

# Macao SAR

*The Education and Youth Development Bureau (DSEDJ)*

## Introduction

### Overview of Education System

The Education and Youth Development Bureau (*Direcção dos Serviços de Educação e de Desenvolvimento da Juventude*, hereinafter referred to as DSEDJ)<sup>a</sup> is the government department responsible for developing, directing, coordinating, administering, and evaluating tertiary and nontertiary education in Macao. It is also responsible for a range of societal organizations involving young people and for supporting youth associations and similar organizations. According to Article 122 of the Basic Law of Macao SAR, all educational institutions in the Macao SAR shall enjoy their autonomy and teaching and academic freedom and may continue to recruit staff and use teaching materials from outside the Macao SAR.<sup>1</sup>

Macao was the first region in Greater China to provide 15 years of free education. Since the 2007–2008 academic year, free education has been extended to cover the entire 15-year period of formal education: three years of Kindergarten, six years of primary, three years of junior secondary, and three years of senior secondary schooling.

Nontertiary education in Macao is classified into two types: formal and continuing. Formal education comprises Kindergartens, primary schooling, secondary schooling, and special education, whereas continuing education comprises family education, recurrent education, community education, vocational training, and other education activities. Vocational-technical education, which may be implemented as part of formal education or recurrent education, is only offered at the senior secondary school level. The Macao school system comprises public and private schools, with a free education network composed of public schools offering formal education and most subsidized private schools providing free education.

Private schools in Macao can be classified into two types: those following the local education system and those following a nonlocal education system. Nonprofit private schools that follow the local education system may apply for entry into the free education network. The government encourages schools to develop their own characteristics and style in terms of mission, curriculum development, and teaching mode and deliberately supports the development of a diverse school system in order to nurture more talent for society.

<sup>a</sup> As of February 1, 2021, the Education and Youth Affairs Bureau (DSEJ) has been reorganized and renamed the Education and Youth Development Bureau (DSEDJ), with its duties and functions changed from covering solely nontertiary education to covering both tertiary and nontertiary education.

According to DSEDJ statistics, there were 78 schools in Macao in the 2020–2021 academic year, of which 11 were public and the remaining 67 were private. Among the 67 private schools, 64 offered formal education, and three offered only recurrent education. Among the 75 schools that offered formal education (including 11 public schools and 64 private schools), 70 were in the free education network, while four offered education for a fee and one followed a nonlocal education system.

In the 2020–2021 academic year, 83,984 students received nontertiary education, with 82,876 of them receiving formal education. Of these students, 18,908 (22.5 percent) attended Kindergartens, 35,450 (42.2 percent) attended primary schools, 27,627 (32.9 percent) attended secondary schools, 768 (0.9 percent) received vocational and technical education, and 891 (1.1 percent) attended special schools (excluding integrated education). Some 1,108 students received recurrent education, including 71 (0.1 percent) primary school students, 1,037 (1.2 percent) secondary school students, and 324 (0.4 percent) vocational school students.

Macao has 10 tertiary educational institutions, of which four are public and six are private. In the 2020–2021 academic year, there were 2,653 teaching staff and 39,093 registered students in these institutions, where 342 programs—including doctorate, master’s, and bachelor’s degree programs; postgraduate certificates; and higher diploma (including associate degree) programs—are offered. In addition, overseas institutions were granted approval to offer 19 tertiary educational programs in Macao in 2020.

### **Use and Impact of PIRLS**

Macao participated in PIRLS 2016 and PIRLS 2021 and, on completion of the internationally organized report, the DSEDJ will analyze the PIRLS test results in depth, scrutinize students’ levels of reading literacy, and study the factors affecting students’ reading standards. The DSEDJ also will look for ways to improve the teaching of reading comprehension, taking note of the experiences of advanced regions to improve Macao’s education policies, planning, and classroom expertise. To enable reading assessment evidence to be used to improve teaching and the curriculum, the DSEDJ will continue to organize teacher education related to teaching literacy and reading to enhance the professional capacity of teachers and promote teaching effectiveness. Since October 2015, the DSEDJ has been conducting training workshops for teachers and seminars for principals and senior administrators to introduce the theoretical and assessment framework of PIRLS and to support schools as they hone students’ reading skills and strategies in relevant reading instruction practices in the classroom.

## The Language/Reading Curriculum in Primary Grades

Before Macao became a Special Administrative Region of the People’s Republic of China in 1999, the former government had published syllabuses to cover the social and education changes in the new era.

As the social expectation for education became higher due to the rapid development of Macao in the beginning of the 21st century, the DSEDJ formulated the Macao SAR Curriculum Reform and Development Plan in 2005, providing a blueprint for the establishment of a new curriculum framework and standards spanning the next 10 years.<sup>2</sup> The new curriculum was introduced in 2014 by the DSEDJ and was composed of the *Curriculum Framework for Formal Education of the Local Education System*, the *Requirements of Basic Academic Attainments of the Local Education System*, and the *Curriculum Guide*.

The education reforms set out to establish high-quality and diverse regional curricula, and comprehensively enhance the quality of formal education in Macao. The new curriculum framework and the Requirements of Basic Academic Attainments for primary education were implemented in Primary 1 to 3 in the 2016–2017 academic year and were implemented in Primary 4 to 6 in the 2017–2018 academic year.<sup>3</sup>

The rationale of the Primary Chinese Language Curriculum is as follows:<sup>b</sup>

1. To target all students and comprehensively develop their Chinese language literacy
2. To enable students to master the basic functions of the Chinese language
3. To focus on the links between the instrumental and humanist qualities
4. To focus on the diversity and effectiveness of ways of learning Chinese language

In the area of reading, the Requirements of Basic Academic Attainments targets that are particularly designed for Primary 4 to 6 include the following:

- Read outstanding Chinese and foreign literature
- Read extracurricular information in children’s and young adult literature
- Look up the meaning of words in reading materials on their own initiative and acquire the habit of reading extracurricular material
- Read aloud with emotions in correct and fluent Putonghua
- Read no fewer than 250 words silently in one minute; skim and scan to get general ideas; read intensively to memorize and retrieve details and understand text
- Use dictionaries, a thesaurus, and the internet proficiently to overcome reading difficulties

<sup>b</sup> For more information about the Requirements of Basic Academic Attainments in English Language and Portuguese, please refer to [https://www.dsedj.gov.mo/crdc/edu/BAA\\_primary/despsasc-19-2016-anexo\\_v.pdf](https://www.dsedj.gov.mo/crdc/edu/BAA_primary/despsasc-19-2016-anexo_v.pdf) and [https://www.dsedj.gov.mo/crdc/edu/BAA\\_primary/despsasc-19-2016-anexo\\_iii.pdf](https://www.dsedj.gov.mo/crdc/edu/BAA_primary/despsasc-19-2016-anexo_iii.pdf)

- Link the context and life experiences in order to understand vocabulary and sentences; identify the feelings and expressions conveyed in the vocabulary; infer meanings and the functions of the keywords in a text
- Understand the key content and themes in literature, experience the expressions and messages told, and learn writing skills; visualize images and appreciate the aesthetic use of language
- Evaluate the author’s writing skills through comprehending text
- Develop creative and critical thinking through reading and express one’s views
- Recognize the difference between written modern Chinese and classical Chinese
- Acquire proficiency in appreciating the features and writing style in basic text types, such as narrative, descriptive, informative, and argumentative text
- Use different reading strategies and ways of reading such as intensive reading, scanning and skimming, silent reading, and reading aloud according to different reading materials and their purposes
- Understand general ideas when reading classical Chinese
- Understand the general meaning when reading poetry
- Experience the aesthetics of tone, rhythmic meter, and rhythm when reading poetry aloud
- Understand different uses of commonly used punctuation marks when reading
- Acquire well-written vocabulary and paragraphs from extracurricular reading and daily life
- Recite 140 outstanding poems, including 70 classical poems
- Read extracurricular reading material of no fewer than 800,000 words in length<sup>4</sup>

## Professional Development Requirements and Programs

Building a professional teaching team is a key focus in the Ten Year Plan for Non-tertiary Education (2011–2020) promoted by the DSEDJ. The bureau aims to strengthen communications with teaching staff and strives to promote their professional development.

The *System Framework for Private School Teaching Staff of Non-tertiary Education* provides necessary and ample protection for teaching staff by clearly defining their rights and obligations, as well as regulating their remuneration, ranking and promotion system, and retirement protection. Moreover, it aims to improve the professionalism of teaching staff and foster their professional development. The framework was placed into effect on September 1, 2012, and was implemented in phases. According to the framework, to become a primary school teacher, one has to possess the following:

- A higher diploma in primary education or equivalent academic qualification or above that includes pedagogical training OR

- A higher diploma or equivalent academic qualification or above, which does not include pedagogical training but with the qualification of pedagogical training for primary education recognized by the DSEDJ<sup>5</sup>

There are six levels of teaching staff rank in nontertiary education private schools in Macao, and promotion is based on service time, work performance, evaluation, and professional development. In terms of professional development, teaching staff are explicitly required to reach a certain number of professional development hours. For example, to be promoted from Level 6 to Level 5, a teaching staff member is required to complete at least 90 hours of professional development activities during the three years of actual service at Level 6. Teaching staff should plan for their own sustained professional development based on the education needs of the school in which they work. Teaching staff should participate in various flexible in-service training such as seminars, forums, workshops, etc., provided by DSEDJ, other qualified professional organizations, and schools according to their career development needs and in line with the education and school development needs of the Macao SAR. The system for public school teachers in Macao also contains similar provisions for professional development.

To help teachers focus on pedagogical work, the Education Development Fund subsidizes schools to recruit additional staff including reading promoters, healthcare professionals, information technology education officers, personnel to help with extracurricular activities, and laboratory management staff. For more details on reading promoters, please refer to the Special Reading Initiatives section.

## Monitoring Student Progress in Reading

In addition to the general monitoring of child attainment and teacher effectiveness, the Macao SAR government has been encouraging schools to take part in international large-scale education surveys. Since 2003, the government has participated in the Programme for International Student Assessment (PISA) organized by the Organisation for Economic Co-operation and Development (OECD). PISA is a worldwide large-scale assessment held every three years to evaluate the reading, mathematics, and science literacy of 15-year-old students. Macao has participated in the testing for six cycles (2003, 2006, 2009, 2012, 2015, and 2018). In PISA 2018, Macao students' reading literacy performance was significantly above the mean level of the OECD countries.<sup>6,7</sup>

Macao also participated in the 2016 and 2021 cycles of the Progress in International Reading Literacy Study (PIRLS) organized by the International Association for the Evaluation of Educational Achievement (IEA). PIRLS outcomes provide participants with valuable information that may help the countries or regions monitor and evaluate the impact of their reading literacy education endeavors.

In addition to participating in international surveys, in-depth internal evaluation by schools and evaluation by external entities can also effectively monitor student learning progress. The

integrated evaluation of schools organized by the DSEDJ involves a panel of internal staff and external reviewers who review school documentation and observe classes to provide the schools with comments for improvement and development to ensure school education quality.

## Special Reading Initiatives

In addition to teaching students to speak and read the mother tongue as part of a basic literacy program, children attending public or private schools in Macao have been taught foreign languages such as English and Portuguese. Following Macao's reunification with the People's Republic of China, Kindergarten, primary, and secondary schooling for all children has been more formally organized; children have received a more standard education; and Chinese has been taught to most students. Since 2004, the Macao SAR government has launched initiatives to promote reading across the curriculum, to cultivate lifelong reading habits in students, and to generate interest among them.<sup>8</sup>

### The Education Development Fund

To support the development of nontertiary education more strategically, the Education Development Fund was established by the Macao SAR government in 2007. The fund aims to support and promote the carrying out of various developmental education plans and activities in the field of nontertiary education more effectively to ensure the stability and development of education resources investment. The School Development Plan is a subsidy component of the Education Development Fund aimed at supporting nonprofit private schools in Macao. Schools are encouraged to apply for resources to develop students' reading interests by organizing school-based language learning and reading activities. These activities aim to cultivate students' independent and critical thinking skills, as well as reading and speaking skills. They also provide opportunities for students to use Putonghua, Portuguese, and English inside and outside school through a range of diverse language activities.<sup>9</sup>

### The School-Based Language and Reading Activities Project

The DSEDJ has aimed to nurture students' reading habits through the School-Based Language and Reading Activities Project, which offers schools subsidies for promoting reading activities and installing relevant equipment to encourage students to read both for pleasure and information. To create a positive reading environment and stimulate students' creative thinking, schools are encouraged to strengthen the collaboration among reading promotion staff and schoolteachers to promote extracurricular reading activities. Schools also are supported to research different methods of reading promotion and share their successful experience with other schools.<sup>10</sup>

## Reading Promoters

To alleviate teachers' nonteaching workload, the Macao SAR government has introduced the Special Duty Personnel Subsidy Programme. Starting in the 2008–2009 academic year, the scheme has subsidized schools to recruit extra staff to boost standards in key areas of the curriculum, including that of reading promotion. Support staff members must possess a higher diploma or above in subjects relating to language and literature and library information access. To enrich the professional knowledge of reading promoters, the DSEDJ collaborates with higher education institutions to organize training courses every year. Through various training activities, reading promoters are equipped with higher professional competence in terms of reading theory, curriculum and assessment, pedagogies of reading inside and outside the classroom, good practice, and application of literacy prowess.<sup>11</sup> The job duties of reading promoters are as follows:

- In accordance with the school's teaching objectives, assist in the development of strategies for reading standards promotion in the school
- Design an appropriate reading promotion plan for the school and coordinate various reading activities
- Expose students to different styles of writing through organizing various types of activities, create an atmosphere of enjoyable reading in the school, and help establish students' reading confidence and good reading habits
- Cooperate with teachers of various subjects to cultivate students' reading, writing, understanding of concepts, analytic skills, and judgment, and enhance their reading literacy
- Cooperate with the DSEDJ in implementing the overall reading promotion plan and syllabus
- Help the school formulate a book purchase policy and coordinate the demand of books used by various subject teachers across the curriculum
- Assist in the management of the school library

## The Special Evaluation of the Reading of Secondary and Primary Students in Macao

The Special Evaluation of the Reading of Secondary and Primary Students in Macao was conducted by the University of Hong Kong. Commissioned by the DSEDJ in 2011, the evaluation program, by collecting information about reading promotion in primary and secondary schools in Macao, aimed to assess the effectiveness and challenges of the existing policies and made recommendations. This comprehensive review set out to evaluate the Chinese reading literacy and achievement of Primary 4 (fourth grade), Primary 6 (sixth grade), and Senior Secondary 3 (twelfth grade) students in Macao. For the evaluation of Primary 4 students' reading attainment, the study employed the PIRLS framework and instrumentation to ascertain objectively the achievement of Macao students compared to international literacy standards. The review provided a broad picture of reading literacy and served as a reference for the administration and schools when planning for measures that will promote reading.<sup>12,13</sup>

## Response to COVID-19 Pandemic

### Teaching and Learning During the COVID-19 Pandemic

The impacts of COVID-19 on Macao began in early 2020. The first case was confirmed in Macao on January 22. As the pandemic began to spread during the Lunar New Year holidays, all schools, including higher education institutions, primary and secondary schools, Kindergartens, and special schools, were closed. It was not until late April that higher education institutions started to open for face-to-face classes, while Grades 4 to 6 of primary education resumed classes on May 25. Primary education was suspended for more than four months. Fortunately, the pandemic in Macao was brought under control within five months. No classes were suspended in the 2020–2021 academic year. All students were able to return to school for face-to-face learning with the exception of some cross-boundary students whose commute to Macao was restricted occasionally by quarantine measures.

In the face of the threat of the pandemic, it is essential to make arrangements in advance for the suspension of classes. Therefore, the DSEDJ has introduced a document on Curriculum and Teaching Proposals in the Event of School Closure to nontertiary schools in Macao through the *School Operation Guide*, with protocol for schools to use in planning for the continuation of curriculum and teaching in such a scenario. Beginning in the 2020–2021 academic year, nontertiary schools in Macao have also developed a School-Based Plan for Home Learning During School Closure, allowing schools to implement home learning and achieve the goal of “suspending classes without suspending learning.”

During class suspension due to the pandemic, the DSEDJ, in collaboration with schools, implemented a measure to guide students on how to study at home to help them maintain good learning habits and enhance their interest in learning. Several key points about implementing home learning were summarized and recommendations were made to schools, including the following:

- Home learning arrangements should meet students’ ability to self-study and should avoid shifting the responsibility of teaching onto parents.
- The amount, length of time, and form of educational content and assignments should be reasonable, taking into consideration students’ learning conditions, supporting facilities at home, and the burden and stress on both teachers and students.
- Appropriate support should be given to help students who have difficulties in learning.
- The ways of submitting assignments should be reasonable and should take into account the home learning conditions of different students.
- Use a standardized platform for reducing parents’ burden of accommodating their children at different grade levels to home learning. The use of multiple methods and formative assessments for grading students’ performance in online class and home assignments is particularly important for encouraging students’ learning success.



- Under the health guidance of the official authority, a Friendly Measure was introduced. A certain number of school facilities operated during class suspension for the purpose of providing childcare services for parents to alleviate the pressure of dual-career families and other families in need.
- The prerequisites of home learning were not to increase pressure on teachers, students, and parents; not to catch up with the teaching schedule or arrange new courses; and not to arrange summative assessment activities such as tests and examinations. Home learning should focus on reviewing the knowledge that students have learned before.

During the implementation of the measure, the DSEDJ communicated closely with stakeholders such as educational institutions, school leaders, teachers, and parents to understand and monitor the application of the measure, as well as to provide schools with more specific guidelines so schools and teachers could further understand the significance of the measure and its recommendations. In addition, to help teachers, parents, and students access online teaching and learning resources more conveniently, the thematic webpage *Joining Hands in Fighting the Epidemic, Learning Easily at Home* was set up, providing learning platforms, tools, and resources from different regions for teachers so that it was convenient to select diverse, relaxing, and fun learning content for students.

The DSEDJ continued to enhance online teaching resources by establishing a Curriculum and Teaching Resources website. Quality teaching resources, videos, teaching materials, relevant education links, outstanding lesson plans from the Award Scheme on Instructional Design organized by the DSEDJ, and other learning tools were shared locally and to other regions through the website. These resources covered different learning areas and subjects at various key stages of education and were given to teaching staff to further support online teaching and learning.

### **Impact of the Pandemic on Student Learning**

Primary education classes were suspended in Macao for more than four months in the 2019–2020 academic year during the pandemic, reducing a normal academic year by a third. Students had to adapt to the unfamiliar home teaching and learning mode. To evaluate the impacts on learning, teaching, and assessment, the DSEDJ maintained close communication with the three major educational institutions, as well as with individual schools. The following situations were found to be the main concerns at the local level during the early stage of the COVID-19 pandemic:

1. During class suspension, cross-boundary students experienced inconvenience due to boundary restrictions. They needed to meet the requirements for regular COVID-19 nucleic acid testing or follow quarantine measures in both Macao and the neighboring city, Zhuhai.
2. Some schools were not capable of operating remote teaching and learning.
3. Impacts on students' mental and emotional state during school closures were significant, and the level of social connection between students was diminished.

4. There were significant impacts on the parent-child relationship due to the increased amounts of time staying at home.

A series of effective measures and policies were implemented to deal with these concerns.

### **Policy and Practice Changes**

To further support online teaching and learning, the DSEDJ launched a standardized platform called Smart Campus in the 2020–2021 academic year. The platform aimed to help nontertiary schools improve school management, home-school communication, and online teaching and learning. In addition to Smart Campus, some schools also used other platforms such as eClass, Google Classroom, Microsoft Teams, Zoom, or other live meeting software for online teaching. As of July 2021, the DSEDJ organized 76 online teaching and learning training workshops for approximately 1,500 school staff, covering webcasts and home-school communication.

In accordance with the requirements for daily commute between Zhuhai and Macao, students and school staff have to undergo nucleic acid testing and produce valid proof of a negative test result to cross the boundary. In the 2021–2022 academic year, the Macao SAR government continues to offer free nucleic acid testing to cross-boundary students. They can receive the testing at five designated hospitals in Zhuhai.

According to the guidelines of the Health Bureau, vaccines are available for all people ages 12 or older. The DSEDJ aims to strengthen publicity work and encourage parents, teaching staff, and eligible students to get vaccinated as soon as possible to build up herd immunity against COVID-19 so that people can stay healthy and resume normal life.

### **Impact of the Pandemic on PIRLS 2021**

Due to the closure of primary schools, the PIRLS 2021 field test, which was originally scheduled from March to mid-April 2020, was postponed to June 2020. A total of 1,164 students and their parents, language teachers, and school principals participated in the field test.

Most fourth grade students in primary education could return to school for face-to-face learning in the 2020–2021 academic year. Therefore, PIRLS 2021 data collection was conducted from mid-March to the end of May as scheduled. Some 5,093 fourth grade students and their parents, language teachers, and school principals took part in the 2021 assessment questionnaires. After verification, all research data was submitted to IEA Hamburg in early September.

## References

- <sup>1</sup> Imprensa Oficial. (2000). *Basic law of the Macao Special Administrative Region of the People's Republic of China*. Retrieved from <https://bo.io.gov.mo/bo/i/1999/leibasica/index.asp>
- <sup>2</sup> Government Information Bureau of the MSAR. (2006). Education. In Government Information Bureau of the MSAR (Ed.), *Macao Yearbook 2006* (pp. 319–339). Retrieved from [https://yearbook.gcs.gov.mo/uploads/yearbook\\_pdf/2006/myb2006ePA02CH08.pdf](https://yearbook.gcs.gov.mo/uploads/yearbook_pdf/2006/myb2006ePA02CH08.pdf)
- <sup>3</sup> Education and Youth Development Bureau. (2014). “Curriculum framework for formal education of local education system” and “The requirements of basic academic attainments of local education system.” Retrieved from [http://portal.dsedj.gov.mo/webdsejspace/internet/category/teach/Inter\\_main\\_page.jsp?id=21349](http://portal.dsedj.gov.mo/webdsejspace/internet/category/teach/Inter_main_page.jsp?id=21349)
- <sup>4</sup> Gabinete do Secretário para os Assuntos Sociais e Cultura. (2016). *Despacho do secretario para os assuntos sociais e cultura*. [Dispatch of the secretary for social affairs and culture No. 19/2016]. Retrieved from <http://images.io.gov.mo/bo/i/2016/09/despasc-19-2016.pdf>
- <sup>5</sup> Macao Special Administrative Region. (2012). *System framework for private school teaching staff of non-tertiary education*. Retrieved from [https://www.dsedj.gov.mo/~webdsej/www/edulaw/201203/lei201203\\_new-e.pdf](https://www.dsedj.gov.mo/~webdsej/www/edulaw/201203/lei201203_new-e.pdf)
- <sup>6</sup> Education and Youth Development Bureau. (2019). Publishing the test results of programme for international student assessment 2018. In Education and Youth Development Bureau (Ed.), *Annual report of Education and Youth Development Bureau 2019* (pp. 16–17). Macao: Education and Youth Development Bureau.
- <sup>7</sup> Government Information Bureau of the MSAR. (2019). *Macao-China: High-performing and fast-improving basic education system according to PISA 2018* [Press release]. Retrieved from <https://www.gov.mo/en/news/120558/>
- <sup>8</sup> Ho, E. H. W. (2003). *Policy address for the fiscal year 2004*. Retrieved from [https://www.gov.mo/en/wp-content/uploads/sites/2/2017/11/en2004\\_policy.pdf](https://www.gov.mo/en/wp-content/uploads/sites/2/2017/11/en2004_policy.pdf)
- <sup>9</sup> Education and Youth Development Bureau. (2017). Education development fund: Introduction. Retrieved from <http://www.dsedj.gov.mo/~webdsej/www/fde/intro-e.html>
- <sup>10</sup> Education and Youth Development Bureau. (2016). “School Development Plan” subsidy application: School-based language and reading activities. Retrieved from <https://theconnection.ece.org/MacauEdYouthDevBure/129/r>
- <sup>11</sup> Education and Youth Development Bureau. (2012). Committed to optimizing the school system. In Education and Youth Development Bureau (Ed.), *Annual report of Education and Youth Development Bureau 2012* (pp. 37–38). Retrieved from [http://202.175.82.54/dsej/magazine/dsej\\_book/2012/37e.pdf](http://202.175.82.54/dsej/magazine/dsej_book/2012/37e.pdf)
- <sup>12</sup> Education and Youth Development Bureau. (2012). Constantly improving curriculum and teaching; strengthening education quality assurance. In Education and Youth Development Bureau (Ed.), *Annual report of Education and Youth Development Bureau 2012* (pp. 41–44). Retrieved from [http://202.175.82.54/dsej/magazine/dsej\\_book/2012/41e.pdf](http://202.175.82.54/dsej/magazine/dsej_book/2012/41e.pdf)
- <sup>13</sup> Tse, S. K. (2012). *The special evaluation of the reading of secondary and primary students in Macao: Final report*. Retrieved from [https://portal.dsedj.gov.mo/webdsejspace/addon/upload/Upload\\_viewfile\\_page.jsp?id=31284&sid=&](https://portal.dsedj.gov.mo/webdsejspace/addon/upload/Upload_viewfile_page.jsp?id=31284&sid=&)