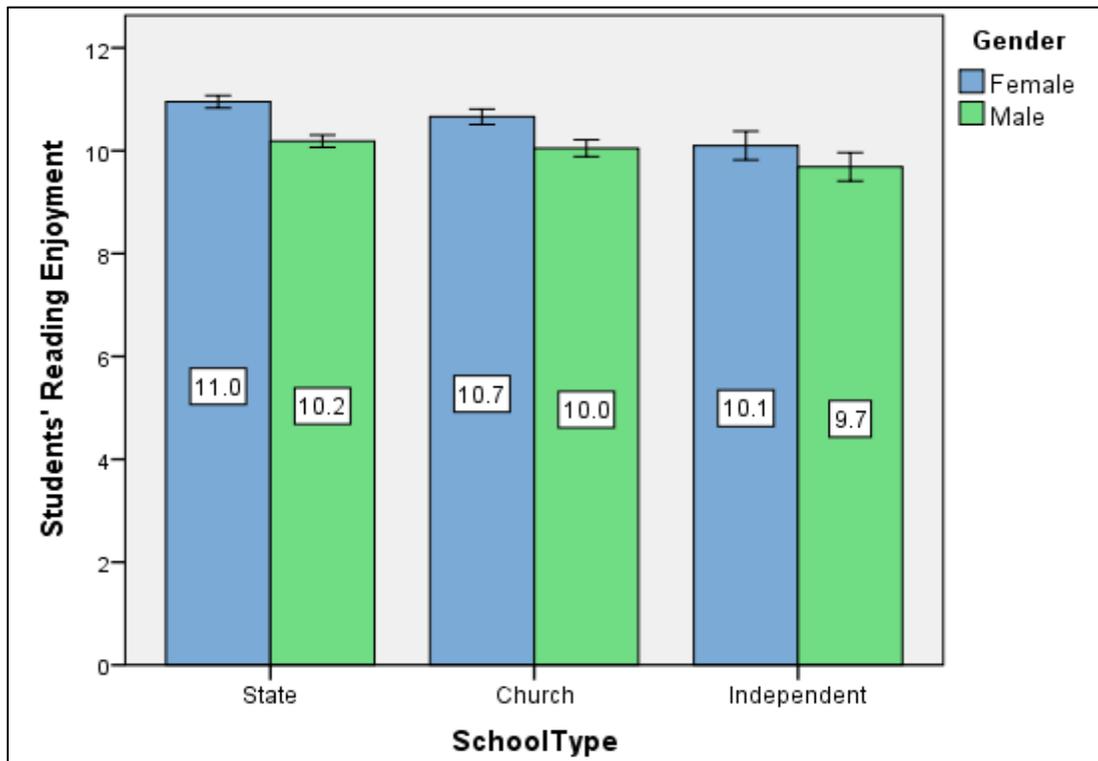
Portugal (11.4), Kazakhstan (11.4), Iran (11.2), Oman (11.2), Azerbaijan (10.9) and Georgia (10.9) have the highest mean scale scores indicating that students from these countries enjoy reading more than other countries. Malta’s mean scale score (10.4) is higher than the corresponding PIRLS 2011 mean scale score (10.2). There is a strong positive relationship between reading enjoyment and reading attainment. Across all countries, the mean reading scores of students who ‘enjoy reading a lot’, ‘somewhat enjoy reading’ and ‘do not enjoy reading’ are 523, 507 and 486 respectively and this pattern applies to most participating countries. The corresponding mean reading scores of Maltese students are 470, 442 and 418 respectively.

Figure 9.6 displays the score distribution of reading enjoyment of Maltese students. Figure 9.7 shows that female students score significantly higher in reading enjoyment than their male counterparts, particularly in State and Church schools. Figure 9.8 shows that reading attainment is positively related to reading enjoyment and this applies to all school types. This implies that students who enjoy reading are more likely to perform well in reading comprehension.

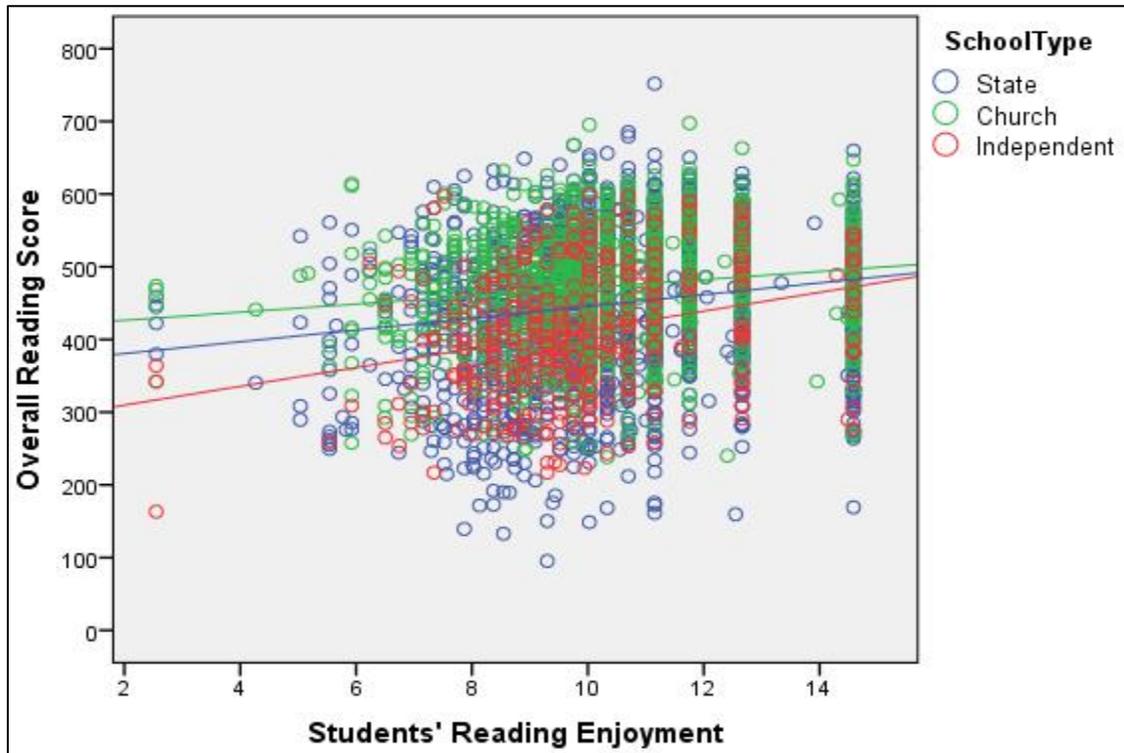
**Figure 9.6:** Score distribution of Maltese students’ reading enjoyment



**Figure 9.7:** Mean reading enjoyment scores of Maltese students, by school type and gender



**Figure 9.8:** Relationship between reading attainment and enjoyment scores, by school type



## 9.4 Students' Confidence in Reading

With a positive attitude toward reading, a student who approaches reading confidently is more likely to seek out opportunities to read more frequently and more widely. To assess students' confidence in reading, a scale score was generated using students' responses evaluating the degree of agreement with six statements on students' confidence in reading, displayed in Table 9.4.

**Table 9.4:** Confidence of Maltese pupils in reading

How well do you read? Tell how much you agree with each of these statements	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I usually do well in reading	64.6%	27.9%	4.0%	3.5%
Reading is easy for me	53.0%	32.5%	7.6%	6.8%
I have trouble reading stories with difficult words	35.5%	32.3%	12.1%	20.1%
Reading is harder for me than for many of my classmates	11.1%	17.9%	15.9%	55.1%
Reading is harder for me than any other subject	11.7%	12.2%	13.5%	62.5%
I am just not good at reading	9.1%	12.7%	13.9%	64.2%

Students who are very confident in reading had a score on the scale of at least 10.3, which corresponds to their 'agreeing a lot' with three of the six statements and 'agreeing a little' with the other three, on average. Students who were not confident had a score less than 8.2, which corresponds to their 'disagreeing a little' with three of the six statements and 'agreeing a little' with the other three, on average. All other students were somewhat confident in reading.

Figure 9.9 shows students' confidence in reading across participating countries. The percentage of Maltese students who are very confident in reading (41%) is significantly lower than the international average (45%). Sweden (65%) tops the list, followed by Finland (71%), Iran (60%), Poland (59%), Bulgaria (58%) and Austria (56%). The percentage of Maltese students who are somewhat confident in reading (37%) is marginally higher than the international average (35%). Saudi Arabia (43%) tops the list, followed by Morocco (42%), Latvia (42%), Macao (41%) and New Zealand (41%). The percentage of Maltese students who are not confident in reading (22%) is comparable to the international average (21%). South Africa (47%) tops the list; followed by Macao (38%), Egypt (31%), Azerbaijan (31%), Latvia (28%) and Saudi Arabia (28%).

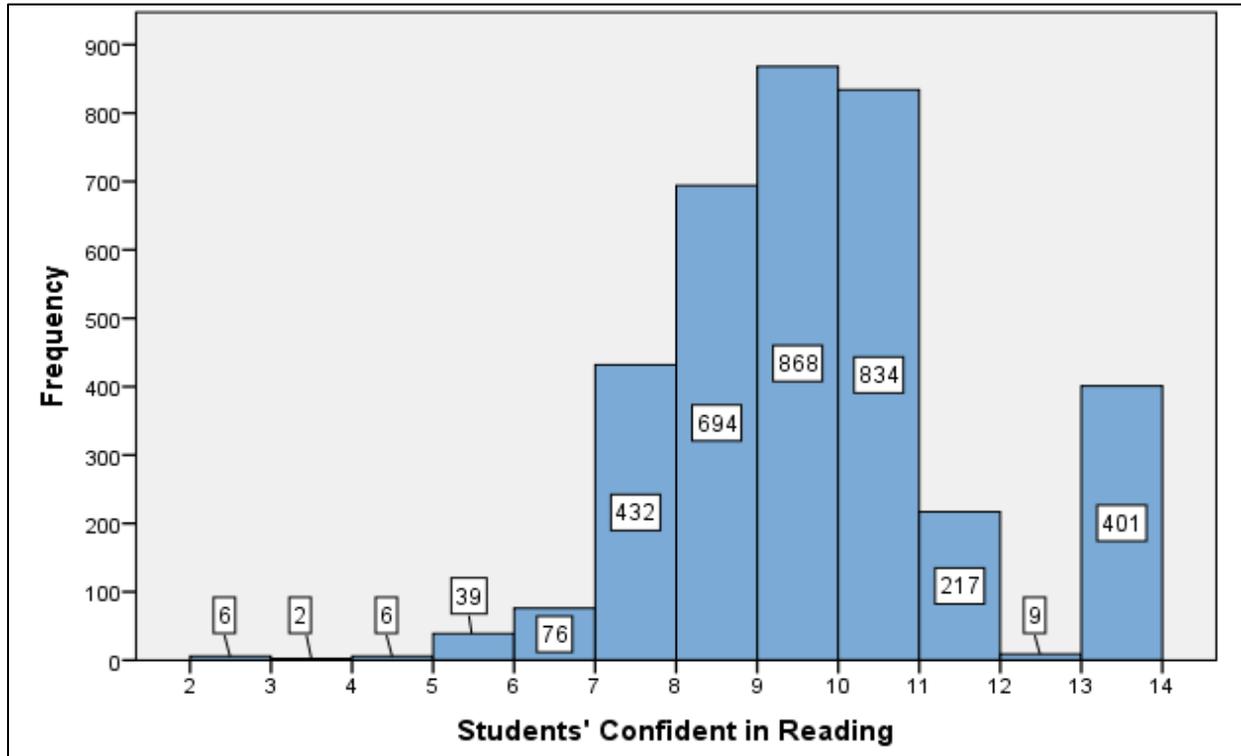
Sweden (10.8), Poland (10.7), Finland (10.6), Austria (10.5), Germany (10.5) and Kazakhstan (10.5) have the highest mean scale scores. Malta's mean score (9.7) is lower than the corresponding PIRLS 2011 mean scale score (10.1). There is a strong positive relationship between confidence in reading and reading attainment. Across all countries, the mean reading scores of students who are 'very confident', 'somewhat confident' and 'not confident' are 545, 503 and 455 respectively and this pattern applies to most participating countries. The corresponding mean reading scores of Maltese students are 495, 447 and 387 respectively.

Figure 9.10 displays the score distribution of confidence in reading of Maltese students. Figure 9.11 shows that female students attending State schools score significantly higher in reading confidence than their male counterparts. Figure 9.12 shows that reading attainment is positively related to confidence in reading and this applies to all school types. This implies that students who are confident in reading are more likely to perform well in reading comprehension.

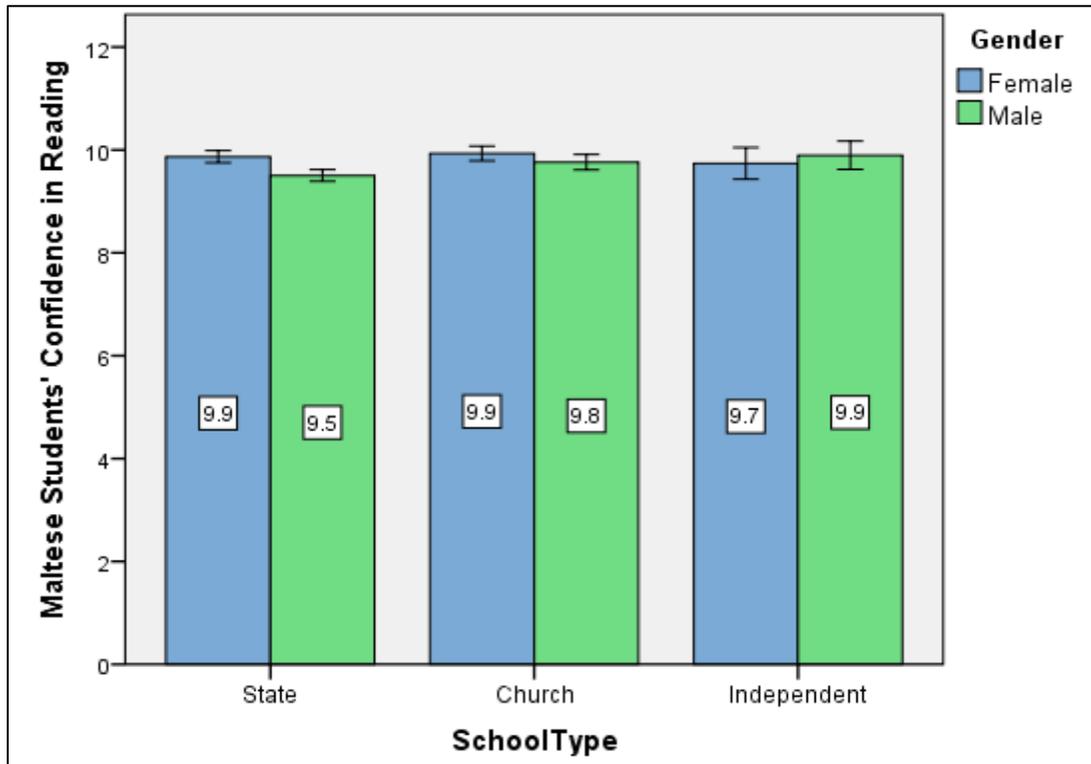
Figure 9.9: Confidence in reading, clustered by country

Country	Very Confident		Somewhat Confident		Not Confident		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Sweden	65 (0.8)	575 (2.3)	28 (0.8)	532 (3.2)	8 (0.5)	488 (5.2)	10.8 (0.04)
Finland	60 (0.9)	586 (1.9)	31 (0.9)	549 (2.2)	10 (0.5)	503 (4.5)	10.6 (0.04)
Poland	59 (0.8)	587 (2.3)	29 (0.9)	551 (3.1)	12 (0.6)	490 (4.1)	10.7 (0.04)
Bulgaria	58 (1.6)	579 (3.8)	28 (1.0)	536 (4.9)	14 (1.1)	477 (7.9)	10.4 (0.08)
Austria	56 (1.0)	562 (2.1)	29 (0.9)	526 (3.1)	14 (0.7)	493 (3.5)	10.5 (0.04)
Ireland	55 (1.0)	593 (2.6)	31 (0.8)	550 (2.7)	14 (0.8)	505 (4.2)	10.4 (0.04)
Germany	55 (1.0)	569 (2.4)	30 (0.9)	529 (3.6)	15 (0.7)	487 (4.7)	10.5 (0.04)
Israel	55 (1.1)	567 (2.6)	28 (0.7)	511 (3.1)	18 (0.8)	454 (4.7)	10.3 (0.05)
Kazakhstan	55 (1.4)	549 (2.5)	27 (1.0)	534 (3.0)	18 (0.9)	503 (3.8)	10.5 (0.07)
England	53 (0.9)	591 (1.9)	31 (0.8)	541 (2.6)	16 (0.5)	488 (3.1)	10.3 (0.03)
Norway	53 (0.9)	584 (2.2)	33 (0.8)	545 (2.7)	14 (0.8)	505 (3.6)	10.4 (0.04)
Iran, Islamic Rep. of	51 (1.6)	470 (5.2)	30 (1.3)	407 (6.0)	19 (0.8)	351 (6.1)	10.3 (0.06)
Canada	51 (0.6)	574 (1.6)	32 (0.5)	530 (2.4)	17 (0.6)	482 (3.2)	10.2 (0.03)
Denmark	51 (0.8)	577 (2.3)	36 (0.8)	532 (2.7)	14 (0.6)	486 (4.4)	10.3 (0.04)
Northern Ireland	50 (1.1)	598 (2.2)	33 (1.0)	553 (3.0)	17 (0.7)	493 (4.1)	10.2 (0.04)
United States	50 (1.3)	583 (2.6)	32 (0.9)	540 (3.4)	19 (0.9)	496 (4.1)	10.2 (0.05)
Netherlands	49 (1.1)	565 (1.9)	30 (0.8)	536 (2.2)	21 (0.9)	511 (2.8)	10.0 (0.05)
Australia	49 (1.0)	585 (2.4)	34 (0.8)	526 (2.9)	16 (0.7)	465 (3.7)	10.2 (0.04)
Singapore	48 (0.9)	612 (2.6)	36 (0.6)	562 (3.1)	16 (0.7)	503 (4.8)	10.1 (0.04)
Hungary	48 (1.2)	586 (3.0)	33 (0.9)	542 (3.5)	19 (0.9)	495 (3.9)	10.1 (0.05)
Belgium (Flemish)	46 (1.0)	544 (2.3)	34 (0.8)	519 (2.5)	19 (0.7)	493 (2.6)	10.0 (0.04)
Lithuania	46 (1.1)	578 (2.6)	35 (1.0)	538 (3.6)	19 (0.8)	496 (3.8)	10.0 (0.04)
Italy	46 (1.0)	567 (2.2)	38 (1.0)	545 (2.7)	16 (0.5)	505 (4.3)	10.1 (0.04)
Trinidad and Tobago	46 (1.3)	529 (2.7)	31 (0.9)	465 (3.6)	23 (0.9)	400 (4.1)	10.0 (0.05)
Slovenia	46 (1.0)	571 (2.3)	37 (0.9)	538 (2.3)	17 (0.7)	481 (4.5)	10.1 (0.04)
Qatar	45 (0.8)	494 (2.1)	32 (0.7)	434 (2.6)	23 (0.7)	371 (3.6)	10.0 (0.03)
Czech Republic	45 (0.8)	569 (2.2)	39 (0.7)	537 (2.3)	16 (0.6)	490 (4.2)	9.9 (0.03)
France	44 (1.1)	539 (2.6)	39 (1.1)	506 (2.6)	17 (0.7)	455 (3.7)	10.0 (0.04)
Slovak Republic	44 (1.0)	567 (2.8)	34 (0.8)	533 (3.2)	22 (0.9)	475 (6.1)	9.9 (0.04)
Bahrain	44 (0.9)	494 (2.3)	33 (0.9)	436 (3.3)	23 (0.8)	381 (3.7)	9.9 (0.04)
Russian Federation	43 (1.0)	609 (2.3)	38 (0.9)	575 (2.4)	19 (0.9)	532 (3.4)	9.9 (0.04)
Belgium (French)	41 (0.9)	528 (2.8)	37 (0.8)	493 (2.8)	22 (0.7)	450 (3.4)	9.8 (0.04)
Georgia	41 (1.3)	523 (3.2)	31 (1.0)	489 (3.0)	27 (1.1)	448 (4.3)	9.7 (0.05)
Oman	41 (1.2)	468 (3.7)	34 (0.9)	413 (3.7)	24 (0.8)	352 (3.7)	9.8 (0.05)
Kuwait	41 (1.6)	437 (4.6)	39 (1.5)	386 (4.8)	20 (0.9)	334 (7.7)	9.8 (0.05)
United Arab Emirates	41 (0.8)	511 (3.6)	36 (0.6)	439 (3.1)	23 (0.7)	372 (3.6)	9.8 (0.03)
Malta	41 (0.8)	495 (2.1)	37 (0.8)	447 (2.3)	22 (0.6)	387 (4.2)	9.7 (0.03)
Spain	40 (0.7)	554 (1.8)	40 (0.6)	525 (2.1)	20 (0.6)	483 (2.7)	9.7 (0.03)
Portugal	38 (1.3)	555 (2.7)	40 (1.0)	526 (2.7)	22 (0.9)	483 (3.0)	9.7 (0.04)
Chile	37 (0.9)	532 (2.8)	36 (0.8)	494 (3.3)	27 (0.8)	451 (3.0)	9.6 (0.04)
Hong Kong SAR	36 (1.2)	596 (2.5)	38 (0.9)	568 (3.4)	26 (1.1)	534 (3.2)	9.6 (0.05)
Azerbaijan	36 (1.0)	508 (3.4)	34 (1.1)	475 (3.4)	31 (1.3)	439 (5.9)	9.5 (0.04)
Chinese Taipei	35 (1.2)	589 (2.3)	40 (0.9)	557 (2.0)	24 (0.9)	519 (2.7)	9.5 (0.05)
New Zealand	35 (0.8)	577 (2.5)	41 (0.8)	520 (2.7)	24 (0.7)	457 (3.8)	9.6 (0.03)
Egypt	33 (1.9)	390 (6.1)	36 (1.6)	333 (5.7)	31 (1.8)	268 (7.2)	9.4 (0.09)
Morocco	31 (1.1)	416 (3.9)	42 (1.0)	358 (4.0)	27 (1.1)	296 (5.6)	9.4 (0.05)
Latvia	30 (1.0)	588 (2.4)	42 (1.1)	562 (2.1)	28 (1.1)	520 (3.0)	9.3 (0.04)
Saudi Arabia	29 (1.5)	473 (4.2)	43 (1.2)	439 (5.0)	28 (1.4)	385 (6.0)	9.3 (0.05)
Macao SAR	21 (0.7)	582 (2.6)	41 (0.8)	551 (1.5)	38 (0.7)	519 (1.6)	8.9 (0.03)
South Africa	20 (1.0)	398 (7.3)	33 (0.7)	326 (4.5)	47 (1.0)	288 (4.0)	8.8 (0.04)
International Avg.	45 (0.2)	545 (0.4)	35 (0.1)	503 (0.5)	21 (0.1)	455 (0.6)	

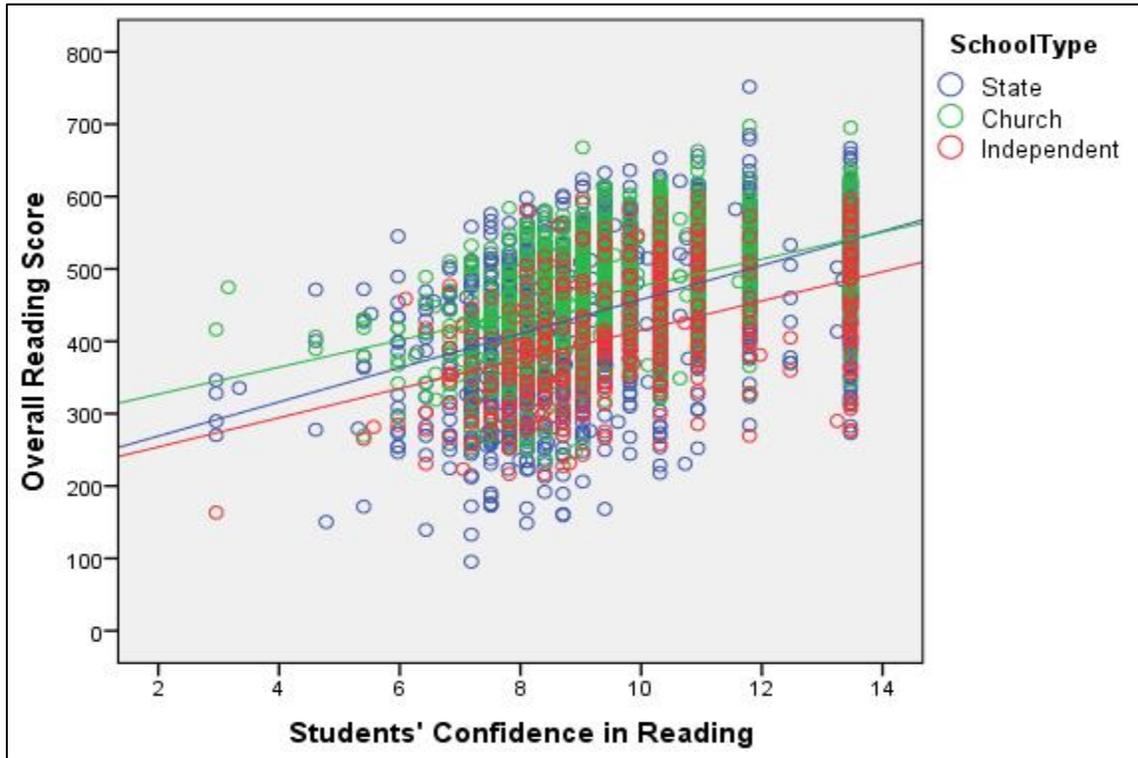
**Figure 9.10:** Score distribution of confidence in reading of Maltese students



**Figure 9.11:** Mean confidence in reading scores of Maltese students, by school type and gender



**Figure 9.12:** Relationship between reading attainment and confidence in reading scores, by school type



# APPENDIX

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## A. Head of School Questionnaire

What is the total enrolment of student in your school as of 1 <sup>st</sup> March 2016?	Frequency	Percentage
1-100	5	5.3%
101-200	25	26.3%
201-300	16	16.8%
301-400	19	20.0%
401-500	12	12.6%
More than 500	18	18.9%

What is the total enrolment of Year 5 students in your school as of 1 <sup>st</sup> March 2016?	Frequency	Percentage
1-20	29	30.9%
21-40	18	19.1%
41-60	22	23.4%
61-80	16	17.0%
81-100	5	5.3%
More than 100	4	4.3%

Approximately what percentage of students in your school has the following backgrounds?	0-10%	11-25%	26-50%	51-100%
Coming from economically disadvantaged homes	66.0%	23.4%	6.4%	4.3%
Coming from economically affluent homes	35.8%	16.8%	15.8%	31.6%

Approximately what percentage of students in your school has Maltese as their native language?	Frequency	Percentage
More than 90%	59	62.1%
76-90%	22	23.2%
51-75%	11	11.6%
26-50%	2	2.1%
25% or less	1	1.1%

How many people live in the city, town or area where your school is located?	Frequency	Percentage
More than 15000 people	14	14.7%
3000-15000 people	51	53.7%
Less than 3000 people	30	31.6%

Which best describes the immediate area in which your school is located?	Frequency	Percentage
Medium size city or large town	25	26.3%
Small town or village	51	53.7%
A village or rural area	19	20.0%

Does your school provide free breakfast for students?	Frequency	Percentage
Yes, for all students	2	2.1%
Yes, for some students	60	63.2%
No	33	34.7%

Does your school provide free lunch for students?	Frequency	Percentage
Yes, for all students	1	1.1%
Yes, for some students	5	5.3%
No	88	93.6%

How many days per year is your school open for instruction?	Frequency	Percentage
151-160	7	7.7%
161-170	31	34.1%
171-180	45	49.4%
181-200	2	2.2%
More than 200	6	6.6%

What is the total instructional time, excluding breaks, in a typical day?	Frequency	Percentage
200-250	1	1.1%
251-300	22	23.4%
301-350	64	68.1%
351-400	7	7.4%

Does your school have a school library?	Frequency	Percentage
Yes	74	77.9%
No	21	22.1%

Approximately how many books with different titles does your school library have?	Frequency	Percentage
Less than 250	2	2.7%
251-500	7	9.5%
501-2000	33	44.6%
2001-5000	20	27.0%
5001-10000	11	14.9%
More than 10000	1	1.4%

Approximately how many magazines/periodicals does your school library have?	Frequency	Percentage
0	20	27.0%
1-5	33	44.6%
6-10	9	12.2%
11-30	1	1.4%
31 or more	11	14.9%

Can students borrow print material from the library to take home?	Frequency	Percentage
Yes	72	97.3%
No	2	2.7%

Does the school provide access to digital books?	Frequency	Percentage
Yes	52	55.3%
No	42	44.7%

Do students have a place to do their schoolwork before/after school?	Frequency	Percentage
Yes	35	37.2%
No	59	62.8%

Is someone available to assist them with their schoolwork?	Frequency	Percentage
Yes	33	94.2%
No	2	5.7%

How many computers/tablets does your school have for use by Year 5 students?	Frequency	Percentage
0	2	2.1%
1-10	45	47.9%
11-20	32	34.0%
21-30	11	11.7%
31 or more	4	4.3%

How much is your school's capacity to provide instruction affected by a shortage/inadequacy of school resources?	Not at all	A little	Some	A lot
Instructional materials	56.8%	17.9%	12.6%	12.6%
Supplies	63.2%	13.7%	10.5%	12.6%
School building and grounds	35.8%	26.3%	21.1%	16.8%
Heating/cooling and lighting systems	28.4%	37.9%	23.2%	10.5%
Instructional space	32.6%	29.5%	16.8%	21.1%
Technologically competent staff	17.9%	45.3%	26.3%	10.5%
Audio-visual resources for delivery of instruction	58.9%	17.9%	8.4%	14.7%
Computer technology for teaching and learning	34.7%	26.3%	27.4%	11.6%
Resources for students with disabilities	20.2%	35.1%	31.9%	12.8%

How much is your school's capacity to provide instruction affected by a shortage/inadequacy of reading resources?	Not at all	A little	Some	A lot
Teachers with a specialization in reading	21.1%	41.1%	26.3%	11.6%
Computer software/applications for reading instruction	22.1%	35.8%	32.6%	9.5%
Library resources	33.7%	27.4%	27.4%	11.6%
Instructional material for reading	42.1%	27.4%	20.0%	10.5%

To what degree is each of the following a problem among Year 5 students in your school?	Not a problem	Minor problem	Moderate problem	Serious problem
Arriving late at school	50.5%	40.0%	9.5%	0.0%
Absenteeism	63.2%	31.6%	3.2%	2.1%
Classroom disturbance	29.5%	44.2%	23.2%	3.2%
Cheating	72.6%	22.1%	3.2%	2.1%
Swearing	68.4%	27.4%	2.1%	2.1%
Vandalism	84.2%	10.5%	1.1%	4.2%
Theft	90.5%	7.4%	0.0%	2.1%
Intimidation or verbal abuse among students	51.6%	42.1%	3.2%	3.2%
Physical fights among students	46.3%	43.2%	8.4%	2.1%
Intimidation or verbal abuse of teachers or staff	90.5%	6.3%	1.1%	2.1%

How would you characterize each of the following within your school?	Very high	High	Medium	Low	Very low
Teachers' understanding of the school's curriculum goals	25.5%	57.4%	16.0%	1.1%	0.0%
Teachers' degree of success in implementing the school's curriculum	18.1%	58.5%	23.4%	0.0%	0.0%
Teachers' expectations for student achievement	27.7%	55.3%	16.0%	1.1%	0.0%
Teachers' ability to inspire students	19.4%	55.9%	22.6%	2.2%	0.0%
Collaboration between school leadership and teachers to plan instruction	27.7%	54.3%	16.0%	1.1%	1.1%
Parental involvement in school activities	17.9%	38.9%	35.8%	6.3%	1.1%
Parental commitment to ensure that students are ready to learn	10.5%	46.3%	36.8%	5.3%	1.1%
Parental expectations for student achievement	23.2%	49.5%	25.3%	1.1%	1.1%
Parental support for student achievement	9.5%	40.0%	45.3%	3.2%	2.1%
Students' desire to do well in school	11.6%	51.6%	32.6%	3.2%	1.1%
Students' ability to reach school's academic goals	4.2%	42.1%	48.4%	4.2%	1.1%
Students' respect for classmates who excel academically	12.6%	47.4%	40.0%	0.0%	0.0%

About how many of the students in your school can do the following when they begin Year 1 of primary school?	Less than 25%	25-50%	51-75%	More than 75%
Recognise most of the letters of the alphabet	8.6%	12.9%	29.0%	49.5%
Read some words	29.0%	30.1%	22.6%	18.3%
Read sentences	63.4%	19.4%	14.0%	3.2%
Read a story	81.7%	8.6%	7.5%	2.2%
Write letters of the alphabet	15.1%	25.8%	24.7%	34.4%
Write some words	53.8%	23.7%	11.8%	10.8%

At which year do these reading skills and strategies first receive a major emphasis in instruction?	Year 1	Year 2	Year 3	Year 4	Year 5	After Year 5
Knowing letters of the alphabet	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Knowing letter-sound relationships	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reading words	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reading isolated sentences	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reading connected text	92.5%	6.5%	1.1%	0.0%	0.0%	0.0%
Locating information within the text	63.4%	31.2%	5.4%	0.0%	0.0%	0.0%
Identifying the main idea of a text	49.5%	34.4%	10.8%	5.4%	0.0%	0.0%
Explaining or supporting understanding of a text	50.5%	36.6%	9.7%	2.2%	0.0%	0.0%
Comparing a text with personal experience	38.3%	29.8%	22.3%	7.4%	0.0%	2.1%
Comparing different texts	10.6%	39.4%	26.6%	16.0%	0.0%	7.4%
Making predictions about what will happen next in a text	42.4%	20.7%	21.7%	14.4%	0.0%	1.1%
Making generalizations and drawing inferences based on a text	26.6%	22.3%	21.3%	23.4%	0.0%	6.4%
Describing the style or structure of a text	8.5%	21.3%	26.6%	29.8%	0.0%	13.8%
Determining the author's perspective or intention	9.6%	11.7%	20.2%	33.0%	0.0%	25.5%

By the end of this year, how long have you been a head of school altogether?	Frequency	Percentage
1-5 years	37	40.2%
6-10 years	31	33.7%
11-15 years	13	14.1%
16-20 years	6	6.5%
More than 20 years	5	5.4%

To what degree is each of the following a problem among teachers in your school?	Not a problem	Minor problem	Moderate problem	Serious problem
Arriving late or leaving early	74.7%	23.2%	2.1%	0.0%
Absenteeism	77.9%	21.1%	0.0%	1.1%
Failure to complete the curriculum	76.8%	22.1%	0.0%	1.1%

By the end of this year, how long have you been a head of school at this school?	Frequency	Percentage
1-5 years	59	64.1%
6-10 years	22	23.9%
11-15 years	4	4.3%
16-20 years	4	4.3%
More than 20 years	3	3.3%

What is the highest level of formal education you have completed?	Frequency	Percentage
Did not complete ISCED 6 (Bachelor's degree or equivalent)	2	2.1%
Completed ISCED 6 (Bachelor's degree or equivalent)	39	41.1%
Completed ISCED 7 (Master's degree)	53	55.8%
Completed ISCED 8 (Doctor or equivalent)	1	1.1%

Do you hold the following professional qualifications in educational leadership?	Frequency	Percentage
Diploma	68	68.0%
Master's or equivalent level	31	31.0%
Doctorate or equivalent level	1	1.0%

## B. Teacher Questionnaire

By the end of this year, how long have you been teaching altogether?	Frequency	Percentage
1-5 years	75	36.2%
6-10 years	29	14.0%
11-15 years	38	18.4%
16-20 years	40	19.3%
More than 20 years	25	12.1%

What is your gender?	Frequency	Percentage
Female	167	80.7%
Male	40	19.3%

What is your age?	Frequency	Percentage
Under 25 years	27	13.0%
25-29 years	54	26.1%
30-39 years	68	32.9%
40-49 years	42	20.3%
50-59 years	9	4.3%
60 years or more	7	3.4%

What is the highest level of formal education you have completed?	Frequency	Percentage
Did not complete ISCED 3 (Upper secondary education)	1	0.5%
Completed ISCED 3 (Upper secondary education)	6	2.9%
Completed ISCED 4 (Post-secondary, non-tertiary education)	6	2.9%
Completed ISCED 5 (Short-cycle tertiary)	8	3.9%
Completed ISCED 6 (Bachelor's degree or equivalent)	170	82.1%
Completed ISCED 7 (Master's degree)	15	7.2%
Completed ISCED 8 (Doctor or equivalent)	1	0.5%

During your post-secondary education, what was your major area(s) of study?	Frequency	Percentage
Education (Primary level)	151	33.5%
Education (Secondary level)	76	16.9%
Maltese	97	21.6%
Other	126	28.0%

In the past two years, how many hours in total have you spent in formal professional development?	Frequency	Percentage
None	9	4.4%
Less than 6 hours	61	29.6%
6-15 hours	78	37.9%
16-35 hours	39	18.9%
More than 35 hours	19	9.2%

As part of your formal education and/or training, to what extent did you study the following areas?	Not at all	Introduction to topic	It was an area of emphasis
Maltese	5.8%	23.7%	70.5%
Literature	14.6%	43.4%	42.0%
Pedagogy/teaching reading	4.3%	16.4%	79.2%
Educational psychology	3.9%	26.1%	70.0%
Remedial reading	28.6%	55.3%	16.0%
Reading theory	19.0%	52.7%	28.3%
Special education	10.7%	54.9%	34.5%
Second language learning	17.0%	36.4%	46.6%
Assessment methods in reading	15.5%	58.3%	26.2%
Early childhood education	13.6%	38.8%	47.6%

How would you characterize each of the following within your school?	Very high	High	Medium	Low	Very low
Teachers' understanding of the school's curriculum goals	40.6%	52.7%	5.8%	1.0%	0.0%
Teachers' degree of success in implementing the school's curriculum	34.8%	53.6%	11.1%	0.5%	0.0%
Teachers' expectations for student achievement	36.7%	54.6%	8.2%	0.5%	0.0%
Teachers' ability to inspire students	35.7%	54.1%	9.7%	0.5%	0.0%
Collaboration between school leadership and teachers to plan instruction	30.0%	31.9%	30.4%	5.8%	1.9%
Parental involvement in school activities	13.2%	41.5%	38.0%	3.9%	3.4%
Parental commitment to ensure that students are ready to learn	10.2%	33.7%	41.0%	9.8%	5.4%
Parental expectations for student achievement	22.0%	44.4%	26.8%	6.3%	0.5%
Parental support for student achievement	5.4%	35.8%	44.1%	9.8%	4.9%
Students' desire to do well in school	9.3%	42.4%	43.9%	2.4%	2.0%
Students' ability to reach school's academic goals	5.4%	44.4%	46.3%	3.9%	0.0%
Students' respect for classmates who excel academically	11.7%	45.4%	37.6%	3.9%	1.5%

Indicate the extent to which you agree or disagree with the following statements?	Agree a lot	Agree a little	Disagree a little	Disagree a lot
This school is located in a safe neighbourhood	74.3%	17.5%	5.8%	2.4%
I feel safe at this school	71.8%	21.4%	5.8%	1.0%
This school's security policies and practices are sufficient	43.2%	38.8%	15.0%	2.9%
The students behave in an orderly manner	32.5%	43.2%	17.5%	6.8%
The students are respectful of the teachers	35.0%	42.7%	18.4%	3.9%
The students respect school property	33.0%	44.2%	20.9%	1.9%
This school has clear rules about school conduct	48.1%	36.9%	14.1%	1.0%
School's rules are enforced in a fair/consistent manner	45.1%	34.0%	16.5%	4.4%

How often do you have the following types of interactions with other teachers?	Very often	Often	Sometimes	Never or rarely
Share what I have learned about my teaching experiences	27.5%	34.3%	33.8%	4.3%
Observe another classroom to learn more about teaching	1.9%	5.8%	18.4%	73.9%
Work together to improve how to teach a particular topic	29.0%	22.2%	38.2%	10.6%
Work with other teachers from other schools on the curriculum	2.9%	5.3%	24.6%	67.1%
Work with teachers from other grades to ensure continuity in learning	8.2%	15.0%	44.9%	31.9%

How often do you feel the following way about being a teacher?	Very often	Often	Sometimes	Never or rarely
I am content with my profession as a teacher	60.5%	31.2%	7.8%	0.5%
I find my work full of meaning and purpose	57.1%	35.1%	7.8%	0.0%
I am enthusiastic about my job	62.0%	32.7%	5.4%	0.0%
My work inspires me	58.0%	34.6%	6.3%	1.0%
I am proud of the work I do	74.6%	22.4%	2.4%	0.5%

How many students are in this class?	Frequency	Percentage
6-10	9	4.4%
11-15	44	21.5%
16-20	61	29.8%
21-25	63	30.7%
More than 25	28	13.7%

How many Year 5 students experience difficulties understanding spoken Maltese?	Frequency	Percentage
0	69	33.8%
1-5	102	50.0%
6-10	24	11.8%
11-15	5	2.5%
More than 15	4	1.9%

How many Year 5 students need complementary instruction in reading?	Frequency	Percentage
0	25	12.4%
1-5	135	67.2%
6-10	37	18.4%
More than 10	4	2.0%

How many Year 5 students receive complementary instruction in reading?	Frequency	Percentage
0	67	33.8%
1-5	119	60.1%
6-10	11	5.6%
More than 10	1	0.5%

How many students in the class are advanced readers?	Frequency	Percentage
0-5	91	44.8%
6-10	63	31.0%
11-15	25	12.3%
16-20	21	10.3%
More than 20	3	1.5%

When you have reading instruction and/or do reading activities, how often do you organize students?	Always	Often	Sometimes	Never
I teach reading as a whole-class activity	29.6%	47.8%	20.7%	2.0%
I create same-ability groups	6.9%	24.1%	49.7%	19.2%
I create mixed-ability groups	5.9%	29.2%	48.5%	16.3%
I use individualized instruction for reading	6.4%	27.1%	53.2%	13.3%
Students work independently on an assigned plan/goal	6.9%	31.5%	48.2%	13.3%

In your view, to what extent do the following limit how you teach this class?	Not at all	Some	A lot
Students lacking prerequisite knowledge or skills	10.9%	60.4%	28.7%
Students suffering from lack of basic nutrition	77.3%	18.2%	4.4%
Students suffering from not enough sleep	54.7%	37.4%	7.9%
Students absent from class	52.7%	31.0%	16.3%
Disruptive students	24.6%	46.8%	28.6%
Uninterested students	20.2%	50.7%	29.1%
Students with mental/emotional/psychological impairment	43.3%	48.8%	7.9%
Lack of support for using information technology	54.7%	40.4%	4.9%

In a typical week, how much time do you spend on Maltese language instruction and/or activities with the students?	Frequency	Percentage
0-100 minutes	11	5.5%
101-200 minutes	37	18.4%
201-300 minutes	110	54.7%
301-400 minutes	22	10.9%
401-500 minutes	3	1.5%
More than 500 minutes	18	9.0%

In a typical week about how much time do you spend on reading instruction and/or activities with the students?	Frequency	Percentage
0-100 minutes	120	59.7%
101-200 minutes	53	26.3%
201-300 minutes	13	6.5%
301-400 minutes	3	1.5%
401-500 minutes	4	2.0%
More than 500 minutes	8	4.0%

How often do you have the students read the following literary reading materials?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Short stories	18.2%	70.9%	9.4%	1.5%
Longer fiction books with chapters	7.4%	50.3%	31.5%	10.8%
Plays	1.0%	6.4%	48.8%	43.8%

How often do you have the students read the following informational reading materials?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Nonfiction subject area books or textbooks	21.7%	46.8%	26.1%	5.4%
Longer nonfiction books with chapters	4.4%	29.1%	38.4%	28.1%
Nonfiction articles (e.g. newspaper articles, brochures)	1.5%	26.6%	49.8%	22.2%

When you have reading instruction and/or do reading activities with students, how often do you do the following?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Read aloud to students	69.0%	29.1%	1.0%	1.0%
Ask students to read aloud	69.5%	28.6%	1.0%	1.0%
Ask students to read silently on their own	45.3%	46.3%	5.9%	2.5%
Teach students strategies for decoding sounds/words	25.6%	44.3%	19.2%	10.8%
Teach students new vocabulary systematically	38.9%	44.8%	12.8%	3.4%
Teach students how to summarize the main ideas	15.8%	53.7%	24.6%	5.9%
Teach or model skimming or scanning strategies	9.5%	44.3%	32.8%	13.4%

How often do you do the following in teaching reading to this class?	Every lesson	About half the lessons	Some lessons	Never
Provide reading materials that match students' interest	41.4%	32.0%	23.6%	3.0%
Provide materials that are appropriate for the reading levels of individual students	55.9%	20.8%	20.8%	2.5%
Link new content to students' prior knowledge	65.0%	24.6%	9.4%	1.0%
Encourage students to develop understandings of the text	80.8%	16.7%	2.0%	0.5%
Encourage student discussions of texts	76.8%	18.7%	3.9%	0.5%
Encourage students to challenge the opinion expressed in the text	43.8%	36.0%	16.3%	3.9%
Use multiple perspectives to enrich understanding	42.3%	33.3%	22.9%	1.5%
Give students time to read books of their own choosing	31.0%	27.1%	36.9%	4.9%
Give individualized feedback to each student	26.1%	29.6%	42.4%	2.0%

How often do you ask students to do the following things to help develop reading comprehension skills/strategies?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Locate information within the text	49.8%	46.8%	2.5%	1.0%
Identify the main ideas of what they have read	57.1%	39.9%	2.5%	0.5%
Explain or support their understanding of what they read	56.7%	39.4%	3.4%	0.5%
Compare what they have read with experiences they had	36.0%	52.2%	10.8%	1.0%
Compare what they have read with other things they read	30.2%	47.5%	18.3%	4.0%
Make predictions about what will happen next in the text they are reading	37.4%	50.2%	9.9%	2.5%
Make generalizations and draw inferences based on what they have read	24.1%	51.7%	17.7%	6.4%
Describe the style or structure of the text they have read	25.6%	43.8%	22.7%	7.9%
Determine the author's perspective or intention	18.2%	38.4%	29.6%	13.8%

After students have read something, how often do you ask them to do the following?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Write something about or in response to what they read	9.9%	49.3%	32.0%	8.9%
Answer oral questions to summarize what they have read	58.1%	38.9%	2.5%	0.5%
Talk with each other about what they have read	20.8%	46.0%	25.7%	7.4%
Take a written quiz/test about what they have read	3.4%	35.0%	30.5%	31.0%

Do these students have computers/tablets available to use for reading lesson?	Frequency	Percentage
Yes	100	49.3%
No	103	50.7%

If yes, what access do the students have to computers/tablets?	Yes	No
Each student has a computer	2.6%	97.4%
The class has computers that students can share	46.4%	53.6%
The school has computers that the class can use sometimes	12.3%	87.7%

How often do you do the following computer activities during reading lessons?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
Ask students to read digital texts	8.9%	10.7%	58.1%	22.3%
Teach students strategies for reading digital texts	3.6%	12.0%	46.9%	37.5%
Teach students to be critical when reading on the Internet	4.8%	10.9%	62.9%	21.4%
Ask students to look up information	7.3%	20.5%	70.4%	1.8%
Ask students to research a particular topic or problem	3.6%	17.5%	76.3%	2.7%
Ask students to write stories or other texts	6.3%	23.6%	58.6%	11.6%

Do you have a library or reading corner in your classroom?	Frequency	Percentage
Yes	193	95.1%
No	10	4.9%

If yes, about how many books are in your classroom library?	Frequency	Percentage
0-25	17	8.8%
36-50	66	34.2%
51-100	71	36.8%
More than 100	39	20.2%

About how many magazines with different titles are in your classroom library?	Frequency	Percentage
0	74	38.3%
1-2	42	21.8%
3-5	42	21.8%
More than 5	35	18.1%

How often do you give your students time to use the classroom library?	Frequency	Percentage
Every day or almost every day	109	56.5%
Once or twice a week	74	38.3%
Once or twice a month	7	3.6%
Never or almost never	3	1.6%

Can students borrow books from classroom library/reading corner to take home?	Frequency	Percentage
Yes	146	75.6%
No	47	24.4%

How often do you take/send students to a library other than the classroom library?	Frequency	Percentage
At least once or twice a year	121	59.6%
Once or twice a month	44	21.7%
A few times a year	10	4.9%
Never or almost never	28	13.8%

How often do you assign reading as part of homework (for any subject)?	Frequency	Percentage
I do not assign reading for homework	21	10.3%
Less than once a week	14	6.9%
1-2 times a week	65	32.0%
3-4 times a week	22	10.8%
Every day	81	39.9%

In general, how much time do you expect student to spend on homework involving reading (for any subject) each time you assign it?	Frequency	Percentage
15 minutes or less	16	8.8%
16-30 minutes	113	62.1%
31-60 minutes	42	23.1%
More than 60 minutes	11	6.0%

How often do you do the following with the reading homework assignments for this class?	Always or almost always	Sometimes	Never or almost never
Correct assignments and give feedback to students	59.3%	30.2%	10.4%
Discuss the homework in class	55.5%	37.9%	6.6%
Monitor whether or not the homework was completed	87.4%	11.5%	1.1%

Are the following resources available to you to work with students who have difficulty with reading?	Always	Sometimes	Never
A specialized professional	12.8%	47.8%	39.4%
A teacher-aide	28.1%	34.0%	37.9%
An adult/parent volunteer	1.0%	13.8%	85.2%

What do you usually do if a student begins to fall behind in reading?	Yes	No
I have the student work with a specialized professional	48.5%	51.5%
I wait to see if performance improves with maturation	64.7%	35.3%
I spend more time working on reading individually with that student	77.7%	22.3%
I ask the parent to help the student with reading	96.0%	4.0%
I recommend that the student be enrolled in a special reading programme	74.6%	25.4%

How much emphasis do you place on the following sources to monitor students' progress in reading?	Major emphasis	Some emphasis	Little or no emphasis
A specialized professional	84.7%	14.4%	1.0%
A teacher-aide	53.7%	40.3%	6.0%
An adult/parent volunteer	20.9%	45.8%	33.3%

## C. Student Questionnaire

What is your gender?	Frequency	Percentage
Female	1751	48.1%
Male	1887	51.9%

In which month were you born?	Frequency	Percentage
January	318	8.7%
February	276	7.6%
March	312	8.6%
April	309	8.5%
May	283	7.8%
June	305	8.4%
July	284	7.8%
August	307	8.4%
September	305	8.4%
October	349	9.6%
November	298	8.2%
December	292	8.0%

In which year were you born?	Frequency	Percentage
2005	90	2.5%
2006	3542	97.4%
2007	6	0.2%

How often do you speak Maltese at home?	Frequency	Percentage
I always speak Maltese at home	1767	48.9%
I almost always speak Maltese at home	728	20.2%
I sometimes speak Maltese and sometimes speak another language at home	922	25.5%
I never speak Maltese at home	194	5.4%

About how many books are there in your home (exclude school books)?	Frequency	Percentage
0-10 books	236	6.5%
11-25 books	811	22.5%
26-100 books	1415	39.2%
101-200 books	629	17.4%
More than 200 books	515	14.3%

Do you have any of these things at your home?	Yes	No
A computer or tablet	92.0%	8.0%
Study desk/table for your use	80.3%	19.7%
Your own room	84.5%	15.5%
Internet connection	93.5%	6.5%
Swimming pool	18.1%	81.9%
Summer residence	30.1%	69.9%
Yacht or sailing boat	19.7%	80.3%

About how many often are you absent from school?	Frequency	Percentage
Once a week	295	8.2%
Once every two weeks	105	2.9%
Once a month	370	10.3%
Never or almost never	2832	78.6%

How often do you use a computer/tablet in each of these places for schoolwork?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
At home	40.3%	23.8%	16.5%	19.3%
At school	12.8%	26.3%	10.8%	50.1%
Some other place	21.1%	18.9%	16.9%	43.1%

How often do you feel this way when you arrive at school?	Everyday	Almost every day	Sometimes	Never
I feel tired	17.4%	15.1%	44.5%	23.0%
I feel hungry	23.4%	16.7%	32.4%	27.5%

How often do you eat breakfast on schooldays?	Frequency	Percentage
Every day	2007	55.7%
Most days	526	14.6%
Sometimes	554	15.4%
Never or almost never	518	14.4%

What do you think about your school? Tell how much you agree with these statements	Agree a lot	Agree a little	Disagree a little	Disagree a lot
I like being in school	60.3%	27.1%	5.7%	6.8%
I feel safe when I am at school	60.3%	25.6%	7.6%	6.5%
I feel like I belong at this school	70.3%	18.9%	5.9%	4.9%
Teachers at my school are fair to me	75.6%	16.3%	4.2%	4.0%
I am proud to go to this school	73.6%	16.9%	4.8%	4.7%

During this year, how often have other students from your school done any of the following things to you?	Few times a week	1-2 times a month	Few times a year	Never
Made fun of me or called me names	16.1%	8.5%	26.7%	48.7%
Left me out of their games or activities	12.9%	12.2%	23.0%	51.9%
Spread lies about me	13.0%	11.7%	21.9%	53.4%
Stole something from me	7.0%	6.8%	17.1%	69.2%
Hit or hurt me (showing, hitting, kicking)	11.7%	9.9%	20.7%	57.8%
Made me do things I didn't want to do	8.5%	7.9%	19.3%	64.3%
Shared embarrassing information about me	8.7%	7.5%	18.5%	65.3%
Threatened me	8.3%	6.8%	15.4%	69.4%

What do you think about reading? Tell how much you agree with each of these statements	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I like talking about what I read with other people	49.2%	29.2%	9.9%	11.7%
I am happy if someone gives me a book as a present	63.0%	23.6%	6.9%	6.6%
I think reading is boring	9.6%	12.3%	13.0%	65.0%
I would like to have more time for reading	45.6%	28.6%	12.1%	13.7%
I enjoy reading	58.5%	25.1%	7.7%	8.7%
I learn a lot from reading	76.2%	15.0%	5.3%	3.5%
I like to read things that make me think	61.2%	24.2%	7.1%	7.4%
I like it when a book helps me imagine other worlds	74.0%	15.5%	5.1%	5.5%

How much do you agree with these statements about your reading lessons?	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I like what I read about in school	61.5%	28.4%	5.2%	4.9%
My teacher gives me interesting things to read	69.7%	21.0%	5.2%	4.1%
I know what my teacher expects me to do	70.5%	20.1%	5.8%	3.6%
My teacher is easy to understand	58.2%	30.5%	5.9%	5.3%
I am interested in what my teacher says	78.3%	15.7%	3.3%	2.7%
My teacher encourages me to say what I think about what I read	62.0%	25.2%	7.1%	5.8%
My teacher lets me show what I have learned	68.2%	20.5%	6.3%	5.0%
My teacher does a variety of things to help us learn	78.8%	14.1%	4.2%	2.9%
My teacher tells me how to do better when I make a mistake	84.2%	10.4%	2.9%	2.4%

In school, how often do these things happen?	Everyday	1-2 times a week	1-2 times a month	Never or rarely
I read silently on my own	66.4%	23.2%	5.5%	4.8%
I read things that I choose myself	53.7%	24.8%	8.7%	12.7%
My teacher asks us in class to talk what we have read	40.0%	25.6%	13.8%	20.6%

How often do you borrow books or e-books from your school or local library?	Frequency	Percentage
At least once a week	2102	58.8%
Once or twice a month	644	18.0%
A few times a year	421	11.8%
Never or almost never	406	11.4%

How much time do you spend reading outside school on a normal school day?	Frequency	Percentage
Less than 30 minutes	1221	34.2%
30 minutes up to 1 hour	1640	45.9%
1 hour to 2 hours	398	11.1%
More than 2 hours	312	8.7%

How often do you do these things outside of school?	Few times a week	1-2 times a month	Few times a year	Never
I read for fun	51.8%	26.7%	9.8%	11.7%
I read to find out about things I want to learn	42.2%	30.9%	16.0%	10.9%

How well do you read? Tell how much you agree with each of these statements	Agree a lot	Agree A little	Disagree a little	Disagree a lot
I usually do well in reading	64.6%	27.9%	4.0%	3.5%
Reading is easy for me	53.0%	32.5%	7.6%	6.8%
I have trouble reading stories with difficult words	35.5%	32.3%	12.1%	20.1%
Reading is harder for me than for many of my classmates	11.1%	17.9%	15.9%	55.1%
Reading is harder for me than any other subject	11.7%	12.2%	13.5%	62.5%
I am just not good at reading	9.1%	12.7%	13.9%	64.2%

How much time do you spend using a computer or tablet to do these activities for your schoolwork on a school day?	No time	30 minutes or less	More than 30 minutes
Finding and reading information	23.6%	55.0%	21.4%
Preparing reports and presentations	37.2%	35.0%	27.8%

How much time do you spend each day using a computer or tablet for any of these activities?	No time	1 - 30 minutes	31-60 minutes	1-2 hours	More than 2 hours
Playing games	7.6%	27.2%	27.7%	15.5%	22.0%
Watching videos	11.1%	26.7%	25.7%	16.9%	19.6%
Chatting	44.2%	25.8%	13.0%	7.7%	9.3%
Surfing the Internet	30.5%	34.2%	17.2%	7.5%	10.6%

## D. Parent Questionnaire

This survey was completed by:	Yes	No
Mother, stepmother, or female guardian	92.1%	7.9%
Father, stepfather, or male guardian	22.5%	77.5%
Other	1.9%	98.1%

Before primary schooling, how often did you or someone else in your home do the following activities with him or her?	Often	Sometimes	Never or almost never
Read books	55.3%	42.8%	1.9%
Tell stories	54.4%	42.4%	3.1%
Sing songs	58.5%	34.1%	7.4%
Play with alphabet toys	61.4%	33.9%	4.7%
Talk about things you had done	64.3%	33.9%	1.9%
Talk about what you had read	40.8%	53.4%	5.8%
Play word games	50.1%	43.9%	6.0%
Write letters or words	52.1%	40.9%	7.0%
Read aloud signs and labels	41.4%	45.3%	13.3%
Say counting rhymes or sing counting songs	46.4%	40.6%	13.0%
Play with number toys	55.9%	37.6%	6.5%
Count different things	60.2%	36.2%	3.6%
Play games involving shapes	69.2%	28.0%	2.8%
Play with building blocks or construction toys	66.4%	28.0%	5.6%
Play board or card games	47.1%	42.0%	11.0%
Write numbers	66.1%	30.5%	3.4%

Was your child born in Malta?	Frequency	Percentage
Yes	3238	96.3%
No	126	3.7%

How old was your child when he/she came to Malta?	Frequency	Percentage
Younger than 3 years	66	56.9%
3-5 years old	26	22.4%
6-7 years old	15	12.9%
8 years old or more	9	7.8%

What language did your child speak before he/she began school?	Frequency	Percentage
Maltese	2783	86.5%
English	1707	53.2%
Italian	71	2.2%
Arabic	61	1.9%
Other language	102	3.2%

Did your child attend the following before Year 1?	Frequency	Percentage
Early childhood educational development (program for children under 3 years)	1049	49.6%
Pre-primary education (program for children aged 3 years or older)	3152	96.7%

Approximately, how long was your child in these programs altogether?	Frequency	Percentage
Did not attend	128	4.0%
4 years or more	61	1.9%
3 years	220	6.8%
2 years	1918	59.2%
1 year	778	24.0%
Less than 1 year	135	4.2%

How old was your child when he/she began Year 1 of primary school?	Frequency	Percentage
5 years old or younger	2970	89.0%
6 years old	356	10.7%
7 years old	5	0.1%
8 years old or more	6	0.2%

How well could your child do the following when he/she began Year 1 of primary school?	Very well	Moderately well	Not very well	Not at all
Recognize most of the letters of the alphabet	56.9%	32.5%	8.4%	2.3%
Read some words	28.9%	39.8%	21.2%	10.0%
Read sentences	13.6%	33.8%	29.2%	23.5%
Read a story	9.1%	26.2%	30.8%	33.9%
Write letters of the alphabet	43.4%	38.3%	13.2%	5.1%
Write some words	23.5%	37.6%	22.4%	16.4%

Approximately, how often does your child do homework?	Frequency	Percentage
My child does not have homework to do	14	0.4%
Less than once a week	54	1.6%
1-2 times a week	45	1.4%
3-4 times a week	326	9.9%
Every day	2870	86.7%

How often do you or someone else in your home do the following things?	Every day	3-4 times weekly	1-2 times weekly	Once a week	Never or rarely
Ask if your child has done his/her homework	96.6%	1.8%	0.5%	0.2%	0.9%
Help your child with homework	47.3%	15.7%	14.7%	10.6%	11.7%
Review child's homework to make sure it is correct	54.3%	15.9%	10.1%	7.0%	12.7%

In a typical week, how much time do you usually spend reading for yourself at home, including books, magazines, newspapers and materials for work?	Frequency	Percentage
Less than one hour a week	752	22.5%
1-5 hours a week	1603	48.0%
6-10 hours a week	616	18.4%
More than 10 hours a week	368	11.0%

When you are at home, how often do you read for your own enjoyment?	Frequency	Percentage
Every day or almost every day	1353	40.4%
Once or twice a week	1127	33.7%
Once or twice a month	406	12.1%
Never or almost never	461	13.8%

What do you think of your child's school?	Agree a lot	Agree a little	Disagree a little	Disagree a lot
My child's school does a good job including me in my child's education	93.3%	5.8%	0.5%	0.4%
My child's school provides a safe environment	84.6%	13.0%	1.8%	0.5%
My child's school cares about my child's progress in school	88.2%	10.3%	1.2%	0.3%
My child's school does a good job informing me of his/her progress	92.9%	6.1%	0.8%	0.2%
My child's school promotes high academic standards	75.1%	21.8%	2.3%	0.8%
My child's school does a good job in helping him/her become better in reading	84.8%	12.0%	2.1%	1.0%

Please indicate how much you agree with the following statements about reading	Agree a lot	Agree a little	Disagree a little	Disagree a lot
I read only if I have to	13.2%	16.0%	18.1%	52.6%
I like talking about what I read with other people	45.2%	37.8%	9.8%	7.2%
I like to spend my spare time reading	41.6%	34.3%	14.3%	9.9%
I read only if I need information	16.5%	21.4%	19.3%	42.7%
Reading is an important activity in my home	71.7%	21.4%	5.2%	1.7%
I would like to have more time for reading	79.8%	14.0%	4.0%	2.1%
I enjoy reading	74.1%	18.3%	5.1%	2.5%
Reading is one of my favourite hobbies	50.5%	27.6%	12.3%	9.5%

About how many books are there in your home? (Exclude children's books)	Frequency	Percentage
0-10	279	8.3%
11-25	573	17.1%
26-100	1272	38.0%
101-200	543	16.2%
More than 200	676	20.2%

About how many children's books are there in your home? (Exclude school books)	Frequency	Percentage
0-10	130	3.9%
11-25	415	12.4%
26-50	1010	30.1%
51-100	1036	30.9%
More than 100	760	22.7%

How many digital information devices are there in your home?	Frequency	Percentage
None	26	0.8%
1-3 devices	913	27.3%
4-6 devices	1418	42.4%
7-10 devices	776	23.2%
More than 10 devices	208	6.2%

Do you have a device that you use for reading e-books?	Frequency	Percentage
Yes	2927	87.3%
No	426	12.7%

Do you have a device that your child can use for reading e-books?	Frequency	Percentage
Yes	2027	61.4%
No	1273	38.6%

How often does your child speak Maltese at home?	Frequency	Percentage
Always	2215	66.4%
Almost always	639	19.1%
Sometimes	401	12.0%
Never	83	2.5%

Highest level of education completed by the child's father/stepfather/guardian	Frequency	Percentage
Did not go to school	24	0.9%
Primary education	246	9.3%
Secondary education	1017	38.3%
At least 5 SEC subjects (1-7) or VET level 3 qualification or MATSEC certificate	379	14.3%
Obtained a VET National Diploma or equivalent level	122	4.6%
Undergraduate certificate or diploma or equivalent level	249	9.4%
Bachelor's or equivalent level	288	10.9%
Master's or equivalent level	195	7.4%
Doctorate or equivalent level	98	3.7%
Not applicable	34	1.3%

Highest level of education completed by the child's mother/stepmother/guardian	Frequency	Percentage
Did not go to school	14	0.5%
Primary education	108	4.1%
Secondary education	794	30.4%
At least 5 SEC subjects (1-7) or VET level 3 qualification or MATSEC certificate	589	22.6%
Obtained a VET National Diploma or equivalent level	156	6.0%
Undergraduate certificate or diploma or equivalent level	362	13.9%
Bachelor's or equivalent level	334	12.8%
Master's or equivalent level	148	5.7%
Doctorate or equivalent level	87	3.3%
Not applicable	16	0.6%

What kind of work do the child's father/stepfather/guardian do for their main job?	Frequency	Percentage
Has never worked for pay	30	1.1%
Small business owner	347	12.3%
Clerk	108	3.8%
Service or sales worker	270	9.6%
Skilled agricultural or fishery worker	40	1.4%
Craft or trade worker	444	15.8%
Plant or machine operator	198	7.0%
General labourers	191	6.8%
Corporate manager or senior official	429	15.2%
Professional	395	14.0%
Technician or associate professional	210	7.4%
Not applicable	157	5.6%

What kind of work do the child's mother/stepmother/guardian do for their main job?	Frequency	Percentage
Has never worked for pay	252	9.1%
Small business owner	168	6.0%
Clerk	506	18.2%
Service or sales worker	267	9.6%
Skilled agricultural or fishery worker	5	0.2%
Craft or trade worker	24	0.9%
Plant or machine operator	133	4.8%
General labourers	123	4.4%
Corporate manager or senior official	221	7.9%
Professional	606	21.8%
Technician or associate professional	112	4.0%
Not applicable	366	13.2%