



MEETING OF DIRECTORS-GENERAL FOR SCHOOLS, 12-13 MARCH 2014

PEER REVIEW - THEMATIC FICHE ON TACKLING LOW ACHIEVEMENT IN BASIC SKILLS

A. Policy context

In modern, technology-driven times, Europe's economic and social development relies on highly skilled populations. Living a fulfilling and productive life is also increasingly challenging for individuals without a minimum level of skills in numeracy and literacy.

Too often, literacy is assumed only being able to read. However, it means much more! Literacy encompasses the ability to read, write, interpret and critically evaluate multimodal texts in order to fully function in a modern society. The impact of new technologies, both challenges and opportunities of new media are aspects that have been taken into account in several Comenius projects. In this workshop we will therefore focus on other aspects of Literacy including ICT, the impact of digitisation on literacy skills and how to improve the motivation for reading.

A certain level of knowledge of mathematics, science and technology is essential for successful participation in all aspects of modern society. Critical questioning, central to the scientific method, is necessary for democratic forms of governance. Therefore, the current situation, where more than 20% of young Europeans are not reaching a minimum level of skills in reading, mathematics and science, is alarming and untenable.

The May 2009 Council conclusions on a strategic framework for cooperation in education and training ("ET2020")¹ restated the importance of literacy and numeracy as fundamental elements of key competences. The new benchmark adopted by the Council under the framework aims at an adequate level of basic skills in reading, mathematics and science, by calling for the share of low achievers to be reduced to below 15% by 2020.

Reducing the number of low achievement in basic skills has been on the education policy agenda since at least the launch of the Programme for International Student Assessment (PISA) survey back in 2000. What works and what does not work? Which policies should be abandoned and which should be promoted?

B. Main challenges in tackling low achievement.

The following points are based on the findings of the High Level Group on literacy examining the most effective and efficient ways of supporting reading literacy and the OMC Thematic Working Group on Maths, Science and Technology which worked between 2010 and 2013.

1. In contrast to widely available literacy programs, policies tackling low achievement in maths and science (LAMS) barely exist.

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:119:0002:0010:en:PDF>

2. It is possible for the member states to reduce the number of low achievers to fewer than 10%.
3. Science should be part of the basic skills, however this is not recognized in all jurisdictions.
4. Disadvantaged socio-economic background is the most significant factor associated with low achievement.
5. There is an overlap between low achieving students and students with special educational needs, socio-economic disadvantage, early-school leavers, and migrant populations.
6. There is an overlap between low achievement in literacy, mathematics and science.
7. Unlike reading literacy, gender does not appear to play a role in LAMS.
8. There is poor research evidence about what is most effective in tackling low achievement in basic skills.

3. Main recommendations for tackling low achievement.

A **literate environment** requires books and other reading materials to be easily available at home, in schools, libraries and beyond, on paper and online. This includes, for instance, libraries in unconventional settings such as shopping centres or train stations. Parents need help to improve their skills and confidence to engage their children in language development and reading for pleasure.

Raising the **quality of teaching** begins with the introduction of high qualification requirements for all teachers. Initial and continuous professional development of all teachers should cover literacy and digital aspects explicitly. Teacher education should also include a wide range of literacy-specific teaching strategies, assessment techniques, and methods for diagnosing problems in reading and writing. All teachers should be teachers of literacy and reading literacy should be integrated across the curriculum.

As a new, rapidly evolving field, **digital literacy** is one where there are far more questions than answers. Unlike print literacy, there are no theoretically informed, evidence-based ideas about the best ways to teach digital literacy yet. In many ways, digital literacies such as online reading are more complicated than print reading, and call for a broader range of skills. Differences between print and digital reading are more significant when considering macro-aspects of reading, such as navigation, finding relevant texts of interest, synthesising information, and critically evaluating texts for quality and credibility.

To achieve fairer and more inclusive participation in literacy learning there is a need to close the following gaps:

- the **socio-economic gap**; poor and disadvantaged children generally have lower literacy levels. More equitable education systems, ensuring access to affordable, good quality early childhood education and care (ECEC), avoiding early differentiation of students by ability in different educational tracks, avoiding class repetition, and providing all the necessary support and material for children's needs in education (for example, by funding books, clothes and lunches), can help narrow this gap.
- the **migrant gap**; many, but not all migrants have lower literacy levels in the language of the country they have moved to. To address this, newly-arrived migrants, adults and

children alike, must have access to language and literacy screening and flexible language learning opportunities, tailored to individual needs.

- the **gender gap**; literacy levels are lower and decreasing for boys, in adolescence. The gender gap is primarily a motivation and engagement gap. Addressing it requires more appealing materials and opening up to digital resources to make reading and writing relevant to boys' preferences, more male role-models engaging in literacy, and attracting more men into the educational profession.
- the **digital gap**; not only do the poor and disadvantaged access the Internet less, but when they do, it is less for learning and more for entertainment. Moreover, for many children there is a gap between literacy practice in school, where they use print-based media, and digital reading and writing at home.

Here is a list of some policy recommendations:

1. Show a strong **political commitment** on lowering the number of low achievers to a target under 10% with intermediate milestones.
2. Include **science in the definition of basic skills**.
3. Emphasise teaching **science appreciation** and **science in context** designed to underpin the relevance of science to the students' everyday experiences
4. **Integrate the teaching of MST** with other subjects in a multidisciplinary and interdisciplinary manner. **Mainstream** numeracy and science across the curriculum.
5. Set explicit **curricular standards** across all subjects, especially for science.
6. Promote the use of formative and diagnostic **assessment and feedback** designed to improve student understanding and attainment
7. Ensure that the issue of **low achievement is taken into account at all levels** of the educational system and in all policy decisions.
8. Develop a **system for identifying and sharing effective policies and best practice** that can be replicated, adapted and used by policy-makers, teachers, schools, local authorities and external partners.
9. Promote policies that are **long-term, expertise-based, and apolitical** as well as policies that are **aligned and re-enforce each other**.
10. Create the conditions for **early diagnosis of low achievement, monitoring, and intervention** at school level.
11. Provide **effective integrated support** which is delivered **within regular school hours**.
12. Focus on students from **low socio-economic and/or migrant** backgrounds.
13. Create conditions for **personalised teaching and learning** in order to support each student (including **student-centred, ICT-enabled, projects-driven** learning)
14. Develop **LAMS-focused expertise** in providing support both for subject teachers and those specialised in teaching students with SEN or in need of learning support
15. **Motivate teachers** to gain expertise in combating LAMS by offering career paths with enhanced prestige, pay scales, in recognition of their efforts in combating LAMS.

16. Develop instructional tools for **emotional/behavioural** management by emphasising social-emotional literacy (*not* self-esteem), self-restraint, persistence and self-awareness aiming at promoting the general well-being and motivation of students.
17. Increase **parental involvement** by enhancing support and information for parents and facilitating greater involvement by parents in supporting the work of the school.
18. Develop a **holistic approach to school education** e.g. greater liaison between schools and the wider community, with the participation of families, public-health, commercial and social services, businesses, civic players, universities, public-private partnerships, etc., focusing on equity and cooperation, *not* on choice and competition.
19. Develop interventions at the key transition points in the system, particularly the transition **from primary to secondary**.
20. **Improve research** into the characteristics of MST education that can reduce the number of students at risk of low achievement.

3. Question for discussions

Is your country encountering one of the challenges listed above?

How is your country addressing them?

Do you have suggestions for policy interventions that might work?

Which pedagogical innovations could contribute to diminishing the share of low achievers?

How will increasing digitisation affect the demand for literacy skills in the future?

Which kinds of literacy skills are more needed in a digital society and which skills are likely to lose in importance?

Should the use of ICT be encouraged in the learning of reading and writing?

How can teachers be motivated to use more ICT in classroom and which benefits can this bring on students' achievement and motivation in reading and writing literacy?

How can introduction of digital resources be harnessed as an occasion to change pedagogical practice, to promote more inclusive approaches and to differentiate teaching?

How can partnerships with societal players (businesses, higher education institutions, trade unions, social and commercial services, NGOs and charities) support school educational efforts to tackle low achievement?