Effective practices for literacy teaching

Executive summary

ABOUT EENEE

EENEE is an advisory network of experts working on economics of education and training. The establishment of the network was initiated by the European Commission's Directorate-General for Education and Culture and is funded by the Erasmus+ Programme. PPMI is responsible for the coordination of the EENEE network. More information on EENEE and its deliverables can be found on the network's website www.eenee.eu. For any inquiries, please contact us at: eenee@ppmi.lt.

ABOUT NESET

NESET is an advisory network of experts working on the social dimension of education and training. The European Commission's Directorate-General for Education and Culture initiated the establishment of the network as the successor to NESSE (2007-2010), NESET (2011-2014) and NESET II (2015-2018). The Public Policy and Management Institute (PPMI) is responsible for the administration of the NESET network. For any inquiries please contact us at: info-neset@ppmi.lt.

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Context

This joint NESET-EENEE analytical report is based on a detailed literature review of the most recent European and international research on effective approaches to the teaching of literacy, highlighting practices that have been properly evaluated and are supported by evidence of impact. Interest in this subject comes in the light of PISA 2022 student results, which showed a decline in performance in basic reading skills across Europe. The authors of the report have drawn upon over 600 studies of effective teaching practices (both pedagogical and content-specific), support programmes and policies that promote literacy for all children across the EU. The report covers different levels of education and considers the perspective of gender as well as the needs of vulnerable and special needs groups. Lastly, the authors of the report identify key challenges that need to be overcome in order for these practices and policies to be implemented successfully.

Target audience for this report

The primary target audience for this report is policymakers: those who decide a nation's priorities in terms of focus, human resources and funding. However, the authors have also aimed to write a scientifically robust report that can be used directly by teachers, parents and all those who make a contribution to the development of children's literacy – and, indeed, by all those who work at any level to support literacy, from birth to higher education and in the workplace. The authors share the view of many economists that improved literacy levels can directly support a nation's economic growth, but they also believe that literacy can open the door to so much more: to the possibility of a fuller, healthier and richer life; a life in which imagination, empathy and creativity also make a contribution to a nation's well-being.

Areas of focus and key findings of the report

When governments express concern over low literacy levels in relation to PISA scores, they are usually referring to the number of students in their country who have failed to achieve a Level 2 in reading, which is defined by PISA as 'basic proficiency' or 'baseline proficiency'. However, as the PISA assessment guidelines indicate, what the authors of the present report term "basic proficiency" in literacy actually involves far more than non-experts might expect. The "basics" of reading were once considered to include recognising letters, reading words and understanding at the level of sentences. In fact, successful reading at Level 2 requires a number of different skills, including identifying main ideas, drawing inferences, bringing together information from different sources, reflecting on the author's purpose, and evaluating evidence. This report therefore includes the teaching of comprehension beyond letters and words, including drawing inferences and judging relevance and trustworthiness. It also includes dispositional characteristics such as motivation, metacognition and world knowledge, since these have a significant effect on reading proficiency. The report also reviews the teaching of digital literacy skills, and the important new skill of critically evaluating online information.

Every education system in Europe has the goal of improving literacy levels. The authors of this report suggest that this is generally for two reasons. First, to enhance human capital

in the country concerned, so that the workforce is better educated with the advantages that this can bring: greater health awareness, better parenting skills, and a better life. Second, so that the workforce will be better able to contribute a more advanced skill set to their employment. This, in turn, will contribute to a higher GDP. If this is the goal, the authors feel that in writing this report, it would be essential to pay some attention to the two areas of vocational education and training (VET) and adult learning, which research has shown also have a significant impact on GDP. The authors have therefore included some important research findings that relate to these areas.

Key findings

Chapter 1: What is the current state of literacy in Europe?

A serious learning loss in literacy has occurred for many students across Europe due to COVID-19. The effects of this have been disproportionally greater for students from poorer homes, even in countries with relatively good internet coverage. However, scores in international reading tests have been declining in Europe for more than a decade. Although girls continue to outperform boys in reading, in 2022 both groups contained a significantly greater proportion of students who failed to achieve "basic proficiency" in reading (PISA Level 2) than in previous rounds of PISA. Poorer student mental health and increased anxiety are also a concern internationally.

Chapter 2: How do children learn to read? The key issues

Literacy development involves many stakeholders: schools and teachers are vital, but parents, social workers and health professionals, as well as local and national governments, all make enormously important contributions. Literacy development starts from birth: children's experience of songs, nursery rhymes, interactive play and stories between age 0 and 3 predict reading performance at age 9. Family literacy programmes that promote home literacy activities are very valuable, especially for migrant and less advantaged communities. Prior to starting school, early childhood education and care (ECEC) is vital to enhance equal opportunities for disadvantaged communities. When school begins, teaching children to decode and recognise words is important, but so is print-related play, reading storybooks and talking about books. As children get older, free reading (including re-reading), in classrooms that have developed a culture of reading, helps to develop fluency and comprehension.

Chapter 3: Why do some children fail to learn to read?

Some children learn to read at home, but most learn at school. As Chapter 2 demonstrates, literacy development is complex and multifaceted. However, it is clear that COVID-19-related school closures of between 8 and 27 weeks in education systems across Europe had a very significant negative effect on the literacy development of many children. One European study reported that the average student in grades 1-4 lost five weeks of reading progress, while students in schools in the poorest areas showed no learning gain at all during the lockdown period. However, many catch-up programmes are now in place that have shown good outcomes in developing vocabulary, word recognition, comprehension, motivation and self-esteem, all of which are important.

Chapter 4: What do education systems in the EU need to do to improve literacy at ECEC and primary levels?

Research into literacy development prioritises good health care from birth, together with support for parents in developing children's language and familiarity with books, paying special attention to the needs of migrant and vulnerable communities. European Commission reports recommend quality ECEC in every EU Member State, with publicly funded provision for all. They also recommend that special attention be given to accessibility, staff training, a coherent curriculum, and careful monitoring and evaluation of ECEC centres. In primary education, the teaching of reading in schools should be personalised, with reading and reading achievement being celebrated. The teaching of decoding needs to be balanced with the enjoyment of stories and writing, and developing comprehension should be linked with developing talk and vocabulary. The development of children's digital skills, including critical digital literacy, also begins in primary school. Support for struggling readers is also vital, and every teacher should have some knowledge of how to deliver this.

Chapter 5: What should education systems in the EU do to improve literacy, including digital literacy, at secondary level and beyond?

At secondary level, knowledge and information are no longer primarily delivered by the teacher. Instead, they come from text, from books, from the internet and from multimedia – and teachers have an important role to play in helping students to access and navigate this world of data. Reading comprehension is one of the brain's most challenging and demanding achievements, and every teacher in secondary education needs to understand how they can help their students to achieve this, while recognising that every subject area has its own vocabulary, text structures and necessary background knowledge. Enquiry-based learning, reciprocal teaching, small-group learning and many other practices can help students (and their teachers) to achieve more engaged and effective learning from text. Supporting underachieving readers at secondary level is also very important. Fortunately, many research-tested classroom strategies and computer programs are now available to help secondary students – many of which can be linked to discipline-specific content.

Chapter 6: The cost-effectiveness of literacy development – what are the issues?

There are two main approaches to determine the cost-effectiveness of literacy programmes. The first is direct: namely, to relate a literacy intervention to some kind of outcome measure such as the gain score in a reading test. For example, the HeadStart pre-school programme in the US was linked to students' short-term and long-term gains in cognition, socio-emotional development and school progress, with an estimated benefit of USD 7-12 per USD 1 invested. The second approach to determining cost-effectiveness is indirect: a large-scale statistical exercise calculating the relationship between factors such as a country's PISA reading scores and its national GDP. Such a calculation could, for example, determine that if every EU country increased its PISA reading score by 25 points, this would add EUR 71 trillion to the EU's GDP. The first approach has a strong claim to demonstrating causality, but is on a smaller scale than the second, which is dramatic and compelling, but is built on a greater number of statistical assumptions. Increasing funding for literacy development in the 0-6 age range is the clearest cost-effective imperative.

While remedial reading programmes, delivered at a later stage, produce mixed results, Reading Recovery has been judged to work well, and is regarded as cost effective by some evaluations.

Recommendations

In Chapter 7, the authors of this report make 20 research-informed recommendations. These are intended to address the fact that the education systems of every European country will be dealing with the outcomes of COVID-19 school closures and social lockdowns for the next two decades, because there are children not yet in school whose life chances may have been diminished by these events. Given this context, it is even more vital for governments to recognise that their education systems can make a massive contribution to reducing the negative impacts that will continue to affect their schools, by implementing these recommendations – every one of which comes from the research-informed analyses in Chapters 1-6. A condensed version of the 20 recommendations is provided below:

> **Policy recommendations at system level**

Recommendation 1: **Governments need to be more prepared for change and shock.** Given the challenges to education systems of a volatile, uncertain, complex and ambiguous digital world, governments should stand ready to adapt their policies and practices to sudden and often drastic changes.

Recommendation 2: **Digital resources must be available for all.** Governments should support educational institutions by upgrading their digital systems to better support both schools and their students, in school and at home, paying particular attention to schools and their students in economically and socially disadvantaged areas.

Recommendation 3: **Post-COVID-19 catch-up programmes must be continued for two decades.** Following the COVID-19 pandemic, many schools have implemented laudable policies to compensate for learning loss among disadvantaged students. Such programmes (including summer schools and tutoring programmes) should be continued and extended up to the end of formal schooling, to help reduce inequities that might otherwise impact both higher education opportunities and lifetime human capital.

Recommendation 4: **Personalised learning must be extended.** The personalisation of learning is increasing, and digital technologies support this augmentation of the pedagogical repertoire. Personalisation should be welcomed, planned for, and extended, since it can lead to increased student engagement, more efficient teaching, more rapid feedback for students, and enhanced learning outcomes – not least in the field of literacy development.

Recommendation 5: If the appropriate systems are in place, school closures need not be too damaging. The schools that responded well to the challenges of school closure were those that put in place measures that mitigated many of the negative effects of closure and the unanticipated switch to remote learning. Schools – and school systems –

should therefore learn from these understandings and adapt them within their own contexts:

1. It is important for schools and school systems to establish networks for teachers to share good pedagogical practices in online learning; these can bring significant efficiency savings as well as improved teaching
2. Digital learning appears to work better with small rather than large groups
3. All students learn less if they do not receive rapid feedback on their learning, either from the teacher, from one of their peers, or from a computer
4. All teachers require help in setting up remote learning opportunities – in producing and sharing content, encouraging motivation, and enhancing students' self-efficacy

Recommendation 6: Literacy development is a multi-agency concern. To promote literacy in the early years, governments should take account of the following factors when determining policy and funding to support literacy development:

- Good health care
- Children's early language development (in both their mother tongue and the language of instruction)
- The role of families in building a sustainable basis for the lifelong literacy skills of children and adolescents, but also of their parents
- High-quality early childhood education and care (ECEC), especially with regard to children's proficiency in the language of instruction.
- High-quality teaching, within a system that supports teachers and their continuing professional development
- Early identification of literacy difficulties and tailored support for students
- Multi-literacy and digital literacy competences
- Motivation and engagement

Recommendation 7: Education policies for children aged 0-6 are vital for literacy development. Governments should prioritise support for (i) family literacy initiatives that will impact children's language and literacy development during the pre-school years, and (ii) early childhood education and care. As our cost analysis in Chapter 6 demonstrates, these two areas of child development together form an enormously powerful engine not only for enhancing literacy outcomes; they are also an effective tool for reducing social inequality in later years, as the life chances of children in disadvantaged areas can be set on a different trajectory in these crucial years.

> **Specific recommendations for early years and primary schooling: developing literacy in primary school requires a balanced approach – stories and talk, as well as decoding and skills**

Recommendation 8: Stories and talk are vital to pre-school literacy development. To enhance pre-school language development, it is important for both parents and teachers to be aware that sharing stories with children, and talking with the child about those stories, has been found to have significant benefits. While some research now offers guidance for parents on how to manage children's access to digital media, the WHO argues

that a child's access to all forms of screen time should be managed carefully (World Health Organisation 2019; and more recently the OECD, 2023):

- For infants below the age of 3: there should be storytelling and reading with a caregiver every day, but no exposure to screen time at all (no television, no phone or tablet, no laptop)
- For children aged 3 or 4: engaging in reading and storytelling with a caregiver every day is encouraged, but screen time should be no more than 60 minutes in one day

Recommendation 9: **Stories, songs and conversation are just as important as phonics.** It is important for every teacher to understand how enormously valuable it is for children who are learning to read to sing songs, to hear stories and poems read aloud, and to participate in conversations about what they have heard. Crucially, stories introduce children to other worlds, to other children, and to other cultures, and stories invite them to find a place for themselves in those worlds. Literature develops the imagination, and as the events in a story unfold, the cognitive side of reading is also being developed.

Recommendation 10: **Word recognition and comprehension should be taught together**. While literacy instruction in the early years focuses more on code-based skills, it is nevertheless important not to delay teaching a wide range of comprehension strategies with all children, from the first day of school. Research has shown that word recognition and comprehension need to be taught together. In fact, it is the weakest readers who benefit most from explicit instruction in reading comprehension.

Recommendation 11: **It is important to develop a culture of reading in a school.** Once initial literacy has been established, teachers and schools can make a significant difference to continuing development by implementing a variety of practices that have been shown in research to impact literacy standards at the level of individuals and schools. Schools should be made aware of these practices, and encouraged to put into practice those that are appropriate to their context, in order to develop a culture of reading in every school. Research has shown that reading books, rather than gaming or talking with friends on the internet, can be more beneficial than online activity in developing both vocabulary and comprehension.

Recommendation 12: **Reading needs to be developed in secondary school as well as in primary school.** Not only is it clear that comprehension should be taught from the outset, but it should be taught and developed in both primary and secondary school. The authors recommend that all teachers be given support, if needed, to extend their repertoire of pedagogies in this important area.

Recommendation 13: **Developing critical digital literacy is vital.** It is important for teachers to develop their students' digital literacy skills. In harmony with this recommendation, the authors argue that there is an urgent need for teachers to help students to develop not just digital literacy, but *critical* digital literacy – an awareness that the internet can be a dangerous place, containing intentionally misleading information.

Specific recommendations for post-primary education: reading development continues during secondary education – and beyond

Recommendation 14: **Secondary schools need support from specialists who can help develop reading across the curriculum.** It is important that content-area teachers have the knowledge and expertise to teach language and literacy practices that relate to their discipline. Specialist, in-service teachers are therefore needed, and disciplinary pedagogy and language should be included in initial teacher education (ITE) and in the continuing professional development of all teachers.

Recommendation 15: **Literacy specialists are needed in vocational education, too.** In VET, it is necessary to develop the literacy skills that are needed in the practical tasks of the work, on the one hand; and to support learners' personal development and active citizenship, on the other. In VET, every teacher is a literacy teacher, but vocational teachers need and deserve training that provides them with an awareness of and the skills to teach vocational language and literacy.

Recommendation 16: **Adult literacy must be a government responsibility, and its benefits for society are significant.** Adult literacy has consequences not only for the lives of adults themselves but also for their families and the larger communities they are part of, as well as for the whole of society and for a nation's GDP. In the constantly changing landscape of literacy, European countries need to:

- identify those adults most in need of updating and developing their literacy skills;
- introduce outreach activities to attract and motivate those adults who most need to develop their skills to attend adult literacy courses and other adult education and training (AET) provisions;
- offer low-skilled adults opportunities to update their literacy skills and acquire a minimum level of literacy;
- offer high-quality literacy provision for adults that meets learners' individual and varied needs and life situations, is provided by well-trained teachers, connects with real-life and everyday experiences, is adequate in length and intensity, and gathers longitudinal evidence on the long-term effectiveness of training; and
- develop the selection and training of adult literacy teachers as part of adult literacy policy.

Recommendation 17: **The continuation of support for struggling readers who are already in secondary education needs to be well funded, and linked to whole-school policies.** Research into the best ways to help struggling readers suggests that it is important for teachers to have rich data on each student's literacy capabilities. This makes it clear which students require help, and enables progress to be monitored and celebrated. Struggling readers need help in developing not just reading, but also engagement, motivation, oral language and writing. Research shows that structured talk and small-group work can have a significant impact on the development of students' reading and comprehension.

Recommendation 18: **Paired reading and peer-tutoring can be very valuable.** It is important for struggling readers to feel supported, and also that they have reading

experiences that are enjoyable and which they look forward to. Two ways in which this can happen are through paired reading and peer-tutoring. The authors recommend that schools should consider using one or both of these approaches with struggling readers.

Recommendation 19: **Continuing, system-wide support for multilingual learners is essential, and should begin early.** Research has shown that support to help migrants and multilingual students to become more fluent readers should begin as early as possible in a child's schooling. This is an area of concern in almost every school in Europe. The authors recommend that schools and teachers consider putting measures into place to enable this to happen. When such support is provided, the whole culture of the school is enriched.

> **Specific recommendation for teachers' professional development: properly funded teacher development, pre-service and in-service, will be essential to ensure a workforce is in place that really understands what it means for every teacher, from early years to university level, to be a teacher of reading**

Recommendation 20: **Research-informed pre-service teacher education and in-service teacher education are both vital for developing literacy.** The authors recommend that policymakers give careful thought to the ways in which teachers, teaching assistants, head teachers and local network administrators will be guided and supported through the changes that will be demanded of them over the coming decade, and that they put in place stable and enduring support networks, both face-to-face and digital, to embed and make permanent the professional development frameworks that will be needed.

The need for a Europe-wide perspective

One great challenge for policymakers is that across Europe, governments face many competing demands – among which literacy is important, but is not necessarily in the foreground. The 2022 Council Recommendation on Pathways to School Success highlights the need to ensure that all learners have the chance to fulfil their potential, irrespective of personal circumstances, family, cultural and socio-economic backgrounds. The Recommendation also calls for the integrated and comprehensive plans necessary to bring about coherent policy developments across the education and social sectors.

While literacy is one among many competing demands, the authors of this report nevertheless hope that where policymakers do choose to foreground literacy development, the research-informed and practical approaches advocated in this report will be found useful, and will make a contribution to enhancing both human development at individual level, and economic growth at national level.

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