CIDREE
Consortium of Institutions for Development and Research in Education in Europe

SUCCESSFUL APPROACHES TO RAISING ATTAINMENT AND TACKLING INEQUITY

CIDREE YEARBOOK 2016

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PRESIDENT'S FOREWORD

The CIDREE Yearbook 2016 looks specifically at the critical area of ensuring that our education systems, schools, teachers and strategic partners work together to raise the attainment of our learners. The number of articles in the Yearbook indicates strongly that this topic is a central priority to countries across Europe. The range of innovative approaches to raising attainment highlighted in the articles demonstrates the need for new, creative thinking on national and local policies, learning and teaching. The approaches also stress the important involvement of key partners in improving learners' outcomes through dealing with many underlying issues.

The Yearbook's attention to tackling inequity adds a particular dimension to the issue of raising attainment. Raising attainment for all is vital, of course, but so too is looking closely at those groups of learners who have the potential to succeed, but who face significant challenges and may not achieve well. Attainment gaps like this which develop in this way need to be identified and closed. So our definition of equity in education within Yearbook 2016 is to ensure that learners' individual needs are met by identifying and addressing any barriers to learning through early, targeted interventions. It acknowledges that certain individuals and groups of learners need more support, carefully organised, both in and often outwith the classroom. This goes beyond ensuring equality of provision – where children and young people may have equal opportunities to access good provision, but where that provision may not ensure the most appropriate type, level and quantity of support for all learners. How do different education systems recognise and address these issues? Which policies and strategies, at national and at local levels, support schools and practitioners effectively? Which specific interventions work? How and why?

I am in no doubt that the rich range of articles in Yearbook 2016 sets out successful approaches that help to answer such questions. The authors demonstrate clearly the challenges, contexts and priorities within which their countries

have developed approaches to raising attainment and 'closing the equity gap'. Children and young people living in poverty, or with specific learning difficulties, or with social, emotional and health and wellbeing needs, perhaps facing gender issues, or a combination of these factors, all face challenges which impact on their life chances. Solutions rightly point towards the quality of leadership at every level of the education system, together with innovative and supportive learning, teaching and assessment. Engagement with families and communities, the importance of family learning and wider public services each play critical roles, individually and together. How best can these drivers of change be brought together, in different ways to match our learners' needs, raise attainment for all and close the equity gap?

I am delighted that in recent years our CIDREE Yearbooks have established a natural flow and strong connections. This year builds very well on our focus last year on Improving Literacy Skills across Learning, with literacy being a key element in helping to raise attainment. Together with CIDREE's emphasis on Balancing Curriculum Regulation and Freedom in 2013, and Successful Implementation of Education Policy in 2014, policymakers, national agencies, schools and all leaders have a suite of advice and good practice on which to draw. These will assist directly in improving our education systems, classroom experiences, and the successful achievements, high attainment and positive futures of all our children and young people.

I would like to express the thanks of all CIDREE members to Stephen Edgar and colleagues at Education Scotland for their skills in leading the development and editing of Yearbook 2016. Our thanks also go to the authors of this year's articles that provide a broad, in-depth and stimulating look across the challenges and successes in different European countries.

ALAN ARMSTRONG
CIDREE PRESIDENT 2014-16
STRATEGIC DIRECTOR, EDUCATION SCOTLAND

EDITORIAL INTRODUCTION

STEPHEN EDGAR

THE THEME OF THE CIDREE YEARBOOK 2016

The theme of the CIDREE Yearbook 2016 is raising attainment and reducing inequity in education. Concerns about equity issues and attainment in education are not new. In fact, they have been the focus of longstanding attention in many countries. Despite this, challenges remain in ensuring that education systems truly meet the needs of all children and young people. These challenges are likely to stem from the complexity of the issues involved, and also possibly from the diverse ways in which equity can be conceptualised. Equity is a specific focus within Scotland just now. This is particularly due to the development over the past two years of the Scottish Attainment Challenge, which aims to close the gap in attainment between children and young people living in the most deprived areas and their peers, at the same time as raising attainment for all. Given all this, the Scottish editorial team for this year's Yearbook felt that it was both valuable and timely to take a fresh look at these issues – drawing on insights and expertise from all parts of Europe. This decision has certainly been borne out by the 13 thought-provoking articles we have received from CIDREE members.

This editorial introduction sets out the context for the Yearbook theme, by focusing on attainment and, in particular, on the issue of equity. It then briefly outlines each article in the Yearbook. Finally, it reflects on a number of key themes which have emerged from across the 13 articles.

CONSIDERING THE ISSUES

Attainment can be narrowly conceptualised in relation to performance in examinations. It can also be more broadly conceptualised as learners' progress and attainment at different stages throughout the 'learner journey', or different forms of achievement that children and young people are able to access – such as volunteering, contributing to their community or developing their skills outside school. High attainment is vital in terms of children and young people's pathways to further and higher education, employment or training. Although raising attainment is a shared interest across Europe, there may be differences in how this is understood.

Raising attainment for all learners is a common aim and priority across countries. The focus of this Yearbook is on the equity dimension of raising attainment – where there are specific concerns about attainment for a defined group of children or young people. It is clear that inequalities of these kinds persist across European education systems. Many of these inequalities affect specific groups of children and young people, such as those from poorer socioeconomic backgrounds, certain ethnic groups and migrant backgrounds or from a particular gender (European Commission, 2015). Often, these characteristics intersect, and so inequalities do not manifest themselves in one dimensional ways.

In their efforts to tackle these inequalities and to raise attainment, policymakers often aim to ensure greater equity within their education systems, schools and classrooms. This word, equity, is often used within national (and international) education policy documents. However, it is frequently not defined, and is often contested (Bøyum, 2014; Clarke, 2014; Unterhalter, 2009). One useful starting point is to consider how the word equity has developed within the English language. Unterhalter (2009) provides us with a helpful overview of this. There are at least three different sets of meanings associated with the word equity – which Unterhalter (ibid.) has termed equity from below, above and the middle. These meanings emerged in different historical contexts, and give the word equity a number of different implications for education – as shown in table 1 below.

Unternhalter's (ibid.) analysis illustrates that equity is a complex, multi-faceted concept. It can be understood in different ways, and variations in these understandings will then have implications for how equity is enacted in practice. This sense that equity in education can be understood and enacted in different ways is also reflected in the literature.

The first broad understanding of equity from the literature relates to the provision of access to educational opportunities for all children and young people, to ensure that they learn, and attain, as highly as they can. This is similar to Unterhalter's (2009) sense of equity from above. Differences in attainment, based on this understanding of equity, are linked to individual differences in ability, motivation, effort, parental support etc. This narrow understanding of equity would see these factors as being outwith the scope of the education system to address (Kornhaber, Griffith & Tyler, 2014). Efforts to ensure equity

Table 1.
Three forms of equity

Form of equity	Context for emergence in English language	Description	Implications for educational equity
Equity from below	14th century translations into English of the Bible and classical Greek philosophy ('equitee', 'equite').	A virtue, embodying reasonableness, negotiation, debate and respect for other opinions.	Opportunities for agency, discussion, dialogue and critique to challenge inequity.
Equity from above	15th and 16th century struggles over authority between the monarchy and the church.	A form of law making, drawing on natural justice or a set of laws which have been designed in a fair, reasoned way.	Framework of legislation and regulations to ensure educational equity.
Equity from the middle	18th century emergence of capitalism and the financial system.	A form of share or ownership.	The movement of ideas, time, money, skill, organisation or artefacts that facilitates equity.

Based on Unterhalter (2009)

in this way would include removing any legal or practical barriers to a particular group attending school, and ensuring equal access to material resources, the curriculum, high quality teaching and sufficiently high teacher expectations for all children and young people (Bøyum, 2014; Kornhaber, Griffith & Tyler, 2014). It could also include actions to prevent school dropout and truancy, to ensure that all children and young people are attending the educational provision they are entitled to (Ross et al., 2009).

The second understanding of equity moves beyond the formal provision of opportunities to learn, towards approaches which require a greater or lesser element of 'compensation'. This involves the unequal distribution of resources to compensate for or address inequalities within wider society, which are unfairly distributed. This would mean that educational outcomes, such as attainment, would become less tied to demographic characteristics, such as socioeconomic background. Approaches which reflect this view of equity could involve additional learning support or targeting with specific funding or interventions, such as reading programmes (Ross et al., 2009). Compensatory approaches can also move beyond the realm of education itself, for instance involving health or social work agencies in supporting children and young people in closing attainment gaps (Kornhaber, Griffith & Tyler, 2014). In considering these approaches, it is worthwhile to remember Bernstein's (1970) warning that there is a fine line between compensation and deficit views of children and young people, which imply that something is lacking in the child or family and can lead to self-fulfilling prophecies.

The third and final understanding of equity in the literature is one in which the influence of natural talent should also be equalised, given that this is randomly distributed within a population (Bøyum, 2014). Although this conception is often seen as undesirable, and potentially unworkable, it brings into focus the extent to which considering questions of equity in education always involves value judgements. These would include debate within societies about which factors can and cannot legitimately influence attainment (ibid.).

This last point – the ethical dimension of equity – was emphasised by Bronfenbrenner (1973) in his discussion of the differences between equity and the (in English) similar-sounding term equality. Bronfenbrenner (ibid.) highlights, when discussing the distribution of income or wealth, that equality is an objective "matter of fact", while equity relates to matters of "ethical judgement", and therefore has a subjective or normative dimension (p.9). In other words, exploring the equality of a certain distribution of resources involves a factual description, while exploring the equity of the same distribution requires us to move beyond this and to consider questions of values and fairness. Unterhalter (2009) also reflects this distinction between equity and equality by suggesting that equity could be seen as "equality turned into an action, a process of making equal and fair", namely that it has an "active dimension" (ibid., p. 416). However, this dimension of equity is often not present in the literature (ibid.). Overall, the literature is often unhelpful in distinguishing between the concepts of equity and equality, and they are often used interchangeably.

The preceding discussion has illuminated that equity within education is a complex concept, and that how it is understood has real implications for how it is enacted in efforts to raise attainment. Understandings of equity go beyond formal equality ('equity from above') to include focused approaches and the use of resources which aim to compensate for wider inequalities within society ('equity from the middle'). In addition, both understanding and enacting equity require a deeper consideration of values within society and within education. The concept of 'equity from below' highlights that active collaboration, participation and reflection are important

tools to ensure these debates about values are meaningful. In Scotland, our 'working definition' of equity reflects these different elements. It goes beyond equality of provision to ensure that individual learners' needs are met, while at the same time paying active attention to involving different stakeholders, such as parents and teachers, in considering how best to meet these needs.

A GLIMPSE INTO THE YEARBOOK

Before considering the issues raised in the previous section further in relation to the 13 articles which make up the Yearbook, it will be useful to briefly outline the content of each article.

Albania

Identification of the training needs of teachers in the pre-university education system

The article focuses on teaching quality as a driver of improved attainment, and how professional development for teachers can contribute to this. This focus on teaching quality is taking place within the context of a curriculum reform programme, which has a strong equity dimension in that it aims to ensure that all children and young people achieve their best. The authors reflect on data drawn from a national survey of teachers, which aimed to identify their professional development needs. In doing this, the authors identify some clear recommendations for meeting these needs and therefore ensuring that the new curriculum does indeed meet the needs of all children and young people.

Finland

Promoting motivating assessment practices as part of equal education

The authors focus on how formative assessment helps to create a school culture which values and supports learning for all children and young people. It usefully reflects on how equality has been conceptualised and embedded within the Finnish education system. The authors highlight shifts in these understandings over time. For instance there has been a move from ensuring access to education for all children and young people to the need to ensure that opportunities for learning are more equitable – for example through the pupil welfare system or by providing extra language support for immigrants. The article also describes the deep roots of formative assessment and the broad concept of attainment within Finnish educational culture.

France

More Teachers Than Classes: An initiative that is changing school?

'More Teachers Than Classes' is a national initiative, launched in 2012, which involved allocating extra primary teachers within or across schools, with the aim of increasing attainment and tackling inequity for children from working-class backgrounds. The author outlines the different ways in which the initiative has been implemented, drawing on empirical work in the Rhône department, which received over 100 new teachers. The article reflects on the successes and challenges in implementing 'More Teachers Than Classes', which appears to be having a positive impact on teaching practice, collaborative working and classroom environments.

Hungary

Raising attainment and realising inclusion – a bottom-up innovation in Hungary

This contribution takes us to the micro level by describing an innovative approach to increasing equity and raising attainment in one school. The article describes how a passionate head-teacher has introduced a bottom-up, local implementation of the Complex Instruction (CI) methodology into her school, in order to increase equity and raise attainment. The case study school used in the article details the socio-economic challenges facing schools in the north-west of Hungary. The American CI methodology was complemented by local pedagogical initiatives to form the Komplex Instrukciós Program (KIP). As a result of introducing KIP, the school has seen improvements in behaviour, attainment and the number of children

moving on successfully to the next stage of their learning. The authors also describe how KIP has now become a broader improvement approach within Hungary, with around 40 schools now having been trained in it.

Ireland

Raising achievement in schools in disadvantaged areas

The DEIS (Delivering Equality of Opportunity In Schools) programme is a national initiative to address the educational needs of children and young people from disadvantaged communities. To begin, the author discusses the use of the terms 'achievement' and 'attainment' within the Irish context. The article places the DEIS programme within the context of previous initiatives in Ireland, which had similar aims of increasing equity. Drawing on an evaluation of the DEIS programme, which has been carried out since 2007, the author highlights the successes of the programme in improving achievement in reading performance among children from disadvantaged backgrounds. The author discusses potential explanations for this and reflects on future options for building on the success of the DEIS programme to date.

Kosovo

The role of mediators in the integration of the Roma, Ashkali and Egyptian communities in the education system in Kosovo

The article from Kosovo describes a mediation programme with the aim of ensuring that members of minority communities engage with the education system. A key equity challenge for Kosovo was to respond to concerns about participation and attainment among children and young people from the Roma, Ashkali and Egyptian communities. The article describes the background and implementation of the mediation programme, including how successful individuals from each community worked as mediators to support communication between children and young people, their families, schools and municipal learning departments. Drawing on data collected through the mediation programme, the authors outline key successes and challenges. While the programme has been successful in supporting re-integration with the education system, the authors conclude their article with a number of recommendations for enhancing its impact.

Luxembourg

Low-stakes student assessment for student success: A personalised learning environment in mathematics to raise attainment and tackle inequity

MathemaTIC is an online learning platform, which aims to support increased equity and attainment among all language communities in Luxembourg. For Luxembourg, the multilingual tradition within its education system has equity implications, and there are concerns about the attainment of children and young people from some language communities. As part of a wider digital education strategy, MathemaTIC offers digital mathematical resources in a number of languages, all tailored to the mathematics curriculum. The authors describe the background and development of MathemaTIC. Although it is still being piloted, the article also offers initial reflections on the implementation of MathemaTIC – noting enthusiasm among teachers, children and young people, as well as growing engagement with the resource. The article ends by offering a number of conclusions about the extent to which MathemaTIC is creating the conditions to raise attainment and tackle inequity in mathematics.

Norway

The National Strategy for Language, Reading and Writing 2016-19

The authors describe the development and implementation of a national strategy to increase the language and literacy skills of Norwegian children and young people. To do this, the strategy has a focus on developing the practice of education staff through online professional learning resources, face to face meetings and

targeted, local professional development opportunities. There are concerns in Norway about the attainment of specific groups of learners – including those from minority language communities, boys, high achieving learners and those who have difficulties with their language, reading or writing. The authors provide initial reflections based on the trialling of the strategy – including high engagement among education staff. The article concludes by commenting on a number of implementation issues that will be relevant to the continued development of the strategy.

Scotland

Closing the poverty-related attainment gap… the Scottish way

The article highlights developments in Scottish education to increase equity and raise attainment. The article outlines the background and development of a national programme, the Scottish Attainment Challenge (SAC), which is focused on children and young people living in the most deprived communities in Scotland. The authors describe how the SAC is being implemented at national, local authority and school levels. The article places the SAC within its context by highlighting the prevalence of poverty within Scottish society, and the impact this has on educational attainment. The SAC is a broad and ambitious programme, which includes different funding streams and the creation of a new role – the Attainment Advisor – to work collaboratively alongside local authority staff on agreed priorities which support the SAC. The article illustrates the kinds of activities that are being taken forward by offering a number of case studies.

Slovenia

Improving the attainment of learners through formative assessment in Slovenian classrooms

The contribution from Slovenia gives a national perspective on a multi-country formative assessment project, which was initiated through CIDREE. The project as a whole aimed to explore how formative assessment could be used to improve children and young people's attainment. The authors place this project within the context of Slovenian education, where teachers and parents appear somewhat resistant to formative assessment approaches. The article describes how teachers in Slovenia used an action research model to strengthen the links between learning, teaching and assessment. As a result of using formative assessment approaches within the project, the teachers became more aware of the individual needs of each learner and observed initial increases in motivation and engagement. They also reflected on the equity implications of their assessment practice.

Sweden

Student participation and influence in education – possibilities and challenges

The article reflects on the ways that children and young people can be encouraged to participate more actively and meaningfully in their education – and sees this as an important driver for increasing equity in attainment. The authors draw on a review of mainly Swedish research about children and young people's participation and influence in school. Swedish education policy provides space and encouragement for learner participation – however there are a number of challenges in ensuring that this is realised. The article highlights a number of gaps and key themes in the research literature, for instance the need to reconsider traditional teacher-learner roles. It also highlights the impact that effective participation can have on children and young people, teachers and the whole school.

Switzerland

Raising attainment with more instructional time? A partially successful strategy with undesirable side effects

'Common sense' arguments suggest that increased teaching time will lead to increased attainment. The authors add nuance to this claim by analysing attainment data, drawn from the Programme for International Student

Assessment (PISA) 2009, and data on teaching time, obtained from the Swiss cantons. This analysis shows that, although additional teaching time does have a positive relationship with increased attainment, the effect of each extra teaching hour on attainment is not the same. The analysis also shows that extra teaching time does not narrow the range or distribution of PISA scores. Therefore, increasing teaching time will not automatically lead to increased or more equitable attainment. The authors conclude by reflecting on the policy implications of their analysis – suggesting that policymakers and teachers should reflect carefully on how teaching time is used, and on the equity implications of any decisions about teaching time.

The Netherlands

Achieving equitable future-oriented education in the Netherlands

The article from the Netherlands considers issues of equity in relation to the Dutch school system. These issues relate particularly to children and young people from ethnic and language minorities, and those from less advantaged socio-economic backgrounds. The authors outline specific concerns about how these children and young people are served by the system of early tracking within Dutch education. Responses to these equity concerns, discussed in the article, include the introduction of minimum academic standards in some subject areas, and curriculum change. The authors conclude their article with a number of helpful reflections on how the current policy direction in the Netherlands can best support increased equity within education.

REFLECTIONS

The previous section highlights the varied contributions we have received for the 2016 Yearbook. Each article reflects the country's own context, challenges and priorities. Many of the articles outline strategies, policies or approaches for reducing inequity and raising attainment. In some cases, these have been in place for a number of years. In others, the focus is on the piloting and development of new approaches. Whatever their stage of development, however, the authors offer a number of valuable insights into how actions to reduce inequity and raise attainment are understood and operationalised. To begin illustrating these, it may be helpful to return briefly to the discussion in the first section of this introduction, which focused on how equity can be understood and enacted within education. It will also be useful to highlight a number of other key themes, as well as more practical cross-cutting issues related to the implementation and evaluation of initiatives to tackle inequity and raise attainment.

HOW IS EQUITY UNDERSTOOD AND ENACTED IN THE ARTICLES?

The articles suggest that several countries have achieved many elements of the first broad understanding of equity – namely the provision of access to educational opportunities for all children and young people, to ensure that they learn, and attain as highly as they can. This is the dimension that can in some respects be equated with Unterhalter's (2009) concept of 'equity from above'. For instance, 'access for all' has been a key policy priority in Finland since the 1970s. The national policy framework in Slovenia emphasises the need for all children and young people to have equal opportunities to attain. Nevertheless, countries are undertaking actions to ensure that all children and young people do have access to the appropriate educational opportunities. For instance, the article from Kosovo illustrates important work to ensure participation in education among a number of defined communities.

The articles also illustrate that the second understanding of equity – 'compensatory' approaches to address wider social inequalities – is being developed in a number of countries. The Finnish article illustrates this shift well – showing how the current understanding of equity involves equal opportunities for learning, but also includes support

for individual needs and a growing move towards inclusion and multi-agency support within the common school system. This developing understanding is also signalled in the Slovenian article.

Many of the initiatives described in this Yearbook involve additional financial resources being allocated to schools to tackle inequity and raise attainment – for instance in Scotland, Ireland and Norway. Scotland and Ireland have both developed large-scale, multi-faceted programmes to tackle the impact of socioeconomic disadvantage on educational outcomes. In relation to time, the French article illustrates how additional teaching capacity is being used to address the negative impact of socioeconomic status on attainment. The Swiss article adds nuance to this issue by reflecting on whether increases in teaching time would lead to increased attainment – suggesting this would not be enough on its own. The article from France does, however, itself acknowledge that a great deal more is required, for instance professional dialogue, to ensure that the extra teaching capacity is used most effectively. These kinds of compensatory approaches encompass and reflect elements of Unterhalter's (2009) concept of 'equity from the middle'.

A third category of approaches described in the articles also reflect Unterhalter's (2009) concept of 'equity from below' – by focusing on opportunities for agency, discussion and dialogue in tackling inequity and raising attainment. For instance, the Swedish article reflects on meaningfully engaging children and young people with their schools and learning, and the Finnish article considers formative assessment. Both of these are seen as important approaches which will support increased equity and attainment.

KEY THEMES ACROSS THE ARTICLES

RECOGNISING COMPLEXITY

Efforts to reduce inequity and raise attainment are complex. The articles illustrate this in a number of ways. Firstly, they highlight the long-standing and entrenched nature of inequity. Countries have been alert to inequity within their education systems, and have been taking steps to address them, for many years. For instance, Ireland has been taking action to tackle educational disadvantage since the 1980s, and established an Educational Disadvantage Committee in 2001. Secondly, the articles highlight complexity by showing that addressing inequity requires strategies and approaches that recognise its multi-faceted nature. Many countries have multi-component strategies for addressing this complexity, although due to available space the articles tend to focus on only a subset of these wider strategies. For instance, the Hungarian article describes how social inclusion and equity is a clear national priority, and the focus of a number of different initiatives including mentoring, scholarship programmes and targeted funding. In Scotland, the Scottish Attainment Challenge similarly includes a mix of approaches, including those designed to focus on literacy, numeracy and home-school links. The importance of improving outcomes for children and young people from disadvantaged backgrounds is also reflected in the new Scottish framework for self-evaluation by schools.

A FOCUS ON QUALITY TEACHING

Across many of the articles, there is a key focus on teachers as enablers of increased attainment and equity, including teaching quality and pedagogy. This theme takes different forms across countries. In France, for instance, it involves the provision of extra teaching staff. In Albania, the quality of teaching is clearly central to supporting developments in the curriculum – the country wants to see flexible and skilled teachers who can take on a greater role in facilitating learning. The development of Norway's strategy for languages, reading and writing also has an explicit focus on increasing the skills and competencies of teachers through the use of new professional development kits and online technology. The Norwegian article also highlights the importance of

active understanding and reflection on the knowledge base that underpins the new professional development kits.

MEETING THE NEEDS OF ALL

Many of the articles reflected on the ways in which approaches which meet the needs of diverse children and young people are an important means of increasing equity. This is a challenge for teachers in today's increasingly heterogeneous classrooms. The articles suggest that there is no single approach to doing this well, however there are some approaches which may be useful starting points. A number of the articles – in particular those from Slovenia and Finland – reflect on the ways in which formative assessment approaches can be a particularly successful tool in promoting success for all children and young people. The Slovenian article illustrates how teachers involved in a formative assessment project are reflecting on attainment and equity in their practice, and how formative assessment could have an impact on these. In Finland, formative assessment approaches are broadly conceived as supporting and guiding children and young people, and taking their individual needs (e.g. language background) as an important starting point. The successful introduction of the KIP methodology in Hungary also reflects a focus on quality teaching approaches which motivate and meet the needs of all children and young people in diverse classrooms.

BALANCING AMBITIOUS GOALS WITH REALISM

Related to the point above, the articles highlight that addressing complex issues such as inequity takes time. As the article from Luxembourg suggests – educational decision-makers need to strike a balance between the short time frame which defines the political agenda and the longer time period required to create, effectively use and integrate new approaches into schools. The Hungarian article also illustrates well that the successful implementation of change takes time, with new activity building on the successful completion of previous steps – within the context of a coherent approach to raise attainment and increase equity.

IMPLEMENTATION AND EVALUATION ISSUES

The articles also make the point that successful implementation of new approaches is key. For instance, the Irish article highlights that the DEIS Programme was particularly concerned with effective implementation due to concerns that previous initiatives had not been well-implemented. The Scottish article illustrates that an approach which takes account of local innovation, and is responsive to context, within the framework of a national programme, has been central to the development of the Scottish Attainment Challenge. The article from Kosovo also focuses on the need to adjust successful examples of mediation from elsewhere in Europe to the specific context of Kosovo. The Norwegian focus on a thorough trialling phase for the new strategy for language, reading and writing also displays a keen concern for implementation issues.

A number of articles also highlight issues connected with evaluating the impact of initiatives to raise attainment and tackle inequity. This is related to the points discussed earlier, regarding complexity and the need for pragmatism around achievability and timescales. The issue of evaluation has a number of components. The first of these is the need to use existing evidence from evaluation to support learning over time. This includes evidence from previous evaluation studies, if available, to inform the design and planning of new initiatives, as in Scotland, Ireland and Norway. A second evaluation issue is the importance of having a well-planned evaluation in place for any new programmes or initiatives. This can comprise a clear vision for the programme. As the article from Luxembourg illustrates particularly well, complex programmes can benefit from having a well-founded 'theory of change' setting out how activities will lead to anticipated outcomes. This can then help to focus and direct evaluation activity. Developing a theory of change can draw

on professional experience and also on any insights from existing evidence – as mentioned above. Such theories of change can also be used to visually illustrate links to other programmes or initiatives which will interact with the new programme in real world territory. This approach has been useful in planning the evaluation of the Scottish Attainment Challenge within Education Scotland.

CONCLUSION

This introduction highlights that equity is a complex and nuanced concept. Conceptual understanding and reflection about equity issues is important. At the same time, practical, real-world examples of how equity is understood, developed and enacted in different contexts offer a rich opportunity to reflect on the complexities of raising attainment and increasing equity in European education systems. This Yearbook provides a valuable opportunity for such reflection among policy makers, researchers and practitioners across Europe and beyond.

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ALBANIA

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ABSTRACT

The purpose of this article is to discuss the professional development needs of each teacher, school and district in Albania, and to present recommendations for improving these. In this context, the article is based on the main findings of a survey of education staff in Albania. The main conclusions drawn from this study may be summarised as follows: a) 64 per cent of teachers need to improve their knowledge and skills in some of the areas covered in the survey instrument; b) 12 per cent of teachers have basic needs for improvement in all these areas; c) the areas with lower results are professional development and curriculum planning; and d) the teachers' job seniority did not have an impact on the findings. Recommendations from the present study are: a) there is a need to establish a clear and viable scheme for the professional development of all teachers and directors; b) there is a need to strengthen internal professional development and professional networks, to improve teaching, reduce inequity and improve attainment; and c) there is a need for male teachers to be promoted into motivation schemes, in order to be more active in professional development activities.

ALBANIA IDENTIFICATION OF THE TRAINING NEEDS OF TEACHERS IN THE PRE-UNIVERSITY EDUCATION SYSTEM

In Albania, a current priority is to improve education quality, in particular relating to management and teaching personnel, with the aim of improving teaching, reducing inequity and improving attainment. According to Kirk and Gallagher (1983), education reflects society, thus demonstrating its advantages, weak points, hopes, prejudices and main cultural values. Darling-Hammond, Holtzman, Gatlin, and Heilig (2005), drawing on a number of pieces of research, stress that the quality of teachers is significantly linked to children and young people's achievement. This connection is more important than other factors, such as school organisation, leadership style, and teachers' commitment and motivation. Other studies, according to Angrist and Lavy (2001), show a positive correlation between teachers' training and children and young people's achievement, suggesting that, "...a qualitative programme of the initial training of teachers... impacts the increase of the children and young people's achievements...". They recommend that, "...continuous professional development of teachers may be a less costly means to increase children and young people's results than reducing the number of teachers in classrooms or... additional classes at school..." (ibid.).

According to the European Commission (2007), teachers in the twenty first century have a supporting role which includes the "facilitation of learning for their children and young people, devotion to them and their needs, as well as the delivery of strategies, tools, skills and adequate resources to render the children and young people more effective". This view of teachers sees them as supporting children and young people in the role of learning moderator. There is also another focus in this document: "...flexibility. A teacher should be flexible in every environment of change, including the society, technology and world where we live. Teachers are often found in different positions and must be shaped according to them. Therefore, there is a need for greater flexibility for professional development" (ibid.). According to Sugrue (2004), "...preliminary research suggests that pressure and overload may discourage the readiness of teachers' continuous learning capacity, so that their learning becomes more individual and specific, rather focusing on routine. Their professional life and learning deviate, thus enhancing the need for the practical operation of professional networks".

If learning is the focus of the educational system, then we presume that the professional development of teachers is a priority. This includes both career-long professional education and the initial training of teachers. Teachers, like any other specialists, need to update their pedagogical and subject-specific skills and knowledge. However, we think that teachers are a special case, because many of their skills and knowledge require them to be responsive to change. They face shifting demands in class and through the various kinds of daily requirements of children


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and young people, parents and the educational system. These complex requirements make us consider how a teacher should best use his or her time for professional development inside and outside school.

Within Albania, identification of the training needs of educational staff at the national level creates a clear picture of the most needed topics and issues to be addressed, both by central institutions as well as by schools or by teachers. This process has been developed for the first time by running sample surveys from respective regions. For 2016, the findings were based on the results achieved by all educational employees who participated: 17,613 teachers and directors. The total population is around 30,000 teachers and headteachers. Until 2016, the identification of training needs was anonymous (without names and summarised in a document in general terms). The new aspect of this process was the identification of the individual training needs of teachers and school directors.

THE AIM AND OBJECTIVES

Albania is implementing a curriculum reform within its education system, which is based on building competence for lifelong learning. The essence of this approach is the construction of new knowledge through the individual competence of each child and young person, drawing on his or her experience. In practice, this means that every child and young person should receive individual attention, customised tasks and an opportunity to build his or her own process of learning. 'Learning by doing' is the focus of this approach, in contrast to traditional teaching, where teachers transfer their knowledge in the same way to all children and young people. The aim is that quality teaching, planning, assessment and the teacher's ability will motivate and inspire all children and young people to achieve their best and have a positive and sustainable impact on the future (Ministry of Education, 2014).

The process of identifying the training needs of teachers aims to determine the professional development needs for every teacher, school and district. The objectives of the identification of the training needs are as follows.

- Collection of information for each teacher and school director individually through a survey instrument for identifying training needs.
- Presentation of the results for the overall sample of teachers and in particular for each of the areas: planning, teaching and learning; ethics and communication; and professional development.
- Presentation of recommendations based on the findings of this process.

METHODOLOGY AND INSTRUMENT APPLIED IN THE PROCESS

The training needs of educational staff have been identified by assessing teachers' knowledge and skills in the areas of planning, teaching and learning, ethics and communication, as well as professional development. The assessment was conducted using both a pencil and paper test and an e-test (computer based test) only for Tirana District. The assessment contained 30 multiple-choice questions, given 1 point each. The questions focused mainly on situations from the real context of the school.

The assessment took 60 minutes to complete. The assessment was conducted in November 2015 (e-test Tirana District) and January 2016 (pencil-paper). The results will be used only for the identification of training needs. The population surveyed was 13 districts, 38 regions, 1,596 high schools and 9-year secondary schools, 17,613 teachers and headteachers.

Originally, the assessment was piloted in the Tirana district, in the form of an e-test. A total of 1,651 teachers and headteachers participated in this pilot process. Further, the process for identification of the needs was conducted in other regions. A total of 17 pencil and paper assessment packs were prepared for these districts. The assessment (in both formats) was based on topics, which refer to the general standards for teachers. Each of the

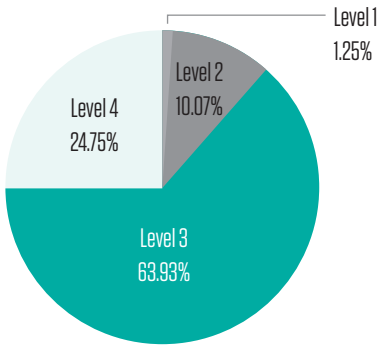


Figure 1.
Results of the overall evaluation

topics summarises the issues guiding the design and structure of the assessment for identifying needs, as shown in Table 1 to the right.

DATA PROCESSING

After the process had been completed, the collected assessments were subject to a scoring process. Table 2 to the right presents the number of teachers evaluated by the categories of rural area / urban area and male / female.

Data processing was carried out by using SPSS and Excel. Statistics have been expressed in this article in tabular or graphical form. The statistics used are the number/percentage of teachers, classified as per the four levels of results which are described in the teacher standards documents.

- Level 1– Unsatisfactory results and necessary needs for improvement.
- Level 2 – Considerable need for improvement.
- Level 3 – Satisfactory results and some need for improvement.
- Level 4 – Very satisfactory results.

Statistics about the results have been also expressed as per location (urban area/rural area), gender (male/ female), and category of qualification.

RESULTS OF THE IDENTIFICATION OF NEEDS

The results of the general assessment of teachers at national level, presented graphically in Figure 1 to the left, show

Key Topics	Sub-topics
Curriculum planning	Annual and daily curriculum planning
	Planning according to the children and young people's needs
	Planning of learning outcomes
	Planning of learning sources
	Planning of situations from real life
	Planning of assessment instruments
Teaching and learning	Teaching-learning methodology
	Assessment of learning
	Questioning techniques and discussions
	Classroom management and children and young people's behaviour
Ethics and communication	Code of ethics (document approved from the Ministry of Education and Sport)
	Communication with children and young people
	Communication with parents
	Communication with colleagues
	Co-operation with the community
Professional development	Participation in professional development activities
	Internal professional development
	Participation in professional networks

Table 1. Topics included in the assessment

Total		17,613
School location	Rural area	10,230
	Urban area	7,383
Gender of the teacher	Female	13,427
	Male	4,186

Table 2. Number of teachers that have been evaluated

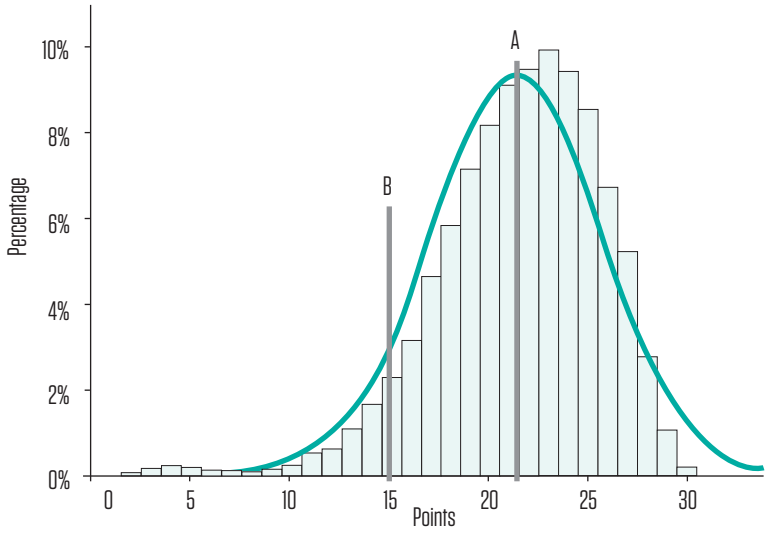


Figure 2. Normal distribution of points acquired for the overall evaluation

that: only about 25 per cent of the evaluated teachers have very satisfactory knowledge and skills; about 64 per cent of teachers possess satisfactory knowledge and skills but need improvement; about 10 per cent of teachers possess knowledge and skills that need considerable improvement; and 1.25 per cent of teachers possess unsatisfactory knowledge with necessary needs for improvement.

The information about the results achieved by teachers at national level is shown in Figure 2 on the previous page. This chart presents the normal distribution of total points attained by teachers in the four areas of the instrument. It is observed that the chart presents normal distribution skewed to the left[1]. The chart shows that the mean attained by teachers (A = 21.4) is higher than the mean of total points of the instrument (B = 15). This situation is explained by the fact that from the results of evaluation it was expected that all teachers would attain points above the average of the instrument's scores. The chart also shows that there are some teachers who are evaluated within the range of 0–15 points. These account for about 12 per cent of teachers. The number of teachers who are evaluated with maximum points shows that this category of teachers is prepared and possesses updated knowledge and skills about the four core areas of evaluation. These account for 24.7 per cent of teachers.

According to the results shown in Figure 3, teachers and headteachers displayed poorer results (level 1+ level 2) in the field of professional development. Furthermore, the planning field had poor results.

Data presented in Figure 4 show that the number of teachers estimated at the first level is higher in urban areas (2.51 per cent), compared to the number of teachers in rural areas (0.35 per cent).

Meanwhile, the number of teachers assessed at level 4, which is the highest level, is the same for teachers in urban and rural areas.

If we compare the results of teachers using gender, we observe that females scored at a higher level than males (see Figure 5). Female teachers also attained higher results for level 4, where their percentage is 26 per cent compared to 19 per cent of the males.

Figure 6 introduces the distribution of districts referring to the average points acquired by the relevant teachers against the national average (21.4 points). The number of districts with a higher average of points than the average at national level is six, while three districts have a lower score average than the national average.

Figure 7 provides information on the results of the general assessment according to the educational sector. The sector with the best results is higher-secondary education, followed by the middle-lower educational sector. The social-cultural secondary[2] (high school) education has the poorest results.

1 The condition is met: mean <median<mode or in the value 21.4 <22 <23. In a normal distribution it is met the condition mean = median = mode.

2. This means artistic schools focusing on music, visual arts etc., and teachers in these subjects.

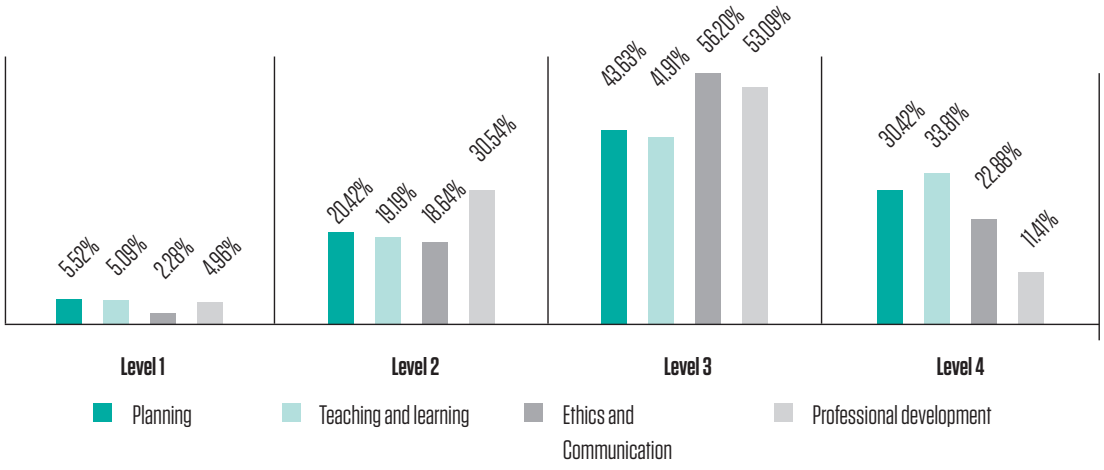


Figure 3. Comparison of results between areas

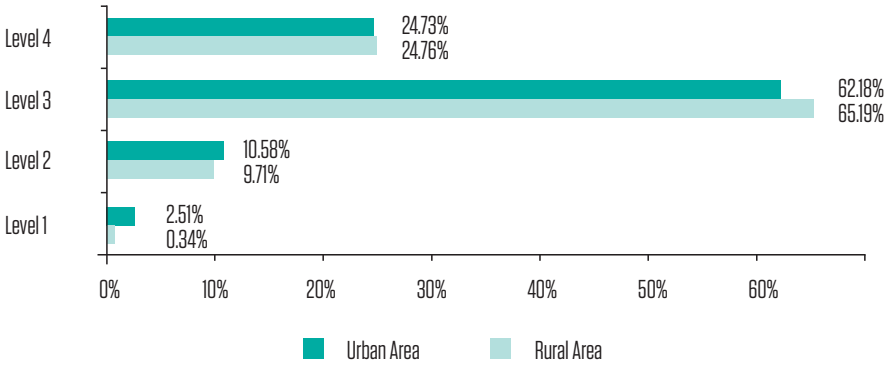


Figure 4.
Results of the overall evaluation according to the school location

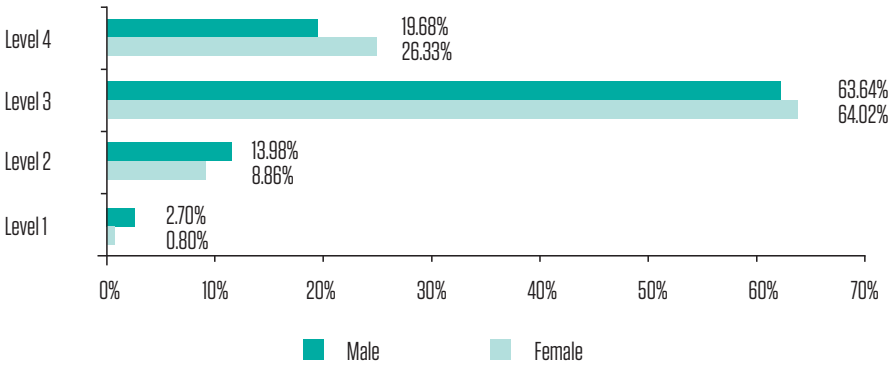


Figure 5.
Results of overall evaluation according to the teacher's gender

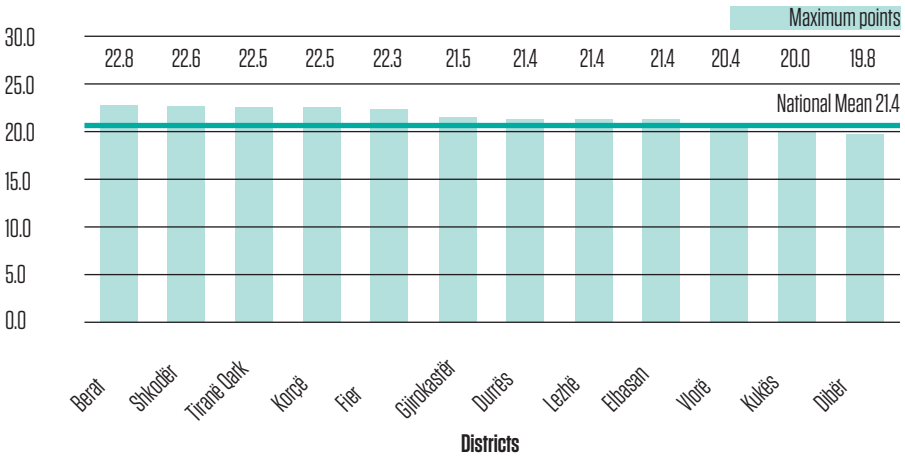


Figure 6.
Mean points acquired under the overall evaluation in each district

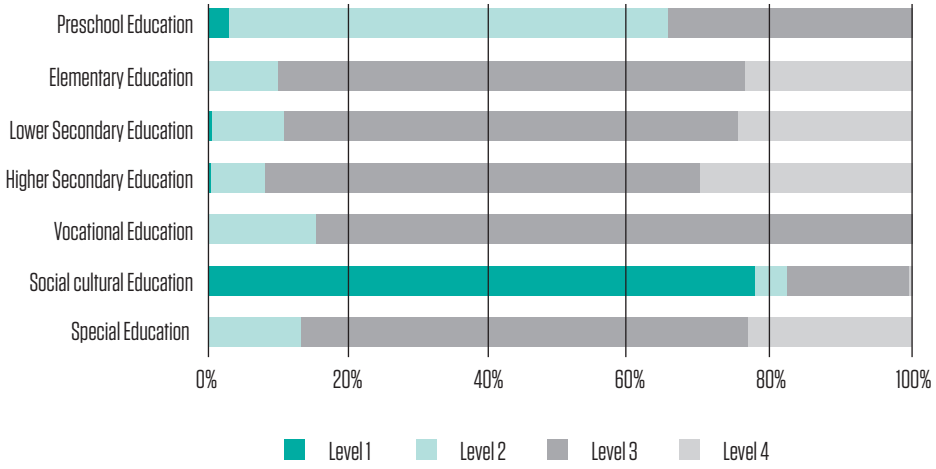
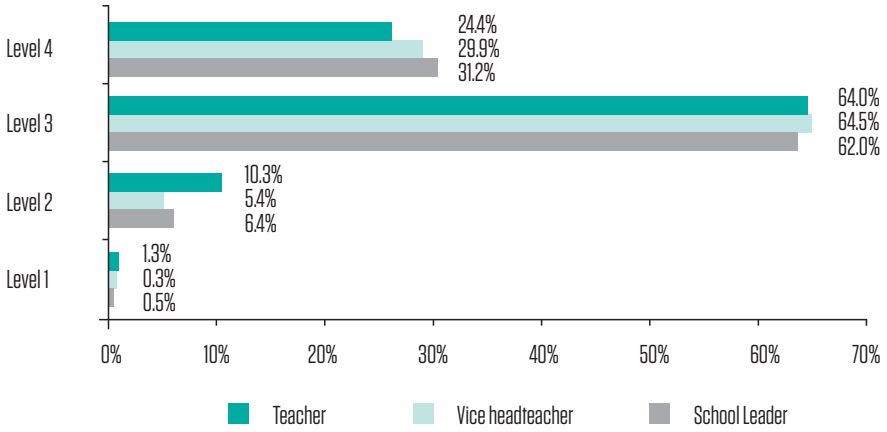


Figure 7.
Results of the overall evaluation according to the educational cycle

Figure 8.
Results of overall evaluation according to the role of the teachers



The results of the general assessment for teachers and directors are given in Figure 8 above. Data in the figure show that the highest results under the general assessment are attained by vice headteachers. Their estimated percentage at levels 3 and 4 is 95.7 per cent of the total number of vice headteachers. The headteachers whose percentage is estimated at levels 3 and 4 is 93.2 per cent of the total number of the headteachers who participated in this process. Overall 88.4 per cent of teachers were assessed at either level 3 or 4. One of the explanations of these achievements of the vice headteachers may be that they are closer to curriculum planning, teaching and learning issues.

The figure shows that even for the category of headteachers and vice headteachers, there are cases of assessment at both level 1 and level 2. Approximately 6.9 per cent of the headteachers are assessed at level 1 and level 2. Further, around 5.7 per cent of vice headteachers are assessed at level 1 and level 2. Of the three categories, teachers have the poorest results.

Figure 9 provides information on the general assessment as per the scales of teachers' qualification. There are three scales: the no qualification scale (less than 5 years of job experience); the third scale (5–10 years of job experience); and the second scale (10–20 years of job experience). There are teachers from all scales that are assessed at level 1 and level 2. In total their percentage is 33 per cent.

If we see the disaggregated statistics, in Table 3, we observe there is no link between the qualification scale (job seniority) and the results of teachers' assessment.

It would be expected that the higher the scale of qualifications, the higher would be the results achieved in the assessment. In fact, data shows that we have the same percentage of teachers assessed at level 1 and level 2, both for teachers who have attained the second and third scales of qualification. If we refer to the results for level 4, we again see that there are not big differences in the percentage of teachers (10.61 per cent) who have the second scale of qualification with the percentage of teachers who have the third scale of qualification (7.95 per cent). In addition, the percentage of teachers who have not attained any qualification and have been assessed at level 4 is 6.19 per cent.

Table 3.
Qualification scale and results of teacher assessment

Scale of qualification	Level 1	Level 2	Level 3	Level 4
Second scale	0.40%	2.72%	23.56%	10.61%
Third scale	0.37%	2.62%	19.74%	7.95%
No qualification	0.48%	4.73%	20.64%	6.19%

CONCLUSIONS

Teachers' knowledge and skills, commitment and dedication, and the quality of school management are the most important factors for children and young people to improve teaching, to reduce inequity and improve attainment. Planning and quality of teaching and teachers' skills to motivate and inspire all children and young people to achieve their

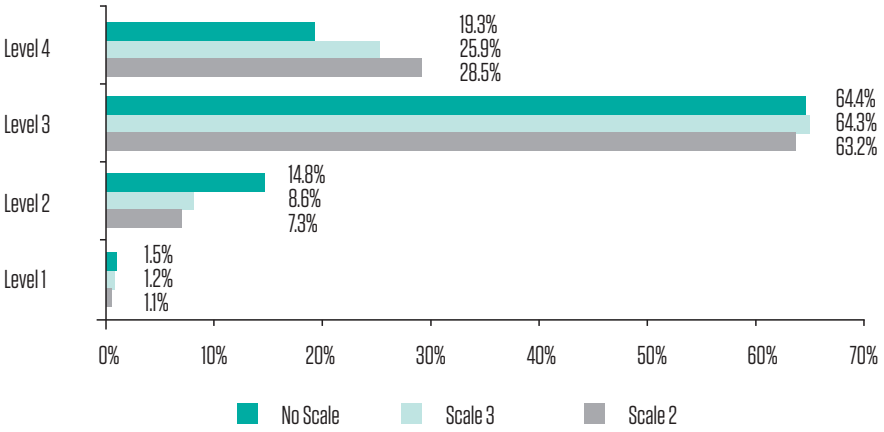


Figure 9.
Results of overall evaluation as per the scale of qualification

best results has a positive and sustainable impact on their future. Therefore, it is essential that teachers should not only have the appropriate education and a college degree during their initial training, but they should also ensure a high standard of continuous professional development, at all levels. The results processed from the above data and their interpretations show that the majority of teachers need on-going and stable training. The findings are as follows.

a) Only 25 per cent of teachers and headteachers possess knowledge at the level 'very satisfactory'. Most of them (64 per cent) possess knowledge at the level 'satisfactory, but they need to improve'. 12 per cent of teachers and directors need significant improvement.

b) The lowest results have been achieved in the field of professional development, where the number of teachers assessed at the level 1 and level 2 (teachers need necessary or substantial improvement) reaches the level 35 per cent.

c) Curriculum planning is another area where teachers need considerable improvement. 26 per cent of them need considerable training, while 46 per cent have to improve their knowledge and skills in this field.

d) In the field 'teaching and learning', findings show that 24 per cent of teachers and headteachers need significant training, while the information has shown that 42 per cent of them need to significantly improve teaching quality in the field of learning methodology.

e) Although teachers are somewhat better in the field of ethics and communication than in other areas, again the results are still far from the maximum points. About 20 per cent of teachers need considerable training, while 52 per cent of them need improvement in this area.

f) The results of female teachers are higher compared to the results of male teachers. Ten per cent of female teachers need considerable training against 17 per cent of male teachers.

g) High schools have attained higher scores. This fact has been observed in the overall assessment, as well as for the four areas of evaluation. Social-cultural schools have achieved lower results. The number of teachers assessed with level 1 reaches 57 per cent (teachers who need necessary improvement). This fact has been observed in the overall assessment, as well as for the four areas of evaluation.

h) About 16.3 per cent of teachers are new, hence they are not yet within the category and 9.8 per cent of teachers who have the third category have considerable training needs in all the fields. Meanwhile, the information shows that 64 per cent of new teachers in each scale need improvement in certain areas.

i) In principle there should be a stable relationship between qualification scale and the total scores of the instrument, but

based on the statistics there exists almost no connection between them. Based on the values of correlation coefficients ($r = .100$, $p < 0.01$) the connection is poor. Therefore, there are teachers with several years' experience in education who have attained poor results, while there are teachers with fewer years' experience in education who have attained higher results.

j) Vice headteachers is the category of employees in the education system that has attained higher scores compared with headteachers and teachers. This is noted in the overall results, but also in the results in the four areas.

RECOMMENDATIONS

The recommendations are related to the findings presented above. Implementation of the curriculum reform within the pre-university education system requires improvements in learning quality, so that children and young people are able to solve the complex problems of life today, both at personal as well as at national and global levels. This new conception of the curriculum, which is based on lifelong learning, requires teachers who are increasingly creative, co-operative and responsible drafters and selectors of learning and teaching materials. In this context, the professional development of teachers has a special role. Recommendations drawn from this article are targeted at all stakeholders at central, regional and school levels, as well as to training institutions. It is important to take these recommendations into account because they are relevant to improving the professional development of teachers and directors. The structure of recommendations draws on the findings of this article.

a) Based on the general findings, frequent and periodic training for teachers and headteachers at all schools of the country is recommended. These training sessions should be conducted by experts in relevant fields. It is necessary to create a clear and consistent scheme of professional development for teachers and directors. The fact that only 25 per cent of teachers and headteachers possess very satisfactory knowledge shows that the training scheme must cover every teacher and school leader, allowing each to be trained according to their individual interests and needs. Central level institutions or other training institutions must prepare programmes and training modules regarding the most essential issues, in line with the following recommendations.

b) Lower results achieved in the field of professional development show that teachers and headteachers must significantly improve their forms of professional development. The school director has the most important role in the internal professional development of the staff that he/she manages. It is recommended that formal professional networks for teachers are developed, to promote discussion, sharing ideas and exchanging experiences. It is recommended that teachers develop activity plans for their professional development.

c) Curriculum planning is another area where teachers need considerable improvement. Based on the results in this area, it is recommended that through training and professional networks, teachers and headteachers need to significantly improve the quality of their curriculum planning (particularly curriculum-based competencies), planning as per the needs and interests of children and young people, planning with the results of learning, planning-based teaching and learning situations drawn from real-life situations, as well as the inclusion of cross-curricular themes.

d) In the field of teaching and learning, findings show that teachers and headteachers need to significantly improve the quality of teaching and learning. It is recommended that teachers receive training and study literature related to: a competency-based methodology;

teaching and integrated learning; and techniques for questioning and evaluating children and young people. Evaluation of learning (which is focused mostly on children and young people's learning and performance), assessment of learning and children and young people's files are recommended as important topics, which teachers should focus on during their professional development. Climate and classroom management are two important issues in this area, where there is a need for considerable improvement. It is recommended to intensify the use of peer observation of teaching, in the framework of an exchange of positive experiences. This means that teachers with experience and good results can organise a teaching hour and other teachers can benefit from his or her experience. It is also recommended that teachers be trained on teaching and learning methods for children and young people who have special needs.

e) In the field of ethics and communication, teachers and directors are recommended to be trained and study literature regarding the age development of children and young people, their characteristics, motivation and ways to encourage initiative and creativity, as well as conflict management (an important and present problem in our schools, etc.). Directors and teachers are recommended to work closely with the school psychologist by including him or her in the life of the school's children and young people and giving him or her the role that he or she deserves in its bodies. Communication with parents and their involvement, communication with colleagues and co-operation with the community in school activities are important topics on which teachers and directors should be personally trained and developed.

f) Based on the findings of the study, it is recommended that central institutions will organise training for teachers based on the "Teachers' Standards" and linked to curriculum planning, teaching and learning, communication and professional development, and even to the respective subject's profiles.

g) The higher results of female teachers, compared to male teachers, show higher commitment and devotion of teachers in professional development activities, planning of the curriculum and teaching methodology. It is recommended that male teachers are more active in these activities, reflecting on their work in the teaching and learning process.

h) Teachers who teach artistic subjects in social-cultural schools have achieved lower results. In these circumstances, it is recommended that central institutions develop training programmes and modules specifically related to the overall formation of these teachers as per the above mentioned issues.

i) New teachers who have few years of work in education, who have not yet gained levels of qualification and have unsatisfactory results, are recommended to be supported by experienced teachers in schools, but also by professional networks. The school leader has the duty to organise the professional development of new teachers and support them with the necessary literature for the development of teaching quality.

j) Since the years of job seniority are not directly related to the results of the instrument, it is recommended that new teachers who have attained very satisfactory results get engaged in the activities of school organisations by sharing their experience in specific areas. School leaders should try to engage these teachers. In this way they will work with more enthusiasm and commitment on issues related to the progress of the school.

k) This process also involves headteachers and vice-directors. The findings of this article show that headteachers need general formation training, not only as teachers but also in leadership. In this context, it is recommended that central

level institutions organise extensive programmes of professional development for headteachers and encourage them to follow specific training courses, which emphasise management skills. Active participation of directors is very important in these programmes. They should be encouraged to give suggestions for solving existing problems, using their own experiences, which can rely on theoretical and relevant information from the findings of this article. Professional development programmes for headteachers could also include case studies on the existing situation in schools, which need specific management skills.

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FINLAND

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ABSTRACT

The support and guidance for each student's learning path is highly integrated into the Finnish education system, especially in basic education. In this article, we will describe the strategies and actions taken in the National Core Curriculum 2014 for strengthening equality and the attainment of each student in Finnish schools regardless of their background, socioeconomic status, language or personal abilities. The national Core Curriculum 2014 is an important strategic plan for creating equal learning opportunities in Finland. We will focus on assessment for learning, which is a key aspect in creating a school culture which supports learning for all students, and in that way implements equal education. First, we will describe the main principles of the equal education system. We will also point out the essential guidelines in the National Core Curriculum 2014 for the education providers to organise and develop basic education in a way that supports equality and promotes attainment. The main focus, however, in this article is to describe the ideas and principles of student assessment in the National Core Curriculum 2014. The National Core Curriculum 2014 emphasises the supportive nature of assessment thus creating a strong basis for each school to develop further an assessment culture that promotes learner motivation and equity.

ACTIONS FOR EQUAL EDUCATION

Equality has been one of the leading values in the Finnish education system. The idea of education for all has been strengthening since 1862, when the public school system was established. One very important step was taken in 1970, when basic education, a comprehensive school system for ages 7–15 was introduced. During the 1970s and 1980s equality was addressed by providing access to high quality, free education for all children, despite their socioeconomic background or where they lived. Our understanding of equality as a concept has been broadening over the decades. School for all means, above all, equal opportunities for learning for all children. This can be seen in the development of support systems for students' individual needs. Also, cultural, religious and language related issues have been seen as more important and have resulted in several changes in basic education during the decades. The completion rate in basic education is almost 100 per cent (Statistics Finland, 2015), which indicates that the common school for all, along with its support and differentiation systems, is functioning successfully. The National Core Curriculum 2014 (Finnish National Board of Education, 2014) stresses the uniqueness of each student and their rights to a good education:

"*Basic education is underpinned by the idea of the specific value of childhood. Each student is unique and valuable just as he or she is. Each student has the right to grow into his or her full potential as a human being and a member of society. To achieve this, the students need encouragement and individual support as well as experiences of being heard and valued in the school community. They also need to feel that the community cares about their learning and well-being. Equally important are experiences of participation and opportunities for working together with others to advance the functioning and welfare of the community*" (p.15) (section 2.2 Underlying values of Basic education).

Finland is one of the most sparsely populated countries in the world. Its population is centralised within the largest cities, but basic (7–15 years), secondary (16–18 years) and tertiary (18 years) education is available throughout the country. A national evaluation survey indicates that the number of schools is diminishing, but basic education is still relatively accessible for all students (Regional State Administrative Agency for Northern Finland, 2014). Approximately 93 per cent of 7–12-year-old students and 80 per cent of 13–15 year-old students live less than five kilometres from their school. The rest of the students have a right to free school transportation by bus or by taxi. A right to go to the nearest


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school and a right to get all education for free, as well as transportation if needed, is stated in legislation. These principles have been the main reason for 'educational markets' not having gained ground in Finland – there are very few private schools. Private schools in Finland also get a share of public funding and they follow the National Core Curriculum. In some cities there are schools which specialise, for instance in languages or sports education. In these cities parents can choose a specialised school instead of the nearest school. However, the ideal of a common school for all seems to be appreciated, as the findings of Seppänen, Kalalahti, Rinne and Simola (2016) suggest. Their recent study points out that even those parents who have chosen some other school than the nearest one cherish the principle of a common school for all.

The principle of a common, comprehensive school for all also conveys the idea that all students can learn if they are given proper opportunities and support (Välijärvi et al., 2007). Special needs education spread quite quickly in the 1970s and 1980s. For the last few decades there has been support available for learning as well as school attendance services in every basic education school. The organisation of these services has developed towards inclusion, as in many western countries. Children with special needs usually go to the nearest mainstream school. There is also another support system, the student welfare system, which has developed especially during the last two decades. The student welfare system is based on health and social care staff working in co-operation with education staff in order to help students and their families in difficult situations. This multi-professional co-operation is based on law (Pupil and Student Welfare Act 1287/2013), and it is organised locally alongside support for learning and school attendance services. Both forms of support are also described in local curricula.

Statistically, Finland is a rather homogeneous society. For instance 89 per cent of the population speaks Finnish as the first language, and 73 per cent of Finnish people are members of the Lutheran church. From an education policy point of view, since Finnish society is rather secular, building an understanding of human diversity through learning is an important educational goal. The Finnish constitution guarantees educational rights for both Swedish and Finnish-speaking populations. Besides these two national languages, basic education can also be provided in three Sami languages, sign language and Roma language, or partially in a different language. The language policy is based on the idea of positive differentiation, and also includes students with an immigrant background in Finnish or Swedish-speaking schools. The Finnish or Swedish (first language) syllabus starting from grade one can be taken as a second language syllabus if a student's language and cultural skills differ from those of native speakers. The state also gives financial support to education providers to offer additional weekly lessons for students from minority backgrounds in their home languages during their basic education years. For instance, Helsinki City provided extra lessons in 40 different languages in 2015. The Finnish constitution also grants religious education for the members of Lutheran and Orthodox churches. Besides this, there is also instruction and learning available in several other religions and in ethics at schools.

International evaluations on Finnish basic education have been positive over the last decades. According to tests like PISA, TIMSS and PIRLS, Finnish students perform well in international comparisons. Besides a high performance rate in mathematics, reading and science, further analysis of these test results show that there is very little variation in students' performance in different parts of Finland and in different schools (Kupari et al., 2013; Nissinen, 2015; Sulkunen et al., 2010). This can be seen as proof of the success of the common school for all policy and equality in action. Parents and other stakeholders can expect their

children to receive a good academic education despite the location of the school. On the other hand, we have to remember that these tests focus on narrow areas ignoring many of the most important goals of education, like social skills, creativity and moral development. These tests also easily lead to competition between nations, which is a dilemma for a system that does not believe in or rely on competition. We do want our children to succeed in learning, but we also want to take care of their wellbeing.

Besides using international evaluation data, national evaluations of learning outcomes have also been done in Finland regularly by the Finnish National Board of Education (FNBE) and the Finnish Institute for Educational research. The Finnish Education Evaluation Centre was established in 2014 as an independent government agency responsible for the evaluation of education from early childhood education to higher education. The evaluation of learning outcomes in basic education is based on objectives defined in the National Core Curriculum. The results of national evaluations are quite similar to the international tests' results: there is little variation in students' performance in different parts of Finland and in different schools (Nyyssölä & Jakku-Sihvonen, 2009).

However, there are also some challenges for equality. Even though our students' performance in PISA tests is exceptionally good, there are differences between boys' and girls' results (Nissinen, 2015; Sulkunen et al., 2010). There are also studies which show relatively wide variations between schools in different parts of the biggest cities in Finland (Seppänen, Rinne, & Sairanen, 2012; Vilkama, 2011). The learning outcomes are related to the socioeconomic background of the city districts. There are also evaluation studies that indicate that students' performance in mathematics, as well as in reading and writing skills, is going down (Harjula, 2014; Hirvonen, 2012). The researchers suggest that, in cities, more attention should be paid to planning, and that in schools attention should be focused on working approaches, and on how to improve boys' attitudes to learning. This new evidence presents challenges for the providers of education, but these challenges have also been taken into account when devising the National Core Curriculum 2014. Focusing on developing learning opportunities for each student is considered a key issue when aiming to improve the conditions for equal education for all.

NATIONAL GUIDELINES FOR SUPPORTING THE LEARNING OF EACH STUDENT

One essential starting point for drawing up a new national curriculum was the new Government Decree (422/2012) that defines the national objectives and the overall distribution of lesson hours for basic education. The Ministry of Education appointed an expert group to prepare the new government decree in 2011, with the decision made by the government in 2012. Before and during the preparation process, the strengths and challenges of basic education and the Finnish curriculum system were mapped and discussed. A large number of educational leaders, researchers, teacher educators and teachers were involved in the process. This led to several changes in the basic education decree, new goals for basic education as well as a vision for curriculum reform. Improving learning, raising attainment and strengthening equality were perhaps the most important of these.

According to the new Government Decree (422/2012), the objective of basic education is to support each student's learning:

> "*Equality and equity in education must be actively strengthened in education, instruction and guidance. Education and instruction must be provided in co-operation with homes and parents and guardians, so that each pupil receives instruction, guidance and support according to his or her own needs and developmental level, and so that it promotes the pupil's*

healthy growth and development" (Valtioneuvoston asetus 422/2012, 4 §).

The new curriculum reinforces this idea and states that each student has the right to a good education and success in their studies. The core curriculum also takes a stand on some fundamental elements such as the conception of learning and the development of school culture, which serve as starting points for providing and organising education. These guidelines support and challenge schools and teachers to rethink, for instance, the importance of students' own experiences and activities, feelings and enjoyment, and the meaning of co-operation and dialogue in learning, as well as assessment practices.

THE CONCEPTION OF LEARNING AS DEFINED IN THE NATIONAL CORE CURRICULUM 2014

The conception of learning in the National Core Curriculum 2014 is described on the basis of the latest research and scientific knowledge on learning. The students are seen as active agents, who gain knowledge and skills in interaction with others, various communities and learning environments. Learning involves doing things alone and together, thinking, planning and exploring, and assessing these processes in a versatile manner, and it is always connected to the content to be learned, the time and the place.

Although students are active agents in their learning, they will need continuous guidance in becoming aware of their personal ways of learning and using this knowledge to promote their own learning. They develop their working and thinking skills and learn to plan their learning process. They are also guided in connecting the learning topics and new concepts with what they have learned before. The conception of learning emphasises that "learning knowledge and skills is cumulative and often requires long-term and persistent practice" (Finnish National Board of Education, 2014 p. 17).

According to the new curriculum, the students' interests, emotions, and experiences, as well as their ideas of themselves as learners, influence their learning process and motivation. The self-image, self-efficacy and self-esteem of the students have a central role when students set goals for their learning. It is important that students receive encouraging guidance during their studies, which reinforces their trust in their own potential. Giving and receiving versatile, positive and realistic feedback supports each student's learning.

Table 1.
A sample of objectives and final assessment criteria for good knowledge and skills in mathematics (numerical grade 8 on a scale 4-10) on completing the syllabus in the National Core Curriculum 2014.

Objectives of instruction	Assessment targets in the subject	Knowledge and skills for grade 8
T17 to guide the pupil to understand and utilise properties related to the right-angle triangle and the circle	Perceiving the attributes of the right-angle triangle and the circle	The pupil knows how to use the Pythagorean theorem and trigonometric functions. The pupil understands the concepts of the inscribed angle and central angle.
T18 to encourage the pupil to develop his or her skill in calculating circumference and volume	Arithmetic skills in calculating area and volume	The pupil knows how to calculate the areas of plane figures and volumes of objects. The pupil masters conversions of units of area and volume.
T19 to guide the pupil to determine statistical key figures and calculate probabilities	Statistical key figures and probability calculation	The pupil masters central statistical key figures and is able to give examples of them. The pupil knows how to determine both classical and statistical probabilities.

PRINCIPLES OF DEVELOPING SCHOOL CULTURE

The National Core Curriculum 2014 emphasises the meaning of school culture as a way to guarantee learning opportunities for all members of a school community. The school culture has an impact on how students experience school work. The idea of the new curriculum is to support schools and teachers to develop their schools as learning communities, where the focus is, self-evidently, on learning, but, even more importantly, on providing opportunities for learning for all members of the community. A learning community creates preconditions for co-operation and learning together. It develops in dialogue and creates a setting

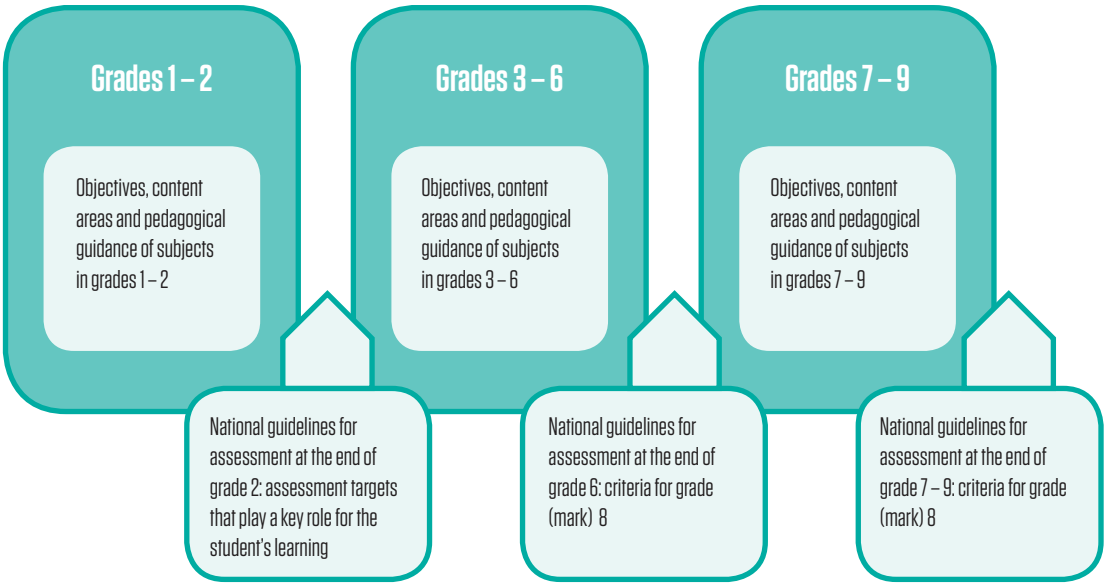

Figure 1.
Grade units in the National Core Curriculum 2014

for exploration and experimentation, and for enjoyment, enthusiasm and success. The community encourages each one of its members to try their best. It sets suitable challenges, and guides each member of the school community in recognising the strengths of both individuals and the community, and drawing on them. The aim is to help the students to build a positive and realistic self-image.

A NEW TAKE ON OBJECTIVES BY GRADE UNITS

In addition to the guidelines in the new national curriculum, the FNBE made some changes and improvements regarding the way the curriculum and the objectives of education were written. The new governmental decree, and thus also the new national curriculum, divides the nine grades of basic education into three grade units (grades 1–2, 3–6 and 7–9), which means that there will be two transition points during basic education. The first transition point is from second to third grade, and second transition point from sixth to seventh grade. The FNBE's task was to define the national objectives and core contents of all subjects taught in basic education, as well as national guidelines for assessment at the end of each grade unit.

The idea behind the two checking points is to help teachers to check and to supervise and promote every student's learning and progression in studies. In the Finnish education system teachers are responsible for all assessment, which calls for national assessment criteria to create a solid national base for the assessment work.

Education providers have to define and describe the objectives of education for every single grade in the local curriculum in accordance with the National Core Curriculum 2014. This is a prerequisite for carrying out an assessment and providing a school report at the end of each school year.

DESCRIBING OBJECTIVES

In the National Core Curriculum 2014 the objectives of different subjects are described as objectives for teaching and learning, not as descriptions of student achievement. Each objective depicts both the teacher's and the student's activity. The following is an example of an objective for mathematics in grades 7–9: "The objective of instruction is to guide the pupil to evaluate and develop his or her mathematical solutions and to examine critically whether the result makes sense". The teacher's job is to guide, to help students to understand their own thinking processes and enhance their thinking skills. The student's job is to evaluate and develop his/her skills and examine the matter at hand critically. The criterion for assessing how students have

achieved the objective is formulated on the basis of the student's activity described in the objective: "The pupil knows how to evaluate his or her mathematical solution and examine critically whether the result makes sense".

The objectives of all subjects are connected to the definition of the assessment targets and criteria as set out in the National Core Curriculum. The purpose of this kind of depiction is to help teachers to understand both the objectives and the principles of good performance in relation to the objectives. It should also help teachers to ensure that each student has adequate knowledge and skills to continue their studies, and to carry out the summative assessment more precisely and reliably.

LEGISLATION AS A STARTING POINT FOR ASSESSMENT GUIDELINES

The Finnish tradition of assessment has always relied especially on assessment for learning. We see the purpose of assessment as giving support and guidance for learning. The underlying assumption is that formative assessment methods produce significant learning gains, especially for students who are low achievers, and this is how the possibilities for every single student to complete the basic education syllabus and continue to further studies are increased.

The foundation for assessment for learning was set in Finnish legislation in 1998. The Basic Education Act (628/1998) (Government of Finland, 1998a) stated that the aim of student assessment is to guide and encourage learning, and to develop the student's capability for self-assessment. The student's learning, work and behaviour are to be variously assessed. The development of assessment culture in basic education draws on this task, underpinning assessment that promotes learning.

Even today, the 20-year-old Basic Education Act reflects contemporary thinking in emphasising formative assessment, which is considered the most important form of assessment aimed at supporting student learning. The legislation does not define assessment's role as measuring student achievement or controlling learning results. Thus, the Finnish conception of assessment gives it a proactive and guiding role. It emphasises the fact that the one important task of assessment is to engage students in their own learning process and develop their learning skills.

Assessment is not a single procedure that takes place at the end of the school year or learning period. The National Core Curriculum 2014 states that assessment, for most part, takes place in daily interaction between the teacher and his/her students. According to the Basic Education Decree (852/1998) (Government of Finland, 1998b), student assessment is a continuous process, and information about a student's progress in learning must be provided for the student and his or her parent/carer on a regular basis, to a sufficient degree. The Decree also states that the procedures for assessment practices and providing information shall be laid down in more detail in local curricula.

Assessment must be curriculum-based. This is how assessment becomes part of the teaching and learning process, including planning and implementation. Classroom assessment is just as integral a part of the curriculum as teaching and learning.

ESSENTIAL PRINCIPLES OF ASSESSMENT IN THE NATIONAL CORE CURRICULUM 2014

The National Core Curriculum 2014 sets national guidelines for schools to develop their own assessment culture. In accordance with the National Core Curriculum, teachers need to ensure that, from the early years, students receive feedback that guides and encourages learning, and are informed about their progress and achievements. It is also stated in the National Core Curriculum that co-operation between home and school is part of a good assessment culture. The objectives of school work and the school's assessment practices are discussed with the parents/carers. The

students and guardians are entitled to be informed about the assessment criteria and how they are applied when assessing a student. Joint discussions between the teacher, the student and the guardian are typically carried out once or twice every school year. It is very common to replace the written intermediate report by assessment discussions. This means that, instead of receiving a report in the middle of the school year, the student, together with the teacher and the guardian, carry out a discussion where the progress and the results of the student's learning are reviewed and shared.

Throughout all grades, assessment takes the form of feedback, of which the main function is to promote learning. The National Core Curriculum 2014 states that formative assessment is continuous, and feedback based on it is provided during the school year as part of daily instruction and school work. This can only happen if the teacher observes and interacts with the students in the context of the learning process. Peer assessment and self-assessment that develop the student's agency are also important in assessment. The teacher's role is to create situations in which feedback that promotes and motivates learning is given and received through joint discussions.

In the National Core Curriculum 2014, the nature of the teacher's feedback is highlighted. It is qualitative and descriptive, and it is an interactive procedure where critical areas of learning are identified and analysed, and attempts are made to resolve learning-related problems. It takes into account students' different working skills and ways of learning. Through feedback from their teacher, students are guided to become aware of their progress, structuring the different stages of their learning, and finding different ways of reaching their goals. This is an essential element of assessment culture drawing on the concept of learning. The feedback provided gradually helps the students to direct their own learning, set themselves targets and use learning strategies that improve their success.

VERSATILE ASSESSMENT PRACTICES

In the National Core Curriculum 2014, versatile assessment methods are emphasised. While the objectives and criteria are the same for each student, the methods are teachers' tools and are a means of creating individual flexibility in assessment practice. The assessment methods influence the quality of learning activities in the classroom. Systems where high-stakes testing is the main mode of assessment create a very different learning environment compared to the systems emphasising teacher assessment and assessment for learning (Harlen, 2005; Looney, 2011). In learning-centred classrooms, both teachers and students are expected to have active roles in designing and implementing assessment practices.

The National Core Curriculum 2014 states that the assessment practices and the provision of feedback must be planned and implemented as appropriate for the student's age and capabilities. In this context, it is important to take into account the student's different ways of learning and work approaches, and to ensure that there is nothing impeding the student when demonstrating progress and achievement. Even mild learning difficulties and any shortcomings in the student's skills in the language of instruction should be taken into account when planning and implementing assessment and demonstration situations. When assessing students with an immigrant background, or students whose first language is foreign, the linguistic background of each student is taken into consideration. In order for a student to be able to demonstrate their progress and achievement, regardless of any deficiencies in their Finnish or Swedish language skills, particular attention should be focused on versatile and flexible assessment methods that are suited to the student's situation. These are essential principles that require flexibility in assessment practices.

Finnish teachers have introduced learner-centred and process-oriented assessment practices in many schools.

From the student, this requires a clear understanding of the learning objectives, and support from the teacher to progress towards higher levels. The positive outcome is that students learn to direct their learning and take responsibility for their achievement. This results in better achievements at the end of comprehensive school, and provides better starting points for the students to continue with their studies.

DEVELOPING STUDENTS' SELF-ASSESSMENT SKILLS

The National Core Curriculum 2014 gives self- and peer-assessment a significant role within assessment culture. By practising self-assessment skills, the students are expected to deepen their involvement in their learning process. Teachers are expected to develop students' capacity for self-assessment by leaving room for reflection on their learning and progress, and by hands-on development of self-assessment skills. Both as individuals and as a group, the students are guided in observing their learning and progress, and taking note of factors that affect them. The idea is that the teachers help the students to understand the objectives and find the best methods for achieving them.

Self-assessment practices are widely used in Finnish schools. Even in the lower grades, students practise assessing their learning process and their achievement. Self-assessment skills are developed by helping the students to become aware of the goals set for school work, and to recognise their success and strengths in this. This is implemented by using different kinds of self-assessment forms, or even games. There are numerous technology-based self-assessment applications in use within Finnish schools.

DISCUSSION

This article deals with the principles of equal education in general education, and how the National Core Curriculum 2014 and its guidelines for student assessment implement equal education by supporting and encouraging student learning, thus raising attainment of every student. According to Katz and Gottlieb (2013), classroom assessment is a socially constructed activity that includes teachers, students and parents as meaningful partners in the learning process. In the assessment culture of the 21st century, there is a close connection between learning and assessment as teachers are challenged to pay increased attention to students' learning processes as well as the products of that learning (ibid.).

As Black and Wiliam (1998) state, what is needed is a culture of success, backed by a belief that all students can achieve. This relates to the Finnish understanding of assessment that encourages learning. Assessment that encourages learning is not about giving grades based on groundless or unrealistic praise. It is giving the student a positive conception of her/himself as a learner, and helping the student to realise her/his strengths and development targets. If the aims for each student are realistic, achieving them provides learning experiences and the courage to set new, more challenging ones.

From the Finnish perspective, our understanding of educational attainment involves more than the completion of the basic education syllabus. Educational attainment comprises the development of a culture of learning that, for its part, helps the student to develop a positive self-image as a learner as well as reinforce their trust in their potential. This, in return, strengthens the student's motivation to complete the basic education syllabus and continue with their studies. The means to enhance and raise attainment are, to a large extent, pedagogical, and thus present in the daily lives of the students, promoting learning.

The National Core Curriculum 2014 and its guidelines will be implemented from August 2016. One aim of the curriculum reform is that the new National Core Curriculum will support teachers in their demanding task to guide and assess students' progress in their studies. In the coming years, the national evaluations of

learning results will provide information on how these new guidelines promote learning and raise attainment in Finland. Additionally, the evaluations will provide evidence about the impact of assessment practices in building and strengthening equal education. The Finnish National Board of Education has already organised in-service training for teachers implementing the new guidelines for student assessment. Teachers' assessment literacy is crucial for the new guidelines to come alive in schools.

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FRANCE

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- The development of training resources and platforms (e.g. Neopass@ction);
- Training educators, particularly inter-professionally;
- Expert assessments and contributions to research papers on the implementation of regional or national educational policy; and
- Links between research/training/professions, piloting new educational systems and change management.

ABSTRACT

In order to reduce social and territorial inequalities in students' learning, as reported by the French education system, the government undertook a series of reforms called the Re-foundation of the Schools of the Republic in 2012. Among these reforms, the revision of priority education by the Ministry of Education aims to implement the initiative 'More Teachers Than Classes'. It aims to provide reinforced support to the most disadvantaged groups of learners and at the same time to make schools stronger and more effective. The Center Alain-Savary, from the French Institute of Education of the Ecole normale supérieure de Lyon, carried out a study on the implementation of this initiative in the Rhône department, where over one hundred extra jobs were assigned to this initiative. This article will specify how this initiative changes the collective work of the teachers and 'districts' in charge of the regional pedagogical piloting in schools. Furthermore, it shall highlight the approach to engaging pedagogical practitioners into a process which favours progress in the learning of those pupils who are the most distant from the school culture.

FRANCE MORE TEACHERS THAN CLASSES: AN INITIATIVE THAT IS CHANGING SCHOOL?

School difficulties in France are mainly concentrated on certain territories and schools where the students generally come from underprivileged families with working-class backgrounds. For more than thirty years, the policies of priority education have dedicated resources to these territories in order to reduce the effect of the social and territorial inequalities on school results and to support the success of all students. In spite of numerous successive reforms, the results of these policies have not been satisfactory. Indeed, the PISA survey published by the OECD in 2013 noted that France is the developed country where these social determinants are the strongest.

In 2012, the French government undertook several reforms called 'Re-foundation of the Schools', which related to the whole education system, including a revision of the national teaching and teacher training programmes. Legislation in July 2013 set the additional goal of reducing the variation in academic success between learners in priority education and other students to less than 10 per cent. Within this general framework, the revision of priority education relies on elements considered as boosting the success of students in three key areas: (1) adapting teaching practices to the difficulties met by the students, early in their learning pathway; (2) improving school leadership; and (3) strengthening the teaching teams.

In the context of reforming priority education, the national Ministry of Education implemented a new initiative called 'More Teachers Than Classes' (MTTC) (EDUCSOL-MENESR, 2013) to help teachers make school fairer and more effective, to reduce inequality and to promote greater equity by reinforcing support for the most vulnerable students. Over three years, more than 2,300 additional primary school teachers were deployed (or redeployed from previous posts). The way these 'MTTC' teacher posts are distributed is decided by departmental educational authorities based on proposals made by school district inspectors[1]. They can be deployed in one or across several schools depending on the context, which is unique in each case. There is no specific rule for deploying these posts (e.g. one post for x number of classes). Some of the posts may be part-time. On average, an MTTC teacher (known as an M+) works in around eight classes (DGESCO-MENESR, 2015), most often in the early

1. The French education system is organised into regional educational authorities (rectorats) and departmental educational authorities (directions académiques) for each of France's 100 departments. Each school belongs to a district (including about 250-300 teachers), directed by a national education inspector, assisted by two educational advisors responsible principally for the educational activities in the school district. Each school has a director (who does not have a hierarchical role). In the priority education network, primary and lower secondary schools belong to a network led by the school district and the lower secondary school principal, with the aid of a coordinator.

primary years (ages 6–8), thus respecting ministerial recommendations to devote more resources to fundamental skills (e.g. mastering essential literacy skills). The M+ teacher participates on average three times in each class per week, in sessions of approximately one hour.

There is no standardised pedagogical approach for the intervention of these M+ teachers. Depending on the context, the M+ teacher can either take charge of a group of students within a class (by leading a small work group, for example) or in a separate space. He or she could also co-teach with the class teacher, using a variety of different methods (delivering instruction to the same group of students; dividing roles so that one teacher instructs while the other gives individual help to the students completing the tasks; or one teacher may observe the students' activities and any difficulties they encounter while the other instructs).

THE INITIATIVE IN PRACTICE

There are many observable variables in the approaches used that are very informative. These include the following.

- How differentiated learning and teaching is put in place (materials, setting up of tasks, etc.)?
- How groups of students are chosen (homogenous or heterogeneous groups)?
- What content is taught during this time, what equipment and materials are used (the same as or different to those used in class by the teacher)?

In addition, the way the session is planned and the assessment of its results, in more or less detail, also have an impact on the teaching contexts. Across schools and classes we have observed a very diverse range of practices, even within the same school, depending on the types of collaborative methods developed by the teaching pair (the class teacher and the M+ teacher). The way each teacher conceives the MTTC initiative is obviously key: some teachers primarily see it as a way to reduce class sizes in order to increase classroom control and enable teachers to work more closely with students. These teachers thus tend to want to divide the class (notably in the case of 'multi-grade' classes, which combine students of different grades/years) to create groups that 'need more support', focusing on certain students with the objective of rectifying misunderstandings based on observed errors or learning needs. Very few schools elect for longer (4–6 hour) sessions for the students concerned. Less than 15 per cent of the intervention time of an M+ teacher takes place with groups of less than six students. It should be mentioned that this initiative is not intended as a substitute for the specialised support network for students experiencing difficulties in school (RASED, Réseau d'aide spécialisée pour les élèves en difficultés), which focuses on the students with the most difficulties, who work with specialist teachers trained in educational psychology or psychomotricity, or with a psychologist.

Other teachers are more interested in the M+ teacher working with them jointly in the classroom, either to reinforce the help offered to students at certain points in the lesson, or to offer a separate support role. This might involve explaining something to a group of students. Alternatively they could help the teacher with complex tasks (e.g. problem resolution, written work, reading comprehension, shapes etc.) that require both 'instruction' skills and responsive verbal interactions, allowing the teacher to go back and forth between curriculum requirements and the students' conceptual understanding.

To summarise these variables, which in fact exist as a continuum of practices, the National Monitoring Committee[2] presents two 'extremes' that give a broad illustration of the choices that educators can make.

- Configuration A: working separately, placing priority on remedial education,

2. The National Monitoring Committee's mission is: to follow-up the qualitative and quantitative deployment (means awarded), assessment of impacts on the students' learning outcomes; to identify projects and innovative educational organisations; to support the implementation of the initiative and its articulation with the complementary existing schemes; to make an inventory of the needs for teacher training; and to define the evaluation method of the initiative's efficiency.

low-level skills and basic activities, using group work, with a tendency to make students of similar abilities work together, dividing work between teachers, with moderate joint preparation.
- Configuration B: working together, placing priority on preventative education, high-level skills and complex activities, using whole-class work, working with groups of students with heterogeneous skills, sharing expertise between teachers, with intensive joint preparation.

Despite official recommendations, which overwhelmingly favour co-teaching to avoid fostering the 'externalisation' of academic difficulties, the observations we conducted demonstrate that educational teams do not turn to one single organisational model, but instead attempt to find solutions that they consider best adapted to their desired objectives, and indeed to their decisions on teaching approaches: the 'diagnostic/remedial' model sometimes prevails over the 'teaching/learning' model, and the balance between the time allotted for practice/exercises and more complex contexts clearly depends on the teachers' views.

PEDAGOGICAL SUPPORT IN THE CLASSROOM: BETWEEN SUSPICION AND IMMERSION

A large part of the effectiveness of the MTTC initiative, in order to allow it to provide the best impact on student learning, lies in its capacity for pedagogical support (from inspectors, educational advisors[3], directors, co-ordinators, etc.) to help teaching teams take a wider view of the choices they make, creating a virtuous circle. The 'egalitarian' culture in French schools leads to an initial tendency to give each teacher an equal part of the teaching time of the M+ teacher. Based on the assumption that no-one's work is more difficult than anyone else's, the role of the M+ teacher can be viewed as a way to lower the overall teaching workload, to reduce the size of each class, or to offer out-of-class activities for certain students. In contrast, collectively defining shared objectives, teaching priorities and group approaches involves everyone's acceptance that the efforts made can have an effective impact in the long term on student learning, even if not everyone will benefit in the short term from the M+ teacher's participation with 'his/her' students. Thus, the MTTC initiative leads to redefining the relationships between the different professions mentioned above. It is necessary to collectively observe, organise, take action, review actions, etc. The school district is prevented from making prescriptive requirements about what 'must be done', given the opportunities for support and changes that the M+ teacher provides for the class teacher. The district should approach the school and each class with an attitude of co-observation and co-evaluation. As it may need to convince teams of the necessity of linking the class teacher's efforts to those of the M+ teacher, so that they are aware of each other's activities, making the "links between instruction times" (Toullec-Théry & Marlot, 2015) stronger. This enables the class teacher to build later on what was done in the work group, so that the M+ teacher can put to use the knowledge or materials presented in the class. As a result, the student will receive a smooth, connected and progressive learning experience.

In this context, group meetings organised in the school or district are a very important collaborative means of improving the whole school, reinforcing shared learning and consistency between the actions of various stakeholders. In our observations, these 'workspaces' allowed a wider perspective and, above all, discussions about the nature of the difficulties encountered by the students and how this was handled from a pedagogical perspective. Faced with a group of students who are having trouble reading, should phonological work

3. An educational adviser is a teacher who is also a trainer. He or she works in a local territory including nursery and primary schools. He or she is in charge of assisting and following-up beginning teachers, and of teacher in-service training.

be increased? Or reading out loud to develop fluency? Or writing to promote phonological and spelling awareness through encoding? Or teaching word lists to develop vocabulary? Or providing contexts with culturally enriched projects to promote the use of more sophisticated language?

As this brief outline shows, one is never certain of finding the right balance. Another question is whether to focus on students specifically identified as 'having problems', or rather, to develop whole-class activities in which those who attain least well can equally benefit. We observed that in many schools the presence of an M+ teacher develops writing skills, handling of vocabulary, verbal exchanges, reading comprehension, more sustained engagement in tasks, quicker initiation of tasks without losing time (due to clear explanations), and the use of reference materials in classwork. The extra attention and more structured context allows students to acquire an ability to work that is sometimes lacking in zones of educational priority. There could even be a risk, as highlighted by some teachers and inspectors, of 'helping too much', which might make students come to expect that someone will always assist them. Sometimes teachers must be taught not to step in; rather to take advantage of the presence of the M+ teacher and learn to observe what the students are doing, the methods they are using, and any ways they might be struggling to understand what they need to do. "This chance to observe undoubtedly boosts the professional skill of teachers, giving them the ability to better understand what the students are not grasping", explains an inspector.

HOW TO ASSESS SUCH AN INITIATIVE?

As with any public policy that is implemented, it is legitimate for the public authority that is financing it to want to measure its efficacy as quickly as possible in order to review both the investment and the strategic direction. This has been a particular point of interest in France, where some believe that the best way to improve school results is to reduce class sizes. However, confronted with assessing an initiative with as many changing variables as there are school contexts, it is difficult to find one unique method for researching these questions. For example, how should the control groups be selected? What proportion of the results should be attributed to the actions of the M+ teacher (his/her skills, experience, professional qualities, etc.) and those of the whole school (changes in its teaching performance and professional reflexivity, in the analysis of learning obstacles, or in its modification of instructional and pedagogical organisation)?

The observations that we conducted over several months in the Rhône department (which has more than 100 M+ teachers) led us to pose a question similar to that of the National Monitoring Committee: it is certainly necessary to seek to initiate student progress, but also to go beyond that – what are the reasons for this progress? What were the changes in teachers' practices, perspectives, focuses of attention, prompts to action, in their confidence in their ability to help students advance, to struggle against perceived foregone conclusions and inequality? What new teaching methods were implemented, reinforced, organised or reconsidered? When a group of teachers notices the progress of their students – for example, because it was possible to spend more time on more writing activities– the teachers can reflect on the nature of learning difficulties, the reference materials that need to be organised in the school so that each teacher knows more about what the other teachers are doing, as well as to pose questions about how the school is teaching vocabulary, spelling and grammar. Our observations revealed that nothing is magic or automatic; if the teams do not get sufficient, or sufficiently long-term, support, the division of tasks may very well solidify and have little effect on ordinary teaching situations in the class. This is what the National Monitoring Committee also notes when it

points out that "in contrast, other teams prioritise the emergence of new forms of professional practice", in this way applying the principle that the initiative "is intended to aid teachers in their reflection and their practice, through exchanges in early primary teachers' councils[4] or school councils with the 'extra teacher' that works across several classes" (EDUCSOL–MENESR, 2013).

To conclude this section, it is very clear that the teachers involved in the 'More Teachers Than Classes' initiative point out its many advantages, even if they are almost unanimous in remarking that it neither simplifies or lightens their work (indeed the opposite). For teachers, working in pairs (or more) the initiative is a support for managing student groups, particularly when these include disorderly, inattentive or disruptive students. All participants emphasise the improvement in the class environment (more relaxed and calm; more conducive to learning) and its by-products: increased attention and engagement of students in tasks. They also indicate the increased number of interactions between teachers and students promoted by splitting up the class and by joint teaching actions. The students wait less time for a review of their work and receive more positive feedback. All of these factors encourage student learning.

Joint work between teachers either in pairs or in teams is stressed as another very positive point. This increasingly involves educational advisors, whose experience in turn develops as it brings them closer to work in the classroom. It also creates the conditions for inter-professional collaboration (with directors, co-ordinators, or sometimes support networks), which develops the ability to draw out 'shared observables', priorities, more accurate timeframes, and the mutual assessment of everyone's work, including by the students! The paradox is that the educational advisors themselves request specific professional learning, they are 'general practitioners' of educational advice, in all subject areas and for all age levels. Faced at the same time as the teachers with a new educational structure that needs to be made as effective as possible, many display a degree of humility and request the opportunity to compare experiences between districts. Consequently, many academic directors have created work spaces that bring together inspectors, educational advisors, directors, co-ordinators, and M+ teachers to share their approaches, learn about experiences, draw conclusions and develop new projects.

The main tools that can be implemented to make MTTC more effective can be summarised as follows.

BETTER UNDERSTAND WHAT IS NOT UNDERSTOOD

MTTC can give teachers more insight into students' specific learning needs and reduce the 'externalisation' of learning difficulties.

TEACHING

MTTC allows creativity and self-reflection in terms of the instructional and pedagogical methods that are adapted with the key aim of maintaining the student within his/her class as often as possible. Becoming an M+ teacher changes one's view of one's own profession, in the sense that it can be considered as an additional differentiation method (the 'extra teacher' who supports the students, the 'extra teacher' who supports the teacher, the 'extra teacher' who questions the students, etc.). Considered in this way, M+ teachers report that they learn a huge amount and develop their skills. In one or two years, M+ teachers state that they feel they have learned much more than in several years as a class teacher. The M+ teacher can set up or momentarily support an educational activity, and then step back to let the class teacher work alone. 'Understand how to do alone tomorrow what was done together today' is a key element in allowing the initiative to have an impact on teaching in 'ordinary' contexts.

4. In the French school system, the early prima ry teachers' council is made up of all early primary teachers, and the school council of all the teachers at the school.

WORKING TOGETHER

MTTC can allow a deeper examination based on shared learning and shared viewpoints about how students coped with the academic tasks they were assigned. It can also allow collaborative work between the teachers in a school, a district, or even an educational priority network, in order to develop teaching methods and approaches. MTTC allows a reconsideration of the teaching profession, allowing new organisational or structural models to be imagined that were previously judged difficult or even impossible.

LEADERSHIP

MTTC also calls for a reconsideration of the role of the school director as a facilitator, the role of educational advisors in supporting the M+ teachers, and the role of the educational priority network facilitator in co-ordinating the network. MTTC can be a means to reinforce joint work between project steering advisors and educators on 'ordinary' educational issues.

CONCLUSION

In summary, there appears to be consensus on the impact on student learning from the piloting of the initiative, not least from approaches such as co-teaching in pairs consisting of a class teacher and an M+ teacher.

In terms of student learning, all the stakeholders that we met and observed in their work agreed that MTTC allows them to prevent, fight against and reduce academic inequality, and promote equity. This is achieved by providing an accurate view of the difficulties and needs of students, especially those in the early primary years. It allows teachers to refocus their teaching expertise and time on the various learning contexts within the class, enabling better investment in and a better understanding of approaches to meet different students' individual learning needs. The emphasis is more effectively placed on providing the conditions for better mastery of 'reading, writing and counting'.

MTTC has a positive impact on joint work (collective and collaborative) in the class/M+ teacher pairs as well as in the school community as a whole (and even in the district or educational priority network). It allows the implementation of a collaborative approach based on the needs of the students in order to provide instructional and pedagogical solutions. Shared preparation of teaching sessions, as well as post-class assessments, allows the exchange, sharing, observation and transmission of educational practices that could be termed reliable, even innovative. MTTC also has a positive inter-professional impact.

When we take a closer look at teaching contexts, these result from specific assessments carried out with the students or during collaborative teaching time in order to best match 'real' teaching activity. This highlights the positive effect of the initiative on the school environment by managing, or rather supporting, 'difficult' or disruptive students. Beyond creating a calmer school environment, this positive impact is also enabling the teachers to refocus on 'professional actions', particularly the most complex; pedagogical differentiation within the class. The issues of reading, writing, speaking and counting in the early primary years are critically evaluated by the teachers, who do not just attempt to find solutions, but develop new educational content (production of papers, teaching understanding, a steady focus on language and grammatical work) which has a significant effect on the skills of the students.

Finally, MTTC sets in motion departmental or local governance over how the initiative is implemented. At the level of departmental governance, an inter-professional steering committee defines the key areas. Local governance allows the recommendations to be adapted to the reality in the schools and classes in order to provide teachers with the best possible conditions to encourage the success of all students.

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HUNGARY

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ABSTRACT

This article is a case study, which takes an overview of a successful and on-going school improvement initiative. This started twenty years ago in a single school, and today it has become a nationwide network. In the 1990s, Hungarian educational policy decided to improve the learning results of disadvantaged children through special national support programmes. One of them was the Complex Instruction (CI) programme, originating from the Stanford School of Education. The main aim of the programme is to provide high quality education for all by strengthening the social status of the children. The case study school is situated in a small settlement within a disadvantaged region in Hungary. By interpreting and supplementing the CI programme they created their own programme, named KIP, which is now applied as part of the school's daily routine. These ideas spread to other educational institutions and the school has become the professional centre of the national KIP network. Due to this programme, the children involved have higher educational results than others with similar socio-cultural backgrounds. The article is also a personal professional development story. The reader is introduced to a school principal who gradually understood the problems of disadvantaged children, and became the driving force in seeking and applying methods that provide equity and create chances for all pupils, regardless of their inherited social status.

ACKNOWLEDGEMENT

Our special thanks go to Emese Nagy, the Hejőkeresztúr school head who was more than willing to have us for a visit, gave us her book on their model and proofread the picture that we show the readers about her exciting and excellent school.

BACKGROUND TO THE HUNGARIAN EDUCATION SYSTEM

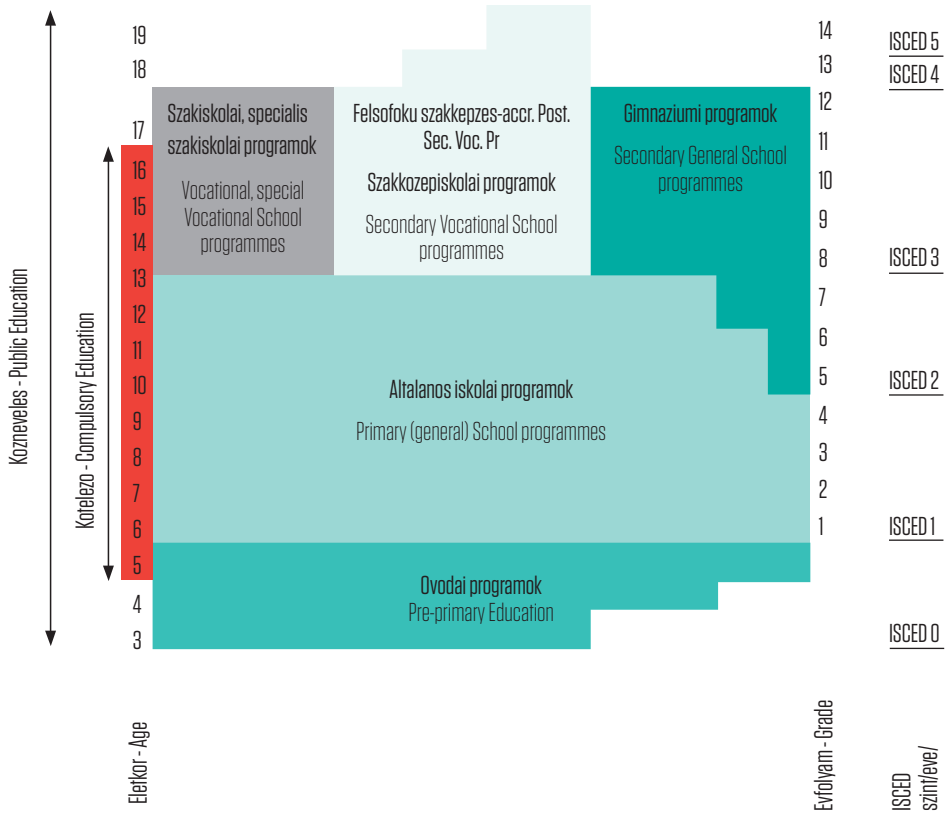
In Hungary there has been on-going educational reform since the end of the socialist system in 1989, but the direction has changed over the time. Not to go back too far, the governments between 2002 and 2010 promoted the liberalisation of education, strengthened school autonomy and issued a competence centred national curriculum with few content details. Local authorities were the most common providers of both primary and secondary schools. In 2011, the new government, which had been in office since 2010, issued a new law on education, that set the road to the change and centralisation taking place since then, with the aim of decreasing financial and quality differences between schools. In 2012 a new, more detailed national curriculum came into force, and in 2013 schools were taken over by the state from the local governments. The number of schools owned by the Churches started growing, now it is over 10 per cent at all levels. The Churches own 20 per cent of grammar schools, the most prestigious type of secondary school (Hagymásy & Könyvesi, 2016). In 2013 a new teacher career model was also introduced, along with a completely new advisory and inspection system.

As shown in Figure 1 on the next page, pre-school (kindergarten) is compulsory from the age of 3. Primary education starts at the age of 6/7, and has 8 grades. There are three kinds of secondary schools: vocational schools that do not provide matriculation (meaning the possibility of further education); vocational secondary schools with matriculation; and grammar schools. The end of compulsory education has been lowered to 16 from the previous 18. The selectiveness of the system is evident, as education does not decrease the differences in the pupils' socio-economic status. The middle classes send their children to grammar schools, and most of the disadvantaged students and those who have low educational attainment find their way only to the vocational schools.

In Hungary all the centrally initiated development programmes are organised in the format of public calls. Schools can


EGO SUM VIA VERITAS ET VITA

Figure 1.
Structure of the Hungarian Public Education System by age, grade and by ISCED-2011 level



apply if they fit the conditions and want to take part. These are 2–3 years long, and have had two main strands so far: social inclusion/equity and the implementation of competence based education (Fazekas & Halász, 2016).

INCLUSION IN HUNGARY

"Far too many students around the world are trapped in the vicious circle of poor performance and demotivation that leads only to more bad marks and further disengagement from school" (OECD, 2016, p. 13). Among the five country specific recommendations of the European Council to Hungary the one that relates to education highlights the need to,

> *"increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education, and improve the support offered to these groups through targeted teacher training; strengthen measures to facilitate the transition between different stages of education and to the labour market, and improve the teaching of essential competences"* (European Commission, 2015, p. 6).

Hungary has made efforts to raise attainment and increase equity, to decrease the number of children and young people who drop out of school, and to make the education system less selective. The 2016 Country Report on Hungary says that no or limited progress has been made regarding the recommendations.

> *"Low achievement in basic skills is increasing and students' socio-economic background has a strong impact on their performance … The influence of socioeconomic background and school location (urban vs. rural) on educational performance is one of the highest in the EU … Most low achievers live in the north-east of the country, which is hit strongest by poverty and has the highest early school leaving rate"* (European Commission, 2016, p. 47).

There are several on-going state programmes for supporting disadvantaged individuals in education, and a recent study explores their history and effects (Kállai, 2015). Since 2003 the

'Educational Integration Programme', a pedagogical framework for integration (known as IPR, short for the Hungarian name) has been providing professional and financial support for kindergartens and schools where disadvantaged children are highly represented. The aim of the programme is to provide equity by competence-development activities during and after regular school time – involving partners from the community, like NGOs, local authorities, etc. The financial support is aimed at creating a more inclusive environment, and assets that contribute to the development of the target group. Between 2003 and 2007 an additional 50 per cent (per capita) financial support had been provided for the schools according to the number of pupils placed from segregated into integrated classes; since then it has been awarded through an application system.

'Way to...' programmes (since 2007/08) are centrally provided scholarship programmes for those in need. The students do not necessarily live in hostels, they are not in special classes and there is no application process for the schools but for the pupils. Personal teacher-mentors help the participants to meet the expected learning outcomes, also to find their places at school and in society. About 50 per cent of the supported students are from the Roma population.

Since 2000 the Arany János Programme – named after a famous Hungarian poet who came from a very poor family and became the secretary of the National Academy of Sciences – has been supporting talented but socio-economically disadvantaged young individuals living in small settlements. Some very good secondary schools and student hostels were chosen – via calls – for providing exclusive education for the participants. The five-year programme is co-ordinated by a programme office, and starts with a preparatory year when basic skills are strengthened and the students get individual development possibilities. Several studies reveal that the programme has been successful, the students could not have got into those privileged secondary schools without the programme, and that they have better learning outcomes than their counterparts outside the programme.

Since 2008 a centrally supported and organised network of volunteer National Talent Points has been devoted to discover and support the talented in primary and secondary education, as part of the National Talent Programme. Schools, NGOs, libraries etc. can apply for the title and for financial support.

INTRODUCTION TO THE CASE STUDY SCHOOL

This article introduces the story of a bottom-up educational innovation, the aim of which is to keep disadvantaged children in the education system as long as possible, preparing them for successful secondary learning. The fact that the good practice started spreading by itself, and a 40-school network has been created as a bottom-up innovation, has captured the attention of many professionals and policy makers. There is a government intention to roll out this model to the whole country.

The model is based on the Complex Instruction (CI) Programme of Stanford University (USA[1]), but it was implemented creatively and complemented with some other methods that also serve competence development in students such as applying board games, paired reading and dialogue between generations. The unity of these methods has resulted in a unique educational programme in Hungary, which could be labelled as the 'Hejőkeresztúr Model'. The programme is called 'KIP' (abbreviation of the Hungarian name of Complex Instruction Programme). Due to this approach each child at the Hejőkeresztúr primary school completes their primary education and is able to take part in secondary education (starting at grade 9 in Hungary). Almost 70 per cent of the graduates go to a kind of secondary school that provides high-school graduation, the others to vocational education. The school results

1. See http://cgi.stanford.edu/group/pci/cgi-bin/site.cgi

Table 1.
Selected school-level data, 2005-14

Academic year	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
No. of pupils	230	220	231	222	225	221	230	220	229	225
No. of failures	3	3	0	1	2	2	0	2	1	0
Truancy (hours)	0	0	0	0	0	0	0	25	0	0
Ratio of pupils with multiple disadvantaged by the law (per cent)	54	45	42	50	56	51	54	56	55	63
Pupils with challenging behaviour and learning disabilities (per cent)	0	0	2	1	0	12.5	10	13	17	16
Ratio of SEN students (per cent)	12.5	13	11	8	9	7	7	7	7	7
Further learning in secondary schools that provide for matriculation (per cent)	50	57	56	50	58	57	67	54	54	65.5
Further studies in secondary schools that not provide for matriculation	3	1	1	3	1	0	2	1	0	0
Average learning results on school level (5 is the maximum)	3.7	3.7	3.5	3.5	3.6	3.7	3.8	3.6	3.6	3.9

in the national competence tests are at the average level, despite the fact that there is very high rate of socio-economically disadvantaged children and those who have learning and behavioural difficulties. They achieve 15-20 per cent higher scores than other schools of the same socio-cultural background. There is no aggressive behaviour, and nobody is absent without leave. The school climate is peaceful, there is no drop-out or failure, and nobody is expected to take the same grade twice as it was frequent before, as the school head recalls. Data is available for the last 10 years when the programme has been in full operation, as shown in Table 1 above.

THE SITE OF THE CASE STUDY

Béla IV Primary School in Hejőkeresztúr is a regional state school for three villages with a total population of around 2,300 (Hejőkeresztúr, Hejőszalonta and Szakáld). These settlements are situated in the North-East part of the country, about 20 km from the big industrial city of Miskolc, the second biggest settlement in Hungary. Hejőkeresztúr, the education centre and the biggest of the three villages, is situated 3 km from Hejőszalonta and 7 km on the same route from Szakáld. A school bus is provided.

Before the end of the socialist system in 1989, Miskolc and some other industrial towns could provide employment for most of the population in the region. The economic changes were not in favour of the people working in heavy industry or of unskilled labourers. Unemployment has risen and there are many families in the region where children grow up without having seen their parents go to work. The social structure has changed; as the less mobile Roma population has become the majority. Among school children their proportion has risen

Table 2.
Number of pupils in grades

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
19	18	27	24	28	28	27	29

from 27 per cent to above 50 per cent over the last 25 years, according to the school head.

The school itself was built and maintained with the joint effort of the three settlements 50 years ago. The poor municipalities were getting less and less able to finance the school, so the centralisation (taking over by the state) was accepted with relief both by the school and the local governments in 2012. Due to the schools' professional autonomy of the time up to 2012, they could adjust their pedagogical programme to the needs of the pupils and the changing conditions. Now, when there is a much more centralised education system in Hungary, they are still able to fit in the conditions without special allowances, since the 'extras' are taught as extra-curricular activities. All the other KIP-specialities lie in the teaching methodology, which can be freely chosen in each Hungarian school.

Because of the continually decreasing number of children and a quite large number of schools, there has been competition between schools for children in Hungary. For children coming from underprivileged families the schools have double or triple funding per capita in the subsidising system, so the schools teaching more of these children can operate with a smaller number of pupils in a classroom, or can organise extra activities for their students.

In the present academic year, 2015-16, the school population is 227 children and 21 teachers, along with two educational assistants / special teachers. There are eight grades with a varied number of students from 18 to 29, also a class of 13 children with additional needs who can't be taught in an integrated way. They also have a class in Szakáld where 14 pupils of grades 1-3 are taught together in one group, locally. Table 2 to the left shows the distribution of pupils who are taught according to the central or state framed curriculum[2] in Hejőkeresztúr. For the next academic year, 2016-17, they have already registered 29 first graders, which is too many for a single class and too few for two.

1992	2000	2016
27%	43%	73%

Table 3. Ratio of pupils from disadvantaged backgrounds

Fifty seven pupils live in Hejőkeresztúr, while 150 are from the other two villages. As shown in Table 3 above, the rate of socio-economically underprivileged families or pupils in state care (these children are placed into families) is 73 per cent. This has increased sharply since 1992.

As a result of several years of renovation work the school is in good condition, and well-equipped. The building itself was totally renewed in 2011. It has 11 classrooms, two IT-rooms, a play-room and a language room equipped with computers. They have a nice gym room and a spacious library, rooms for special individual and group educational purposes, like the personally tailored development of pupils, based on Howard Gardner's multiple intelligence ideas, and where tasks are also organised according to Bloom's taxonomy. There are interactive white boards in seven classrooms and 55 desktop computers placed in three rooms and the library.

The school has been taking part in calls for schools and approach sponsors successfully, which enables them to improve the learning conditions continuously. The very last good news is that Vodafone has started sponsoring the programme, and as an impressive part of the contribution they have given 1,200 tablets to the network, 31 especially to Hejőkeresztúr.

THE CASE STUDY

Emese, the headteacher, has been working at the school for almost 25 years. She lives in a small town (Nyékládháza) five kilometres from Hejőkeresztúr. Besides being an engineering teacher, teaching physics and chemistry, she used to be an eager trainer of basketball. She fell in love with the new and modern

2. There is a three-level content regulation in Hungary: On the basis of the national core curriculum frame curricula are developed for each school type (primary + the 3 versions of secondary schools). The frame curricula can be applied as the local curriculum, but it must be more detailed. More than 10 per cent alteration must be authorised centrally.

gym-room at first sight, and this was the magnet that drew her to the school. Otherwise the building was dusty and grey at that time. Children's cleanliness and behaviour made it obvious that they were badly cared for. Twenty seven per cent of them were from underprivileged backgrounds and the educational results of the school were bad. About 15 per cent of the pupils were not able to complete the eight-year primary education. About 65 per cent of the children could go on to secondary schools; mostly to vocational schools which traditionally cater for the least motivated students with low educational results (the Hungarian school system is selective). Only 15 per cent went to schools that end with a final exam that empowers the learner to take part in higher education.

After two years' working at the school Emese became the deputy head, and when the headteacher retired, she became the principal in 2000. In the same year she participated in Complex Instruction (CI) training organised by the US Embassy in Pécs, at the other end of the country. She had the 'eureka' feeling and started to implement the new methodology at her school by herself. Since at the time she had been aware of very few practical details, for six years she has been researching and experimenting, and has worked out a methodological pattern to embed CI in the school's daily routine. She had been gradually involving those teachers who showed interest. Within three years the whole staff took part in in-house training for the CI methodology, organised by the school head, and by now all of them apply it regularly.

In the meantime, due to joining the EU, structural funds provided extra support for run-down schools in deprived areas; this was the time when conditions started improving. But changing the physical environment was not enough to raise educational attainment. It became clear for the educational professionals and the policy makers that underprivileged children have to be provided with special care and attention. From 2003 massive national programmes (see above) have been organised for schools with a large ratio of underprivileged children, and the Hejőkeresztúr School participated in them. These complex national programmes combined professional development possibilities (training and content) with the improvement of the physical learning environment. Schools could buy the furniture and assets they needed for enhancing the learning experience, for example musical instruments, board games etc.

The growing number of Roma pupils and the professional development programmes drew Emese's attention to the fact that different methods and emotional support are needed to give chances to those pupils. This is why she has become deeply involved in caring for the pupils with disadvantaged social backgrounds, and low motivation. The strands of personal / local development processes and those initiated by the state met and strengthened each other.

In 2006, after this exciting and fruitful period, which changed the school climate, the principal met Rachel Lotan and Elizabeth Cohen, the masters of the CI programme in Stanford. They established a good professional exchange. During the visit it came to light that the principles are the same in Hejőkeresztúr, but the structure of the lessons are different. Ms Lotan also visited the Hungarian school in 2010 and gave her consent that the programme works equally well in the way it has been implemented in Hejőkeresztúr. Emese also had the possibility to go Stanford and see some American CI schools in 2013.

THE KIP PRINCIPLES, RULES AND ROLES

THEORETICAL BACKGROUND

The programme applies a complex, theoretically grounded methodology, resulting from 20 years' research in the USA and six in Hungary. The Hungarian version is a free variation of the original Stanford programme. This proved to be successful in socially heterogeneous contexts with mixed ability students in both countries (K. Nagy, 2015).

Its main concern is how education can provide equity for the underprivileged, and how to help them gain applicable knowledge in mixed ability communities. What can motivate pupils of different abilities to work together? The answer is a methodology that basically belongs to the co-operative learning approach, made widely known mostly by Spencer Kagan[3]; but which has its own principles. In the learning process the cognitive, moral and affective components of education are balanced, the scientific-intellectual, social-civic and personality development angles are equally important, and these are realised by well-designed, varied and purposeful activities.

KIP is based on four principles.

- Education involves a varied level of non-routine, open-ended tasks that are able to mobilise different abilities and competences.
- Responsibility is shared, which means that the learners are responsible for their own personal work and the group is responsible for individual achievements.
- Work is evaluated against set norms and roles.
- Hierarchy within the group – the status of the pupils – is mobile; all abilities are explored and praised.

PRACTICAL APPLICATION

Norms and rules are displayed in all rooms, and each time there is one that the teacher observes closely and informs the pupils about what is being observed. The complex application of norms and rules also enables the pupils to assess each other's behaviour.

- You have the right to ask for help from anyone in the group.
- It is your duty to help anyone who asks for it.
- Help others but do not do the work instead of them.
- Never leave your task unfinished.
- Make up after the completion of the job.
- Fulfil the role you were given in the group.

3. See Kagan's Cooperative Learning website at http://www.kaganonline.com/catalog/co-operative_learning.php

The teams consist of 4–5 pupils, taking a different role each time. They stay together until they have tried all the roles, then different groups are organised. The roles may differ according to the number of students in a group, also because of the character of a given task. There is always an assistant teacher and a speaker. There can also be a note-taker, a material manager, a time-keeper and someone who is responsible for good behaviour. It is possible to have more roles in a lesson but no one can be left without personal responsibilities.

Rotating the roles helps the development of diverse competences and makes the status of a child unfixed within the group. They get to know each other in many roles and situations and they can also act those different roles and find out what they are good at. Taking those roles they learn how to lead the others, how to speak about the job done and how to work effectively. They also realise that everybody is good at something, nobody is good at everything and they together are better than anyone alone. This means that the status rank is not fixed. No children are left behind.

KIP METHODOLOGY

The children work in the usual time, which is 45 minutes per lesson. 'KIP lessons' are organised in each grade and each subject, even physical education, in about 15 per cent of the classes, distributed evenly. The lessons have a set structure: there is always an open, motivating sentence to start with, like "Let's go to the market!" Then groups are checked, roles are distributed, the teacher says what norm is in the focus during the activities and what role-players she or he is giving special attention to.

Each group gets a different task relating to the topic, and they have to understand and discuss what they are expected to do. Sometimes the instructions are written; sometimes the teacher prepares short video instructions for each group that they listen to carefully as many times as they need.

When ready to work the 'material

PUPILS' VIEWS ABOUT KIP

Pupils find the KIP methodology motivating and fun. These statements are from the school website.

(Béla IV Primary School, Hejőkeresztúr, 2016)

"These lessons are very good, because we have to work together. It is also good because the teachers always invent something interesting.

"I like it because you may draw. We sit closer to each other. We do not realise that we are learning.

"I love these lessons because the whole class collaborates.

"I like the KIP lessons because things go so much easier and I learn everything better.

"It's good that you can discuss tasks together.

"I feel good in class because it is good to carry out a task. It is good to work together with others.

manager' – the pupil who is responsible for all the assets during group work – goes for the basket in which everything is prepared for them. Pupils in their groups have to organise the work in a way that involves everyone and leads to success. This is mostly the responsibility of the child who acts out the role of the 'little teacher'. Discussion is a key element of the methodology. The teacher is the last one to ask in case of uncertainty. The more talk takes place, the more learning happens.

Children have 15 minutes to complete the group task after which the 'speakers' have to demonstrate what and how they have done. The teacher and the whole class pay attention, and all the speakers are praised for at least a certain aspect of their performance. They get encouragement and some advice both from the teacher and their peers. The teacher reminds the class what norm and what role she was observing during group work, as well as giving personal praise and encouragement, and some hints for improvement.

The last phase of the lesson is devoted to individual work that is pre-prepared: each pupil gets a personal task that needs the input from the group work and suits their needs and abilities. They work in silence and hand in the tasks when ready. The teacher corrects them and provides feedback for the next lesson, also uses the information to prepare for the next class.

Non-KIP lessons are 'just normal', but they cannot be uninfluenced. Co-operative, interesting, motivating tasks and discussions, personal attention and praise are frequent, since both teachers and students are used to them and feel positive about them.

LOCAL INNOVATION IN KIP COMPARED TO CI

As KIP started its life in Hejőkeresztúr based on the limited information available, several elements were worked out intuitively, while others were created locally (see Table 4 to the right). It had been six years from the beginning when Emese went to Stanford and could see and learn how CI works in practice in the university's school network (K. Nagy, 2015).

OTHER TOOLS IN THE TOOLKIT

Teaching and learning with the Complex Instruction Programme raises the pupils' attainment and develops their behaviour. There are other accompanying tools in the school's toolbox to reinforce and supplement the effects it has. It is remarkable how carefully the school chooses and applies the elements of their special pedagogy, since everything they do supplements other elements, and makes up a whole, solid, coherent programme. They do not take up whatever innovation emerges; do not take part in every call just to have a larger budget for developing the infrastructure.

By now they are in the situation when the school has good working conditions and a proven methodology, so new things must fit in with the structure, pedagogy and ethos that have been created.

BOARD GAMES

Providing success and playful learning for every child are key elements of the KIP programme, and playing board games regularly suits these ideas very well. Board games that are good for developing strategic thinking are used during regular classes and extensively as extracurricular activities. They are also good to make it clear that everybody is good at something. Playing is an activity full of emotions. It can develop emotional intelligence and contributes to personality development. It caters for self-recognition, helps children to learn about social relations, it is a good terrain for learning peaceful and kind communication and co-operation, and also acting according to set rules (K. Nagy, 2014). Even younger pupils can learn that fair play is important, that winning also implies loosing, and both should be handled in a tolerant and moderate way. Board games are excellent learning tools as they develop strategic thinking. Playing regularly develops learning abilities, since the strategies are transferable to other situations. Furthermore, games are good to develop special talents.

Which games do the pupils play? In a narrow sense any board games that are played on rectangle, square or hexagonal boards with disks or pins. In a wider sense we can think of dominos, card games and games which are played with different geometrical shapes, for example Pentomino or Tangram. Besides board-games the programme includes several other intellectual games – well over 100 kinds in total.

While providing equal chances and extra opportunities for the pupils in need, the school as one of the accredited National Talent Points seeks and cares for the talented, mostly by board games. There are several board game champions among the pupils, they have outstanding results in regional and national competitions and could even represent Hungary in an international competition playing the well-known Chinese board game, called 'Go'.

Common elements of KIP and CI	Local innovation in Hejőkeresztúr
Handling status problems by changing the usual competence-expectations	There is no special curriculum; it is compatible with the national core curriculum
Changing the social atmosphere in class	Using the normal 45 minutes time frame (in the US they use the method in project frames)
Giving open-ended group tasks that are organised around an interesting, discussable central topic	Giving pre-prepared, personally tailored individual tasks to each child after group work
Mixed ability groups	A structured lesson layout that is used regularly
Common topic, different group tasks, co-operation without competition	Using the fixed KIP-methodology in about 15-20 per cent of the lessons in each subject
Applying fixed rules; there are personal roles that are rotated	Introducing the role of the speaker to present the group tasks, the role is rotated
Shifting the responsibility to pupils	Every teacher in the staff uses the method

Table 4.
Common elements in CI and KIP, and local innovation

READING TOGETHER PROGRAMME IN GRADES 1-4

From the first grade the pupils can experience the joy that reading can give. Three times a week at the beginning of a lesson the children read for 15 minutes for their pleasure, choosing a book they are interested in. Pairs of students with similar abilities read aloud for each other. They exchange roles after each sentence and in the end they summarise what they have read. In higher grades they change roles by paragraphs. They love reading, because they can choose the book to read, the librarian piles the suitable ones on a big table when they come in first. Having read a book, they can choose a new one.

Pupils borrow plenty of books from the library, which shows that they read at home as well. Reading becomes a natural hobby. That is why all pupils learn to read and they have no problems reading and understanding tasks and schoolbooks. The library also serves the whole community.

PARENTAL INVOLVEMENT

The school welcomes parents, and wants them to see that their children are learning in a good place. It is important that all parents send their children to school and know that they are safe and happy there while learning and developing. It is also essential that more affluent parents do not take their pupils to a different school, as often happens at schools just because Roma pupils are the majority.

The school has strong links to the community. Parents take active roles in the school life, and the school provides services for them or any community members. This is not just openness. They have a method for involving parents in the process of co-operative learning, especially in developing social competences, and they call this programme 'Communication between generations'.

For example the pupils draw a family tree in grade one, which they can improve during the years. They mark those members of the family who are learning something and also put down who is good at what. These personal skills might be very simple, like making very good apricot jam or digging; but they can be as complex as being a doctor. The teacher chooses five parents, grandparents or bigger siblings to come into school and talk to the pupils about their chosen skills. Children pre-prepare so they know what they want to ask. The class is divided into five groups. Each group sits in a circle around a table and talks to the adult independently. After twenty minutes the speaker tells the class what they were talking about, what they have learnt. Then the pupils go to the internet and find some presents for the guests, related to the topic, for example a recipe or advice on cultivating certain plants.

USING COMPUTERS

Pupils and teachers use tablets and PCs in many ways. To raise attainment, by providing extra help for those in need, a teacher digitised previous national competency tests and created a system that automatically gives the right level task to everyone, based on the data that has been collected. This way it does not matter in which grade a certain child is – personal learning routes are available for practising. The teacher has been turning the non-interactive digital textbooks into interactive ones, so there is an endless possibility for the pupils to improve.

THE PATH TO THE KIP SCHOOLS NETWORK

Several dissemination processes and ways of networked learning can be recognised within the expansion of KIP. The national development programmes that had been focusing on raising the attainment of disadvantaged children had a strong network element. As a result the school developed good professional connections with other schools. They have learnt the importance of experiential learning as a part of teachers' continuous professional development (CPD), and the policy of open doors became part of their daily routine. Not only the headteacher but also the wider staff have been visiting each other's lessons regularly. They also warmly welcome teachers or groups of teachers from other schools.

Visiting schools started showing strong interest in applying the method. Emese and her staff worked out an excellent CPD programme. The first part is training lasting 60 hours, where teachers become familiar with the KIP methodology. The training material has been developed by the school head, in co-operation with Miskolc University, where she also teaches the KIP methodology to trainee teachers. The CPD programme enables the participants to apply the KIP methodology

in heterogeneous student groups in order to help equally the talented, the underachieving talented and the children who are lagging behind. It also enables them to handle social status problems and to create a dynamic learning community where everybody is appreciated and all members improve.

On the basis of this training, the participants start applying the KIP methodology in their daily routine. Mentoring is provided by KIP trainers. During a whole academic year the freshly trained teachers can decide when and with what topic they want to use the method. When a lesson plan is prepared, they discuss it with their mentors online in an interactive process.

Mentoring also means bilateral visits. New KIP teachers can go and see lessons at Hejőkeresztúr or other KIP schools, and the mentors go and see lessons at the joining schools once a month. When the academic year is over, and the new school decides to apply the methodology, there are another four years when help is provided by the trainers who work in Hejőkeresztúr or other schools that joined the programme some years earlier. It is a slow process, but changing the pedagogical culture takes time.

For the time being 40 schools have been trained. Twenty-six have been using the method as it is in Hejőkeresztúr, and 40 are in the informal KIP network. These are mostly primary schools (grade 1-8), but there are also four secondary schools. By now there are trainers at other KIP schools as well, so not only Hejőkeresztúr is responsible for the dissemination. In an academic year the network is able to take up and train between four and five new schools.

The network has not been registered yet, but has a webpage[4], and some common activities each year (e.g. a board-game competition for the children and a professional conference for the teachers). Mentoring also means live connections.

The school wants to become an officially registered KIP-centre. There is already such a centre at Miskolc University, where the school head teaches the method to trainee teachers, and together with the university the method is also introduced there in CPD courses.

As a result of network building and active participation in different national projects, the KIP programme has become well known. Because of their success with socially disadvantaged children, some key players in government and business have noticed the school and showed interest in disseminating the KIP methodology.

- The University of Technical Sciences, Budapest – which has a Centre for Educating Technical Teachers – organised training for teachers in co-operation with the Hejőkeresztúr School.
- An EU founded project on mathematics and sciences (Geomatech, www.geomatech.hu) invited the school to take part in the modernisation of teaching and learning these subjects. Experience based and playful online learning tasks have been developed since 2014 using the Geogebra software. An online task database has been created for all the 12 grades of public education.
- Each KIP school has been gifted tablets by the Vodafone Hungary Foundation to promote successful learning.
- Emese, the headteacher is a part time lecturer at two universities (Miskolc University and ELTE University, Budapest). She uses the KIP-method at the initial teacher education, so her students meet this method in both practice and theory. As a part of their initial teacher education, the students can visit the Hejőkeresztúr School and this way they take part in experiential learning.
- A Regional Methodological Centre of the Hejőkeresztúr model was established at Miskolc University at the end of 2015, within the framework of the Social Renewal Operational Programme. The centre caters for those groups of teachers, who work with multiply disadvantaged children and who are ready to use the KIP method. This

4. See www.komplexinstrukcio.hu Limited content is also available in English at http://www.komplexinstrukcio.hu/index.php?option=com_ntent&view=article&id=152&Itemid=182)

Centre focuses on training and further network building.

LESSONS FROM THE CASE STUDY

There is no doubt that the Hejőkeresztúr School has been successful in raising the attainment of socially disadvantaged children. It is also capable of facilitating the dissemination of their good practice. They are known as a successful school due to the KIP. The KIP is a variation of the CI programme of the Stanford University, USA, complemented with four local elements that are strengthening each other (board games, paired reading, communication between generations and individually-tailored computer-driven development).

The main lessons of the case study are as follows.

- The successful implementation of an innovation requires small steps and takes time (8–10 years at least).
- The school leaders have a special role in the innovation process. They must be committed, conscious and tolerant. They have to be role models and exemplars in implementing the innovation.
- Teachers should to be invited and welcomed to join. Support must be provided. Force does not work.
- Sharing experiences and learning together and from each other is very important.
- Continuous resource management is an important element of attaining the targets.
- Collaboration with the locals and PPP (public private partnerships) are vital.

THE FUTURE WITH QUESTION MARKS

In Hungary there is a governmental intention to raise the attainment of socially disadvantaged children by rolling out the KIP programme. The target is to involve hundreds of schools in the next couple of years and the process would be supported professionally and financially. The literature on innovation (Hall & Loucks, 1979; Miles, Ekholm, & Vandenberghe, 1987) and the lessons of good practice say that a process of innovation, integrating a new concept into the daily life of an organisation is a long process, which can take even eight to ten years. The lessons of the school development programme emphasise the importance of small steps, which means that at the beginning only a few people (the change agents) can be involved in a change. But even these people cannot change their professional practice in a short time. They have to experiment with small things in different situations, they have to analyse the good and not so good elements of their work and they have to do it several times to become competent. When confident enough, they can involve and help new colleagues.

The leaders have a determining role in the success of the implementation process. They have to believe deeply in the given innovation. Besides being committed they must guide the teachers on the way. The CPD of teachers, embedded in a learning organisation, is essential. The process can be supported by the state, but it should be kept in mind that a sustainable change with good results takes time and needs patience.

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IRELAND

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Susan Weir is a Research Fellow at the Educational Research Centre (ERC) in Drumcondra, Dublin, where she has worked since 1995. The ERC is Ireland's only institution dedicated solely to research in education at all levels, and was designated a state agency in 2015. Susan's work is mainly focused on educational disadvantage, and she has had responsibility for several evaluations of programmes aimed at addressing disadvantage on behalf of the Department of Education and Skills. The most recent of these is the 'DEIS' (Delivering Equality of Opportunity in Schools) programme in primary and post-primary schools. She has also worked for many years on the identification of indicators of educational disadvantage at primary and post-primary level, and on the assessment of levels of disadvantage in schools. The relationship between socioeconomic background and educational outcomes, and in particular how that relationship differs in urban and rural areas, is a major current interest. Susan was awarded both her primary degree and her PhD in Psychology from Trinity College Dublin.

ABSTRACT

Studies in Ireland, as in many other countries, have consistently found a strong relationship between students' educational achievements and factors related to their home backgrounds. Ireland has a long-standing policy, dating back to the 1960s, of attempting to address problems associated with such educational disadvantage. Recognition that schools serving concentrations of students from disadvantaged backgrounds have poorer outcomes than those serving other families has led to the introduction of a variety of initiatives over the past few decades. While some were aimed at pre-school and higher-level students, most targeted primary and post-primary students. While this article describes previous initiatives in brief, its main focus is on the current national-level programme, DEIS, as it operates in primary schools. DEIS, an acronym for Delivering Equality of Opportunity in Schools, was introduced by the Department of Education and Skills in 2007. The evaluation of the DEIS programme over the past decade suggests that it is the first of its kind in several decades to be associated with improved student outcomes. However, for a variety of reasons, it is not possible to conclusively attribute the observed improvements to the programme, or to individual elements of it. These reasons are discussed and the article concludes by outlining some of the challenges for the future of the current evaluation and for others like it.

Student achievement data for individual schools are not published at primary or post-primary level in Ireland. However, academic standards in general, as well as progress towards national performance targets, are monitored in a variety of ways including by conducting periodic national assessments in key areas, and by using data collected from Ireland's participation in international studies. Standards are also monitored by the Inspectorate of the Department of Education and Skills (DES). In acknowledgment of the enduring association between student achievement levels and home background factors, Ireland has a long-standing policy of establishing initiatives to address educational disadvantage. These initiatives involve supporting schools that cater for concentrations of children from poor backgrounds, including through the provision of additional resources.

The article first describes, as background, approaches to assessing standards of achievement nationally. Previous provision for disadvantaged students is also described. The main focus of the article will be on the current national-level programme, DEIS (Delivering Equality of Opportunity in Schools), which was introduced in 2007 to assist schools in addressing the problems associated with educational disadvantage. While DEIS (an acronym which also translates to 'opportunity' in the Irish language) operates at post-primary and primary levels, the article provides a detailed treatment at primary level only. Features of the programme, outcomes from the evaluation over the past decade, and challenges for the future, represent the major focus of the article. In particular, evidence relating to the extent to which the achievement gap between students in DEIS schools and other schools has narrowed, is explored.

WHAT WE MEAN BY THE TERMS ACHIEVEMENT AND ATTAINMENT

In Ireland, the terms achievement and attainment have been used historically to describe two distinct types of educational outcome. Student achievement has tended to be used to refer to outcomes resulting from the administration of tests, including standardised tests used by schools and others, as well as to the results of state and other examinations. Student attainment, on the other hand, has tended to be restricted to describing the extent to which students have been retained in the education system until various levels or benchmarks have been reached. As virtually all students now attain a primary-level education, much of the focus in recent times has been on monitoring trends in completion levels of the two state examinations at post-primary level. These are the Junior Certificate Examination, which is currently completed by about 97 per cent of the cohort entering post-primary school (students are typically aged 15-16 at the time of taking the examination), and the Leaving Certificate Examination

which is the final examination of post-primary education (currently completed by about 91 per cent of the cohort, typically aged 17–18) (DES, 2015). The major focus in the current article, however, will be on the achievements of students in primary schools.

MONITORING STANDARDS OF STUDENT ACHIEVEMENT IN THE REPUBLIC OF IRELAND

Contrary to practices in other European countries such as the United Kingdom, there is no system of national testing or publication of test results for primary or post-primary schools in Ireland. In the 1980s and 1990s, the publication of school league tables based on examination results began in the United States and in the United Kingdom (especially in England), leading to calls for the publication of similar data in Ireland. The arguments in favour of publishing the data rested on the assumptions that the accompanying accountability would drive school improvement as well as provide parents with information that could help them to make better decisions about the education of their children. However, the prospect of their introduction prompted a strong backlash from Irish educationalists and policy-makers, who warned of their potential disadvantages. These included the likelihood that the publication of the data would mislead rather than inform because they reflect the socioeconomic background of students enrolled rather than the quality of teaching in a school. There was also a perceived risk that their publication might lead to a narrowing of the curriculum and increase 'teaching to the test', and a concern that they could serve to increase existing educational disparities and inequalities in the system (Hislop, 2013). Over the past few decades, successive ministers in Ireland considered the potential benefits and drawbacks of comparative tables and all declined to allow the release of data which could be used to compile them. Ultimately, the matter was resolved with the inclusion in the Education Act (1998), of an explicit statement that the Minister for Education and Skills has the right to "refuse access to any information that would enable the compilation of information... in relation to the comparative performance of schools in respect of the academic achievement of students enrolled therein" (Education Act, 1998, p.41). This legislation was strengthened in the Education (Miscellaneous Provisions Act) (2015), which extended the 1998 Act to cover other public bodies that may hold, or have access to, such data.

There are several ways in which standards are monitored in Ireland. The first is by the Inspectorate of the DES, which has responsibility for evaluating and reporting on educational provision in all state-supported primary and post-primary schools. As well as conducting inspections of individual schools and groups of schools, members of the Inspectorate act as advisors on a range of educational issues to schools and policy makers. Key elements of their role are: to provide assurances of quality and public accountability in the education system; to promote best practice and school improvement by advising teachers, principals and boards of management in schools; and to report on curriculum provision, teaching, learning and assessment generally in the educational system. Inspectors also provide support and guidance to the development of approaches to school self-evaluation.

Standards are also monitored by a system of national assessments using representative samples of students at primary level in key areas, such as reading and mathematics. These have been conducted since the 1970s, and are currently undertaken every five years. The results are used both to monitor standards and inform policy. There are currently no national assessments at post-primary level, although their introduction has been signalled (DES, 2011).

In 2011, in line with commitments under the national Programme for Government (2011–2016) (Department of the Taoiseach, 2011), the DES published "Literacy and Numeracy for Learning and Life: A National Strategy to Improve

Literacy and Numeracy among Children and Young People 2011–2020" (DES, 2011). The content of the strategy was greatly influenced by the work of the Inspectorate, although intensive and widespread consultations with other key stakeholders and the wider public also took place. While there is a tradition of primary schools administering standardised tests to pupils on an annual basis for their own purposes, since 2012 they have been compelled to do so under the Literacy and Numeracy Strategy. In spring of each year, the aggregated results of standardised tests of students in second, fourth and sixth class (typically eight, ten and 12 year olds) must be reported to the DES (DES, 2011).

In acknowledgment of the role of the national assessments in monitoring progress, the strategy contains the following specific achievement targets related to the national assessments.

- Increase the percentage of primary children performing at Level 3 or higher (i.e., the highest levels) in the National Assessments of Mathematics and English Reading by at least 5 percentage points at both second and sixth classes by 2020.
- Reduce the percentage of children performing at or below Level 1 (i.e., the lowest level) in the National Assessments of Mathematics and English Reading by at least 5 percentage points at both second and sixth classes by 2020.

The strategy also contains specific achievement targets for post-primary schools.

- Increase the percentage of 15-year old students performing at or above Level 4 (i.e., at the highest levels) in PISA reading literacy and numeracy tests by at least 5 percentage points by 2020.
- Halve the percentage of 15-year old students performing at or below Level 1 (the lowest level) in PISA reading literacy and numeracy tests by 2020.

Thus, as well as increasing achievement levels overall, the strategy has clearly identified the reduction in the percentage of low achievers at primary and post-primary levels as one of the specific objectives of the strategy. The extent to which the targets have been realised will be described in the following sections.

WHAT DO NATIONAL AND INTERNATIONAL STUDIES TELL US ABOUT STUDENT ACHIEVEMENT IN IRELAND?

Up to 2012, evidence from national assessments indicated that there had been no observable change in average performance in reading or mathematics at primary level since 1980 (see Eivers, Close, Shiel, Millar, Clerkin, Gilleece & Kiniry, 2010). However, the most recent assessments in 2014 revealed significant improvements in mean scores since 2009 in both reading and mathematics (Shiel, Kavanagh, & Millar, 2014). In fact, the recent assessment data revealed that the targets set under the Literacy and Numeracy Strategy to increase the percentage of high scorers and reduce the percentage of low scorers were achieved well in advance of the original target date of 2020. It is, however, doubtful that the changes are wholly or partly attributable to the strategy itself, given the fact that it was so recently established. Other possible explanatory factors may include an increase over recent years in the exposure of pupils to the types of tests used in the study.

A further source of data on how Ireland's students are performing is from international studies. Over the past few decades Ireland has participated in a number of international student assessments at primary and post-primary levels. In early international studies (IEA/RLS, IAEP II, and TIMSS), the average performance of Irish primary-level students was found not to differ markedly from the overall average performance of participating countries. Ireland's performance in 2011 in the most recent cycle of PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in Mathematics and Science Study) revealed improvements in Ireland's international standings, with Irish students ranked 10th of 45 countries

in reading and 17th of 48 countries in mathematics (Eivers & Clerkin, 2012).

At post-primary level, Ireland's performance in international studies has been variable. A decline in PISA performance in 2009 was followed by an increase in 2012. Of most interest from the point of view of the current article, however, is the fact that the outcomes from PISA 2012 revealed that the targets relating to high achievers set under the Literacy and Numeracy Strategy had been largely met and much progress had been made in relation to low achievers. The target to increase the percentage of 15-year olds performing at Level 4 or above by five per cent has been met for print reading and mathematics (the actual increases were 8.5 and 4.9 percentage points respectively). However, the target to halve the proportion of lower-achieving students has not yet been quite met in reading, while in mathematics the percentage of students achieving at or below Level 1 will need to decrease by another 6.5 percentage points to meet the target (Perkins, Shiel, Merriman, Cosgrove & Moran, 2013). As was the case at primary level, it is unlikely given the early stage of the strategy that it could be entirely responsible for improvements between 2009 and 2012.

THE RELATIONSHIP BETWEEN ACHIEVEMENT AND SOCIOECONOMIC STATUS

The concept of educational disadvantage has received a good deal of attention from researchers and policy makers in Ireland over the last few decades (e.g., Archer & Weir, 2005; Kellaghan, Weir, O'hÚallcháin & Morgan, 1995). Such was the importance assigned to the issue that, in 2001, an Educational Disadvantage Committee was established to advise the minister on 'policies and strategies' aimed at eliminating educational disadvantage. A definition of educational disadvantage had been formalised under Section 32 (9) of the Education (1998) Act, which defined disadvantage as "the impediments to education arising from social or economic disadvantage which prevent students deriving appropriate benefit from education" (p. 32). One of the most enduring findings in studies of achievement at primary level in Ireland is that students from poorer families are outperformed by those from better-off families. Furthermore, studies in Ireland have identified a social context effect, that is, that student achievement is negatively affected by increasing densities of students from disadvantaged backgrounds (Smyth, 1999; Sofroniou, Archer & Weir, 2004; Weir, 2001). The enduring relationship between achievement and home background is also acknowledged in the Literacy and Numeracy Strategy, where the enhancement of literacy and numeracy provision for pupils from socially, economically and educationally disadvantaged backgrounds was mentioned as a specific objective (DES, 2011 p. 18). The most recent national assessment confirmed that students from financially better-off families and whose parents had higher levels of education achieved significantly higher mean achievement scores in both reading and mathematics than their less affluent counterparts (Kavanagh, Shiel & Gilleece, 2015).

PROVISION FOR DISADVANTAGE IN IRELAND

Addressing problems associated with educational disadvantage has been at the forefront of educational policy in Ireland since the middle of the last century. Ireland was one of the first countries in Europe to respond to the problem of educational disadvantage by establishing a preschool in a disadvantaged area of inner city Dublin in 1969 (Holland, 1979). Provision for disadvantage has continued since then. In 1984, the (then) Department of Education brought in the first mainstream measures to deal with the problem of disadvantage in selected primary schools in cities around Ireland. Other schemes followed: the Home-School-Community Liaison scheme in 1990; Breaking the Cycle in 1997; and Giving Children an Even Break in 2001. Among other things, all of the schemes

included allocating additional financial resources to participating schools, and the most recent two allowed for the appointments of additional staff to permit reductions in class size[1]. The School Support Programme (SSP), under Delivering Equality of Opportunity In Schools (DEIS), is the most recent initiative in the area and will be described in detail in the next section.

HOW SUCCESSFUL WERE EARLIER INITIATIVES IN ADDRESSING EDUCATIONAL DISADVANTAGE?

In response to a request from the Educational Disadvantage Committee, Archer and Weir (2005) reviewed the international literature on what had been identified as effective in addressing educational disadvantage, and reviewed provision for disadvantage in Ireland in light of the findings. The results of programme evaluations in Ireland were also examined, with a major focus on the extent to which each of the initiatives had been successful in meeting its original aims and objectives. The following is a summary of that part of the review.

The ultimate goal of schemes to address the problems experienced by pupils from disadvantaged backgrounds, whether stated explicitly or not, is to bring about improvements in their educational achievements and attainments. Whether these improvements have occurred, and if the gap between disadvantaged students and their more affluent counterparts has been reduced, has been a focus of many of the evaluations. Standardised test scores have been used to assess the impact of schemes on the achievement in English reading and mathematics of pupils who had participated during the first few years of Early Start, the Home-School-Community Liaison scheme at primary level, and Breaking the Cycle. With the exception of the follow-up study of the Home-School-Community Liaison scheme (Ryan, 1999) and the Rutland Street Project (Kellaghan & Greaney, 1993), there is little evidence that programmes had any impact on achievement as measured by standardised tests. However, schemes have tended to be positively evaluated by those directly involved. For example, in the urban dimension of Breaking the Cycle, the scheme was perceived by junior class teachers to have had a range of benefits. Almost all believed that pupils had benefited from the reduction in the size of junior classes, citing factors such as increased individual attention to pupils, easier identification of individual pupils' needs, and a belief that participating in the scheme had improved teachers' ability to respond effectively to the learning needs of pupils (Weir, Milis, & Ryan, 2002). However, no improvements in reading or mathematics outcomes were observed over a six-year period (Weir, 2003). Overall, the evidence from evaluations suggests that the programmes have impacted on participating schools in ways that would generally be regarded as very positive and likely to give rise to improved educational performance. However, with only a few exceptions, improved performance was not observed in evaluations carried out before 2004.

The Archer and Weir (2005) review revealed implementation failures in many of the programmes reviewed. In Breaking the Cycle, for example, the promised professional development for teachers did not happen in the way intended, largely due to the simultaneous introduction of a new curriculum which meant that professional development activities associated with it took precedence over those planned for Breaking the Cycle. In Giving Children an Even Break, the advisory service that was to be established to support teachers in maximising the use of additional resources under the scheme never materialised. In designing the DEIS initiative, there was an attempt to remedy what had been identified by the review as gaps in previous provision. In particular, providing relevant and good quality professional development opportunities for teachers, and placing an increased emphasis on literacy and numeracy, were to feature prominently.

1. See the Social Inclusion section of http://www.education/ie for a more detailed description of previous initiatives.

THE DEIS PROGRAMME (DELIVERING EQUALITY OF OPPORTUNITY IN SCHOOLS)

In 2005, schools with the highest levels of disadvantage nationwide were identified, via a survey of principals, for inclusion in DEIS, a new action plan aimed at addressing disadvantage. As there are no centrally available data on the home background characteristics of students at primary level in Ireland, all 3,200 principal teachers nationwide were asked to provide details of their students' background characteristics. These included factors such as residence in local authority housing, lone-parent family status, and family unemployment[2]. All schools were rank-ordered on an index based on these combined variables (separate rank orders were compiled for urban and rural schools) and the DES used these lists to identify the schools with the greatest concentrations of disadvantaged students for inclusion in DEIS. DEIS was introduced in 2007 and aimed at addressing the educational needs of children and young people from disadvantaged communities, from pre-school through second-level education (three to 18 years). Strictly speaking, almost all primary schools in the state are in the DEIS programme, because most schools receive a financial allocation to acknowledge the presence even of very small numbers in the school of students from disadvantaged backgrounds. However, it also comprises an integrated School Support Programme (SSP) which is intended to bring together, and build upon, existing interventions for schools with a concentrated level of educational disadvantage (i.e., it is aimed at those schools at the top of the rank order based on the survey described above) (DES, 2005). The SSP under DEIS differs from its predecessors in that it has a greater focus on school planning and on activities designed to boost literacy and numeracy (e.g. programmes such as First Steps and Reading Recovery). While there are about 340 rural primary schools receiving supports, the current article is solely concerned with the 340 programme schools in urban areas[3]. These urban SSP schools are divided into two 'bands', depending on their assessed level of disadvantage.

Participating urban schools are entitled to a range of resources, with more intensive resource allocation in Band 1, where assessed levels of disadvantage are greater. Briefly, schools in Band 1 are entitled to: operate junior classes (the first four years of primary school) with maximum class sizes of 20; the allocation of administrative (non-teaching) principals on lower enrolment and staffing figures than apply in primary schools generally; additional non-pay/capitation allocation based on assessed level of disadvantage; financial allocation under a school books grant scheme based on level of disadvantage; access to the School Meals Programme; access to a literacy/numeracy support service and to literacy/numeracy programmes (Reading Recovery; First Steps; Maths Recovery; Ready, Set, Go Maths); access to homework clubs/summer camps assisting literacy and numeracy development; access to Home-School-Community Liaison services (including literacy and numeracy initiatives involving parents and family members, such as paired reading, paired mathematics, Reading for Fun and Maths for Fun); access to transfer programmes supporting progression from primary to second-level; access to planning and other professional development supports from the Professional Development Service for Teachers (PDST). The PDST is funded by the Teacher Education Section of the DES, and its role is to provide a support service to primary and post-primary schools by providing professional learning opportunities to teachers and school leaders in a range of pedagogical,

2. For more detailed information on how programme schools were identified, see Archer & Sofroniou (2008).
3. There are differences between rural and urban DEIS schools apart from their location. Most rural schools in DEIS are small schools, and the supports they receive under DEIS differ from schools in urban areas (e.g., class size is not reduced). The evaluation has also revealed differences in the nature of disadvantage in rural and urban areas. For example, the relationship between poverty and educational outcomes is not as strong in rural as in urban areas and pupils in rural DEIS schools have better achievement levels than their urban counterparts (see Weir, Archer & Millar, 2009).

curricular and educational areas[4]. PDST advisors are all qualified teachers that have been seconded to the service. Schools in Band 2 receive all of the above with the exception of reduced class sizes at junior level.

THE EVALUATION OF DEIS

At the request of the DES, the Educational Research Centre (ERC) began work in 2007 on an independent evaluation of the SSP component of DEIS in primary and post-primary schools[5]. Like the programme itself, the evaluation is multifaceted, and is attempting to monitor the implementation of the programme and assess its impact on students, families, schools, and communities at primary and post-primary levels. While questionnaire studies are being used to investigate some issues, school visits, interviews, and focus groups have been used to investigate others. The DES has supplied the evaluation team with data to permit some implementation issues to be examined in detail (such as class size in DEIS and non-DEIS schools at primary level). Other data have been supplied by the State Examinations Commission to allow outcome data in post-primary DEIS and non-DEIS schools in the state examinations to be compared over time. All participating schools have contributed evaluation data, although more intensive data collection has taken place with a smaller number of schools that have identified themselves as particularly interesting in various ways (for example in primary schools that achieved impressive increases in average standardised test scores). Several evaluation reports have been published on a range of topics, some of which concern rural primary schools (Weir, Archer & Millar, 2009; Weir, Errity, & McAvinue, 2015), post-primary schools (McAvinue & Weir, 2015; Weir, McAvinue, Moran & O'Flaherty, 2014), and (of most relevance in the current context), urban primary schools (Weir & Archer, 2011; Weir & Denner, 2013; Weir & Moran, 2014; Weir & McAvinue, 2012).

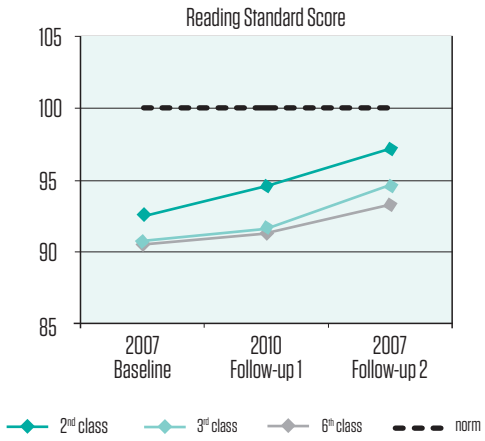
It should be noted that the evaluation was designed within the constraint imposed by the incapacity to establish a control group. The pre-selection of participating schools made it impossible to subsequently identify a matched control group of schools with similar levels of disadvantage (i.e., all schools identified as having concentrations of target families were in the programme). However, even if that had not been the case, a control group would not have been viable because withholding treatment from pupils who had an identified need would be unethical. It would be particularly problematic in the case of DEIS because those resources had emanated from the exchequer. However, in the case of reading and mathematics outcomes at primary level, comparisons with national norms were possible. Similarly, at post-primary level, comparisons of outcomes over time in DEIS and non-DEIS schools were facilitated by the availability of data from the state examinations.

IMPLEMENTATION LEVELS

A range of positive outcomes have been noted by the evaluators. With some exceptions, all of the main elements of the DEIS Action Plan (DES, 2005) have been put in place at national level, and there is no evidence of any serious implementation failures at school level. Indeed, the response of schools to the initiative has been overwhelmingly positive, both in the sense that what has happened at school level has been in line with what was envisaged in the Action Plan, and in the sense that participants value highly what has been put in place. Data collected indicated that various aspects of the programme have been successfully implemented. For example, junior class sizes have been reduced in line with programme guidelines (Weir & McAvinue, 2012), literacy and numeracy programmes were implemented as intended in all schools, and surveys of all participating schools and follow-up interviews with principals regarding planning for DEIS

4. See www.pdst.ie
5. Schools and the wider public tend to use the term 'DEIS' schools to refer to programme schools rather than the more correct term 'SSP' schools,

Figure 1.
Reading standard scores of 2nd, 3rd and 6th class pupils in 2007, 2010, and 2013



revealed that virtually all had embraced the planning process (Weir & Archer, 2011). Planning and target setting in the areas of literacy, numeracy, attendance, and parent and community involvement was an element of the programme that was stressed from the outset and indeed was a requirement for participation in the programme. Schools were required to set and monitor progress towards targets, revising them as necessary, and were supported in doing so by members of the professional development service. It should be noted also that the uptake of professional development opportunities in programme schools was very high.

As well as implementing the SSP, many participating schools opted to participate in other area-based initiatives. For example, all 11 SSP primary schools in a disadvantaged area of north Dublin are also participating in a community change initiative known as Young Ballymun[6]. At individual level, many schools demonstrated innovative use of resources allocated under DEIS, by, for example, establishing transition programmes with local post-primary schools serving the same families.

ACHIEVEMENT OUTCOMES

The monitoring of change in achievement (by comparing test scores in reading and mathematics) over the period 2006/07 to 2015/16 is a major feature of the evaluation. At primary level, the evaluation involves cross-sectional comparisons of achievement between different student cohorts as well as longitudinal studies of achievement. Pupils in 2nd, 3rd, and 6th class (typically eight, nine and 12-year olds) were tested in reading and mathematics in a sample of 120 schools in the urban dimension of the SSP in 2007[7]. Pupils in the same schools and class levels were retested on two further occasions (2010 and 2013), and retesting will take place again in May of 2016. Some of these students were tested on more than one occasion (e.g., those in 3rd class in 2010 were tested again in 6th class in 2013). To facilitate recapture of students for this longitudinal aspect of the study, all pupils at the relevant grade levels in each school participated, resulting in large samples of participants. In 2013, for example, 17,186 pupils across the four grade levels were involved in the testing exercise.

The evaluation of the programme revealed that the measured achievements (English reading and mathematics) of pupils attending schools participating in DEIS are well below those of pupils on whom the tests were standardised (Weir & Denner, 2013). Furthermore, within DEIS, the average achievements of pupils in schools in Band 1 are consistently below those of pupils in schools in Band 2. To facilitate comparing the achievements of pupils at different grade levels, the average reading standard scores[8] achieved by pupils on the three occasions for which test scores exist were plotted (see Figure 1 above). Using standard scores has the advantage that all pupils are placed on a common scale and the relative achievements of pupils at different grade levels can be easily assessed and compared with the norm group. The broken black line in Figure 1 represents a standard score of 100, and is, by definition, the national average on all levels of the English reading test[9]. The other lines in Figure 1 show an upward change in reading achievement of pupils in all grade levels in DEIS both

6. See www.youngballymun.org
7. Data were not collected from 5th class pupils in 2007, but were included in 2010 and 2013 to create a second longitudinal cohort (2nd class in 2010 to 5th class in 2013). Students in 5th class have been excluded from the cross-sectional comparisons described here as there are no baseline data available for them.
8. While mathematics data exist also, the current article will describe reading data only due to space constraints. See Weir and Denner (2013) for a more detailed account of cross-sectional and longitudinal reading and mathematics outcomes.

Grade Level	2007		2010		2013		Norm group average
	At or below 10th	At or above 90th	At or below 10th	At or above 90th	At or below 10th	At or above 90th	At or below 10th and at or above 90th
2nd class	22.0%	2.2%	15.9%	2.2%	11.0%	4.1%	10.0%
3rd class	26.4%	1.6%	23.0%	1.1%	16.8%	1.6%	
6th class	28.0%	2.3%	25.6%	2.5%	20.2%	3.1%	

Table 1. Percentages of pupils scoring at or below the 10th percentile in reading at each grade level in 2007, 2010 and 2013

between 2007 and 2010 and between 2010 and 2013. It can also be seen that the reading achievements of pupils in 2nd class were higher at baseline than those of other class levels. Furthermore, the discrepancy between the performance of our three samples of 2nd class pupils and those in the norm group narrowed the most over time. Pupils in 6th class had the lowest starting scores, and least improvement overall, but the steeper gradient of the line between 2010 and 2013 indicates that they improved more in the recent test administration than they did between 2007 and 2010. The same was true for pupils in 3rd class.

As already noted, schools such as those participating in DEIS tend to have a greater concentration of low achievers than non-participating schools, and test data collected for the evaluation bears this out. Table 1 shows the percentages of pupils with reading scores at or below the 10th percentile in 2007, 2010 and 2013. The percentage of pupils with scores below the 10th percentile decreased at all grade levels over the six-year period, although the decrease was greatest at 2nd class level, bringing 2nd class pupils in DEIS schools close to the national average. The percentage of pupils scoring at or below the 10th percentile in reading reduced in 3rd and 6th class by 9.6 per cent and 7.8 per cent respectively between 2007 and 2013. The discrepancy between pupils in DEIS and those in the norm group is greatest at 6th class level, with twice the percentage of low-scoring pupils in DEIS schools than in the norm group.

The percentage of high-scorers – those scoring at or above the 90th percentile – is lower than the national average of 10 per cent (being less than 5 per cent at all grade levels) (Table 1). It is worth noting, however, that the decrease in low-scoring pupils was not accompanied by a reduction in the percentage of high-scorers (those at or above the 90th percentile). In both 2007 and 2010, 2.2 per cent of 2nd class pupils achieved reading test scores at this level, and the percentage increased to 4.1 per cent in 2013. If anything, there appears to be a slight increase in the percentage of very high-scoring pupils over the three cycles of testing. This suggests that the decrease in low scorers was not achieved at the expense of a reduction in high scorers (a possibility if an exclusive focus was placed on raising the achievements of lower-achieving pupils).

Improved outcomes were also observed among the subsamples of students in the longitudinal cohorts (e.g., those who were in 2nd and 3rd class in 2010 were in 5th and 6th class in 2013). Analyses of the differences in reading standard scores achieved by both groups of students on both occasions revealed a small but statistically significant improvement in reading. This is similar to the findings concerning the earlier longitudinal cohorts (i.e., those tested in 2007 and 2010), which also revealed increases in reading achievement in both cohorts (Weir & Denner, 2013).

The observed gains need to be considered in light of a number of factors that might have been expected to lead to a decline in achievement over the period. First, attendance rates on the days of testing were higher in 2010 than in 2007 and increased again in 2013. This means that potentially more poorly performing

9. Reading achievement was assessed using Form A of the Drumcondra Sentence Reading Test (DSRT). The DSRT is a multiple-choice group test with 6 levels, one for each of 1st to 6th class. At each level of the test, pupils read a sentence and try to identify a target word. The test is secure (it is reserved for research purposes) and is not available publicly. For more information on the DSRT, see Weir and Archer (2011).

children were present for the tests in 2013 (when the highest average test scores were achieved) than in 2007 or 2010. The basis for this suggestion comes from data from other evaluations, which revealed that students who were absent for one or more achievement subtests had significantly poorer achievements on those than students present for all parts of the test (Weir et al., 2002). Improved attendance may, of course, be a consequence of measures introduced by schools as part of DEIS (schools were required to develop attendance targets and improvement strategies as part of their school plan). Second, fewer pupils were exempted by teachers in 2013 than was the case in 2007 or 2010 (exemptions were based on pupils' inability to attempt the test due to a range of factors including learning disabilities and poor ability in English). The fact that, in 2013, less than one per cent of pupils were exempted makes the average achievements of the group more impressive. Third, it is likely that since the programme began, families served by the schools have been experiencing the effects of the serious economic recession that took place in Ireland since about 2008. In other words, levels of disadvantage are likely to have increased in schools in our sample, and there is some evidence in the literature that poverty, even if it is short term, can have a negative impact on achievement (McLoyd, 1998).

It is also the case that not all schools improved their outcomes to the same extent (and indeed a very small number of schools did not improve at all) despite the fact that they were allocated the same resources. For this reason, work is on-going in an effort identify the factors that contributed to improvements. This work, which has involved a number of approaches, including the production of complex statistical models of achievement, focus groups with principals, and visits to schools involving interviews with various key staff, has proved to be challenging. As yet, clear-cut factors that distinguish successful schools from others have not emerged. In general, however, the evaluation data suggest that it is important that schools continue to receive supports; that schools maintain their focus on planning in key areas; and that staff continue to receive and engage in on-going professional development.

Interpreting the outcome data overall is already problematic due to the absence of a control group, but is further complicated by the results of the most recent national assessment which indicated an overall national improvement between 2009 and 2014 in both reading and mathematics. Therefore, it has to be considered that the improved outcomes in DEIS schools merely reflect improved outcomes at system level. Alternatively, the overall national improvement may be in fact be partly attributable to the improved performance of the subgroup of students in DEIS schools. Unfortunately, there is no overlap between the tests used in the national assessments and in the DEIS evaluation. To investigate the issue further, consideration is being given to undertaking a test equating exercise in a sample of schools in which the two tests can be benchmarked against each other, allowing the contribution of DEIS and non-DEIS students to be assessed.

CONCLUSION

Although beyond the scope of the current article, the evaluation at post-primary level has also revealed greater improvements in outcomes in DEIS schools than in non-DEIS schools in both attainment (retention in school until the end of the Junior Cycle) and in student achievement in the first of the state examinations (performance in the Junior Certificate Examination) (McAvinue & Weir, 2015). At primary level, the fact that the improvements occurred at all grade levels and in both reading and mathematics is noteworthy. While it must be acknowledged that factors other than those associated with the programme may be responsible for the improved outcomes, it is worth reflecting on why DEIS appears to have been more successful than programmes that preceded it.

It is possible to identify three main areas in which DEIS differs from, or goes beyond, programmes that predated it. First, the focus on schools' engagement in school planning and target setting has been more intensive than in previous programmes. Planning for DEIS was supported by input from the professional support service for teachers (PDST), and schools were encouraged to set targets in a range of areas, but particularly in the areas of literacy and numeracy. Data collected as part of the evaluation indicate that most schools embraced the school planning element of the programme, and were actively engaged in the setting of, and monitoring of progress towards, targets in the areas of literacy and numeracy. Second, DEIS is the first programme of its kind to provide literacy and numeracy programmes to participants. Data collected suggest that the uptake of literacy and numeracy programmes has been universal and enthusiastic. Third, a system of supports was put in place to assist schools with their implementation of the literacy and numeracy programmes. Members of the support service worked in classrooms to train teachers, via modelling and other methods, how to implement the programmes with their students. This element was absent from previous interventions, although it had been intended to provide something similar in Giving Children an Even Break (the immediate predecessor to DEIS).

For several reasons, further monitoring of achievement levels in participating schools is necessary. As the impact of the programme on participants is likely to be more evident in the long-term than the short-term, it would seem essential to plan to continue to monitor outcomes. Also, given that the level of achievement in participating schools is still well below the national norm, there is the question of whether the gains already observed can be built on and the achievement gap further reduced. Data from the evaluation at post-primary level also suggest outcomes have improved in DEIS schools in that regard (McAvinue & Weir, 2015). It is envisaged that the on-going evaluation of DEIS will form part of a wider programme of research and evaluation designed to better understand the nature of disadvantage. Indeed, the monitoring of student achievement in DEIS schools (or schools in whatever programme may succeed DEIS) may need to be built into national assessments in future.

The DES has established a working group to consider how future provision for disadvantage will be managed and how needy schools might be identified. The form of any future programme is likely to be influenced by findings from the current evaluation of DEIS. Indeed, in 2014, the DES held a public seminar entitled *Learning from DEIS* which was attended by a large audience representing a diversity of interests in education, including primary and post-primary school principals, teacher unions, management bodies, policy-makers, education inspectorates (both North and South), and academics and researchers with a special interest in education. More recently, the DES commissioned a research report intended to bring together the lessons learned from the external evaluation of DEIS and the evaluations conducted by the Department's own Inspectorate (Smyth, McCoy & Kingston, 2015). There is no reason to anticipate a major change in approach to tackling disadvantage, even though at the time of writing, it is uncertain who the future Minister might be. While it is probable that resources will continue to be targeted at schools serving disadvantaged students, a move to a more sophisticated approach to identification than the existing one has been recommended (Weir & Archer, 2005). Rather than the current dichotomy in which schools are either included in the SSP or are not, a sliding scale in which resources are allocated based on levels of disadvantage would seem preferable. However, regardless of how schools are selected for programmes, or who becomes the next Minister, standards in schools catering for concentrations of disadvantaged students, should continue to be monitored.

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ABSTRACT

This article provides information about an education mediation programme, which took place within the context of commitments made by educational institutions in Kosovo, the European Union, the Council of Europe and Balkan Sunflowers Kosovo, to increase access to education for children and young people from the Roma, Ashkali and Egyptian communities in Kosovo. Specifically, the article aims to highlight the role of educational mediators in this process and the achievements made within the programme.

The article draws on data from an evaluation study, which took place during the first half of 2014. The evaluation was conducted in four Kosovo municipalities: Fushë Kosovë/Kosovo Polje, Obiliq/Obilić (including Plemetin), Gjakovë/Đakovica and Pejë/Peć. The results of the study are based on statistical analysis of the Education Mediation Client Database on the educational mediators' work throughout 2013, views collected through surveys, interviews and focus group discussions with 160 stakeholders (mediators, headteachers, teachers, parents and education officers) and 102 children and young people, who were the beneficiaries of the mediation programme.

The evaluation showed that, through the mediation programme, there is more comprehensive information on cases of school dropout by Roma, Ashkali and Egyptian children. This helps to provide evidence and evaluation of the support offered by the educational mediators, as well as of the needs of these communities for sustainable integration into the education system in Kosovo. The work of education mediators in the municipalities involved in the programme has contributed to reducing dropout rates and improving school attendance by children from these communities.

This article is based on the research project 'The Role of Mediators in the Integration of the Roma, Ashkali and Egyptian Communities in the Education System' conducted in 2014 by the Kosovo Pedagogical Institute, with the support of Balkan Sunflowers Kosovo, within the framework of the European Union and Council of Europe Joint Programme 'Supporting Access to Education and Intercultural Understanding'.

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KOSOVO THE ROLE OF MEDIATORS IN THE INTEGRATION OF THE ROMA, ASHKALI AND EGYPTIAN COMMUNITIES IN THE EDUCATION SYSTEM IN KOSOVO

The Republic of Kosovo is a multi-ethnic society consisting of Albanian and other communities, including the Roma, Ashkali and Egyptian communities. The Government of Kosovo, the Ministry of Education, Science and Technology (MEST), the European Union (EU), the Council of Europe (CoE) and other partners provide strategic plans, training programmes and other support for the integration of these communities into society in general, and the education system in particular. MEST, with the support of its partners, has initiated a mediation education programme for the integration of the Roma, Ashkali and Egyptian communities. The rationale for this programme includes the high dropout rates and the poor learning outcomes that are common among children from these communities.

From the beginning of the mediation education programme, discussions took place about its effects and impact on the integration in education of children from the Roma, Ashkali and Egyptian communities. Three main issues were raised in these discussions.

- **Evidence from children who are supported by the mediation programme in relation to their involvement and attendance at school**. Reports from the Management Information System on Education (EMIS), show that the largest number of children who drop out of school come from the Roma, Ashkali and Egyptian communities.
- **The educational mediators and their role in integrating Roma, Ashkali and Egyptian communities into the education system in Kosovo**. Most of them do not have an adequate level of education/qualifications to perform the role of mediation, but make an important contribution to this programme, as they come from the same communities.
- **The results and views given by the mediation programme beneficiaries and programme providers**. These indicate that to achieve greater success in integrating Roma, Ashkali and Egyptian children and young people into education, firstly this programme should become part of the educational policy in Kosovo, not only to be an experience implemented through international projects in Kosovo.

This article presents the challenges and the achievements associated with the integration of the Roma, Ashkali and Egyptian communities into education, and the role of educational mediators in this process. It presents findings from an analysis of documents, information from the School Mediation Client Database and the perspectives of mediation programme

providers and beneficiaries, collected through a survey.

The article is divided into three parts. The first part is a summary of the educational mediation programme, including the context for the role and legal status of mediators. The second part presents data about the educational mediation programme. The third part presents the views of mediation providers and beneficiaries. Finally, the article discusses the data and draws conclusions regarding the role of educational mediators in the integration of Roma, Ashkali and Egyptian children into the education system in Kosovo.

THE CONTEXT OF THE EDUCATION MEDIATION PROGRAMME

The mediation programme in Kosovo and the involvement of education mediators came about as a result of a commitment to improve the involvement and quality of education for the Roma, Ashkali and Egyptian communities. At the beginning of this programme (2008/09), education in these communities was not yet at satisfactory levels of achievement against outcomes. This information is reflected in numerous documents and various research reports.

"The Kosovo Strategy for the Integration of the Roma, Ashkali and Egyptian Communities 2009–2015" (Government of Kosovo, 2009) indicates that children from these communities have a poor attendance rate for compulsory education. Data from the "Kosovo Human Development Report, 2004" (UNDP, 2004), presented through the Kosovo Integration Strategy, reports that the rate of illiteracy among these communities is 16 per cent (Government of Kosovo, 2009). Additionally, the "Strategy for the Integration of the Roma, Ashkali Egyptian Communities in Kosovo, Education Component 2007–2017" provides data obtained by EMIS–MEST for the 2005/06 school year, which showed that only 1.1 per cent of children from the Roma, Ashkali and Egyptian communities attend education from pre-school to upper secondary level, in comparison with the rest of the school age population (MEST, 2007). There is a total of 422,819 students who have completed education from kindergarten (age 9 months to 5 years) to upper secondary education (age 15–17 years, classes 10–12). Out of this total number of students, children from the Roma, Ashkali and Egyptian communities made up 1.1 per cent, while those from the Albanian community made up 81.2 per cent and those from other communities (Croat, Turkish, Gorani, etc.) made up 14.7 per cent.

Findings from the survey "The position of Roma, Ashkali and Egyptian communities in Kosovo", involving 867 respondents from these communities, indicated that 19.93 per cent of the respondents had no education whatsoever and were illiterate, and that 96 per cent had not even completed compulsory education, as required by law (KFOS, 2009). Concurrently, the results of the study "Intensive learning programme 2004–08 and the integration of children from the Roma, Ashkali and Egyptian communities into mainstream education", conducted by the Kosovo Pedagogical Institute (KPI), indicate that, out of a total of 899 individuals attending intensive learning classes from 2004 to 2008, only 17.2 per cent had been successfully integrated into the regular learning process (14.2 per cent in mandatory education), which was the main goal of this programme. Of these, 10.8 per cent dropped out of regular education process shortly after integration, usually in the first month (Zylfiu, 2009).

EMIS statistical data for the period between 2004 and 2007 indicates that, compared to the total number of students in the municipalities, enrolment in compulsory education is a mere 1.5 per cent for the three communities of interest.

As a result of this situation, Kosovo's central institutions and the supporting partners developed specific activities and measures aimed at supporting education improvement in these communities in the future. One approach was the use of incentives and the involvement

of successful individuals from these communities to motivate children and parents to ensure regular school attendance. This was the basis for developing the education mediation programme in Kosovo.

The engagement of education mediators to assist children from the Roma, Ashkali and Egyptian communities, to facilitate communication between school, family and community, as well as to raise awareness among communities of the importance of education, was introduced through the Interculturalism and the Bologna Process Project (IBP), co-funded by the EU and the CoE, and implemented by CoE and MEST.

The work completed by the CoE since 2011 in the framework of the Mediation for Roma programme (ROMED) also influenced the evolution of educational mediation in Kosovo. Representatives of Balkan Sunflowers Kosovo[1] attended several European meetings of the ROMED programme and gained information about the activities carried out in this field in various countries. However, despite this strong European connection, particular attention was paid to the adjustment of the European examples to fit the context of Kosovo.

Sustaining its role in initiating the Kosovo mediation programme, CoE offered the model, expertise and support for implementing the programme. A particular focus was placed on the local capacity building of mediators, teachers and non-governmental organisations (NGOs), in order to enable them to take on responsibility for the programme's implementation in future.

THE PURPOSE OF THE EDUCATION MEDIATION PROGRAMME, MEDIATORS' ROLES AND RESPONSIBILITIES

The purpose and idea behind the mediation programme, as well as the scope of work of the mediators, are provided in the training manual for education mediators in Kosovo (BSFK, 2012). According to this document:

> *"[a] 'mediator', in the traditional context, does not belong to, or come from, either side of a 'conflict'. For example, a mediator would neither represent a school community nor a family. In our context, however, the mediator does in fact belong to the community he or she is assisting. In our programme, the work of a mediator focuses mainly on facilitating communication and contact between school(s), municipal education departments, families, the local Roma, Ashkali, and Egyptian communities, and the learning centre, if there is a learning centre in the town"* (p. 6).

The purpose of the education mediation programme is to provide support aimed at increasing access to education for the children of the Roma, Ashkali and Egyptian communities, while ensuring timely enrolment in school and preventing school dropout among these children.

The education mediators have been engaged in mediation activities in previous projects run by different organisations. They have at least a high school education and take part in continuous professional development. Generally, the education mediators involved in the programme have the following (main) duties: inform communities about the school access facilitation measures; raise communities' awareness of the importance of regular school attendance and continuing in higher education for both genders; maintain contacts, co-operation and information exchange between the school and the communities; provide an immediate response in the case of attendance interruption and school dropout and take measures to ensure a return to school; and contact children and repatriated families in Kosovo, in order to involve children in school or establish contacts with the respective authorities supporting the education of these children.

1. An international grassroots organisation, founded in 1999, to aid the Kosovar refugees, focused on community, human dignity, and children and youth. See http://balkansunflowers.org/index.php

THE LEGAL FRAMEWORK ON MEDIATION

The right to inclusion and access to quality education for every citizen of Kosovo, regardless of gender, age, and ethnic, cultural, religious or group origin, is an inherent part of Kosovo's education policies that are aligned with international norms governing this area. The law on Pre-University Education relies on the principle of inclusive education, according to which no individual shall be denied the right to education. The general pre-university education principles in Kosovo refer to the respect and advancement of the rights of communities and their members.

In addition, the 2009-15 Strategy on the Integration of the Roma, Ashkali and Egyptian Communities foresees the involvement of local government education institutions, schools and NGOs in joint activities aimed at improving attendance (increasing the rate of enrolment in pre-school and elementary education, improvement in daily class attendance, and reduction of the dropout rate). The application of incentives and the use of successful individuals from the communities to motivate children and their parents to ensure regular school attendance is one of the measures set out in the document (Section 2.2. Education).

Moreover, in its latest opinion, the Advisory Committee of the Framework Convention for National Minorities specifically recommended that "the authorities should intensify their efforts to promote the enrolment and attainment of Roma, Ashkali and Egyptian children, and particularly girls, in school. Local achievements in this regard must be supported through enhanced central co-ordination and direction, for instance through the institutionalisation of school mediators" (CoE, 2013).

Although Kosovo's education mediation programme was initiated and is applied on the basis of the principle of inclusion pursued by education policies, and on the types of assistance to fulfil the right for an education of the children of the Roma, Ashkali and Egyptian communities, it has not yet been incorporated into the legislation and implementing acts governing education in Kosovo. The education mediation programme in Kosovo is still implemented mainly on the basis of projects offered by international organisations, while there are specific co-operation activities that are initiated together with the local government education institutions, schools, NGOs, communities, etc. A challenge for the successful implementation of the programme remains the establishment and recognition of the profile of the education mediator as an occupation that would lead to the institutionalisation of mediators, improving support and co-operation in intermediation activities at all levels.

THE MEDIATION PROGRAMME AND ITS SUPPORT FOR EDUCATION

This section of the article deals with the results of statistical analysis of the Education Mediation Client Database on the educational mediators' work through 2013.

COVERAGE AND SUPPORT PROVIDED BY THE BSFK EDUCATION MEDIATION PROGRAMME

BSFK's Education Mediation Client Database is an electronic template/platform in the Excel format. It has been used since 2013 to store evidence and manage the cases with which the programme mediators work. Data processing and analysis draws on the implementation of the BSFK education mediation programme in nine municipalities in Kosovo between January and December 2013. Referring to data from this period, the programme counted a total of 980 individuals/supported people (children/students/persons who have benefited from the programme).

In cases where those individuals faced more than one problem, and therefore needed more support in terms of schooling (e.g. the same individual was faced with social issues, school performance, non-regular attendance or school dropout), assistance has been repeated (support has varied depending

on their needs). These have been recorded as recurring cases in the database. In total, both the number of involved individuals (980) and the recurring cases (441) bring the number of assistance interventions by education mediators during 2013 up to 1,421 supported cases. The sample of 980 involved individuals make up 14.5 per cent of the number of children of Roma, Ashkali and Egyptian children of compulsory education age in Kosovo (ages 6 to 15, grades 1 to 9). They represent 0.2 per cent of the total number of students at this level of education.

In terms of gender structure, it appears that the participation of male pupils is slightly higher with 583 (59.5 per cent), compared to the number of females (397 individuals, or 40.5 per cent). In terms of age group, results show that there is a higher participation of individuals in the programme among the 8–11 years age group (270) and 14–16 years age group (151), compared to a lower participation of individuals who are either five years old (pre-school pre-elementary level) or over 18 years of age.

There are cases where the database does not provide information on the age of individuals involved in mediation activities due to difficulties in obtaining data. On occasions neither the child nor his or her parents know the child's exact date of birth, and frequently lack a copy of birth certificates or similar documents. In such cases, the mediators visited the Municipal Office for Social Welfare[2] to obtain the missing information, although they were not successful in acquiring records for all cases.

Statistical analysis of the programme also includes the school and grade where the assisted individuals attend (or should be attending) lessons. According to programme data, there are a total of 35 schools, with the highest number of pupils benefiting from the mediation programme (a total of 621) being in grades 1–5 (age 6–10). The mediators note that there is greater child involvement in the programme during this age range as it is where most problems occur and the need for assistance arises. This includes, for example, the need to develop awareness raising campaigns for parents and the community to enrol children in first grade, supporting parents to prepare documentation required for children's enrolment, making contact with schools, municipalities and NGOs, providing lists of pupils to be enrolled in the first grade, providing transport for the children of this age group in particular, and undertaking prevention and response actions in the case of school dropouts.

Information on the educational grade or achievement that the individuals achieve is occasionally scarce. According to mediators, there are cases of enrolment in the intensive learning programme from individuals who dropped out of school several years ago and who are currently unaware of (or not willing to provide information on) the grade at which they dropped out. It is unknown at what grade these individuals will be enrolled following completion of the intensive learning programme. There are other cases of children returned from abroad (e.g. from the Former Yugoslav Republic of Macedonia), in which the recognition of documents and the identification of the grade into which they should enrol have been an on-going process.

ACTIVITIES CARRIED OUT BY EDUCATION MEDIATORS

In addition to the database analysis on the involvement and coverage of the BSFK education mediation programme, this article also includes data on the purpose of case assistance[3], the nature/type of the activities carried out by the mediator, duration of assistance, covered dropout cases, final status and success of assistance for these cases.

The main problem/reason for inclusion in the programme and purposes of assistance for the majority of cases are related to non-regular school attendance (741 cases), poor school performance (219 cases), and social issues such as problems

2. In order to benefit from social assistance, the respective municipality office requires beneficiaries to provide identification data, including a birth certificate, for all the members of the family.
3. Data on the age, gender, school and grade refers to the number of individuals involved in the programme (980), whereas the information on the activities and modalities of support refer to the number of the cases assisted within the programme (1421), including recurring cases.

within families, poor awareness of the importance of education, early marriage, forced labour, etc. (177 cases).

The purpose of assistance for the cases in the programme was linked with the nature of the incoming cases. In the majority of cases, the purpose of assistance was to improve school attendance (475), to facilitate students' return to school (321) and to obtain information or support to be enrolled in the intensive learning programme (134).

The duration of assistance has varied depending on the nature of the problem and purpose of the assistance. Assistance has been provided from one day to 12 months. The largest number of assisted cases within the programme had a duration of up to one month (474), followed by one-day assistance (223) and cases with a duration of up to two months (156).

The survey findings report that, of the total of 1,421 cases covered by the programme, 1,217 (85.9 per cent) were closed during 2013, meaning that assistance for the given cases was completed. A total of 199 (14.1 per cent) are on-going and subject to further assistance within the programme. Of the total closed cases, 946 (77.9 per cent) were successfully assisted by mediators, compared to 269 cases (22.1 per cent) that were unsuccessful in meeting the purpose of assistance. These cases have been reported in other relevant partner organisations and institutions, such as MED, the Municipal Office for Communities and Return, the Municipal Community Representative, the Red Cross, the police, The Ideas Partnership, Voice of RAE, schools and Response Teams towards Abandonment and Non-registration in compulsory education (PRTAN) in MED and school level, etc.

The number and type of assistance activities conducted in the field depended on the nature of the problem/reason for involvement in the programme and the purpose of assistance. Considering the interrelation between these, mediators planned and conducted specific activities for involved cases. The number of assistance activities carried out for the cases in question varies by municipality and on a case-by-case basis. This figure varies from one to seven assistance activities offered for each case, depending on the nature of the problem and the possibilities of finding (quick) solutions.

Provision of assistance has mainly taken place through contacts/visits in the family, at school, in local and central institutions (MEST, Municipal Education Department, Municipal Office for Communities and Return (MOCR) in municipalities etc.), in local and international organisations operating in Kosovo, in learning centres, etc.

CASE STUDIES

CASE STUDY 1

Male student, 13 years old, 2nd grade, from a family which had returned from the Former Yugoslav Republic of Macedonia. Reason for assistance: non-regular attendance, but no dropout. The student had been assisted for two months and the purpose was to improve school attendance. The mediator conducted a total of seven assistance activities.

Activity 1: After contacting the school and being informed of the absences, the mediator visited the student's family, talked with them, and informed them about his absences and the consequences for the parents if they did not send their child to school.

Activity 2: Talks with the parents, verification of the student's attendance.

Activity 3: Contacts with the school and family, co-operation with the OSCE, and family visits together with the school director and an OSCE representative.

Activity 4: Meeting with parents, verification of the student's school attendance.

Activity 5: The mediator informed the parents that their child was not attending lessons regularly. They stated that the child was lying and that he had been going to school, and that they would supervise him.

Activity 6: Verification of attendance, enrolment in supplementary lessons.

Activity 7: Recurring non-regular attendance, but agreement reached with the student that it would not happen again. The case is successfully concluded.

Since the analysis refers only to the database for 2013, there is no further information about what happened following the assistance provided.

CASE STUDY 2

Male student, 14 years old, 4th grade. Reason for assistance: Non-regular attendance, but no school dropout. The student was assisted for four months and the purpose was to improve school attendance. The mediator conducted a total of four supporting activities.

Activity 1: Parents were informed of the student's school absence and relevant reasons were clarified (according to the parent, this happens due to their being busy with work, allowing no time to deal with the child adequately). The school invited a parent for a meeting.

Activity 2: A meeting with the parent, headteacher and the education mediator took place. The meeting focused on the student's absences and the parent promised to take greater care of the issue.

Activity 3: Meeting with headteacher, who informed of evident improvement of attendance and successful performance.

Activity 4: Meeting with headteacher, with the parent and the student, and discussion on preventing the recurrence of school absences, which both the parent and the student have promised to respect. The case is successfully concluded.

THE IMPACT OF MEDIATORS' WORK ON SCHOOL DROPOUT REDUCTION

The information generated by the BSFK database on individuals involved in the education mediation programme includes records on school dropout by the students of the Roma, Ashkali and Egyptian communities in the municipalities covered by the programme. Data shows that of a total of 980 students/individuals involved in the mediation programme, 268 (or over 29 per cent) are dropouts. The highest dropout percentage is among male students, with 55.2 per cent. In terms of age, the highest percentage (29.9 per cent) are between 8-11 years old, while with reference to the school year, 41 per cent of dropouts are from the first and second grade (ages six and seven).

"Dropout" is defined in MEST AI 7/2011, "Establishment and Strengthening of Prevention and Response Teams towards Abandonment and Non-registration in Compulsory Education" as a student who: 1) interrupts attendance prior to completing compulsory education as provided by the law; 2) continues school after compulsory education, but interrupts attendance at a later period, prior to the intended end result; 3) a child or young individual who is not enrolled in school and, as a result, does not attend compulsory education as provided for by the law (MEST, 2012). Based on this definition, the BSFK mediation programme assisted students who were mostly enrolled in compulsory education, but who had interrupted attendance at different levels/classes (mainly grade 1-5, ages 6- ten).

Among the major issues identified that lead to a drop out from school is non-regular attendance (39.6 per cent) and the students' issues with school performance (22.4 per cent). Other issues affecting school dropout, identified by the database, are early marriage, social problems and requests for a change of school, although they account for a smaller number of cases and do not have a significant impact on the process. Of the total dropout cases (268) identified in the framework of the BSFK education mediation programme, 243 (90.7 per cent) were closed during 2013, whereas 25 (9.3 per cent) continued to receive assistance during 2014. Thanks to the supporting activities of education mediators in the municipalities covered by the programme, 131 (53. 9 per cent) closed cases were judged as successful, meaning a student's reintegration in the education process was achieved.

The most predominant problem for school dropout relates to lower learning results/school performance (39.7 per cent of cases) followed by non-regular

attendance (23.7 per cent). Mediators therefore focused assistance towards supporting activities with the individuals and their parents/families that helped them overcome these challenges – mainly through case identification, family visits, school visits, and communication with the students and their relatives. Efforts also included information on opportunities for reintegration through intensive learning, providing support for the collection and recognition of documents in cases of repatriation, holding meetings with school representatives and respective teachers, holding meetings with intensive learning provider institutions, and holding meetings with institutions and organisations that support the integration of children from these communities into the education process.

There have been instances where, due to the nature of the problem and the need for support, mediators have referred dropout cases to other co-operating entities. The data analysis indicates that 66 dropout cases (of a total of 268) have been referred to partner organisations and institutions, such as MED, the Municipal Office for Communities and Return, the Municipal Community Representative, the Red Cross, the police, The Ideas Partnership, Voice of RAE, schools and PRTANs. As a result of this referral, 60 of these cases were able to benefit from further assistance and be concluded successfully (a return to school).

For some cases with a closed status in the database, the mediators failed to successfully return students to the education process. These are primarily cases from families experiencing social problems or economic difficulties, cases with health issues, and others of individuals who come from an adult age group (over 18 years old) and as such it has been impossible for them to return to school.

CO-OPERATION WITHIN THE MEDIATION PROGRAMME

This section of the article deals with the results of the field research on the role of education mediators, with a focus on improvements in school attendance and reduction of the dropout rate. Findings in this section are the result of views collected through surveys, interviews and focus group discussions with 264 respondents. Table 1 to the right provides an overview of the survey sample.

In terms of school selection, the research aimed to include elementary and lower secondary schools, schools with a significant number of Roma, Ashkali and Egyptian communities, schools where mediators have been operating for the last two years, Serbian language schools, schools with repatriated students and schools with students who have been involved in BSFK's education mediation programme. Criteria to select the sample of students in schools was that they were either children of the Roma, Ashkali and Egyptian communities, attending the fifth, seventh or eighth grade, repatriated students, students attending Serbian-language schools, or students involved in the BSFK education mediation programme.

In those cases where the schools included in the study had more than five students who met the criteria, a random sampling method was applied in order to select a maximum of five students (depending on their number, selecting every second or third student). The selection criterion for the teachers' sample was to include those teachers working with students from the Roma, Ashkali and Egyptian communities, especially headteachers or teachers engaged in school mechanisms, such as the School Steering Council, PRTANs, Teachers' Council, etc.

All education mediators engaged through the BSFK mediation programme were involved in the study.

CO-OPERATION BETWEEN MEDIATORS AND KEY SCHOOL STAKEHOLDERS

Based on the questionnaires and interviews with different stakeholders (teachers, students, school directors and parents), it can be concluded that the overwhelming majority of the main stakeholders at the school level were

Sample	School principals	Teachers	Students		Parents	Mediators	MED	MEST and partners	Learning centres
			Grade 5	Grade 7/8					
No.	9	76	53	49	44	11	11	7	2

Table 1.
Survey sample

informed about education mediators operating in their schools and were familiar with their role. The support and assistance provided to the school by mediators has mainly focused on: students' enrolment; improvement of attendance; improvement of the students' behaviour at school; establishment of better communication between the school and the family; prevention of school dropout; return of dropout students to school; enrolment and attendance of intensive learning; and encouraging girls' enrolment in school, etc.

In order to accomplish the above-mentioned interventions, mediators have worked with various partners who have influence in and out of the school, including the school director, teacher, headteacher, students involved in the mediation programme, meetings with parents and joint school-family meetings.

Based on the responses provided by the school directors and teachers, it can be seen that education mediators conducted numerous activities that aimed at improving attendance and preventing school dropout among students of the relevant communities, such as: co-operation with the school director and headteachers; visits conducted to the students' families/communication with family members and students; and co-operation with teams for the prevention of school dropout and non-registration in compulsory education.

Students highlighted the benefits of the support provided to children and families by mediators, even when talking to parents. Among the most frequent interventions, they mentioned the mediators' visits at school or to families, interventions with the school for the enrolment or return of students, and assistance with ensuring transport, books, learning and hygiene materials. Mediators have organised joint meetings with parents (mainly on a monthly basis), during which they have discussed various issues related to the child's education, the issues and difficulties of the families and students, and opportunities to find solutions.

School directors and teachers appreciated the support provided by the education mediators in the integration of children into the education process. The engagement of education mediators was considered good practice in improving the education situation of Roma, Ashkali and Egyptians in Kosovo, and according to them, it should continue. Comments provided relate mainly to the need for even greater co-operation among all partners in order to better support these communities. This particularly includes greater co-operation between mediators and PRTANs to enable prompt reactions in cases of absence in schools and school dropout.

Equally, parents involved in the study highly appreciate the practice of engaging education mediators in improving the education situation of Roma, Ashkali and Egyptians. Ninety five per cent claim to be satisfied with the activities conducted by education mediators, in particular with regard to activities promoting co-operation with schools in order to improve attendance and prevent dropout.

In general, the evaluation of school stakeholders for the work undertaken by education mediators is positive and encouraging of their activity, and suggestions for the future include an increase in co-operation and further embedding of their position.

CO-OPERATION/SUPPORT BETWEEN EDUCATION MEDIATORS AND INSTITUTIONS

MEST has a special Office for Community Education. According to the interview with its representative, the office is well informed about BSFK's education mediation programme, the role and tasks of mediators involved in this programme

and the mediation process. According to the respondent, MEST has not been part of the development/assignment of the role, tasks and recruitment of education mediators. The role of MEST has been primarily focused on financial support for learning centres.

According to the Law on Pre-University Education in Kosovo (MEST, 2007), local education authorities are responsible for creating the conditions for inclusion in the education system for all children of the municipality. Representatives of the MED noted that they are well-informed about the role of education mediators and that they have accessed information mostly through co-operation and regular meetings with them, in line with the Memoranda of Understanding signed between them.

The respondents consider that the tasks of education mediators comply with the needs of the Roma, Ashkali and Egyptian communities. However, they report that some of the requirements do not fit with the mediators' role and tasks, such as the request to monitor classes, which is not allowed by MED, since these are matters regulated by the law.

Besides the municipal education departments, the municipality has a Municipalities Office for Communities and Return (repatriation). Most officials interviewed at the municipal offices reported that they are informed about the role and tasks of educational mediators. However, only two out of five respondents were able to provide evidence of the joint work done by educators in the integration of mediators in education of children of Roma, Ashkali and Egyptian communities.

The work of education mediators has received positive evaluations from most of the interviewees, although it has been suggested that the mediators be granted an institutional status so that this co-operation is realistic and sustainable.

CONTRIBUTION OF OTHER ORGANISATIONS TO THE EDUCATION MEDIATION PROGRAMME

The integration of the Roma, Ashkali and Egyptian communities in education is also supported by different international and local organisations operating in Kosovo. Three of them have given special support to the education mediation programme: the Organisation for Security and Co-operation in Europe (OSCE) – Policy Office for Communities and Returnees in Kosovo; the United Nations Children's Emergency Fund (UNICEF) and the Kosovo Foundation for Open Society (KFOS). Analysis of the results obtained from interviews with representatives of these organisations, showed that they have had good co-operation and have conducted joint activities with educational mediators, which contributed to better integration in education of the Roma, Ashkali and Egyptian communities.

These collaborating partners consider the role of education mediators as a good opportunity to establish a link between the school and the community, to increase school attendance and prevent dropout among children of the Roma, Ashkali and Egyptian communities. Partners supporting education in Kosovo recommend that education institutions, and MEST in particular, take measures to institutionalise and clearly define the role of education mediators in the future.

CONCLUSION

Study results showed that the educational mediation programme in Kosovo and the mediators' involvement came about as a result of the EU/CoE project, realised in co-operation with MEST and local and international institutions operating in Kosovo. Data from the programme's statistical database shows that, out of the total number of municipalities involved, 980 individuals have been beneficiaries of the support provided by this programme in 2013. The largest number of assisted cases in the programme includes improvement in school attendance, students' return to school, awareness-raising or assistance for enrolment in the intensive learning programme, etc. Of the 268 cases recorded as school dropouts, 131 of them managed to reintegrate into the education system.

In order to succeed, the mediators also co-operated with central and local institutions, NGOs, learning centres and other supporting mechanisms, such as school, MED, the Municipal Office for Communities and Returns (MOCR), representatives of the communities, the Red Cross, police, TIP, VoRAE, schools, PRTANs, etc. Results of the study, including the results of the review of the Education Mediation Client Database of the work of educational mediators, surveys and interviews showed that this is a programme that gives good results, but there is still room for further improvement.

In order to strengthen further the educational mediation programme as a sustainable mechanism that supports the integration of the Roma, Ashkali and Egyptian communities in the educational system of Kosovo, it is recommended that education institutions take specific measures to strengthen the role of education mediators and to support the implementation of the mediation programme. For that purpose, and relying on the findings of this study, there are also suggestions for the improvement of the mediators in the future.

- The Education Mediation Programme should become part of the educational policy in Kosovo, not only to be an experience implemented through international projects in Kosovo.
- Determine the role, duties, responsibilities of mediators, as well as define the roles and duties of MEST, MED and schools and other institutions in the mediation process.
- Continual professional development of educational mediators through training, workshops, reciprocal visits and exchange of experiences, etc. regarding the role and tasks they need to perform in the field.
- Strengthening co-operation between mediators and schools, institutions, between providers of the education mediation programme, organisations and partners supporting education in Kosovo, etc.
- Promote the role and outcomes of mediators' work for 2013 and onwards, etc.
- Create a network that will enable the exchange of positive practices among different European countries in relation to the Education Mediation Programme.

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ABSTRACT

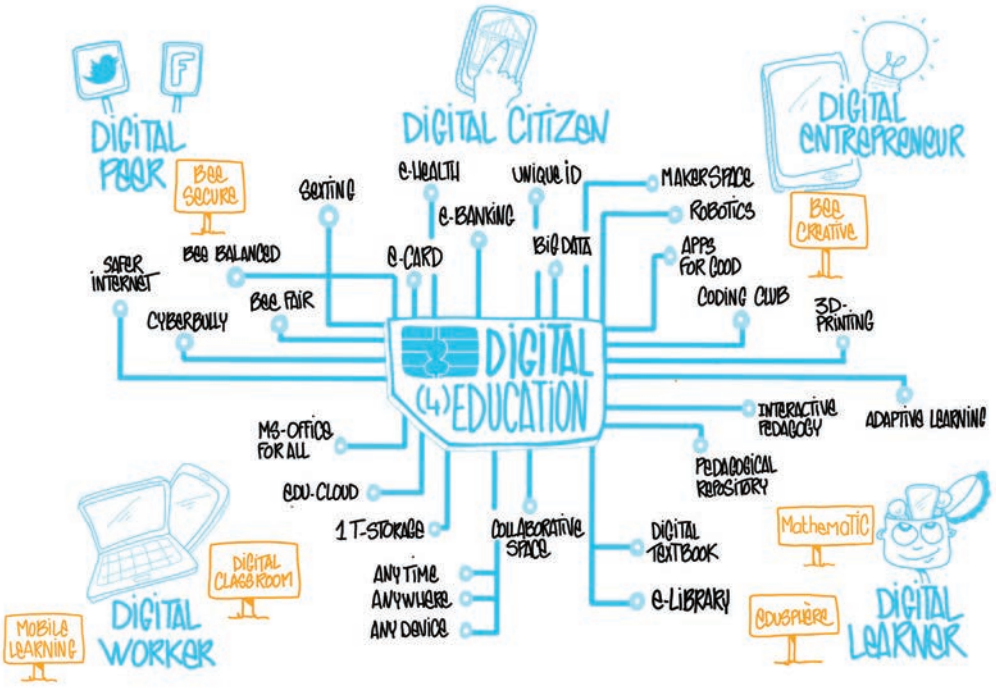
Counting almost 45 per cent of foreigners among its residents, Luxembourg holds the record in Europe for the proportion of students who do not speak the language of instruction at home, the number of foreign languages taught at school and the number of hours dedicated to the teaching of these foreign languages. This multilingual tradition influences equity in learning at school and significant performance gaps are observed between students from various socioeconomic backgrounds, between those of native and foreign origin who do not speak the language of instruction as well as between boys and girls. In response to its growing heterogeneous school population, the Ministry of National Education, Children and Youth (MENJE) introduced MathemaTIC in September 2015. This is a project whereby 10–11 year-old students in grades 5 and 6 can choose to learn mathematics in any of four languages in an adaptive digital environment. The aim is to take advantage of technology to adapt the learning of mathematics to individual student needs while giving a fairer chance to those who have a lower command of the language of instruction and whose achievement would be hindered when the language becomes a barrier to understanding the mathematical text. This article will briefly present the potential of MathemaTIC to improve learning, address the conditions necessary for its success, outline the strengths and challenges encountered during its implementation after a one-year pilot phase and touch upon the first lessons learnt to inform the next steps of the project.

LUXEMBOURG LOW-STAKES STUDENT ASSESSMENT FOR STUDENT SUCCESS: A PERSONALISED LEARNING ENVIRONMENT IN MATHEMATICS TO RAISE ATTAINMENT AND TACKLE INEQUITY

The education system in Luxembourg is distinguished by its multilingual tradition where the teaching and learning of languages occupies a central place in the school curriculum. This diverse context stems from the national one where a striking 44.5 per cent of Luxembourg residents are foreigners [17 per cent and seven per cent being Portuguese and French respectively] (MENJE, 2014). In addition, on a daily basis Luxembourg receives around 155,000 cross-border workers from France, Belgium and Germany. This growing cultural heterogeneity is clearly reflected at school entry where two-thirds of the students enrolling in preschools (MENJE, 2016) do not speak the national language – Luxembourgish (closely related to German). As Luxembourgish is the main language of communication at school and German is the main language of instruction in fundamental, or primary, schools and lower secondary public schools (MENJE, 2015a), this growing proportion of foreign young children are faced with the daunting task, in grade 1, of learning to read and write at school in their third language from the early age of six. French is then taught as a subject at the end of grade 2 onwards, Mathematics is taught in French from grade 7 (age 12 onwards) and the language of instruction is progressively replaced by French in the upper secondary classes.

Being multilingual in a globalised world is undeniably considered as a tremendous asset for employability and it is even considered a drawback for a job-seeker to speak only one language (OECD, 2012). But for Luxembourg, the European country with the highest proportion of students who do not speak the language of instruction at home, with the highest number of foreign languages taught at school and the highest number of hours dedicated to the teaching of these foreign languages (Eurydice & Eurostat, 2012), the effects of language learning at school on educational attainment and equity has been a subject of heated debate for decades.

Furthermore, evidence from the PISA studies since 2000, and the national standardised tests since 2008 (Martin, Ugen & Fischbach, 2014), have consistently drawn attention to the performance gap between students from various socioeconomic backgrounds, between those of native and foreign origin, as well as between boys and girls. In PISA 2012 (MENJE, 2013), overall results for reading, mathematics and science literacy showed that students who spoke Luxembourgish or German at home fared on average better than those who spoke French, Portuguese or a Balkan language. In addition, students from a lower socioeconomic background lagged two years behind in their learning when compared to those from a higher socio-economic background. Not surprisingly, performance in Mathematics and science are thus influenced by reading proficiency, the language chosen to write the PISA test (as in Luxembourg students may choose either German or French), the



language of instruction as well as socioeconomic status.

Furthermore, the national school monitoring results of 2014 (Martin, Ugen & Fischbach, 2014) show that 17 per cent of grade 3 students have repeated at least one school year, this figure rising to almost 50 per cent by the time students reach grade 9 in secondary school. In particular, roughly three out of four of these grade repeaters are non-German speakers with a migrant background and low socioeconomic status. Moreover, over 40 per cent of grade 3 students do not attain the minimum standards for German as defined in the national curriculum, while 25 per cent do not achieve the minimum standards for mathematics. This situation gets gloomier by grade 9 where just under 50 per cent of 15-year-old students succeed in mathematical problem-solving tasks. All these statistics confirm the continued disparity in attainment between students and highlight the need for the Luxembourg education system to cater for the learning needs of a particularly heterogeneous population in terms of socioeconomic, migrant and language origins.

In its efforts to respond to the diversity of teaching and learning needs, the Ministry of National Education, Children and Youth (MENJE) has introduced numerous initiatives since 2000 in order to raise attainment and tackle inequity in schools. Understandably, the crucial issue was to find ways of changing language learning – from being a barrier to opening up opportunities for students to succeed in school. The Language Education Policy Profile (MENJE, 2007), established in 2007 for Luxembourg, recommended promoting a high level of multilingualism for all students while at the same time considering their individual abilities. Other measures and initiatives have been introduced which include: a definition of teaching and learning standards within a skills-based approach; measures to reduce grade repetition; the formalisation of a national monitoring framework for measuring student performance; and placing emphasis on increasing school autonomy and self-evaluation in order to improve the school's quality and improve student performance.

In this article, we will present MathemaTIC, a budding pilot initiative introduced in September 2015 and hence still in its early infancy. It has the ambitious aim of using technology to offer a relatively 'language-free' solution

to raise attainment in numeracy while simultaneously enabling teachers to better support the learning needs of an increasingly heterogeneous classroom of 10-11 year-old students in grades 5 and 6 of fundamental schools. We will first explain the rationale for believing in the success of this project, the choices that were carefully weighed before high-stakes decisions were taken and the potential of MathemaTIC to transform learning, raise numeracy levels of students and tackle inequity. We will also point out the pre-required conditions necessary to support the successful implementation of MathemaTIC, which were considered right at the start of the project. Next, we will highlight the successes and challenges we encountered during the first year of the pilot phase and finally relate how we plan to accordingly adapt and pursue the next steps in the short and medium term. We hope that sharing the lessons we have learnt so far will prove useful to other countries embarking on similar learning adventures.

WHY MATHEMATIC?

In 2014, the Luxembourg government launched the national "Digital Lëtzebuerg" (Conseil de Gouvernement Luxembourg, 2014) initiative within the framework of the EU Horizon 2020 research and innovation programme to promote digital awareness among its citizens. The purpose was to affirm the new face of Luxembourg as a smart nation, modern, open, highly connected and ready to embrace a digital society. Acknowledging at the same time the potential of the digital revolution to revitalise the notion of pedagogical innovation, in May 2015 MENJE launched its strategy "Digital (4) Education" (MENJE, 2015b). This has a dual role. First, 'digital education' aimed at preparing young people to live and work in a 21st century global world ruled by new technologies. Second, 'digital for education' aimed at exploring ways of incorporating technology as an integral component of quality teaching and learning, so as to offer students and teachers wider access to learning resources. It also sets out to provide all learners, irrespective of their social origin, access to quality information and pedagogical resources. This would bridge the digital gap and enable the diversification of teaching and learning strategies to meet the different learning needs and paces of students.

The "Digital (4) Education" strategy is itself structured into 4 pillars: the 'Digital Peer' which focuses on the prevention of cyber bullying and the safe use of the Internet; the 'Digital Worker' which provides free access to the technological tools that students will use in their future job; the 'Digital Learner' where technology is used to enhance learning; and the 'Digital Entrepreneur' which fosters the entrepreneurial spirit in a digital world. MathemaTIC is a personalised adaptive learning environment under the umbrella of the 'Digital Learner'. It contains digital mathematical resources in German, French, Portuguese and English, created using state-of-the-art interactive pedagogies and tailored to the Luxembourg national curriculum (with reference to no particular textbook). It is custom-built for 10-11 year-old students in grades 5 and 6 of fundamental, or primary schools, offering them an opportunity to learn mathematics in an engaging and intuitive way and receiving online feedback in real-time. Students have 24/7 access to MathemaTIC on any mobile device, including computers, laptops, tablets, and smartphones, at school and at home. It is intended that such an adaptive learning environment will transform future classroom dynamics in the teaching and learning of mathematics.

MENJE decided to invest considerable resources in a project such as MathemaTIC in response to international and national recommendations with regards to raising school performance in a heterogeneous multilingual population. Indeed, research findings on German-French bilingual students in Luxembourg suggest that arithmetic significantly relies on language, especially in complex computations (Van Rinsfeld, Brunner, Landerl, Schiltz

& Ugen, 2015) and that the language of mathematic instruction influences the arithmetic performance of bilingual students (Van Rinsfeld, Schiltz, Brunner, Landerl & Ugen, 2016).

MathemaTIC thus firstly contains the multilingual resources to offer a relatively language-free space to learn mathematics, an incredible benefit to learners who struggle with languages and yet need to master them to succeed. It is hoped that neutralising the language factor in the learning of mathematics will enable all students, irrespective of their origin and command of the instruction language, to become more proficient in mathematics.

Secondly the integrated system of continuous feedback in the adaptive environment delivers real-time online individual tips and strategies adapted to the individual needs of students. Remedial help assists students who are falling behind while more advanced tasks help faster learning students to move on, all at their own pace. The teacher is able to follow the progress of each student online, to identify difficulties early on and provide supplementary explanation or exercises to exactly whom and where they are needed. This gain in time is precious for teachers who understandably complain that the overloaded curriculum leaves them no space for supporting the heterogeneous demands of the class. Thirdly, MathemaTIC also provides students with a platform to both master routine mathematical tasks and to tackle problem-solving tasks. Recommended for use in the classroom by teachers and students, or for independent use at home, this multilingual platform serves the pedagogical objectives of differentiation, individualisation and personalisation while meeting the wide range of students' needs irrespective of their migrant, language and social origins.

A fourth enticing element of MathemaTIC for schools is that this immediate low-stakes feedback is brought about while the learning occurs rather than after learning has occurred as in the case of adaptive testing. Through a variety of tasks, the environment thus offers opportunities to students and teachers to use formative assessment data for improving learning as well as summative assessment data at the end of a learning unit. MathemaTIC therefore clearly brings advantages to classroom learning as compared to annual national computer-based assessments in Luxembourg, that are more useful for system-level monitoring (but which teachers consider as less useful for the classroom).

Fifth, MathemaTIC, being a digital environment, comfortably finds its mark in the minds of today's 'digital native' learners where technology takes up a great proportion of their time awake. Research in the USA (Robb, 2016) indicates that a typical teenager's day includes up to nine hours of texting, gaming, watching videos, and posting on multiple social networks. Indeed, MENJE took the opportunity of such technology addiction and the national digital strategy to identify an appropriate learning medium for the students.

Teacher buy-in is the sixth reason why MENJE was confident of the potential of MathemaTIC. Indeed, teachers from 10 schools, where improving the teaching and learning of mathematics was already part of their existing school development plan, were invited to test the environment for some weeks. They not only voluntarily joined and stayed on board with the project but they even reached out to their peers in other schools. Today a total of 40 schools, over 100 teachers and 1,700

students are voluntarily and eagerly contributing to build MathemaTIC as their own powerful learning environment.

Lastly, but very importantly, MENJE is privileged to benefit from international expertise making MathemaTIC a collaborative development model designed by teachers, researchers and curriculum specialists from Luxembourg and France, with the pedagogical and technological design expertise from Canada. The technological component includes interactive exercises with mastery-based pedagogies and algorithmic assessments with adaptive engines.

WHY IS MATHEMATIC UNIQUE?

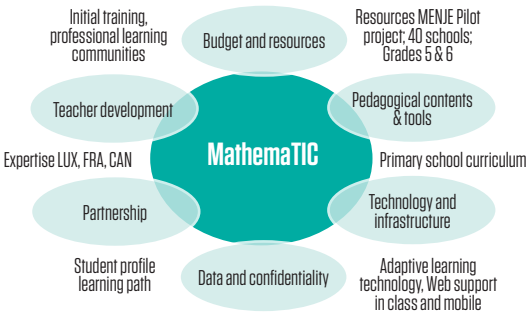
In opting for MathemaTIC as a potential solution for schools, MENJE weighed the pros and cons of other similar tools or platforms that seemed equally adequate. A strong reference was made to "The quality principles for digital learning resources" (Becta, 2007), illustrated left, which address both pedagogic and design principles, all incorporated as an inherent part of MathemaTIC. Much emphasis was placed on the fact that MathemaTIC provided the technology which would enrich the core mission of the school, which is to foster teaching and learning.

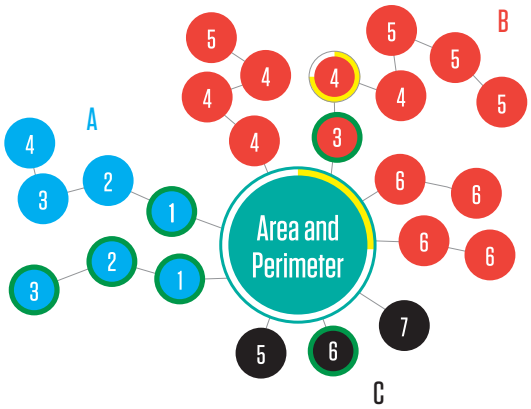
Becta's core pedagogic principles consider inclusion and access to resources where students create and learn anytime and anywhere (with teachers, students, or in the community) and hence bridge the digital divide to enhance: equity; learner engagement for improved motivation; effective personalised learning; assessment to support individual learning; robust summative assessment at the end of learning; and an innovative easy-to-use environment which matches the intended curriculum, instruction and assessment.

Becta's core design principles include: the robustness of the environment and the support provided with it; the human-computer interaction which considers user-centred design, usability and user experience; the quality of contents; accessibility to ensure that all learners benefit from the resource irrespective of their access requirements or preferences; interoperability between alternative platforms; the testing and verification process to ensure the environment is suitable and appropriate for its audience; and effective communication which relates to how the information about the environment is made available to its users.

In considering the cost of developing, implementing, maintaining and adapting the platform, MENJE opted for a commercial solution whose advantages outweighed the costs of an open-source one. In the absence of highly technical expertise to create, rapidly modify and adapt the environment, simply relying on the goodwill of the open-source community would not have enabled MENJE to set up a permanent maintenance system and be as reactive to the fast changing requirements of classrooms and the algorithms calculated as learning occurs. The contractual obligations with the commercial partner include extreme flexibility of adaptation, a strong foundation of interoperability with other learning platforms as well as clear ownership of intellectual property rights.

Furthermore, MENJE clarified that MathemaTIC was a unique solution custom-made 'by Luxembourg for Luxembourg'. Contrary to other tools, it is not an online learning management system, nor a digital interactive textbook. It is neither a simple automatic generator of online exercises nor a general learning platform of miscellaneous exercises and videos. As a multilingual adaptive digital learning environment, MENJE is not only financing a technological environment based on the national curriculum but is investing in an international, collaborative and flexible solution that contains other





A. Discovery Phase
B. Recognition and Comprehension Phase
C. Application and Analysis Phase

components of the package, namely project management, resource creation, teacher development and evaluation of the impact of the whole project.

HOW DOES MATHEMATIC WORK?

The MathemaTIC interface is divided into a student view and a teacher view, both accessible to the teacher. Students sign in using a personal identifier, and access a powerful, multilingual and engaging interface containing interactive, visual, audio and video mathematical items or exercises – all divided into six national curriculum learning modules. According to student success in solving the items, access to some items might be completely locked, to others partly unlocked, and other items may have been successfully completed. Each learning module begins with a 10-minute diagnostic test to determine the initial individual knowledge related to the content. The results then determine the sequence of items proposed to the learner while navigating through a learning unit at his/her own pace. Additional activities on similar topics may also be proposed by the teacher. MathemaTIC may be used collectively in the classroom alongside the textbook, as part of a group discussion, or students may work alone to revise or complete homework. Graphical tracking of student performance and progress over time enables both the teacher and the student to visualise the unique learning paths in real time. Teachers gain extra time to offer individual support to students and hence optimise lesson time and maximise impact on teaching and learning. At the end of each learning module, MathemaTIC proposes a 10-minute summative test that the teacher can administer to the class as a whole.

As shown in the figure to the left, there are three types of items: discovery items (blue), recognition and understanding items (red) and application and problem-solving items (black).

The first item of a branch – there can be multiple branches of the same colour – is always unlocked. Further items might be unlocked right away depending on the result of the diagnostic test. Upon successfully completing an item with a predefined success rate (80 per cent), the progress bar turns to green and the next item of that branch is unlocked; otherwise the progress bar is yellow and the student must rework different exercises of the same type and difficulty level before proceeding in that branch. In addition, a central overall progress bar for each module serves as a learning indicator giving quick feedback about the student's progress. Comparing the results of the summative test to the initial diagnostic test indicates a measure of learning for that module and helps identify and reduce gaps in learning. Support may then be given to ultimately raise achievement.

The teacher can (un)lock the diagnostic test and the summative test when the module is dealt with in class and can follow in real-time the learning progress at classroom, student and item levels, irrespective of whether learning occurs in class or at home.

Detailed information about student answers to each item in the learning module may be printed and shared with the child and the parents to track learning progress against expected standards. Each module comes with detailed didactical guidance suggesting to the teacher different ways of combining the MathemaTIC exercises with other problem-solving activities. Learning mathematics is not reduced to virtual learning only.

Acting like an intelligent tutor to

assist students and teachers with rich data, MathemaTIC therefore offers great potential for raising attainment in mathematics in comparison to traditional textbook learning methods. Its adaptive nature assists teachers to better manage classroom heterogeneity by automatically identifying the knowledge and skills acquired by students according to tracked responses in real-time. Students are recommended a corresponding learning pathway of activities in a preferred language according to their individual learning profile. Very importantly, MathemaTIC provides continuous access to a pool of multilingual mathematical resources, created by local teachers, for all students. Learning mathematics becomes fairer, interactive and fun for all.

WHAT CONDITIONS ENABLE MATHEMATIC TO BE A SUCCESS?

The success of MathemaTIC depends on the fulfilment of certain critical conditions or pre-requirements as illustrated below.

MENJE's financial commitment was subject to confirmation, through a test-run, that at least 20 per cent of schools were willing to engage in using MathemaTIC in the classroom. The initial schools participated voluntarily as they were already committed in their current school development plan to improve student performance in mathematics. The bottom-up approach for schools to join the project, coupled with the perceived added value of MathemaTIC for students and teachers gave the project a successful initial take-off.

MathemaTIC is enriched through the creation, addition and adaptation of new pedagogical resources. These include the co-construction of items or exercises by experienced mathematics teachers, the content types and formats being different from those found in the school text-books. These technology-enhanced learning items are innovative, adaptive and aligned to the national mathematic standards for Grades 5 and 6 of the primary school curriculum. Through local and international collaboration, particular attention is paid to the mathematical culture and pedagogical approach of different origins (German, French and Anglo-Saxon) while respecting all intellectual property rights. Great care is taken during the translation process of the multilingual items to ensure coherence in the meaning and sequence of the items and to avoid bias across languages.

To bridge the digital divide and enhance equity of learning across local areas and schools, MENJE plans to support the upgrading of the technological infrastructure for wider implementation of MathemaTIC. Proper access to high-speed internet, strong Wi-Fi networks and the presence of technological and pedagogical staff increase engagement in learning. The pros and cons need to be explored further regarding the choice of personal computers, tablets and operating systems for schools, the number of devices per school and class, the technology restrictions required and the real cost and added value of such investments.

Another vital factor that underlies the successful implementation of MathemaTIC relates to the management and effective use of the 'big data' generated from the formative assessments, the tracking of student learning and the creation of automatic student profiles. Important though this may be to monitor learning, the national policies related to personal data protection often define (and restrict) the access to these data for parents, teachers and researchers. In the case of MathemaTIC, the primary use of data is for the teachers and students in order to raise attainment. Parents can only access the data related to their child. Confidentiality of data is treated with utmost concern and MENJE only has access to anonymised data to allay the fear of schools that information may be used for the purposes of sanctioning. Data used for the purposes of research and analysis may only be obtained subject to authorisation from the National Commission for the Protection of Data.

The volume of data generated by MathemaTIC itself to inform learning is huge and initially may not make much sense to the teachers and students if

they are not cleaned, filtered and well-structured, a fastidious process in itself. A data evaluation team thus reviews all the data generated and MENJE offers training sessions to assist the teachers in interpreting and using the student and class feedback to guide teaching and learning. Without this support, the added value of receiving real-time data only remains hypothetical.

Resources, technology and data by themselves count for very little if MathemaTIC does not become an integral part of the daily teaching and learning process. Continuous compulsory and optional teacher development sessions and adequate school support are provided by MENJE – an indispensable factor to respond to the demands of schools and monitor the satisfaction of the users. The close collaboration of teachers and international expert partners combines with a pool of pedagogical, psychometric, research, technological and project management expertise. The MathemaTIC team also reaches out through international networking and participation in relevant conferences and workshops.

The teacher development sessions are intended to trigger a progressive shift in the pedagogy, especially in terms of the use of time and space for learning, the strategies for learning, the relationship between teachers and students and the context in which learning takes place. Technology is viewed only as a means to allow the diversification of teaching and learning methods and to provide access to various types of access to knowledge content. It leads teachers to acknowledge they are not the sole provider of knowledge and hopefully to initiate the required transformation of classroom activities. Assessment practices are also automatically reshaped – because the assessment no longer aims at sanctioning but instead monitors student progress throughout learning – it is both an assessment for and of learning. Since there is no boundary between teaching and learning in school time and 'outside school', the model of the flipped classroom implicitly comes into play.

The content of teacher development fosters an optimal use of MathemaTIC and seeks to collect and share teachers' experiences through lesson observation, informal conversations and sharing of stories with respect to working with MathemaTIC. Such sessions address the new roles of teachers and suggest different ways they can facilitate and guide student learning so as to dismiss the reported uneasiness that teachers may be replaced via virtual or online learning. The accompanying didactical notes provided to teachers recommend ways to integrate the exercises in MathemaTIC into broader teaching.

The MathemaTIC project offers MENJE a new approach to addressing the content of mathematics and facilitates the validation of standards defined in the national curriculum. An experimental phase on a voluntary basis allows the gradual introduction of innovative pedagogy. Items created in the database represent a lasting investment as MENJE has access to the corresponding technology 'source code' and perpetual licenses which allows it the flexibility to use the interactive MathemaTIC items on other compatible interoperable digital platforms.

In the long run, MENJE may share this environment with educational publishers of mathematics to develop innovative solutions that accelerate learning by better targeting the needs of every student. Such a solution offers Luxembourg the ability to build the contents of a Luxembourg Mathematics Manual for subsequent publication, both in the digital format or on paper. All along the project, MENJE has attempted to consider all the conditions mentioned above in order to maximise the chances of raising attainment and tackling inequity in mathematics for all students in the participating schools.

MATHEMATIC EXPERIENCES AFTER ONE YEAR

Being a new initiative, MENJE piloted MathemaTIC during 2015-2016 in 40 volunteer schools, to be followed by an evaluation of the pilot phase and

finally a roll out to all schools, still on a voluntary basis. As it stands in July 2016, MathemaTIC is currently used by approximately 25 per cent of Luxembourgish children aged 10–11 and it is far too early to assess its real impact. Used on a regular basis, it will hopefully modify the way these students view and learn mathematics in a multilingual environment rather than only in German – the official instruction language. Already, MathemaTIC gives MENJE a deeper insight into the way a series of related exercises are solved and provides data about the strategies used and the level of understanding acquired by the participating learners. Besides, the final tests of the different modules will offer a large dataset containing large-scale, computer-based, low-stakes assessment data, which can then be compared to the annual national standardised tests.

First experiences reveal a high level of enthusiasm, general satisfaction of teachers and students, an increasing demand from other primary and secondary schools to join the project and the willingness to pursue their journey in MathemaTIC if it is offered in other grades. Yet, a few hurdles still need to be addressed. There is room to increase the variety, complexity and quality control of the MathemaTIC content by taking on board the feedback and contributions during teacher development sessions. Though this is quite time-consuming, the long-term benefits of a rich national learning environment cannot be undermined. Filtering out the relevant and useful data from the mass generated by each user click is laborious but transforming this data into a readable and useful form for teachers and policy makers is critical to evaluate the impact and return on investment.

Evaluating the functioning and the effects of MathemaTIC is also a taxing component of the project, to examine the extent to which schools will have efficiently integrated MathemaTIC into classroom learning to raise attainment. This evaluation consists of: a constant review of the item creation process; the definition of the implementation protocols to be followed by teachers, support staff, observation teams; the elaboration of the evaluation framework of the project; and the psychometric validation of assessment and learning tools. The evaluation framework defines the expected results, identifies the indicators and criteria, describes the measuring instruments and fine-tunes the strategy of data collection and analysis. To measure whether students succeed better when using MathemaTIC, evidence of learning will be linked to other student performance data, the effect of the multilingual environment on student learning, student motivation, teacher development, the change in teaching methods, the overall satisfaction of students and teachers, the involvement of parents in learning and how the digital environment bridges the gap in learning.

One first common practical challenge encountered is striking the balance between the short-time frame which defines the political agenda and the longer time period required to create, effectively use and integrate the environment into schools. Another challenge is the extent to which MENJE needs to be prescriptive or directive in its approach to ensure that certain optimal conditions of use of MathemaTIC are respected. Experience shows that even if didactic guidance is provided, this does not in any way imply an efficient use of MathemaTIC or that effective learning will ensue.

CONCLUSIONS

MENJE launched the MathemaTIC project as such an adaptive learning environment for mathematics would be in line with its plans to modernise and diversify its educational resources, content and digital services in order to raise attainment in schools. Adapting learning materials to the curriculum and specific needs of students clearly implies reducing educational and social inequalities, promoting inclusive education and in turn decreasing early school drop-outs. In addition, the multilingual aspect of MathemaTIC and its power to offer diagnostic, formative and summative tools with real-time feedback

are elements that have served to directly motivate both students and teachers to view mathematics learning in another perspective. To keep the momentum high, MENJE moreover mobilised a pool of local and international expertise which continuously injects know-how on the pedagogical, methodological, technological, teacher development, evaluation and quality management aspects of the project.

Claiming at this very early stage, without conclusive data, that MathemaTIC will indeed raise attainment and tackle inequity, would obviously be premature. MENJE is nevertheless confident that creating the right conditions early on for the success of learning can only contribute to increasing the motivation of students and teachers to increase performance. Already, the initial enthusiasm, satisfaction and willingness to pursue the project are all positive signs that MathemaTIC has gained acceptance in the participating schools.

The experience gained so far also reminds MENJE of the necessity to maintain close dialogue with the schools and to continuously collect feedback and react in a timely manner. Teacher development has begun to raise awareness of the changing role of teaching, the first fundamental stepping stone to gradually changing the mindsets of teachers. Subject to the availability of financial and human resources and demand from the schools, MathemaTIC may be extended to (younger) grade 3 students and lower secondary students in future.

LESSONS LEARNED AND NEXT STEPS

Within the national 'Digital Lëtzebuerg' initiative, MENJE envisions MathemaTIC as a unique education initiative, specific to the local context, which makes Luxembourg an international front-runner in digital learning. Nevertheless, at this early stage there is no doubt that teacher motivation, buy-in and empowerment rank highest in promoting the success of the project. Focusing on this priority is in line with the European recommendation (European Schoolnet, 2013) for countries to build capacity for ICT pedagogical expertise through sustained investment in teachers' professional development. The Digital (4) Education enterprise needs to reach out to schools and translate its policies, which in turn feed into school improvement measures. MENJE should continue investing in both adequate infrastructure and pedagogical expertise (including ICT co-ordinators) in all schools. As an effective organisational means of supporting successful innovations, teachers will gradually be guided to work in professional learning communities to custom-build MathemaTIC and identify themselves as part of the sustainable Luxembourg solution to raise numeracy levels. Yet again this can only happen if students, teachers and policy-makers are able to take advantage of the new, objective feedback mechanism, that is, the data generated by MathemaTIC. MENJE needs to build expertise in learning analytics and educational data mining to make sense of the 'big data' that helps inform us on how different students learn. To address inequity, research using these data would enlighten us on which student actions are associated with better learning and higher grades, for whom, as well as what features (for example, the multilingual aspect) lead to better understanding or indicate engagement or satisfaction. MENJE also plans to collaborate with researchers to investigate the human-computer, user-centred design of MathemaTIC in its effort to improve usability and the user's learning experience. Medium and long-term planning to potentially extend the item creation process, in collaboration with other European countries, is envisaged. Sharing the results of MathemaTIC and the valuable experience gained will continuously be undertaken through networking and research conferences on education.

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NORWAY

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ABSTRACT

This article presents the Norwegian National Strategy for Language, Reading and Writing 2016–19. This strategy aims to improve the language and literacy competency of Norwegian children and pupils, by increasing the skills and expertise of school and kindergarten teachers and staff in the areas of language development, reading and writing. This mainly takes place in the form of Massive Open Online Courses (MOOC). A trial year of the strategy took place in 2015–16. Experiences and evaluations from the trial year reveal that the strategy has been well received amongst teachers and staff. However, the interest in participating in the strategy is substantially higher in kindergartens and primary schools than in secondary schools. It becomes clear that whether the strategy will lead to real change and improved competency amongst Norwegian school teachers and kindergarten teachers and staff depends on: the quality of the professional development kits; how the methods and the strategy are communicated to school and kindergarten leaders, teachers and staff; and how the professional development kits are implemented in each individual kindergarten and school.

NORWAY THE NATIONAL STRATEGY FOR LANGUAGE, READING AND WRITING 2016-19

In 2015, the Norwegian Ministry of Education and Research launched the National Strategy for Language, Reading and Writing 2016–19. This is a national strategy with the ambitious aim of improving the language and literacy competency of Norwegian children and pupils[1]. The aim is to increase the skills and expertise of school and kindergarten teachers and staff in the areas of language development, reading and writing. This is a comprehensive and systematic strategy that targets all children and pupils. However, certain groups will receive particular attention. These are: children and pupils with language difficulties; pupils with difficulties related to reading and writing; boys; children and pupils from minority language homes; and high achieving pupils.

In this article, we will describe the background to why a strategy of this kind has proven to be important in Norway, and we will explain why it is unique of its kind. We will give a description of the content and methods of the strategy, and how it is designed to meet the current challenges in language and literacy instruction faced by Norwegian kindergartens and schools. Further, we will present a brief overview of the challenges facing the target groups listed above, and how the strategy addresses their needs.

The National Centre for Reading Education and Reading Research (The Reading Centre) has been placed in charge of developing and administrating the strategy, in close collaboration with the Norwegian Directorate for Education and Training and the National Centre for Writing Education and Writing Research (the Writing Centre). The strategy is led by a management group with members from the Reading Centre, the Directorate for Education and Training and the Writing Centre, as well as observers from the Ministry of Education and Research, the Directorate for Education and Training, and the Reading Centre.

At the point of writing, the trial version of the strategy is on-going in kindergartens and schools across Norway, and schools and kindergartens are preparing to participate in the full version of the strategy, commencing in August 2016.

1. A short note on the Norwegian education system. The Norwegian system offers kindergartens, primary, secondary, upper secondary and tertiary education. Education is compulsory between the ages of six and sixteen (grade 1 to 10). Primary school runs from grade 1 to grade 7. Secondary school runs from grade 8 to grade 10. Upper secondary school provides three years of general education or four years of vocational education after the 10-year compulsory education. The norm for vocational education is two years of vocational training in school, followed by two years of apprenticeships. The vast majority of pupils attend public (state) schools. Only 7.8 per cent of Norwegian schools (grades 1–10) are private, according to Statistics Norway.

BACKGROUND

It is a priority for the Norwegian government that all children and young people should have highly-developed skills in language, reading and writing. These skills are crucial for citizens in a modern society. Young children need age-appropriate language skills in order to participate in playing and learning, and good early language development is central for children's later acquisition of reading and writing. For school-age children and young people, mastering reading and writing is essential for learning and school participation. Having adequate literacy skills is also imperative for people of all ages to participate in work and education, to reach their goals and potential, and to participate fully in a modern, democratic society – a society that places increasing demands on the literacy skills of its citizens.

According to the European Commission, basic skills in literacy, numeracy, science, and technology are essential for further learning, and are a gateway to employment and social inclusion (European Commission, 2016). However, in 2012, 17.8 per cent of European students were low achievers in reading (ibid.). In its report from 2012, the EU Commission's High-Level Group on literacy lists a number of recommendations to improve literacy amongst Europe's children, young people and adults. The goal is that, by 2020, less than 15 per cent of 15-year-olds should be classed as 'low achieving' in the basic skills, as measured by PISA tests (EU, 2012).

The first PISA survey in 2001 revealed that Norwegian students showed mediocre skills in reading (Stanat et al., 2002). This caused a stir amongst Norwegian education policy makers, school professionals and the general public. Popularly labelled the 'PISA-shock', this led to more than a decade of political engagement on issues related to education. An educational reform programme and a number of strategies which aimed to improve learning and instruction in Norwegian schools have been the result[2]. These efforts seem to have had an effect. The performance of Norwegian pupils has improved gradually over the last 10 years in the areas measured by international surveys such as PIRLS and PISA (OECD, 2012). Many will argue that the Norwegian education system is on the right track. However, there are still some acute challenges that the government finds it necessary to address.

- A substantial proportion of the Norwegian population struggle, or have struggled, with acquiring good reading or writing skills (Hulme & Snowling, 2009; Malin, 2014).
- The reading level of 16 per cent of Norwegian 15-year olds is below what PISA has identified as a baseline level. (OECD, ibid., p. 3). In other words, one in six students leaves school unable to read adequately. Most likely, these young people will struggle with meeting the demands facing them in further education, at work, and in society in general.
- National standardised tests in reading for Year 8 (13 year olds) show that students from non-Norwegian households are over-represented in the lowest-scoring group. In this group, we find 42 per cent of Norwegian-born students of immigrant parents, and 55 per cent of students who have come to Norway as immigrants themselves. Twenty four per cent of students from Norwegian-speaking households are found in this group. Amongst all groups, boys score lower than girls.
- The upper secondary school drop-out rate remains stable, despite efforts to increase completion. In 2014, 30 per cent of students who had started upper secondary education in 2009 had still not reached completion (Statistics Norway, 2015).
- Children and young people who struggle with reading and writing are

2. The 2006 Knowledge Promotion Reform is the latest reform in the 10-year compulsory school and in upper secondary education and training. Other strategies have been: The Strategy for Lower Secondary Education in Norway - Motivation and Mastery for Better Learning ("Ungdomstrinn i utvikling") (Norwegian Ministry of Education and Research, 2006); a strategy for science; and The Vocational Education and Training Promotion (The VET Promotion) https://www.regjeringen.no/en/topics/education/innsikt/yrkesfagloftet/id2353804/ among others.

often being identified too late, although research shows that the effect of early intervention is considerably greater than measures taken in later years (Gabrielsen & Gees Solheim, 2013).
- Too many children with Norwegian as a second language start school without sufficient proficiency in Norwegian. Eighty three per cent of first graders received special language teaching in 2014 due to poor language proficiency. In addition, 4.9 per cent of older children receive special language teaching. It is crucial for children to be highly proficient in the language spoken at school, in order to gain a full grasp of classroom instruction.
- Research also shows that high-achieving students in Norwegian schools do not receive sufficient stimulation and support from their teacher (Cosmovici, Idsoe, Bru & Munthe, 2009).

GOALS AND AMBITIONS

As mentioned in the introduction, the government has identified a number of at-risk groups as specific target groups for the National Strategy for Language, Reading and Writing 2016-19. However, as well as improving literacy skills and school completion amongst these children and pupils, the Ministry of Education and Research has several other ambitious goals within the strategy. These are:

- improving the overall quality of language development work and activities in Early Childhood and Care Institutions – barnehager-which we in this article will refer to as kindergartens;
- establishing a continuum between language development activities in kindergarten and literacy instruction in primary school;
- increasing teachers' skills and expertise in the areas of language, reading and writing;
- earlier identification of children and young people who struggle with language, reading and writing, and putting necessary educational measures in place at an earlier stage;
- reducing the number of students with poor reading and writing abilities;
- increasing the number of highly skilled students in the areas of reading and writing; and
- providing the necessary challenge and support for high-achieving pupils who are exceptionally skilled in reading and writing.

INVOLVING KINDERGARTENS

The Strategy marks the debut of a comprehensive and systematic strategy for language, reading and writing that encompasses the entire Norwegian education sector, including kindergartens. The inclusion of kindergartens in a comprehensive education strategy like this is new in a Norwegian setting. Compulsory schooling for Norwegian children starts at the age of six. However, over 90 per cent of children aged between one and five attend public or private kindergartens (Statistics Norway, 2012). Public and private kindergartens must fulfil the requirements of the National Kindergarten Act, and are characterised by a holistic, play-based approach, in contrast to the more academically oriented early childhood programmes found in many other countries. Due to a change of jurisdiction in 2006, kindergartens were moved from the Ministry of Children and Family Affairs to the Ministry of Education and Research. This shift represented a new emphasis on the importance of early childhood education amongst Norwegian policy makers. The inclusion of kindergartens in this strategy can be viewed in light of this development.

When the Minister of Education Torbjørn Røe Isaksen introduced the strategy in October 2015, he emphasised the importance of language development work in kindergarten.

"*If we succeed in improving language instruction in kindergartens now, the future will see a decrease in children with critically low reading skills in Grade 8*", the Minister said to the trade

journal Utdanningsnytt, published by the Union of Education Norway (Jelstad, 2015).

TARGET GROUPS IN THE STRATEGY

Many children and young people struggle with language related difficulties, as well as with difficulties related to reading and writing. The ambitious goal of this strategy is to strengthen the expertise of school and kindergarten teachers and staff in order for them to swiftly identify children and students who struggle with language, reading and writing, and to follow up with effective support. As well as targeting children and young people who struggle, the strategy emphasises that high achieving students should receive the challenge and support they need.

MINORITY LANGUAGE CHILDREN AND PUPILS

Minority language students and pupils are at risk when it comes to falling behind in language, reading, writing and formal learning (Melby-Lervåg & Lervåg, 2013). This is despite the fact that many of these children master everyday Norwegian well. There is a need to focus on the development of Norwegian language skills by minority language children throughout their entire time in kindergarten and school.

CHILDREN AND PUPILS WITH LANGUAGE DIFFICULTIES

Children with language difficulties are at risk for developing reading and writing difficulties (Rescoria, 2009). Early intervention, through systematic, language-stimulating measures, is the most important educational approach for these children. However, due to a lack of knowledge about language difficulties amongst teachers, these difficulties are often not detected, and necessary measures are not put in place (Bele, 2008).

BOYS

Boys seem to acquire early language skills at a slower rate than girls, and a higher number of boys than girls experience difficulties related to language, reading and writing. Although research adds nuance to this picture, gender differences continue to be observed amongst school age children, for example in large surveys such as PISA, PIRLS and the Norwegian standardised national tests (OECD, ibid.; van Daal, Solheim & Gabrielsen, 2011). These surveys reveal that girls consistently show better reading skills than boys. Kindergartens and schools need to work strategically to avoid increased gender differences in language and reading skills between the children as they get older.

CHILDREN AND YOUNG PEOPLE WITH READING AND WRITING DIFFICULTIES

Large resources are spent on special, one-on-one instruction for children in higher grades in Norwegian schools, and fewer in primary years. Researchers and educational authorities have identified the need for change from late to early intervention, in order to prevent the development of reading and writing difficulties in at-risk children (Vellutino & Zhang, 2008). Early intervention towards children who struggle with reading and/or writing, reduces the risk of these difficulties developing further as the children get older (Fletcher, Lyon, Fuchs & Barnes, 2007).

HIGH-ACHIEVING STUDENTS

The principle of individually adapted education also includes children and young people with exceptional abilities and talents in a range of areas. These children and young people do not always receive sufficient stimulation and support from their teachers (Cosmovici, Idsoe, Bru & Munthe, 2009). Many of these highly skilled pupils invest very little in their school work, despite the fact that they are characterised as extraordinarily able. Unless they are met with real challenges that awake their interest, they tend to find school boring, withdraw themselves from what is happening in the classroom, and minimise their efforts.

AN OVERVIEW OF THE STRATEGY

The Reading Centre was given the assignment of administering and developing the strategy by the Ministry

of Education and Research in the autumn of 2014. It was decided that the strategy would commence in full from August 2016, with a trial of the strategy taking place in the school year 2015/16, involving a limited number of participants.

2015: TRIAL YEAR – PRACTICALITIES

A total of 210 kindergartens and schools participated in the 2015/16 trial of the National Strategy for Language, Reading, and Writing 2015–19. This included 70 kindergartens, 101 primary schools, 28 secondary schools and 11 upper secondary schools. Teachers from the participating kindergartens and schools gathered at the first introductory meeting in October, 2015. Representatives from the Reading Centre and the Writing Centre presented the content and use of the professional development kits to the participants.

A total of 11 kits (one for kindergarten, eight for primary school, one for secondary school and one for upper secondary school) were available to support the trialling of the strategy. The majority of the participating schools and kindergartens started working with the development kits by the second term, i.e. January 2016. Schools and kindergartens that participated in the trial may also participate in the full version of the strategy.

KEY ELEMENTS OF THE STRATEGY

A large proportion of the employees at the Reading Centre have been involved in developing, producing and administering the strategy, which consists of the subject areas described below. The strategy consists of three key elements: free, online professional development kits; annual introductory meetings for participating schools and kindergartens; and financial support for local professional development.

FREE ONLINE PROFESSIONAL DEVELOPMENT KITS

For the first time, a national education strategy will be implemented through the use of Massive Open Online Courses (MOOC). The Reading Centre is in charge of producing research based, professional development kits for each of the areas in the strategy. The kits, freely available for kindergartens and schools online[3], are made up of academic texts, video examples of educational practices, video lectures, reflective questions, examples of parent-teacher co-operation, and exercises to try out in the classroom and share with other professionals.

Participating kindergartens and schools will work in teams, using the kits as a basis for professional development, at regular intervals throughout the year. The kits provide direction for the professional development that will take place in the participating kindergartens and schools. The kits also give participants the opportunity for professional immersion within the different subject areas, as well as instruction on how to utilise new instructional methods. The kits also contain valuable tools for teachers and staff to use in reflecting upon their own practice.

Research shows that schools with a well-functioning professional community are better equipped to create a good environment for professional development than schools where teachers work mainly individually (Stoll, Bolam, McMahon, Wallace & Thomas, 2006). With this in mind, this strategy emphasises professional team work in participating kindergartens and schools. The professional development kits are developed to be used in groups – either by the staff as a whole, or in smaller professional groups or teams.

Annual, introductory meetings took place in October 2015 for kindergartens and schools that participated in the trial, and in Spring 2016 for kindergartens and schools that will participate in the full strategy in the school year of 2016/17. Due to the large and spread-out geographical nature of Norway, these meetings took place at seven locations across the country. The meetings were organised and led by representatives from the Reading Centre, and attended by teachers and staff from participating kindergartens and schools. At the introductory meetings,

3. See www.sprakloyper.no

representatives from the Reading Centre and the Writing Centre instructed the participants on how to use the professional development kits. Following these meetings, participants are expected to present the kits to their colleagues, and to lead the implementation of the strategy at their local schools and kindergartens.

SUPPORT FOR LOCAL PROFESSIONAL DEVELOPMENT

Twenty seven Norwegian municipalities in 12 counties have received a total of NOK 11 million (approximately EUR 1.2 million[4]) for work on language, reading and writing. The receiving municipalities are found to have particular needs related to language, reading and writing in their schools and kindergartens, and are selected by the Norwegian Directorate for Education and Training. NOK 15 million (approximately EUR 1.6 million) has been distributed to kindergartens. These funds will go to professional development amongst teachers and staff in participating kindergartens/schools, and to establishing local professional networks to support the aims of the strategy. The Reading Centre and the Writing Centre will develop and provide tools for the professional development of kindergarten teachers; support their work; and manage local networks.

A total of NOK 3.5 million (EUR 378,000) has been granted to the following non-profit organisations in 2016, in support for their work on language or literacy projects that can be related to the strategy: Association Read!; Dyslexia Norway; the online teenage magazine Magasinett; and Books for Anyone [5].

SUBJECT AREAS IN THE STRATEGY

Based on the challenges related to language and literacy in Norwegian kindergartens and schools, and the identification of target groups, the strategy covers a number of areas. By participating in the strategy, the aim is that teachers and kindergarten teachers and staff will gain insight in, and learn more about, the following areas.

LANGUAGE DEVELOPMENT AND ACTIVITIES STIMULATING READING AND WRITING

Good language development is crucial for a pre-schooler's ability to play, learn and develop social relations. However, research shows that few activities related to reading and writing are initiated by the teachers and staff in Scandinavian kindergartens (Svensson, 2011). It is necessary to strengthen the focus on pre-written language activities and language activities in general. This requires attentive adults with extensive knowledge about language development and the use of language in children.

THE RELATIONSHIP BETWEEN LANGUAGE LEARNING ACTIVITIES IN KINDERGARTEN AND SCHOOL

In order to ensure optimal continuity and development in children's language learning, kindergarten and school need to be aware of the language learning activities that take place in both places. School teachers need to accommodate early literacy instruction to the needs of each individual child. Therefore, it is crucial that teachers working with young children are familiar with language development in children. Also, teachers need to familiarise themselves with the language learning activities that take place in kindergarten, which prepare children for school.

EARLY LITERACY INSTRUCTION

First graders are generally very motivated for school and learning. This has probably not been sufficiently acknowledged in most Norwegian schools (Lundetræ & Walgermo, 2014), and the potential for learning should be exploited more fully than has been the case to date. Literacy instruction needs to be accommodated to suit the needs of the individual child. Most children will learn to master written language, regardless of which methods are used in early literacy instruction. However, the methods and content of the early literacy instruction can be of crucial importance for children at risk

4. Based on currency conversion rates in May, 2016.
5. Please see foreningenles.no/about-us; www.dysleksinorge.no; magasinett.no; lesersokerbok.no/english

of developing reading and writing difficulties. Teachers need necessary expertise on how to help children who are in need of extra support.

READING AND WRITING IN ALL SUBJECTS

The development of reading and writing skills is a process that continues beyond the initial literacy instruction in primary school. Middle, secondary and upper secondary school students are expected to continue to develop their skills in reading and writing. Knowledge and literacy are developed and used in various ways within the different school subjects. Teachers need to know how to better integrate reading and writing instruction with the planning and instruction in all subjects, from Grade 1 throughout middle and upper secondary school.

DIGITAL TECHNOLOGIES IN LITERACY INSTRUCTION

The school of the future will be technology-rich, both in terms of how students learn, and of how teachers instruct. Digital technologies will, to an increasing extent, be implemented at all levels of education, from pre-school to upper secondary school. Framework plans and steering documents in Norway focus strongly on increased used of IT. This development is fast-paced and places new demands on teachers.

CHALLENGES AND REFLECTIONS

The goal of The National Strategy for Language, Reading and Writing 2016-19 is ambitious: to reach out to all Norwegian children and young people by increasing the skills and competence level of their kindergarten teachers and teachers. Experiences from the trial serve as important background for developing the full version of the strategy. There will be four rounds of evaluations during the trial year, consisting of written feedback from participants. A case study of one of the participating schools will also be used as background for developing the full version.

POSITIVE FEEDBACK

At the time of writing, in May 2016, the trial of the strategy is well underway. The first introduction meetings of the full strategy have recently been held in seven locations across Norway and a survey of 456 participants in the trial has been conducted. Judging by the results of this survey, it seems safe to conclude that the National Strategy for Language, Reading and Writing 2016-19 is meeting a demand amongst school teachers, kindergarten teachers and kindergarten staff. An overwhelming majority is positive to both the content and the methods of implementation of the strategy. Eighty nine per cent of participants answered that they were positive about the professional development kits they had been working with at the point of the survey. Ninety two per cent found the kits to be at an appropriate professional level, and a full 97 per cent found the content of the kits relevant for the school's or kindergarten's current work on language, reading or writing.

Given that this is the first time an educational strategy is presented in the form of a Massive Open Online Course, it is positive to note that as many as 98 per cent of participants found the website sprakloyper.no easy to understand and navigate. Ninety seven per cent found the instructions provided on the website to be adequate or better.

In order for a strategy such as this to succeed, the importance of engagement and participation by the entire staff – not only by key staff or group leaders – has been emphasised. The survey showed that 96 per cent of staff were engaged in discussions and reflections during the workshops. Eighty four per cent of the participating schools and kindergartens planned to conduct workshops related to the strategy at least once per month. Eighty four per cent also planned on conducting work related to the strategy in between the workshops.

These answers are obviously positive when determining whether the strategy is on the right track. However, as we will see, there are a number of other factors that will determine whether the strategy will turn out to be successful, and meet its ambitious aims of improving

the competency in language, reading and writing amongst Norwegian school teachers, kindergarten teachers and kindergarten staff.

CHALLENGES RELATED TO PARTICIPATION

The government's ambition is participation by the vast majority of, if not all, Norwegian kindergartens and schools, between 2016 and 2019.

On the whole, secondary and upper secondary schools are less likely to participate in national educational strategies and programmes than kindergartens and primary schools. There seems to be certain challenges related to participation from secondary and upper secondary schools also for this strategy. Both at the introduction meeting for the trial in October 2015, and at the introduction meetings for the full strategy in spring 2016[6], interest has been consistently higher from teachers and managers in kindergartens and primary schools, than from secondary and upper secondary schools . A total of 166 kindergartens applied to participate in the trial of the strategy; 87 were granted a place (52 per cent of applicants). In addition, 175 primary schools applied to participate in the trial; 125 were granted a place (68 per cent). In contrast, only 28 secondary schools and 11 upper secondary schools participated in the trial, and all of those who applied were granted a place.

The seven introduction meetings for the full strategy were attended by a total of 1,100 teachers and kindergarten teachers in Spring 2016. Six hundred participants came from kindergartens, 400 came from primary schools, whereas only 171 came from secondary and upper secondary schools.[7]

The relatively low interest from secondary and upper secondary schools may in part be attributed to the shortcomings associated with a trial strategy and the fact that, due to practical reasons, only a limited amount of professional development kits targeting the higher grade levels were available during the sign-up period for the full version. On a more fundamental level, however, the implementation of the strategy at higher grade levels faces challenges that are related to the traditional role of reading and literacy in a secondary school setting. The Norwegian educational reform The Knowledge Promotion (Norwegian Ministry of Education and Research, 2006) defines reading as one of the five 'basic skills' that form the foundation for all other learning. As is the case for all the basic skills, reading has become incorporated into the syllabuses for all subjects. All teachers are therefore responsible for enabling pupils and apprentices to develop their reading skills. This is a new way of thinking and working for most teachers in secondary / upper secondary schools. These are specialised teachers, without reading or literacy as part of their formal qualification. Instruction in reading and writing has, as a rule, been associated with the lower grade levels. A number of strategies targeted towards secondary and upper secondary schools in recent years may have led to a shift in attitudes and increased knowledge of literacy and reading amongst teachers in the higher grades. The programmes Ungdomstrinn i Utvikling, Ny Giv and FYR, that aim to increase upper secondary school completion, are estimated to have reached up to 4,000 secondary and upper secondary school teachers nationwide[8]. It is hoped that the focus on reading, writing, and literacy incorporated in these programmes will also lead to increased interest among st secondary/ upper secondary schools to participate in this strategy.

IMPLEMENTATION

The success of the strategy is also dependant on how it is adopted and implemented by school and kindergarten management, teachers and staff. The

6. These meetings include most (but not all) schools and kindergartens that will participate in the strategy in the school year 2016/17. Although participation at the introduction meetings is recommended, it is optional for those wanting to take part in the strategy, and there is also no requirement to participate in the strategy for schools or kindergartens attending the introduction meetings.
7. Some kindergartens and schools sent more than one participant.
8. This equals around eight per cent of the teachers in Norwegian secondary and upper secondary schools.

goal is that participation in the strategy will lead to increased awareness and knowledge of language, reading and writing in school teachers and kindergarten teachers and staff, which will, ideally, lead to a change in practice. Hopefully, this change in practice will in turn improve the language and literacy competency of Norwegian children and young people. However, certain criteria must be met in order to ensure active participation and thus positive change.

Teachers and kindergarten teachers will be in charge of leading the professional development at their own institution (with support from their management, and ideally as part of a wider professional network or management group), after attending the introduction meetings. In order for these teachers to successfully lead the development work amongst their colleagues, it is imperative that they have a good understanding of both the strategy as a whole, of the methods presented in the professional development kits, and of the aims and goals of the strategy. Thus, both the content as well as the structures of the strategy are of critical importance.

The Reading Centre is a national research centre, with the mandate to disseminate resources to schools and kindergartens based on its own research, as well as research from other national and international sources. The resources presented in the professional development kits are research based. However, the resources also ought to be presented in a user-friendly manner, and must be easy to implement in an everyday setting for individual teachers and kindergarten teachers and staff members. It is important to avoid the characteristics of 'how-to manuals' that can be used without participants needing fundamental understanding of why they should follow the recommendations. Rather, the kits need to offer tasks that emphasise reflection, evaluation and understanding of the work at hand. Participants need to find that the resources are of relevance to their own professional work. It is crucial that those involved in developing the professional development kits have a high awareness of this balance, and that they manage to communicate the theoretical background of the resources in a way that is relevant and engaging for the participants.

Research also shows that co-operation, dialogue and exchange of ideas are important requirements for successful professional development amongst teachers (Collinson, Cook & Conley, 2006). For this to happen in local kindergartens and schools, it is important that the management is actively involved in organising and implementing the strategy.

CONCLUSION

In line with EU policies and targets related to improved literacy in the European population, the aim of the Norwegian National Strategy for Language, Reading and Writing 2016-19 is to improve the competency of school teachers and kindergarten teachers and staff, and thus improve Norwegian children and young people's competency in language, reading and writing.

The trial of the strategy, and the launch of the full version, have been well received amongst Norwegian school and kindergarten management, teachers and staff. Feedback from participants in the trial indicates that the strategy is highly relevant and successfully presented, and that it is strongly related to the professional reality of school and kindergarten teachers and staff. However, while the interest from kindergartens and primary schools has been relatively high, one goal for the next three years is to increase participation from secondary and upper secondary schools. Also, in order for the strategy to meet its ambitious aim of increasing language and literacy competency in all Norwegian children and students, the implementation of the strategy in individual kindergartens and schools is important. Whether the strategy will lead to real change and improved competency amongst Norwegian school teachers and kindergarten teachers and staff, depends on: the quality of the professional

development kits; how the methods and the strategy are communicated to school and kindergarten leaders, teachers and staff; and how the professional development kits are implemented in each individual school and kindergarten.

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SCOTLAND

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ABSTRACT

In this article we outline the context within which Scotland is closing the poverty- related attainment gap. We set out the approaches currently being developed in Scotland to achieve equity by closing the gap, including through the introduction of the Scottish Attainment Challenge. We will give a particular focus to the work of a national team of Attainment Advisors and explore ways in which they are working with schools and local authorities. We will highlight the importance of collaboration and partnership-working at different levels within the Scottish education system to support improvements in attainment, particularly of those children living in the most deprived communities. We also give examples of practice, including how the Scottish Attainment Challenge is being implemented. These practice exemplars are provided by Education Scotland staff, including HM Inspectors, Attainment Advisors and Senior Education Officers. The exemplars have been developed by Education Scotland in partnership with local authority and school staff.

SCOTLAND CLOSING THE POVERTY-RELATED ATTAINMENT GAP... THE SCOTTISH WAY

Since the mid-1990s, overall levels of poverty have been falling in Scotland. However, in 2014/15, 220,000 children in Scotland were still living in relative poverty (Figure 1). Relative poverty is defined as individuals living in households whose equivalised income is below 60 per cent of median income in the same year. This is a measure of whether those in the lowest income households are keeping pace with the growth of incomes in the economy as a whole. One hundred and twenty thousand children also lived in low income households which lacked access to important goods and services. In-work poverty also affects many children in Scotland – over 65 per cent of children in poverty were also living in households where there was at least one adult in employment. In 2014/15 around 940,000 people in Scotland (18 per cent of the population) were living in relative poverty after housing costs were deducted (Scottish Government, 2016a). This compares to 23 per cent of the population, or 1,040,000 people, in 1994/95. The data from the Growing up in Scotland study (Scottish Government, 2015a) shows that, in the four years between 2005/06 and 2008/09, 24 per cent of children in the birth cohort and 21 per cent of the child cohort were in households which experienced persistent poverty, meaning they were poor in at least three years out of every four. The same research found that being continuously out of work is the key driver of persistent or 'absolute' poverty.

There is evidence that many children living in poverty are more likely to face developmental issues and have poorer educational outcomes. It is important to note that the causes and effects of living in poverty are complex and are not necessarily captured by an indicator of low income (Barnes, Chanfreau & Tomaszewski, 2010). Poverty can manifest itself in a number of ways such as:

- relative poverty (whether the incomes of the poorest are increasing in line with middle income households);
- absolute poverty (whether the incomes of the poorest are keeping pace with inflation); and
- combined material deprivation and low income (whether families on low incomes can afford certain basic necessities) (Scottish Government, 2016a).

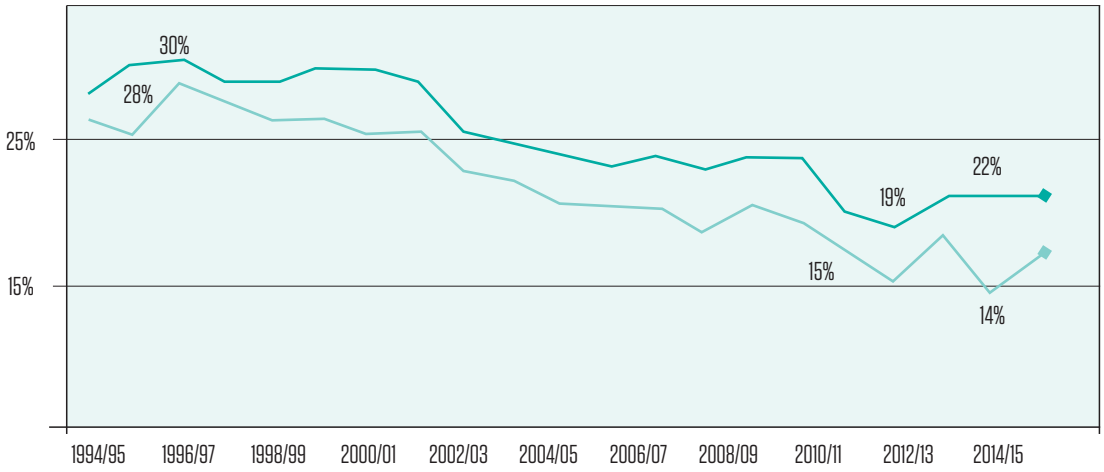
Many of the effects of poverty are captured by what are termed 'predictors' or 'risk factors' of poverty. This suggests that the impact of poverty appears to be evident through the association with other family disadvantages such as unemployment or lack of qualifications, rather than just low income, and that the presence and accumulation of these

Figure 1.
Absolute poverty
in Scotland

21% of children living in absolute poverty AHC in 2014/15
16% of children living in absolute poverty BHC in 2014/15

Scottish Government analysis of Households Below Average Income dataset, DWP

Figure 2.
Relative Poverty
in Scotland



22% of children living in relative poverty AHC in 2014/15
17% of children living in relative poverty BHC in 2014/15

Scottish Government analysis of Households Below Average Income dataset, DWP

disadvantages can have negative impacts on outcomes for young children. It is also important to point out that different risk factors can be both cumulative and interactive in their effects on children.

Data from the Growing Up in Scotland study (Scottish Government, 2015a) indicates that there are differences in early cognitive development which are linked to the level of deprivation in which a child is living. The study has measured cognitive ability at ages three and five and the data has revealed that the cognitive ability gap is already apparent by both of these ages. Analysis of a sample of Scottish children's cognitive development at the beginning of P1 (see table 1 opposite on Ages and Stages in Scottish education) showed that, overall, children from the 20 per cent least deprived areas[1] were 14.4 months ahead of the children from the 20 per cent most deprived areas (Tymms, Merrell & Buckley, 2015). There was a larger difference in early reading, phonological awareness and vocabulary than in early mathematics. It is important to note that there is a correlation between a child's deprivation and cognitive development, but it is not consistent. This is because there was a range of cognitive

1 Based on Scottish Index of Multiple Deprivation (Scottish Government, 2016b).

development scores within each Scottish Index of Multiple Deprivation (SIMD) quintile (Scottish Government, 2016b), with some children from the most deprived areas scoring better than some children from the least deprived areas.

The same study also explored children's levels of personal and social development at the beginning of P1. The study found that children from the least deprived backgrounds were rated as having better adjustment to school, and more concentration on teacher-directed activities, than children from the most deprived areas.

This aligns with findings from the Growing Up in Scotland study (Scottish Government, 2015a), which found that, at entry to primary school, children in the lowest income group were around twice as likely than those in the highest income group to exhibit borderline or abnormal social, emotional or behavioural health. For example, 19 per cent of children in the highest income group had scores in the borderline or abnormal ranges for conduct problems compared with 43 per cent of children in the lowest income group.

Data from the study also indicates that this issue persists into primary school. For instance, shortly before a child's eighth birthday, the proportion of children classified as having high levels of social, emotional and behavioural difficulties was three per cent among those living in households in the highest income quintile but 18 per cent among those in lowest income quintiles. The same study showed that, over the course of P1, children from the least deprived areas[2] made more progress than children in the most deprived areas, for early reading and picture vocabulary (Tymms, Merrell & Buckley, 2015). This could be because these children were receiving more enriched support in their homes in these areas. For early mathematics, however, there was evidence that children from more deprived areas caught up somewhat with children from less deprived areas. The study also showed that, over the course of P1, children from less deprived backgrounds made more progress than those from more deprived backgrounds in confidence, self-directed concentration, relationships with adults and attending to social rules.

Stage	Age
PRIMARY SCHOOL	
P1	4.5 - 6
P2	5.5 - 7
P3	6.5 - 8
P4	7.5 - 9
P5	8.5 - 10
P6	9.5 - 11
P7	10.5 - 12
SECONDARY SCHOOL	
S1	11.5 - 13
S2	12.5 - 14
S3	13.5 - 15
S4	14.5 - 16
S5	15.5 - 17
S6	16.5 - 18

Table 1.
Ages and stages in Scottish education

As noted by Kenway, Bushe, Tinson and Born (2015), the impact of poverty and inequality in education is wider than attainment in exams, important though these are. Data from the Growing Up in Scotland study has shown that there are differences in the proportions of children whose parents look at books or read stories to their child at age 10 months. Eighty per cent of parents in the highest income quintile looked at books or read stories to their child at age 10 months. This proportion dropped to 62 per cent among parents in the lowest income quintile. (Scottish Government, 2015a).

The Scottish Survey of Literacy and Numeracy (SSLN) is a nationally representative sample survey of pupils in P4, P7 and S2, which assesses pupils' performance in numeracy and literacy in alternate years against the standards set by Curriculum for Excellence. In the SSLN 2012 and 2014 (literacy) and SSLN 2011, 2013 and 2015 (numeracy), pupils from the least deprived areas showed statistically significant higher performance than pupils from the most deprived areas (Scottish

2 Least deprived quintile (20%) – Scottish Index of Multiple Deprivation (Scottish Government, 2016b).

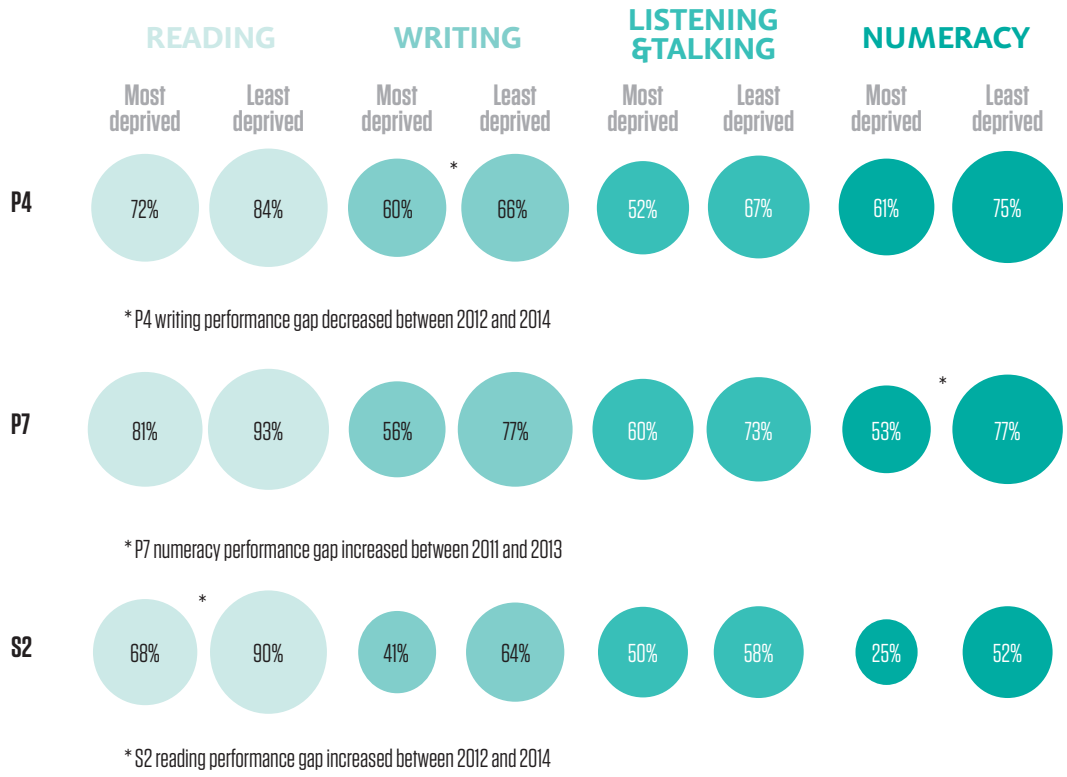


Figure 3.
Evidence on the attainment gap (Source: Scottish Survey of Literacy and Numeracy)

Government, 2014, 2015b, 2016c). The effect of background on performance is stronger in later stages of education, such as S2, than in earlier stages such as P4.

POVERTY AND INEQUITY IN SCOTLAND AFTER LEAVING SCHOOL

Young people from more deprived areas are less likely than those from less deprived areas to be in learning, training or work in the first year after they leave school (Scottish Government, 2016d). In 2014/15, 86.3 per cent of young people aged 16–19 from the most deprived areas were in learning, training or work in the first year after leaving school (ibid.). This compares to 96.3 per cent of school leavers from the least deprived areas (ibid.). In 2014/15, rates of exclusions per 1,000 pupils were 6.6 times greater for pupils living in the 20 per cent of most deprived areas compared with pupils living in the 20 per cent least deprived (Scottish Government, 2015c).

The Scottish Government has placed a major focus on increasing the number of Scots from the most deprived communities who achieve a place at university. This ambition is threaded through policies across stages such as the Early Years Framework (Scottish Government, 2009), Developing the Young Workforce (Scottish Government, 2015d) and Getting it right for every child (Scottish Government, 2016e). While the number of successful applicants from the poorest areas fell across Scotland as a whole in 2015, there was an increase in Scots from the most affluent communities going to university. Universities and Colleges Admissions Service (UCAS) data shows that this figure rose from 4,485 to 4,495 between 2014 and 2015. UCAS notes that Scottish school-leavers from the most prosperous backgrounds are four times as likely to gain university entrance as those from the poorest areas.

The First Minister stated that:

"*Looking at 18-year-olds exclusively, the numbers from our most deprived areas dropped slightly from 2014 to 2015 but nevertheless are up considerably on 2010. The more fundamental point is that not everyone who goes to university goes at 18, so when you look at the figures for people of all ages, the numbers from the most deprived areas both applying to*

and being accepted to university is up in 2015 compared to 2014, in both cases by about 10 per cent. So yes, we have got work to do, I have been very clear about that. That is why implementing the Widening Access report is so important" (BBC, 2016).

The overall proportion of young people entering higher education, the 'entry rate', increased to 21.3 per cent in 2016, the highest level recorded on Scottish results day (The Scotsman, 2016). However, the entry rate for those from the poorest areas was far lower at 8.8 per cent, which represents a 0.6 percentage point improvement on 2015. The Scottish Government has accepted the Commission on Widening Access's proposed national and institutional targets to ensure that, by 2030, students from the 20 per cent most deprived areas in Scotland make up 20 per cent of higher education entrants (Scottish Government, 2016f).

The Scottish Government has recently begun to consult on a Child Poverty Bill (Scottish Government, 2016g) which it intends to introduce in early 2017. The Bill will provide a framework for action and ways to hold the Government to account for their efforts in tackling poverty. The Scottish Government wants to explore how it can work constructively with stakeholders such as local government, business and the third sector to maximise its efforts. The proposals include:

- enshrining in legislation the ambition to eradicate child poverty;
- reinstating statutory income-based targets to reduce the number of children living in poverty; and
- placing a duty on Scottish Ministers to develop a Child Poverty Delivery Plan, and to report annually on their progress towards delivering that plan.

It is envisaged that the Bill will be supplemented by a delivery plan and targets against which progress will be reported.

EDUCATION IN SCOTLAND

Scottish Ministers are responsible for developing education policy. Thereafter, schools are organised and managed at a local level. There are 32 local authorities who, in accordance with The Education (Scotland) Act 1980, have statutory responsibility for the delivery of education, including securing improvements in their schools.

Scotland has a variety of key policies, including the Early Years Framework (Scottish Government, 2009), Curriculum for Excellence (Scottish Executive, 2004), Developing the Young Workforce (Scottish Government, 2015d), Teaching Scotland's Future (Scottish Government, 2011) and the National Parenting Strategy (Scottish Government, 2012). These policies set out what needs to happen to support children as they progress through early learning, school, post -16 learning and onto positive destinations.

Each of these policies has a key aim to raise the attainment of all children and young people, and is underpinned by the Getting it Right for Every Child approach (Scottish Government, 2016e), which is a national approach to improving children and young people's wellbeing. It highlights that even though children and young people have different life experiences they have the right to appropriate support to enable them to achieve their full potential. The approach helps practitioners focus on what makes a positive difference for children and young people and how they can act to deliver these improvements. Getting it Right for Every Child (GIRFEC) is threaded through all existing policy, practice, strategy and legislation affecting children, young people and families.

Curriculum for Excellence (Scottish Executive, 2004) is the curriculum framework for children and young people aged three to 18 providing appropriately structured, coherent, flexible and enriched learning experiences. It aims to raise attainment for all, ensuring they develop the skills and knowledge to help them succeed in learning, life and work. The Scottish Government commissioned the Organisation for Economic Co-operation and Development (OECD) to carry out a review of Curriculum for Excellence (OECD, 2015) in order to inform the on-going development of education policy,

VISION

Excellence: through raising attainment: ensuring that every child achieves the highest standards in literacy and numeracy, set out within Curriculum for Excellence levels, and the right range of skills, qualifications and achievements to allow them to succeed; and

Achieving equity: ensuring every child has the same opportunity to succeed, with a particular focus on closing the poverty-related attainment gap.

practice and leadership in Scotland. The OECD report highlighted many positive developments in Scottish education and described Curriculum for Excellence as 'an important reform to put in place a coherent three-18 curriculum'. While using data from its Programme for International Student Assessment (PISA) the OECD noted that Scottish schools are inclusive and pupils are resilient and that many pupils succeed in school despite socioeconomic disadvantage. However, there is a long-standing concern about the attainment gap that still needs to be closed between the least and most disadvantaged children and young people. The OECD advised Scotland to be "rigorous about the gaps to be closed and pursue relentlessly 'closing the gap' and 'raising the bar' simultaneously" (ibid. p. 11).

VISION FOR SCOTTISH EDUCATION

Following a period of consultation, the National Improvement Framework for Scottish Education (Scottish Government, 2016h) was published in January 2016. The National Improvement Framework was developed in partnership with stakeholders to drive improvements for all children. It sets out the vision for an education system which delivers both excellence and equity and outlines the key drivers for improvement which build on much of the positive work already underway in Scottish education. Closing the attainment gap between the most and least disadvantaged children is one of the four main priorities of the National Improvement Framework.

The National Improvement Framework is designed to "build on the learning and experience from the Scottish Attainment Challenge in relation to what works in closing the gap in our most deprived communities" (Scottish Government, 2016h, p. 24).

The National Improvement Framework will provide new evidence, identifying what is working and where further action is needed. It will see new and better information gathered throughout the primary and early secondary school years to support individual children's progress and to identify where improvement is needed. The data will be used to close the gap in attainment between children from the least and most deprived communities in Scotland.

The Scottish Government is collecting nationally, and at a local authority level, data on achievement of Curriculum for Excellence levels for literacy and numeracy at primary school stages and the early stages of secondary schooling. Currently this is based solely on teacher professional judgement.

The National Improvement Framework includes the development of national standardised assessments in primary and the early years of secondary school to support and inform teacher professional judgement. The first set of new assessment data, based on teacher professional judgement of Curriculum for Excellence levels in literacy and numeracy, will be published at the end of 2016. The

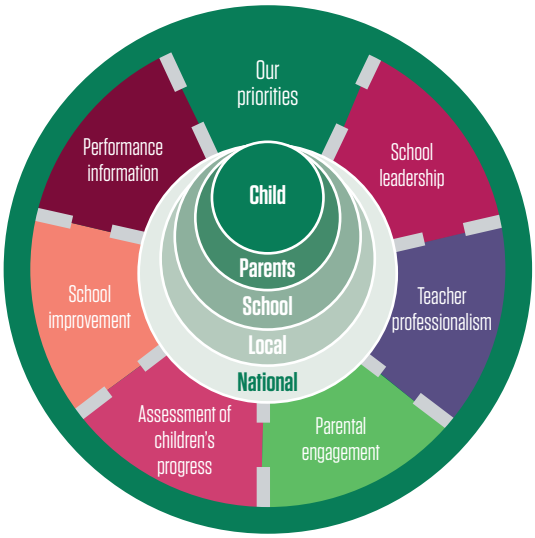


Figure 4. The National Improvement Framework

Evidence we will gather	What this will tell us
The percentage of children achieving curriculum levels in literacy and numeracy at P1, P4, P7 and S3 by school, local authority and nationally.	We will know how many children are achieving the expected levels in literacy and numeracy at P1, P4, P7 and S3, at school, local authority and national level. We will also know the breakdown of children's progress by deprivation over time (using the Scottish Index of Multiple Deprivation)
Data from a range of surveys on health and wellbeing showing changes over time..	This will give us information about a range of children's health, attitudes, behaviours and wellbeing.
Senior phase qualifications and awards data.	This will tell us about the standard and levels of qualifications that young people leave school with.
The percentage of school leavers in positive and sustained destinations	This will tell us about the numbers of young people who are in further education, employment or training and the extent to which this is sustained at local and national level.
Through external review of careers information, advice and guidance services, percentages of these services graded as 'good' or better	This will tell us how young people's career management skills are developing. We want to see continuous improvement in the quality of careers information, advice and guidance services delivered to all young people, teachers, parents and carers.

Table 2. National Improvement Framework (extract)

standardised assessments will be available for use during 2017.

SCOTTISH ATTAINMENT CHALLENGE

The Scottish Attainment Challenge ('the Challenge') was launched by Scotland's First Minister in February 2015. It is a national programme led jointly by the Scottish Government and Education Scotland, Scotland's national improvement agency for education. The Challenge will further support and complement a broader range of national initiatives and approaches, building on a number of existing programmes that are focused on raising attainment and tackling educational inequity.

The Challenge has a clear focus to help achieve equity and address the priority to close the attainment gap between children and young people living in the communities with greatest and least levels of socioeconomic deprivation in Scotland. It aims to bring a focus and accelerate targeted improvements in literacy, numeracy and health and wellbeing. The Challenge is set firmly within the context of Curriculum for Excellence (Scottish Executive, 2004).

The Challenge is supported financially by the Attainment Scotland Fund which was set at £100 million over four years but now stands at £750 million over five years. Initially this supported the seven local authorities with the highest concentration of primary school aged children living in the 20 per cent most deprived communities (Challenge Authorities). In recognition that children experience poverty-related disadvantage outside these areas, this was supplemented by support for all those primary schools with over 70 per cent of pupils in such communities, and by an Innovation Fund open to all schools not otherwise supported.

The extension of the Attainment Scotland Fund will include £100 million per annum allocated directly to schools based on the numbers of children in primary schools and early stages of secondary schools who meet the eligibility criteria for free school meals. This approach will empower schools and give them the flexibility to choose strategies that are right for their pupils and local context to maximise impact on closing the attainment gap.

Local authorities and schools in receipt of the Attainment Scotland Fund were provided with guidance on how the funding was to be used with a focus on leadership, learning and teaching, and families and communities to improve literacy, numeracy and health and wellbeing outcomes for children living in the most deprived communities. Within this broad guidance local authorities and schools were empowered to identify the key priorities relevant to the local context

THE SCOTTISH ATTAINMENT CHALLENGE
SCOTLAND: THE BEST PLACE IN THE WORLD TO LEARN

INNOVATION FUND

In Clackmannanshire Council one secondary school was awarded funding for a project which aims to build confidence, resilience and teach strategies that enable mastery in reading skills for young people. In addition, the project aims to develop precision teaching to help young people retain learning strategies and develop independence. As well as using a commercial teaching programme resource to target support, the project will focus on an inclusive school reading programme delivered by teachers across the curriculum, which will develop young people's reading skills.

Funding was awarded to a secondary school in The Highland Council to offer 20 young people with additional support needs specific job related training for the catering industry. The young learners will undertake a ten-week Safe Working Practices Food Hygiene Course which has been specifically written for young people with additional support needs. In parallel with this, the pupils will also be working through the ASDAN Foodwise Short Course which will include healthy eating, the food industry in general, practical cooking skills and cooking on a budget. In addition to specific practical and employability skills, literacy will be developed in the many and varied teaching settings; numeracy skills particularly through recipes, budgeting and money handling. Health and wellbeing is intrinsic to the project with assessment being undertaken which is suitable for each pupil.

PRIMARY SCHOOLS PROGRAMME

Four primary schools in Aberdeen City Council were identified to be involved in the Schools Programme. They agreed to work on a joint plan as the key areas to make a difference for children living in poverty were felt to be very similar. All four schools had acting headteachers at the beginning of the Challenge and the collaboration and professional development between the leaders has been significant to the success in year one of the programme. The developments have focused on developing literacy skills, particularly concentrating on the acquisition of vocabulary. Early indications show significant improvements for almost all children selected to be included in the programme.

A key driver in taking the Schools Programme forward in Fife Council has been the formation of a professional learning group of headteachers involved in the Programme. The group meets regularly to engage in high-quality discussion and share good practice. The group is supported by a range of key partners: Educational Psychologists, Speech and Language Therapists, the Family and Community Support Team and Education Service Managers. The lead officer, Attainment Advisor and headteachers work collaboratively to plan the programme for the group. Professional learning and sharing is integral to all meetings. Sessions have included: use of a specific improvement methodology; using data to establish baseline measures; gathering evidence of progress and impact; and partnership working. All headteachers involved are growing in confidence and clearly see the need to invest in the capabilities of their staff and build leadership capacity at all levels in their school communities.

CHALLENGE AUTHORITIES PROGRAMME

Inverclyde Council's plan included the setting up of a dedicated team of Coaching and Modelling Officers, working directly with practitioners in classrooms to improve literacy, numeracy, and health and wellbeing. The Coaching and Modelling team comprises three teachers who have additional experience in literacy, numeracy and health and wellbeing. The council has prioritised six primary schools for additional support in year one, chosen after an analysis of relevant data, including SIMD. Based on this data and the 'start small, think big' model for improvement, three further schools will join in each of years two and three. By combining the SIMD data with other information, including Performance Information in Primary Schools and observations using Education Scotland's Primary One Literacy Assessment and Action Resource, they identified children who are at risk of under-attainment. Support is then put in place for the children, teachers and schools. Drawing on their experience as practitioners, the Coaching and Modelling Officers work collaboratively with the leadership team, classroom teachers and pupils. Interventions include developing nurturing approaches and using numeracy and literacy resources for particular target groups. Results are shared across all the schools, and the wider attainment network. Whilst only a few months into their role, the team are encouraged by improvements in vocabulary and reading in target groups.

and use the funding to address them. They created an improvement plan outlining the priorities and approaches they would use to close the attainment gap within their local context along with details of the finance and specified how progress and impact would be measured. The plans were reviewed and approved by a panel involving Scottish Government, Education Scotland and an academic advisor. As part of the process local authorities and schools provide regular reports on progress with implementation of the plans and highlight improvements and impact on children and young people.

THE WORK OF ATTAINMENT ADVISORS

The introduction of Attainment Advisors into the Scottish education system in November 2015 by Education Scotland provides a significant opportunity to rethink roles and responsibilities and to develop new arrangements for leading improvement across schools, local authorities and the wider system. This is a new role and Education Scotland is drawing on learning from the emergence of similar roles in other countries and also, perhaps more importantly, developing a team of Attainment Advisors that meet the current specific requirements of Scottish education. The commitment to providing a national team of Attainment Advisors is part of the strong universal offer to support how Scotland closes the poverty-related attainment gap. The approach being adopted takes account of learning from national and international targeted improvement initiatives, including the London Challenge (Kidson & Norris, 2014).

The Attainment Advisors have an excellent track record in leading improvement in attainment locally, to ensure that they are credible with local authority staff, leaders and practitioners. The team of Attainment Advisors is made up of full-time and part-time staff. The full-time staff are secondees from schools and local authorities, who continue to be based in and work within a particular local authority. The part-time Attainment Advisors are existing staff from Education Scotland. Education Scotland co-ordinates their work, provides professional learning, shares with the team best practice and provides access to national and international knowledge and research.

As well as providing direct support for the implementation of improvement plans devised by local authorities and schools benefitting from the Attainment Scotland Fund, Attainment Advisors work alongside local authority staff. This includes working

> “Since taking up post, I have worked collaboratively with the local authority, project lead and the Inverclyde Attainment Challenge team to plan and support appropriate evidence-based interventions to improve attainment in Literacy, Numeracy and Health and Wellbeing. Every two weeks I meet with the Implementation Group, which includes headteachers of focus schools and a range of partners, and play a key role in building the capacity of leaders and practitioners by supporting effective self-evaluation, underpinned by evidence of what is working well and what needs further improvement. I also co-ordinate appropriate support for schools and the local authority at a local and national level, as well as sharing effective practice.
>
> Working in collaboration with the Dundee Advisor, we have linked the work of Education Scotland, Scottish Government, Dundee and Inverclyde Educational Psychological Services (EPS), including their Research Assistants. We continue to promote a strong culture of collaborative learning and enquiry, having supported EPS teams to build strong professional relationships and the sharing of pedagogy, resources and material in key areas.
>
> ***Cara Cooper, Attainment Advisor***

> “I have provided guidance to the local authority to stimulate debate and to support review of the processes to drive improvements through effective tracking and monitoring. I have developed a supported school improvement model, which empowers and equips schools to achieve continuous self-improvement. This is achieved by building on good practice, mobilising additional support through mentoring and monitoring the impact on learners.
>
> ***Gail Copland, Attainment Advisor***

SCHOOL IMPROVEMENT PARTNERSHIP PROGRAMME

SIPP is a collaborative school improvement strategy which aims to encourage staff to learn from each other, experiment with their practice and monitor and evaluate change. School Improvement Partnerships are an action research programme involving a process of collaborative inquiry which creates leadership opportunities and professional learning. The range of enquiry methods used by partnerships includes:

- collaborative action research;
- improvement science;
- instructional rounds; and
- lesson study.

The projects cover a range of themes including pupil engagement, behaviour, tackling low aspirations, and promoting parental engagement. After two years of development and implementation, the available evidence from the external evaluation (Education Scotland, 2015a) and the partnerships' own research findings strongly indicates that the SIPP is now having an impact regarding its stated objectives and, importantly, on attainment and other student outcomes. Overall the SIPP initiative has continued to promote collaborative approaches that have also positively impacted on personnel in the participating schools, local authorities and partner agencies/services. The processes involved in establishing and sustaining the partnerships have facilitated improvements in learning and teaching, assessment, joint working to tackle pupil needs, engagement with families, leadership and professionals' motivation.

with practitioners on agreed priorities, which support raising attainment through the key areas of learning, teaching and leadership to impact on literacy, numeracy and health and wellbeing. The network of Attainment Advisors is able to draw upon the experience and success locally of practitioners and also help target the national support offered by Education Scotland and others to achieve maximum impact.

The full-time Attainment Advisors are linked to Challenge Authorities. In the first few months it was important for Attainment Advisors to develop and build

> "The Attainment Advisor (AA) in Dundee is supporting collaboration, professional learning and enquiry and building links by brokering partnerships with other local authorities and the universities supporting the Challenge, in particular the Robert Owen Centre. The AA is working very closely with the Dundee Educational Psychology Service (DEPS) as they develop the service's role in the Challenge in Dundee. They have a dedicated educational psychologist for the Challenge and a research assistant. In partnership with the AA they are leading a research team to evaluate the impact of the Challenge interventions and activities in Dundee. They are producing guidance for practitioners such as how to approach Collaborative Action Research.
> Practitioners in schools and nurseries are supported by the AA and DEPS to consider different approaches to improvement. Schools and nurseries are now more focused on research and evidence-based programmes and on improving professional learning, particularly in relation to learning, teaching and nurture. The result is an increased focus on pedagogy and research to enhance the skills of teachers and educators to improve outcomes for children and young people.
>
> ***Audrey May, Attainment Advisor***

relationships with various local authority staff and to be included fully in the governance arrangements and programmes prevailing in each locality. Developing such relationships was critical in order to drive forward key aspects of the Challenge at a strategic, local and establishment level. During the initial period Attainment Advisors played a significant role in meeting with senior managers and leaders across schools to develop a shared understanding of the Challenge. They provided constructive challenge and support as each local authority translated its plan into operational work plans and projects.

Working with schools and local authorities, Attainment Advisors are gathering information and data about what is working and where teachers and headteachers are beginning to see early improvements. They are already seeing increased commitment across schools to improving learning and attainment to

close the poverty-related attainment gap and improved reflective dialogue about the range of data schools can utilise to understand the social, economic and cultural context of their local community.

Education Scotland and Scottish Government provide a broad range of national support for school improvement across every local authority including a range of resources and activities to build capacity in self-evaluation and improvement. In addition, Education Scotland is working with a sub-set of local authorities on more specific programmes such as the School Improvement Partnership Programme (SIPP). The Scottish Government has also established the 'Raising Attainment for All' (RAFA) initiative, working across a number of local authorities. Programmes such as SIPP and RAFA promote directly the development of local improvement work based on 'best evidence' and which in turn is used to generate knowledge of 'what works' which is then shared more widely across the system.

The creation of Attainment Advisors builds on this work through promoting a strong culture of collaborative learning and enquiry, whereby practitioners are engaged in learning from each other about effective practice to raise attainment.

As well as working with individual schools and local authorities, the Attainment Advisors work collaboratively across groupings of local authorities. Working across local authority boundaries and promoting collaboration is a key part of the role. Over recent months there has been an increase in collaborative activity both between and across local authorities and schools.

IMPROVEMENTS THROUGH SELF-EVALUATION

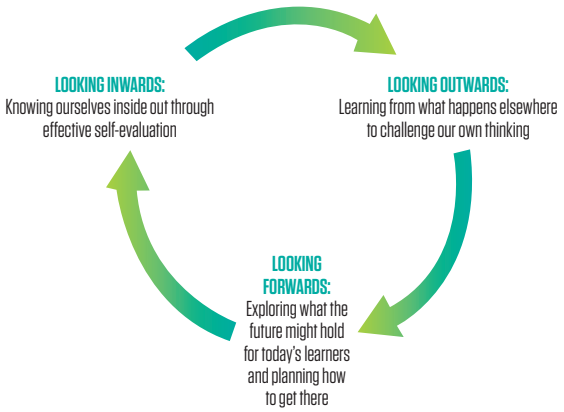
Scotland has a very well-established approach to school improvement. Key elements of the education system, including classroom practices and learners' experiences, show evidence of increasingly high quality. Within the 'Scottish approach' to school improvement, schools are responsible for evaluating the quality of their work, and taking action to secure continuous improvement. School self-evaluation is supported and challenged by local authorities. Schools are also subject to external evaluation by Her Majesty's Inspectors (HMI) from Education Scotland.

Education Scotland has created self-evaluation toolkits to support schools and practitioners. Schools, local authorities and HMI use the same quality indicators from "How good is our school?" (Education Scotland, 2015b) in evaluating a school's work.

Since 1996, HMIE and Education Scotland have developed the How good is our school? Framework. This has become a nationally and internationally recognised brand, which underpins effective self-evaluation as the starting point for school improvement. How good is our school? provides a suite of quality indicators that support staff in all sectors to look inwards, to scrutinise their work and evaluate what is working well for learners and what could be better. It is a key aspect of the Scottish approach to school improvement. The toolkit of illustrations, exemplar features of highly-effective practice and challenge questions is designed to be used to support self-evaluation and reflection by practitioners at all levels. They can be adapted and used with learners, parents and partners across the school community to support collaborative enquiry and interrogative approaches to self-evaluation so that schools are able to identify their own features of effective practice, and develop a shared understanding of what to do next.

The latest version, How good is our school? (HGIOS?4), was launched in September 2015 and is focused explicitly on making a strong contribution to closing the gap in attainment and achievement between the most disadvantaged children and their peers.HGIOS?4 can be used to evaluate how well learners of all backgrounds are achieving literacy and numeracy skills and how effectively their wellbeing and skills for learning, life and work are being developed. Within the publication, the quality indicators are arranged under the three organisers

Figure 5.
How good is our school? 4



of leadership and management, learning provision and success and achievement. Raising attainment can be easily identified as a theme which runs right across all 3 of these organisers.

HGIOS?4 is being used for the purposes of school inspections from August 2016 and will provide more focused independent evaluation from HMI of how well schools are closing the poverty-related attainment gap.

Attainment Advisors have a significant role in building the capacity of leaders and practitioners to undertake self-evaluation and to plan effectively to support continuous improvement. This is underpinned by robust evidence of what is working well and what needs further improvement.

They are using a range of 'challenge questions' from HGIOS?4 with local authorities and schools to support reflection, enquiry and learning. This approach enables Attainment Advisors to influence priorities for development and promote changes to practice to support continuous improvement.

SHARING 'WHAT WORKS' THROUGH THE NATIONAL IMPROVEMENT HUB

Education Scotland has recently developed a National Improvement Hub for education, a comprehensive and accessible 'portal' of research, evidence and examples of practice. The National Improvement Hub (Education Scotland, 2016) will become a main source of advice, support and social networking for education improvement in Scotland, and already features a valuable range of resources that can be easily accessed on computers, tablets or smartphones. The National Improvement Hub will provide practitioners with access to: self-evaluation and improvement tools; knowledge and research; teaching and assessment resources; exemplars of practice and support for online collaboration and networks. It enables Education Scotland to extend the reach of national improvement materials in order to support improvements in Scottish education.

The work of the Scottish Attainment Challenge features prominently as part of the National Improvement Hub. As well as providing up-to-date information about the Challenge, it draws on information and learning from Attainment Advisors to enable practitioners to share exemplars of practice and evidence of what works. The combination of self-evaluation toolkits, research and advice supports practitioners in taking forward priorities to reduce the poverty-related attainment gap through providing easy access to sources of research about strategies and interventions as well as resources to help them implement change.

Table 3.
How good is our school? 4 – Quality Indicators

What is our capacity for improvement?		
Leadership and management	**Learning provision**	**Successes and achievements**
How good is our leadership and approach to improvement?	**How good is the quality of the care and education we offer?**	**How good are we at ensuring the best possible outcomes for all our learners?**
1.1 Self-evaluation for self-improvement **1.2** Leadership of learning **1.3** Leadership of change **1.4** Leadership and management of staff **1.5** Management of resources to promote equality	**2.1** Safeguarding and child protection **2.2** Curriculum **2.3** Learning, teaching and assessment **2.4** Personalised support **2.5** Family learning **2.6** Transitions **2.7** Partnerships	**3.1** Improving wellbeing, equality and inclusion **3.2** Raising attainment and achievement **3.3** Increasing creativity and employability

> “While I have agreed a wide range of workstreams with local authority staff to support the work across the city, three key aspects I was involved in during year one were as follows.
>
> I have worked with another Attainment Advisor to create a set of workshops for practitioners to encourage engagement with three of the quality indicators from HGIOS?4. This helps practitioners to understand how HGIOS?4 could be used to support key national developments of the Scottish Attainment Challenge, National Improvement Framework and National Improvement Hub.
>
> I have led professional learning for seven establishments, supporting practitioner engagement under the theme of “teacher leadership of learning” using HGIOS?4.
>
> Individually I worked with the support of Education Scotland colleagues to create a Raising Attainment and Closing the Gap Toolkit, using HGIOS?4 Challenge Questions and Features of Effective Practice. The purpose of this was to provide a consistent and robust framework for Challenge visits to schools and assist in the measuring of impact and collection of evidence of progress. I launched the tool with 138 primary school Head Teachers and led training for all authority staff who visit schools to discuss progress within the Challenge, who serve as ‘Challenge Links’.
>
> ***Sharon Hayward, Attainment Advisor***

Through the Attainment Scotland Fund, Dundee City Council has developed a new partnership approach to Speech and Language Therapy in early years. A small number of evidence-based programmes, focused on the development of early vocabulary and listening skills, were identified. These included Toddler Talk and Learning to Listen. The speech and language therapists work alongside the teachers, practitioners and parents to deliver the programmes. An action research approach is being used to establish the impact of this approach. It is also building the capacity of staff working in early and first level.

Through the Attainment Scotland Fund, Inverclyde Council has developed a Reading for Pleasure Project. Staff evaluated class literacy environments, and worked collaboratively with the Literacy Coaching and Mentoring Officer to plan and deliver appropriate literacy experiences across the four contexts for learning. Library staff led structured sessions to develop story telling skills. The school improved the range of books available to children to read regularly for pleasure. Partnerships were developed with local libraries and children’s authors to provide opportunities for children and families to actively engage with texts out with the school environment. Families were encouraged and supported to engage in the Summer Reading Challenge.

CONCLUSION

Everyone involved in Scottish education is committed to addressing the poverty-related attainment gap. On 9 June 2016 the Deputy First Minister launched “Delivering Excellence and Equity: A delivery plan for Scotland” (Scottish Government, 2016i). This Delivery Plan details a range of actions designed to make progress in closing the poverty related attainment gap, including:

- using new data that will become available through the National Improvement Framework to identify the attainment gap at school and local aut hority level;
- extending funding available through the Scottish Attainment Challenge to £750 million over the next five years;
- launching a new framework of fully evidenced and proven educational interventions and strategies to improve attainment to support schools when making decisions about ways to spend additional funds and monitor the impact on improving individual children’s progress; and
- continuing to extend the use of research to underpin the interventions and strategies used in classrooms to close the gap as part of our developing research strategy.

The role of Attainment Advisors continues to evolve and will have a key function in supporting improvement activities at both school and local authority level. In particular, Attainment Advisors are crucial to identifying learning and effective practice at a local level about ‘what works’ and sharing practice via the National Improvement Hub so practitioners from across Scotland can benefit. Over the coming months the reach and impact of Attainment Advisors will be extended through aligning the team to regions

within Scotland. This will help promote further collaboration across local authority boundaries. As data becomes available from the National Improvement Framework, Attainment Advisors will be able to use the information to identify and work with schools where there is the greatest need.

The National Improvement Framework will provide new and better information gathered throughout the primary and early secondary school years to support individual children to progress and to identify where improvement is needed. Until that information is available the increased focus on closing the poverty-related attainment gap as part of school inspections will provide increased evidence in identifying what schools are doing to close the gap and what impact this is having on ensuring every child achieves their potential.

These next steps along with the actions set out in the Delivery Plan will ensure there is a continued and sustained focus on closing the poverty-related attainment gap and improving Scottish education.

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SLOVENIA

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ABSTRACT

This article describes a formative assessment project which was undertaken by six European countries who were also members of the Consortium of Institutions for Development and Research in Education in Europe (CIDREE). The main aim of the project was to explore how learners' attainment and equity could be improved through formative assessment. The countries involved focused on promoting professional learning, linking research and teacher discussion and assessment tools with an emphasis on specific national goals, needs and targets. An action research model in two phases was used for this study, with teachers in Slovenia embedding the links between learning, teaching and assessment in their classroom practice. By incorporating aspects of formative assessment into their teaching, teachers changed the way they interacted with students, how they set up learning situations and guided students toward learning goals and together defined success. Teachers made frequent interactive assessments of student understanding and gathered diverse evidence. This enabled them to adjust their teaching to meet individual student needs, give them quality feedback and involve them in self and peer assessment. Teachers actively involved all students in the learning process and adjusted methods to recognise individual, cultural, and linguistic differences between children. They helped students to develop skills that enabled them to learn better and improve their attainment.

In the last couple of decades there has been significant research activity aimed at broadening the spectrum of assessment methods (Black & Wiliam, 1998a; Black, Wiliam, Harrison & Marshall, 2002; Collwell, 2002; Fautley, 2010; Marentič Požarnik, 2004; Razdevšek Pučko, 2004; Sentočnik, 2000; Wiliam, 2013). Such contemporary approaches to assessment put greater emphasis on holistic assessment methods which stress the quality of the reproduced knowledge, reflected by in-depth understanding and applicability, rather than its quantity (Marentič Požarnik 2004).

Black and Wiliam are the authors of several studies in which assessment has the function of supporting students in this way:

> *"Assessment refers to all those activities undertaken by teachers, and by their students, in assessing themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged. Such assessment becomes 'formative assessment' when the evidence is actually used to adapt the teaching work to meet the needs"* (1998a, p. 2).

Black and Wiliam's (1998a) research review examined studies that collectively encompassed kindergarteners to college students, represented a range of subject areas including reading, writing, social studies, mathematics, and science, and were conducted in numerous countries throughout the world. The gains reported in the studies they describe are among the largest found for any educational intervention. Typical effect sizes for the use of formative assessment by teachers were between 0.4 and 0.7. In other words, the achievement gains realised by students whose teachers rely on formative assessment can range from 15 to 25 percentile points, or two to four grade equivalents, on commonly used standardised achievement test score scales (ibid.). An additional outcome common among the studies they analysed is that certain formative assessment practices greatly increased the achievement of low-performing students; in some cases to the point of approaching that of high-achieving students. Not surprisingly, a plethora of formative assessment programmes and products have surfaced, due in part to the above findings.

An important element of formative assessment is the feedback that students receive. Research studies have shown that if students are given only marks or grades, they do not benefit from the feedback on their work (Black and Wiliam, 1998b). Whilst students' learning can be supported by feedback through comments, the giving of marks

– or grades – has a negative effect in that students ignore comments when marks are also given (Butler, 1987). A numerical mark does not tell students how to improve their work, so an opportunity to enhance their learning has been lost. Besides that, the provision of comments to students helps parents to focus on the learning issues rather than on trying to interpret a mark or grade (Black, Wiliam, Harrison & Marshall, 2002).

In general, feedback given as rewards or grades enhances ego – rather than task – involvement. It can focus students' attention on their 'ability' rather than on the importance of effort, damaging the self-esteem of low attaining learners and leading to problems of 'learned helplessness' (Dweck, 1986). Feedback that focuses on what needs to be done can encourage learners to believe that they can improve. Such feedback can enhance learning, both directly through the effort that can ensue, and indirectly by supporting the motivation to invest such effort (Black, Wiliam, Harrison & Marshall, 2002). Another research study (Black, 2010) has demonstrated that descriptive comments help to improve the knowledge of each individual student, are crucial for students' progress, stimulate thinking and have a particularly strong influence on improving the performance of low attaining learners.

Research on the formative assessment of students shows that under-performance is not innate and that improvements in equity can be made through targeted changes. The strategic document, the White Paper on Education, which has been prepared by the National Expert Group in Slovenia, defines equity as an essential element of social justice. Justice is understood as "equality of educational opportunities" (Vogrinc, Kalin, Krek, Medveš,& Valenčič Zuljan, 2011, p. 14) and is therefore a necessary condition for equal opportunities to succeed in life for all citizens. The concept of equal opportunity allows for "inequality in the attainment of individuals, but only if all of them have equal opportunity for attainment..." (ibid.). Equality of opportunity depends on an individual's educational opportunities; hence measures must be adopted at the national level that would provide said opportunities to all. In addition to promoting quality and excellence, and other proposed measures, the above-mentioned measures include target-oriented measures for promoting the success of students with diverse abilities (ibid.).

One study that highlighted this finding is the meta-analysis conducted by Fuchs and Fuchs (1986), which focused on students with learning disabilities. It showed that frequent formative feedback is particularly beneficial for low-achieving students. The school experience can be altered for low-achieving students when instruction and assessment are individualised, students are challenged at their own levels, and they receive objective feedback on their learning (Yeh, 2010). However, it is interesting that an empirical study about systemic aspects of assessment and evaluation in primary school (Vogrinc, Kalin, Krek, Medveš, & Valenčič Zuljan, 2011), carried out in Slovenia, produced results that differ substantially from those of the above-mentioned research studies.

It was designed by the Sectoral Expert Group for Primary School, which had been appointed by the National Expert Group for the Preparation of the White Paper on Education in the Republic of Slovenia. Based on an analysis of the findings of domestic and foreign research, international comparative analyses, and the current conceptual and legal solutions, members of the group have drafted a proposal of the key issues that need to be reconsidered, supplemented, updated or modified. For this purpose, they have prepared a Questionnaire on Teachers' Knowledge Assessment and National Examinations.

In this study, the authors explored the opinions of teachers, principals and parents about various aspects of assessment. In Slovenia, primary and lower secondary education are unified and last for nine years (including three three-year cycles – triennia). Children

first enter primary schooling at about the age of six and finish at about the age of 14. The results of this study show that the majority of those surveyed (teachers, principals and parents) were not in favour of descriptive assessment. It showed that 40.1 per cent of respondents would like to abolish descriptive assessment as early as after the first (six per cent) or the second (34.1 per cent) semester of the first class (first year of primary school) (Vogrinc, Kalin, Krek, Medveš, & Valenčič Zuljan, 2011).

Most respondents in this study (first triennium: 53 per cent, second triennium: 76.2 per cent) believed that numerical marks provide children as well as their parents with better insight into students' knowledge and that it is easier for parents to find out what their child actually knows on the basis of a numerical mark (49.8 per cent of first triennium teachers and 66.9 per cent of second triennium teachers). This shows that most respondents in this study also attribute higher informational value to numerical marks (Vogrinc, Kalin, Krek, Medveš, & Valenčič Zuljan, 2011).

The results of the described study are surprising, particularly the fact that not only parents, but also teachers and principals, expressed a negative view of descriptive assessment. There was a widely held belief that descriptive assessment failed to convey the individual progress made by a student – and that its motivational value was limited. However, it is possible that the results of the survey indicate that the majority of the teachers included in the survey were not well acquainted with the value of effective descriptive assessment and, moreover, have not tried it out with their own students. Without the benefit of this knowledge and without having experienced formative assessment within their own context, it would be difficult for teachers, parents and students to come to an informed judgement. The results of the Slovenian study do not reflect the findings of a comprehensive review of research into the value of feedback which showed that feedback improved the performance of 60 per cent of students. In the cases where it was not helpful, the feedback turned out to be merely a judgement or grading with no indication of how to improve (Kluger & DeNisi, 1996).

SETTING UP THE CIDREE PROJECT: SUPPORTING TEACHERS FOR EFFECTIVE ASSESSMENT FOR LEARNING

In June 2012, at the CIDREE Assessment for Learning Seminar, six countries (Slovenia, Estonia, Scotland, Hungary, Ireland and Albania) agreed to set up the project, Supporting Teachers for Effective Assessment for Learning. Three groups were formed to assist in the exploration of this project, in which both experts and teachers worked together to develop a description of the aims and how to promote the three areas: (1) promoting professional learning; (2) linking research and teacher discussion; and (3) assessment for learning tools.

In this project we aimed to explore how to:

- create rich learning environments for teachers and students, where they can become open to new approaches embedding the links between learning, teaching and assessment;
- adapt, develop and design various tools for assessment for learning;
- implement the changes required through sharing teachers' experiences, expertise and successful practices;
- help teachers to become reflective practitioners through action research in monitoring, assessing and reflecting on their own practices to raise the quality of student performance; and
- improve attainment and increase equity for learners through formative assessment.

The countries involved have focused on these four strands with an emphasis on their own expertise and/or priorities which have been derived from their specific national goals, needs and targets. For this purpose we organised:

- numerous seminars;
- regional meetings with advisers;
- a study visit to Scotland for advisers;

- 'e-Community' partnership between Scottish and Slovenian teachers;
- a visit from a Scottish expert, Norman Emerson, to Slovenia (working meeting with advisers and a seminar for teachers);
- a closing conference in Ljubljana (October 2014); and
- a double thematic issue of the journal Vzgoja in izobraževanje (professional journal for teachers), with the supplement Učiteljev glas – Teacher's Voice (October 2014).

SUPPORTING TEACHERS FOR EFFECTIVE ASSESSMENT FOR LEARNING IN SLOVENIA

PARTICIPANTS

In Slovenia the project encompassed 22 advisers, who worked with 58 teachers from 18 primary and secondary schools that had volunteered to take part in this project and had come from different parts of the country.

RESEARCH METHOD

The 58 teachers were given a questionnaire in which they were asked to reflect on their practice in terms of the use of formative assessment approaches within their classrooms. A total of 22 teachers returned the questionnaires, which have been analysed. The number of returned questionnaires is rather small, so we cannot talk about a representative sample, but it does give us an insight into how the teachers perceived this topic.

Following the principle of action research, teachers were asked to complete personal learning plans (which also included the changes detected by their students), which encouraged them to research their own practice and helped them to implement formative assessment. The teachers planned and carried out two action cycles. During and at the end of each cycle, they were encouraged to write down their reflections in their learning plans, which have been analysed. In these learning plans the teachers also wrote down their reflections about attainment and equity in their practice and the impact that formative assessment approaches had had on these aspects.

MATERIALS FOR ANALYSIS

At the conclusion of the project the teachers were given a questionnaire, in which they were asked to rate on a five-point scale (1 = never, 2 = rarely, 3 = occasionally, 4 = often, 5 = always) how often:

- they involve students in co-shaping the learning intentions and success criteria;
- they lead a classroom discussion on gathering diverse evidence of learning;
- they give feedback to the students, also informing them of a specific activity which they must carry out to improve their achievements; and
- students can receive feedback from a teacher, classmate or parents.

Throughout the project (September 2012 to October 2014), the teachers used personal learning plans as a tool to research their own practice and engage in self-reflection. The learning plans enabled them to develop critical thinking, record various notes, findings, considerations and reflections about the lessons and discussions with pupils and parents.

The learning plans for teachers focused on:

- what they wished to achieve in this project;
- the formative assessment element(s) they had developed and used in their lessons;
- conversations with the pupils/students/parents about formative assessment for learning – and their reactions;
- the changes they had detected in their pedagogical work when using formative assessment elements;
- the changes detected by their pupils/students/parents;
- what they had achieved particularly well when developing/using formative assessment elements (new findings, what they had learnt, etc.);
- what had presented the biggest challenge; and
- what they were going to develop/do differently in the next school year.

FINDINGS

When students participate in the co-shaping of learning intentions and success criteria, they are more motivated to work

Summative evaluation focuses on areas that teachers, examination centres or the competent school authorities consider important. However, it is probable that no one ever asks the students what they consider to be important in a specific subject. It is precisely in this regard that the shaping of success criteria, in which the teacher can also involve his/her students, can play an important role (Fautley, 2010).

In the case of our project, 22 teachers submitted the questionnaires, of which 18 believed that by being involved in the co-shaping of learning intentions and success criteria, the students were more motivated to work, since they were familiar with the objectives of their learning. This can be illustrated by two quotes from a teacher and student who wrote:

> *"By setting their own learning objectives, the students assumed greater responsibility for their learning, because they were highly motivated to work and carried out learning activities in accordance with our agreement and at a very high level".* (Teacher)

> *"I like it that we developed the criteria ourselves. I love working on a computer. As soon as you do something, the teacher gives you feedback, and you can improve and correct your work as you go along".* (Student)

Involving students in the co-shaping of learning intentions and success criteria allows them to add areas to the criteria which they consider to be important. Through equal relationships and the involvement of students in the assessment process, students become co-creators of the educational process and of its outcomes, assuming greater responsibility for their learning.

GATHERING DIVERSE EVIDENCE

Authentic assessment (comprehensive and real-life assessment of practical implementation and products) is based on the assessment of what is most important, and not what is most convenient (Marsh, 2008). This means process-oriented assessment with methods for evaluating diverse achievements and not the mere use of tests, on which Rabbi Pete Tobias (2014, p. 37) wrote the following.

> *"I have yet to find a test that would tell the story of the child who wrote it. If we could create a system that would encourage children to understand themselves, to develop a sense of their own worth, to recognise their responsibility toward the world and all who live in it, then we would be helping them much more than by giving them marks based on their abilities to remember facts and figures".*

Only seven out of 22 teachers have led a classroom discussion on the suitability of a specific piece of evidence, which indicates that much more could be done in the future in Slovenia regarding this area. Still predominant in Slovenia are traditional assessment methods with written tests that mostly contain lower-level cognitive questions.

Nevertheless, two statements from a teacher and student speak in favour of diverse evidence.

> *"My portfolio has become quite thick and heavy over the year. I could have left it at school, but I kept editing it daily, adding to it and improving it. In short, I became so used to this type of learning that I started using my portfolio method for other subjects, too".* (Student)

> *"...When implementing FA, I benefited from the collection of achievements in the form of products, which were being upgraded throughout the year and whose quality was increasing and improving".* (Teacher)

GIVING QUALITY FEEDBACK TO STUDENTS

Of key importance for quality formative assessment is quality feedback, which contributes to the effective improvement of learning outcomes and to independent learning (Black & Wiliam, 1998b; Lawton

& Gordon, 1996). Quality feedback informs the student of what he/she has achieved, points out any areas for development, and provides him/her with a way to address these (Razdevšek Pučko, 2004). A key role in the learning process is held by quality feedback, which offers students diagnostic and formative help, develops meta-knowledge (which includes methods of planning, modelling, tagging, learning and any modification of domain knowledge), and promotes self-regulation, self-assessment and further learning.

Eighteen out of the 22 interviewed teachers believed that their feedback was high quality. They also felt that they had provided the students with specific information about how to improve their achievements. Two of their statements refer to this.

> *"I have gained new experience, especially regarding the importance of suitable feedback to students and, indirectly, also of feedback from students to the teacher. Owing to this I can now plan a concrete lesson much more easily".* (Teacher)

> *"I have to involve students in the success criteria, in self-evaluation. The students may provide feedback more effectively than the teacher. They have to plan their activities for eliminating deficiencies, must contemplate their work, and assume responsibility for success or failure".* (Teacher)

STUDENTS GIVING FEEDBACK TO ONE ANOTHER – SELF-ASSESSMENT AND PEER ASSESSMENT

Self-assessment and peer assessment concern processes which actively involve the students, so that they accept the process as their own, thus assuming greater responsibility. Additionally, the students are more clearly aware of the concrete learning objectives which they are to attain, of their achievement in respect of these objectives, of the gaps, and of how to reduce or eliminate them. Learning becomes more logical to them. Those are also the essential elements of successful learning (Marentič Požarnik, 2004).

Peer assessment promotes co-operative learning through an exchange of opinions on what denotes quality work. Students help one another to understand the gap in their own knowledge and to understand their own learning process. By commenting on the work of a peer, their ability to judge and make decisions improves; moreover, students learn how to accept and give feedback.

All of the teachers who submitted the questionnaire believed that they encouraged students to obtain feedback from classmates and parents. The following two statements refer to this.

> *"The students liked working in groups. The better students pointed out that even those students who usually do not do any work were working. They liked drafting consolidation tasks, correcting the tasks of classmates and commenting – especially if it turned out that the tasks had been drafted poorly".*

> *"In the end the students prepared revision tasks, which they evaluated among themselves and wrote down the feedback. Interestingly, they most often gave marks and found it very difficult to write a few words".*

IMPROVING ATTAINMENT AND PROMOTING EQUITY BY USING FORMATIVE ASSESSMENT

Evidence from a broad range of international research has shown that formative assessment can be highly effective in raising the level of student attainment, increasing the equity of student outcomes, and improving students' ability to learn. The study carried out by OECD's Centre for Educational Research and Innovation (CERI) supports these findings (OECD, 2005). Quantitative and qualitative research on formative assessment has shown that it is perhaps one of the most important interventions for promoting high-performance that has ever been studied. The achievement gains associated with formative assessment have been described as "among the largest ever reported for educational interventions" (ibid., p. 2).

The teachers who used formative assessment in our project reported in their personal plans that the attainment of their learners had improved in their classrooms through formative assessment. While it is too early to draw conclusions about the overall effects on attainment, some teachers judged its impact to be very positive.

"I have noticed a different attitude of the students towards learning and knowledge; the students show greater interest and they follow the instructions because they feel they are more successful that way".

"Students are excellent creators/co-creators of lessons; it makes them more active and responsible, which consequently shows in their learning attainments. Students like having a say in creating learning intentions, and becoming more equal partners in the learning process".

"The biggest challenge for me was the fact that by delegating greater responsibility for the learning intentions to the students I would lose 'control' or that I would leave the decision-making to the students. I had no idea what I was in for. In the end this very fact turned out to be one of the crucial ones for the attainment of better learning outcomes".

Formative assessment also improves the equity of student outcomes. The OECD study Formative Assessment: Improving Learning in Secondary Classrooms (2005, p. 2) shows that "schools which use formative assessment show not only general gains in academic achievement, but also particularly high gains for previously underachieving students. Attendance and retention of learning are also improved, as well as the quality of students' work". Schools are making progress in closing the gaps in student achievement, while recognising individual and cultural differences (ibid.).

The evidence obtained from teachers in Slovenia shows that by using varied formative assessment approaches and techniques the teachers were better prepared to meet diverse students' needs. The following statements refer to this.

"More than ever before, I was aware of each individual student and tackled how to approach each individual. I also modified my work method in the classes that had not been included in the project, which was of great help in classes with great gaps in knowledge and where work has to be individualised in order for each individual to attain success".

"Through this project I have become aware of the importance of the progress of each student and of the roles the student and I play in the process".

In order to have more concrete evidence of improvement in attainment by using formative assessment in the schools involved in the project, the research would have to be taken a step further and cover a larger number of schools, teachers, students and parents. The project does provide a promising base for further development and research in this area in the future.

CONCLUSION

The dynamic nature of contemporary forms of learning and teaching requires comprehensive methods and forms of assessment, which are becoming an integral part of the learning process and helping students with their work and progress in the form of feedback. Instead of focusing merely on learning outcomes, assessment contributes to creating quality conditions for learning.

The use of varied formative assessment approaches and techniques is also important for meeting the needs of diverse students within a classroom. Formative assessment represents a shift away from models of equity in education which suggest that all children should receive exactly the same inputs, or from 'deficit' models which identify certain children as 'disadvantaged'. Instead, in formative assessment approaches teachers adjust methods to recognise individual, cultural, and linguistic differences between children.

Like many countries, Slovenia is facing the challenge of achieving greater equity

through closing the attainment gap for a range of students. This includes meeting the needs of learners from diverse ethnic, language, and socioeconomic groups. Many researchers argue that formative assessment interventions hold great promise for making significant inroads toward closing these achievement gaps (Crooks, 1988; Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Natriello, 1987).

In order to ensure the durability of the AFL project, in 2015 the National Education Institute of the Republic of Slovenia invited over 200 preschool and school teachers from all over Slovenia to take part in the Formative Assessment development project. Teachers of all primary and secondary school subjects are co-operating with subject consultants from the National Education Institute of the Republic of Slovenia, since the introduction of formative assessment is the basic mission of our institute. Together, they prepare classroom observations, sample footage of lessons with formative assessment elements, and form a subject development team.

In addition, the participating teachers prepare materials, e.g.: examples of success criteria and questions that stimulate thinking; examples of quality feedback to students; self and peer assessment questions; articles in journals of the National Education Institute of the Republic of Slovenia, etc. At teacher training/academic meetings they present examples of best practice, and they also attend training programmes organised by the National Education Institute of the Republic of Slovenia.

With this approach we will continue to develop examples of the use of formative assessment elements in teaching practice in all subjects; provide insight into the sensibleness of formative assessment; form a mutual support network for spreading the practice of introducing formative assessment; and monitor, record and identify the needs for additional support in formative assessment.

The evidence obtained from teachers in Slovenia shows that by using varied assessment as learning tools each student brought different experiences, perceptions and ways of communicating and processing ideas to the classroom. The teachers found that they could enliven classroom learning and reach more students. The teachers thus draw upon a broad repertoire to help different students to reach the learning goals, improve attainment and increase equity.

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SWEDEN

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ABSTRACT

Education is one way for society to promote active engagement and participation as forms of civic responsibility. The decline in academic achievement in schools in Europe, and particularly in Swedish schools, can be addressed through working with issues related to teaching, where student participation is an important part. In this article, we aim to illustrate and exemplify how student participation can be described and understood as a continuous process that includes both students' influence over formal decision-making and student active education. The content of the text emerges from a research overview (Swedish National Agency for Education, 2015), in which current research about student participation and influence in schools was collected, illuminated, analysed and discussed. The article illustrates existing challenges and opportunities identified in educational research, relating to students' influence over decision-making processes and students being active in their education. The article concludes with a few thoughts about the future, including how student voices are becoming a more pronounced part of school improvement. Furthermore, we discuss the need for staff training, organisational conditions for developing participation work and the importance of further educational research that will highlight student participation and influence.

SWEDEN STUDENT PARTICIPATION AND INFLUENCE IN EDUCATION – POSSIBILITIES AND CHALLENGES

Education is one way for society to promote active engagement and participation as forms of civic responsibility. As Giroux (2002) points out, democracy needs to be an issue of public good, both political and educational, and therefore education may function as a site for young people's public voice and power as social agents – building and sustaining a democratic culture with a high level of participation and learning. Future education systems will play a critical role in preparing young people to cope with a society in which the prevailing value systems are in a state of flux with rapid changes, enabling them to participate in public debate (Bohlin, 2011). Society shapes education and education shapes the future, therefore, education plays a key role in society's striving for long-term sustainability (Wals & Corcoran, 2012). While education is such a significant factor for development of the individual and for society, equal access to high quality education is of major importance.

As a nation, Sweden has a history of holding a strong orientation towards education as a social and democratic movement, to promote educational equalities (Alerby & Westman, 2013). However, during the last decades the Swedish educational system has been affected by a contemporary global rationalistic agenda: educational policies and large-scale reforms that have put measurable content knowledge, standardisation, documentation and evaluation to the forefront (Hargreaves, 2009). Knowledge that provides success in international tests is therefore prioritised at the expense of values in education and student-centred learning (Kroksmark, 2013). According to Amrein and Berliner (2002), student effects in terms of disengagement with schooling and escalating dropout rates are influenced by this standardisation and high-stakes testing. In addition, academic achievements among Swedish students have dropped, according to the Programme for International Student Assessment (PISA). As the OECD highlights in its report, "Improving schools in Sweden: An OECD perspective" (2015), average performance has declined dramatically in Sweden and this has resulted in a broad consensus among educators and politicians on the need for change.

The decline in academic achievement in schools in Europe, and particularly in Swedish schools, can be addressed through working with issues related to teaching, where student participation is an essential part. However, this discussion cannot only focus on students contributing to formal decisions within the framework of, for example, class councils, but also on students' active participation in educational activities and school improvement. Neither should


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student participation and influence in school be equated with teachers handing over teaching responsibility to students. Thomas (2007) claims that participation can be understood as students' influence over decision-making processes and students being active in their education. However, it is necessary to point out that there are no sharp dividing lines between the different perspectives because in practice they overlap.

In this article, we aim to illustrate and exemplify how student participation can be described and understood as a continuous process that includes both students' influence over formal decision-making and student active education. The content of the text emerges from a research overview we authored on behalf of the Swedish National Agency for Education (2015), in which mainly Swedish research about student participation and influence in schools was collected, illuminated, analysed and discussed.

The article illustrates existing challenges and opportunities identified in educational research, relating to students' influence over decision-making processes and students being active in their education. The article concludes with a few thoughts about the future, including how student voices are becoming a clearer part of school improvement. Furthermore, we discuss the need for staff training, organisational conditions for developing participation work and the importance of further educational research that will highlight student participation and influence.

SCHOOL DIRECTIVES: LEGISLATION AND CURRICULA

There are clear directives at national and international levels that schools should promote fundamental democratic values, for example: the sanctity of human life, freedom and integrity of individuals; the equal value of all human beings; and equality and solidarity between people. This necessitates student participation in and influence on education (CRC, 1989; Swedish Agency for Education, 2010; 2011a). For example, the Swedish Education Act and national curriculum for compulsory schooling, Lgr11, clearly state that democratic values – student participation and influence – should be as central as knowledge in different school subjects (Swedish Agency for Education, 2010; 2011a). In its general advice for planning and implementing teaching, the Swedish National Agency for Education (2011b) provides guidance on how teachers should structure their work, based on the curriculum. For student participation and influence to become a reality in schools, the guidance emphasises that teachers should use students' interests, experiences and views as a starting point in teaching.

This student focus is in line with the Swedish national curriculum's aim of achieving equity (Swedish Agency for Education, 2011a). The central notion of equity is students' equal educational access, to meet individuals' needs in the best ways. Teaching must therefore be of a different character, but with the same quality (The Swedish National Agency for Education, 2010). The planning of educational activities ought to be based on the aims and key content of curricula and the skills that students should be given the opportunity to develop, while retaining clear links to their own experiences. According to the national curriculum, Lgr11, teachers should be responsible for "...ensuring that all pupils can exercise real influence over working methods, forms and contents of education, and ensure that this influence grows with increasing age and maturity" (Swedish Agency for Education, 2011a, p. 17) and that "by taking part in the planning and evaluation of their daily teaching, and being able to choose courses, subjects, themes and activities, pupils will develop their ability to exercise influence and take responsibility" (ibid., p. 10–11). The general advice for planning and implementing teaching also emphasises that students can have an active role in the assessment of knowledge. If students participate in this assessment, it creates conditions for them to take

greater responsibility for their studies and to develop a familiarity with what is assessed, and this is positive for their learning.

Despite the fact that fostering democratic principles in schools is the most essential aspect of the fundamental values of the curricula, Pihlgren (2012) claims that student participation and influence in practice are not particularly widespread in Swedish schools. We should reflect on this conclusion in order to attain a more nuanced image of schools' work on participation. In the research overview, we have identified many examples of how teachers and students work with participation in education through, for example, joint planning, student-active work methods and students having an active role in assessment processes. However, Pihlgren points out that the positive impacts of participation and influence on education have not been illustrated in the research to a particularly large extent. The research that exists often discusses the problems and obstacles of participation in education. Further educational research is needed with a specific focus on exploring cases where students are given opportunities to influence decision-making and take an active role in their education. In addition, it is essential to reflect on what is required to overcome challenges in schools in order to attain the clear objectives of curricula for students having the opportunity to participate and have a real influence over their education and schooling. One such challenge is to re-examine the role of teachers and students.

THE ROLE OF TEACHERS AND STUDENTS

The Swedish curriculum's focus on students having the opportunity to participate and exercise influence on their education challenges the traditional roles of teachers and students to a certain extent (Swedish National Agency for Education, 2011a). Encouraging students to participate and have influence over school activities may entail the need to re-examine teacher and student roles, which impacts on social relationships and thereby the classroom hierarchy. The way in which students and teachers act and express themselves can be seen as an on-going process. Teachers and students often act based on pre-determined patterns of how they are expected to be. This can sometimes constitute an obstacle to student participation (von Wright, 2009). Teachers are often considered solely responsible for the learning environment. Students, on the other hand, are often considered to lack the competence to have a real influence due to insufficient experience, maturity and ability. In many cases there is an asymmetry in the teacher–student relationship right from the start. Therefore, it is of significance to challenge the traditional dominance of teachers in the classroom (Giota, 2001). Giota (ibid.) contends that, in many respects, education is based on an adult perspective, especially that of the teacher. The adult perspective defines what is valuable for students at school, what they can learn and what they should do to attain the set objectives. Giota describes that this can be problematic, as students may easily lose motivation for their own learning. However, the power the adults possess can be used in different ways. Teachers can, for example, share some of their power with students so that they have the opportunity to participate in decision-making processes in schools. This can include how lessons are structured or which work and reporting forms are used. This is often about teachers letting go of some of the control over learning and trusting students to be responsible for their part of the process (Bergmark & Kostenius, 2011).

If the traditional teacher–student roles are to be re-examined, then it is essential that we change the way students are viewed. The way students are viewed can sometimes be both an obstacle and an opportunity for participation and influence (Grannäs, 2011). The view of children as not being competent enough has characterised Western philosophy for a long time, also affecting the view of students. The child or student is seen

as a non-adult who lacks the skills of an adult, and is instead considered a person undergoing change and in need of correction by his or her elders in order to become an adult (Burroughs, 2012). According to Rosvall (2012) it is critical to reflect on which view of students exists in modern schooling and how it affects education: are students competent to have influence over their lives or do adults have this competence?

However, it may not always be an easy process to challenge and change traditional views of teachers and students, affecting how teaching is enacted (Cook-Sather, 2014). Von Wright (2009) calls attention to the fact that there is now a freer and more open environment for discussions in Swedish schools than in the past, and that student rights and influence have increased a great deal. From this reasoning, it follows that there is a need to highlight and illustrate approaches where the power positions of teachers and students move closer, without teachers ultimately abdicating overall power. Danell (2006) argues that the issue of student participation and influence cannot only be imposed on the individual teacher, but should instead be understood in relation to the institutional conditions that exist. Therefore, it follows that it is important to reflect on what opportunities teachers have for working with student participation and influence at school. But also, what are the challenges of making students active in their own education – to really let the students influence and participate?

POSSIBILITIES OF STUDENT PARTICIPATION AND INFLUENCE

Research reveals several positive effects of and possibilities relating to student participation and influence. If students are able to participate in and influence their education, it is beneficial not only for the students themselves, but even for the teachers in many cases. Students' participation in and influence on their education is vital, both for student-teacher interaction and for the school as an organisation.

Manger and Novak (2012) have summarised and analysed previously published international research results on student participation to illustrate the effects on the collective decision-making processes of schools that impact students as a group. Results show different effects of participation in decision-making: for the student; for the teacher; for student-teacher interaction; and for the school as an organisation. In more than half of the studies, it was found that students developed life skills when they participated in decision-making. Life skills could include, for example, a feeling of responsibility, communication skills, leadership qualities or the ability to listen to others and express themselves. More than one third of the studies showed that self-esteem and social status among students increased, and that students developed knowledge of both democracy and civic issues, aspects of importance for increasing equity among students. Almost one third of the studies showed that students' learning and knowledge increased if they had the opportunity to participate. Four studies also showed that another positive effect of participation was that personal health and health-related behaviour improved.

The analysis by Manger and Novak (2012) of previous research showed that in more than one third of the studies, student-teacher interaction increased, with both groups exhibiting greater understanding of each other. One quarter of the studies also showed that relationships between students improved, such as in the form of greater understanding and appreciation of each other. Furthermore, a few studies showed that work on student participation resulted in improved relationships between teachers, with greater collaboration as a result, for example.

In terms of the effects of student participation on the school as an organisation, in one fifth of the studies the analysis showed that real change had been seen, such as in changes and improvements to rules and procedures. More than three quarters of the studies

showed students having a greater involvement in their own school including, for example, a better attitude towards the school, a greater sense of being a part of the school community and greater happiness and satisfaction. Roughly half of the studies reported that the school and classroom environment had improved and that bullying and racism had declined. In more than two thirds of the studies, students felt that they were listened to and, when they were allowed to be a part of decision-making, they had even greater acceptance of the decisions that were made.

In a Swedish context, Ahlström (2010) has investigated the connections between participation, bullying and academic achievement (grades). In this case, student participation is about being able to communicate with others, expressing opinions and arguing for them. It is also about listening to and respecting the opinions of others, working in a democratic manner, being able to think critically, and actively participating in conflict resolution. The results show that if students are given the opportunity to participate, they have a higher chance of attaining high grades, and schools with high participation have a low level of bullying.

The fact that student health improves if students participate in school activities has also been confirmed by Warne (2013). Her results show, among other things, that students' experiences of good health could be related to a high level of participation in the classroom, which in this case meant that students had the opportunity to make their voices heard and to influence decisions about the shared school environment. In some cases, the students also conveyed the issues to municipal decision-makers. In cases where students managed to convey their requests to decision-makers at a local level (for example, the principal included the students' request for better computers in next year's budget) or municipal level (request for a multi-purpose stadium at the school addressed by the recreation committee), they felt a sense of pride and respect, which also contributed to positive health experiences.

Students' opportunities to be able to participate in and influence education are related to their motivation and responsibility, which are key parts of the learning process, each affecting the other. Giota (2001) has found that motivation and the desire to learn are generated in relation to a number of factors, such as the amount of schoolwork, variation within that work and whether students can relate to the work and find it meaningful. Schoolwork should be interesting and challenging, as well as manageable for students. Therefore it is essential that students feel that they have control over their learning. In turn, control over their own learning process results in interest in and motivation for schoolwork, thus contributing to motivation for learning. In this way, motivation is linked to participation in the form of student-active education.

According to Giota (2001), the value of feedback is highlighted in all motivation theories. Forms of feedback that give students information on where they are in terms of academic achievement have a positive impact on their motivation, to clarify which steps should be taken to attain the objectives in question. In addition, such feedback can make students aware of their own skills and this in turn results in students having a more positive view of themselves and their opportunities – which is essential for feeling motivated.

Hattie (2009) highlights the importance of teachers having a view of learning and education based on student perspectives and telling students about their pedagogical strategies. Their teaching foundation should be based on learning theories that emphasise communication and collaboration rather than individual learning, which means student-active education. He claims that feedback in particular is one of the aspects of teaching that has the strongest effect on student achievements. He explains how formative assessment is a generic name for many

types of feedback on study results. Hattie has seen how feedback that takes into account students' experiences of their learning contributes to influence over the learning, thereby encouraging them to follow their own development, including metacognitive skills. This type of student-centred and student-controlled feedback benefits study performance.

Hattie emphasises three questions in connection with feedback: Where am I headed? How am I doing? What is the next step? It is central, for both teachers and students, to ask these questions so that both perspectives are highlighted. It is worth noting in this context that Hattie distinguishes between feedback to and from students. He stresses that it is essential for students to provide feedback to the teacher about how they understand their education and learning, so that the teacher has the opportunity to understand how students perceive their education.

According to a research review by Giota (2013), the division of responsibility in learning also has an impact on student motivation. It may entail to what extent students are allowed to participate and influence their education: assignments, material, work methods, presentation forms or pace of learning. If students are given the opportunity to choose how and when different activities should be conducted, their interest and involvement in the assignments increases, and they assume more responsibility for their own learning. However, there are challenges in student responsibility. In the research review, Giota emphasises that students must have the necessary willingness, conditions and skills for making active choices. These challenges should not be seen as a static condition; rather that students can gradually develop their skills to assume greater responsibility for their learning.

Some critical voices claim that not all students have the conditions for taking responsibility for their own learning. Jenner (2004) shows the opposite: if underachievers are allowed to take responsibility, over time they can become successful in their learning. Thus, all students have the opportunity to take responsibility for their learning if they receive the necessary support from their teachers. The role of the teacher thus becomes one of encouraging all students' interest, curiosity and desire to learn, as a way to promote equity. In discussions about responsibility for learning, the teacher always has overall responsibility for ensuring that objectives are attained. Moreover, in order to increase or maintain student motivation, it is essential that students are given concrete opportunities to participate and act independently. If the opposite happens, with education governed by external factors and not by students themselves, student motivation declines.

Giota (2013, p. 219) claims that student motivation is, to a large extent, impacted by "the interaction with the teacher, trusting relationships, the teacher's approach and attitude towards the student's resources, the classroom environment and the teacher's teaching style". As participation is closely linked to motivation, these motivation boosters can serve as conditions for encouraging student participation.

CHALLENGES OF STUDENT PARTICIPATION AND INFLUENCE

The research compiled by Manger and Novak (2012) showed, as reported in the previous discussion, that positive effects of student participation are significant. However, the researchers also found some challenges and negative effects. For example, students felt disappointment or frustration when they could not make their voices heard or when their suggestions did not result in change. One study also showed that student participation in decision-making may result in a greater sense of stress among students when they serve as leaders in their class or school. A small number of studies addressed certain negative effects of student participation within teacher groups, such as teachers feeling questioned and challenged by students in a manner that they considered negative.

Swedish studies have also found negative aspects, or issues, that can be seen as challenges for on-going work to improve student participation and influence. One is the challenge to enable students to actually be involved in and engaged with the activities of schools. The second is whether students take the opportunities, which are provided for active participation in their education, and then have influence over their own learning. Dovemark (2007) discusses and presents participation based on the aspect of freedom of choice. She claims that often students' influence covers when, where and how much. Consequently someone else (the teacher) still tells the students what is right and wrong and what is important. Whether students choose to participate and have influence largely depends on which work methods prevail at that time at the school in question.

Rosvall (2012) has studied students' influence over the content and structure of education in two upper secondary school classes. Results showed that there are few occasions where students take the opportunity to influence the content and structure of their education, despite the fact that they expressed dissatisfaction with it in certain respects. Rosvall discusses possible explanations for students not making their voices heard. In the interviews, students said that they were scared of being called a 'nerd' if they made suggestions for improvement, also saying that they did not know each other to the same extent in upper secondary as in lower years, and this inhibited their initiative to participate and influence their education. Another cause that Rosvall (ibid.) discuses is that teaching in the studied classes tended to be focused on developing skills needed for adult civic life in the future. This approach may have a negative impact on student participation and influence in a here-and-now perspective. Accordingly, the students should have opportunities to be able to participate and influence questions that matter in their present life and in the future. The results also showed the lack of a formal organisation for encouraging influence. The most common way of exercising influence and participating in the structuring of their education was one-on-one contact between students and teachers. Rosvall (ibid.) asserts that the way education is organised may block opportunities for students to participate and influence. In the studied classes, he noted a focus on factual issues and skills training with fewer opportunities for critical review, reflection and analysis, all of which are needed to participate and exert influence.

In Kling Sackerud's thesis (2009), she illustrates and discusses the school's mandate to create conditions for students' opportunities and abilities to assume responsibility, and participate in school activities. Kling Sackerud studied, among other things, how students, teachers and principals express and realise the issue of responsibility for learning, both generally and more specifically concerning learning in mathematics. In terms of student influence, this is found to different extents in the studied classes, although this influence is clearest in the earlier school years and diminishes thereafter. The influence that students have over their educational situation is mainly related to the pace and order of their different assignments, as well as how they should work with the assignments. However, Kling Sackerud claims that there has been a change in school activities, as earlier the focus was on shared and collective experiences, while current education focuses more on personal work – individual work methods. According to Kling Sackerud, one of the challenges faced by schools is how to decrease dependency on teaching aids, for example, in mathematics, and to instead strengthen the didactic role of teachers. The fact that education tends to have a large individual focus is not specific to the subject of mathematics, but is something that applies to several school subjects. Giota (2013) also emphasises this in her research review, when she stresses that individual work methods have had a prominent role in recent years.

There are several limiting factors for

student participation and influence in education. It has emerged in, among other works, Rönnlund's (2011) thesis that knowledge objectives and grading criteria may be limiting as they strongly govern subject content. One result of this is that students are given few opportunities to negotiate what their education should include and cover. Provisions and decisions at a municipal level may also be a limiting force, and this was shown clearly in students' influence on decision-making in, for example, student councils when school meals were discussed. It may be the case that students would like to have organic school meals, but the municipality's procurement cannot accommodate this. The fact that teachers did not take their responsibility for conveying the issues or that they opposed the students' suggestions was also perceived as an obstacle to student participation and influence.

STUDENT PARTICIPATION AND INFLUENCE AT THE HEART OF SCHOOL IMPROVEMENT

The research referenced in this article asserts that student participation and influence in schools have increased in recent years. Despite this, there are still some challenges to further increasing student influence and participation. This is particularly true today when tensions between different parts of the teaching mission can be seen, due to the greater focus on measurable knowledge. According to national and international surveys, the academic achievements of Swedish students have declined over the past decade. The results of the PISA test concerning Swedish student performance in reading, mathematics and science have declined from close to the OECD average to significantly below the average during the last decade (from 2000 to 2012) (OECD, 2014). "No other country participating in PISA saw a steeper decline than Sweden over that period" (OECD, 2015, p. 7). However, most Swedish students are positive about their education and feel it is useful. In addition, the relationship between students and teachers are generally good (ibid.).

As a consequence of the declining academic achievements of Swedish students, Swedish governments have initiated and implemented a number of reforms, including additional and more frequent national tests in more subjects, a renewed grading system with more grading stages, teacher certification and career services. These reforms have the aim of improving academic achievements and the appeal of the teaching profession. However, the survey results are not the only descriptions to use as a basis when schools are discussed and debated and changes are made. Based on the strong emphasis on democratic values, it is essential that students themselves can have a say and that professionals in schools really listen to them. School improvement should be based on the schools' mandate, as expressed in the governing documents for schools, as well as on teacher and student experiences, so that staff, teachers and students can develop the schools together. While it is essential to measure students' academic achievements in order to help them further develop their knowledge, an overly unilateral focus on measurements and results can impact which knowledge and work methods are prioritised. As a teacher or principal, it is easy to focus on measurable results in different subjects, as student knowledge levels are measured regularly. This may result in students' opportunities to develop knowledge from a wider perspective being restricted. Subsequently, there is a risk that school staff have little opportunity to work with the entire school mandate – to both improve student knowledge and skills, and actively work with democratic values, such as participation and influence. It is of importance to endeavour to attain a healthy balance between different aspects of the mandate. In addition, it is also crucial that this work includes students so that together with school staff they can find good ways to increase student participation.

Despite the fact that school is emphasised as a significant place for

participation and the fostering of democratic attitudes, there are difficulties in achieving this. For the school to truly foster democratic attitudes, teachers must be given the opportunity and necessary conditions to jointly plan and reflect on school activities, and how to increase student participation. Promoting real student influence and participation demands long-term work, and it takes time before results are seen in day-to-day activities. In order to increase student participation, it is also vital to create forums and meeting places in schools where students and teachers can meet and air their views on teaching and education. This helps teachers give student perspectives and experiences a key role in their teaching methods.

Robinson and Taylor (2007) claim that it is possible to change a school's organisation by listening to experiences, not only of adults but also of students. If one really listen to students and they are given the opportunity to have an impact on their learning environment, their voices and involvement can result in change and improvement in school. Giota (2001) allowed students to talk about their experiences of school and the reasons for attending school. She stresses that students provide profound insights into school activities and their own learning, something that adults, perhaps, do not always expect from them. Her analysis shows that students truly reflected on their experiences and that they have broad and deep knowledge of conditions in schools. For example, they reflected on the role school plays for their future lives as adults, the classroom teaching environment, their teachers' professional skills and the expectations of parents and friends, as well as the historical, financial and organisational functions of school.

If students' voices, experiences and reflections are taken seriously, school improvement will benefit. Therefore, it is significant to allow students to participate in the process of improving schools as a learning environment. Student experiences and reflections are also vital aspects in educational research. Given this, it is crucial that students have an opportunity to make their voices heard and that they are listened to, and that students' opinions result in real change when necessary.

However, there is a need for further research illustrating how teachers and students work with student participation, particularly how students gain influence over and are actively involved in their education. It has emerged that there are schools in Sweden that work successfully with student participation, such as student-active work methods, for example, interdisciplinary project work, flipped classrooms, and student-led conferences. The student-active work methods could even entail creative and investigative work, role-playing and reality-based assignments to be conducted either within or outside the school, and in collaboration with the surrounding community. However, the effect of these methods in supporting equity is an under-researched area and needs to be more clearly addressed in educational research.

In conclusion, participation is highly essential for students, both as individuals and in different groupings, such as school classes. Experience has shown that an entire school can develop positively by strengthening student participation and influence, a fact that is central to the entire educational system as well as for society in general in the long run. Therefore, professional development, improved organisational conditions for developing student participation and influence, and further educational research illustrating these points are needed.

An insightful remark from one of the students who participated in a study by Backman et al. (2012, p. 25) will serve as the last words of the article.

> *"I want people to listen and react. Not just talk nonsense and then go home, have a cup of coffee and think: 'The students came up with some interesting things, but I will think about it later…'"*

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ABSTRACT

When challenged by attainment levels that are considered to be too low in general or for specific groups of learners, practitioners and policy makers alike are quick to ask for more instruction time. However, the empirical evidence that more instruction time also leads to more learning is scarce and controversial. We present new evidence on this issue, using the variance of subject-specific instruction time within Switzerland to determine the causal impact of instruction time on student test scores, as measured by the international PISA test (2009). Although we find a causal impact of more instruction time on test scores, the effect is small and therefore, considering the costs of such an intervention, rather inefficient. Furthermore, additional instruction time seems to increase the gap between fast and slow learners, and thereby increase inequity of educational outcomes.

SWITZERLAND RAISING ATTAINMENT WITH MORE INSTRUCTIONAL TIME? A PARTIALLY SUCCESSFUL STRATEGY WITH UNDESIRABLE SIDE EFFECTS

In the debates about raising attainment, either in general or in specific subjects, regardless of the country, practitioners, parents and policy makers quickly ask for more instruction time (see e.g. Berliner, 1990). Conversely, if for whatever reason, instruction time is cut, everybody believes that attainment levels will have to fall. However, looking at the scarce evidence on the link between instruction time and attainment, it is not clear at all what to expect. Comparing simple correlations between average instruction time and attainment among countries (see Figure 1 below), everything from negative to positive correlations can be observed. The correlation is negative when using all OECD countries and slightly positive when excluding the two 'outliers' in terms of instruction time and test scores, Mexico and Chile.

International comparisons are, of course, a very crude measure of the effectiveness of instruction time on student outcomes for many reasons. But even if we refine our analysis and use Swiss cantons for comparison (see Figure 2 on the next page), as well as the cumulative hours of instruction in a specific subject (literacy in this case), we do not see much evidence that instruction time is an effective tool to raise attainment.

Even when applying more sophisticated methods, for instance when using micro student data and controlling for observable differences in socioeconomic

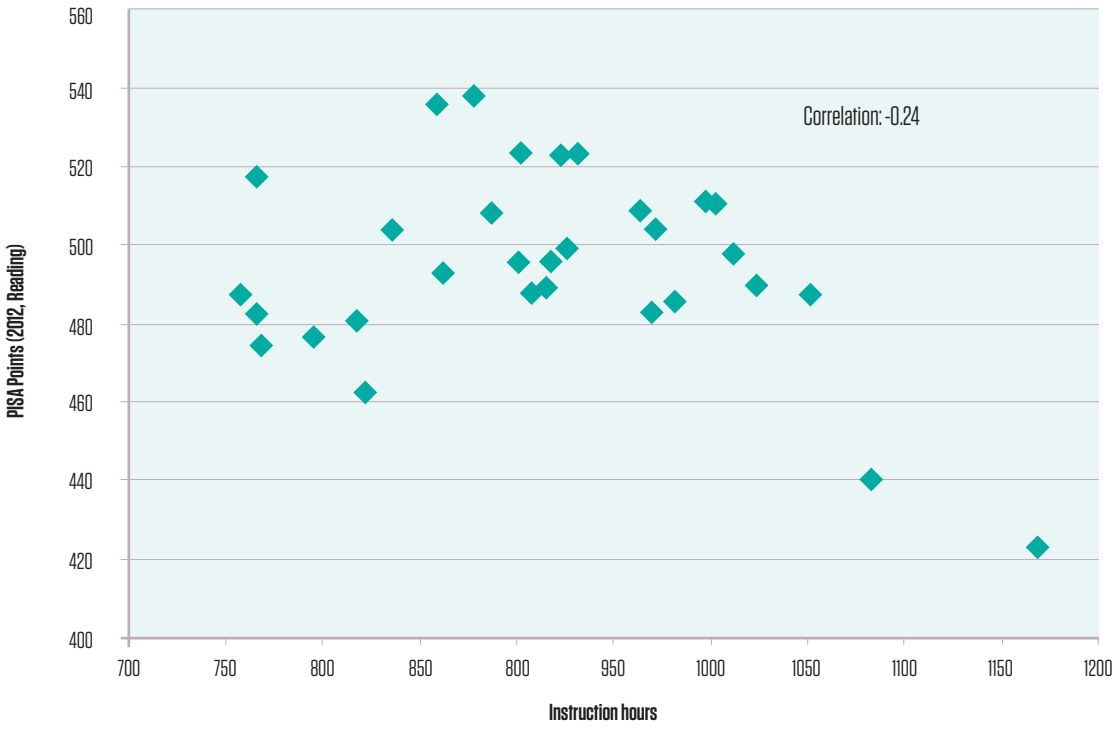

Figure 1: Average yearly hours of instruction and average PISA scores (reading, 2012) in all OECD countries
Source: OECD (2015)


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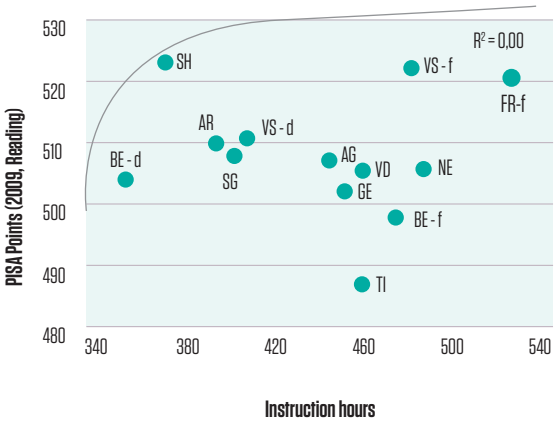

Figure 2: Cumulative hours of instruction (7-9th grade, age 12 to 16) in test language and average PISA scores (2009) by Swiss cantons
Source: SCCRE (2014)

background and school environment, the correlations between instruction time and student learning can be positive, zero or negative. Therefore, because these observable correlations are sufficient to raise doubt that there is a simple relationship between instruction time and attainment, it is also doubtful that increasing instruction time is the answer to unsatisfactory attainment levels.

In order to analyse the potential causal impact of more instruction time on student attainment levels, we use a novel econometric technique (replicating an earlier study by Lavy, 2015), using the Swiss PISA test scores in 2009 as our outcome and the variation of instruction time in all three tested skills (reading, math, science) between cantons and schools as the input.

The rest of the article is organised as follows: the next section provides a very brief overview of previous findings and describes the problems when trying to assess the causal link between instruction time and attainment. Respectively, the following sections describe some of the important features of the Swiss education system, the data and the empirical method used, our empirical findings, and the last section concludes the article with some policy guidance.

PREVIOUS FINDINGS AND EMPIRICAL PROBLEMS

A recent literature review, carried out for the OECD (2016a)[1], reached at least three conclusions. First, instruction time is a complex concept and when analysing the impact of instruction on student outcomes, one cannot only look at the differences in the total of instruction time over a week, a year or a school career. One also has to take into account the potential effects of differences in the sequencing, the timing or the clustering of instruction time. For example, the length of periods or the number of periods throughout the school year. Second, the number of studies on all these issues is, despite their potential importance, quite limited in general. Third, studies that allow the reader to make causal inferences are even more rare.

The final point is not completely surprising when we look at the problems of potential relations between instruction time and student outcomes in more detail. Usually, differences between correlation and causality arise due to overestimating the causal relation when calculating correlations, because important elements of the individual students' ability cannot be observed by the researcher. However, in the case of instruction time, every kind of bias is possible. For example, some countries or schools might decide to invest more time than other countries and schools as a result of poor student outcomes. After the intervention it may well be that they are still lagging behind the best countries and schools and therefore the correlation between instruction time and student outcomes would be negative. The question, however, remains if these countries or schools may have been even worse with fewer hours of instruction. Therefore, although they are still lagging behind, one could conclude that the intervention was still successful for them. Opposite to this example, it may be that the best countries and schools invest the most in instruction time, which would lead to a positive correlation between hours and outcomes. However, if the reasons for being better than the others are not correlated with the hours of instruction, the empirical correlation in this case would be biased upwards and the causal relation between hours and outcomes could, despite the positive correlation, be

1.See also Scheerens (2014) for another recent literature review.

zero. Even more possible scenarios could be added to demonstrate the potentially complicated empirical relationship between instruction hours and student outcomes.

Because of the possibilities that decisions on instruction time can be either the consequence of certain levels of student outcomes or the cause of them, and because most of these factors cannot be easily taken into account when empirically analysing the relationship between hours of instruction and student outcomes, only very specific data and methods will help us get closer to determining the causal relation between the two.

THE SWISS EDUCATION SYSTEM

For an examination of educational policy, Switzerland provides a perfect environment in order to study the impact and effectiveness of instruction time on attainment. The Swiss education system comprises 26 different cantons[2] with independent educational policies, which leads to considerable differences in many factors including subject-specific instruction time, number of school weeks and other school characteristics such as school autonomy or student-teacher ratios. Although there is a high degree of freedom in educational policy, the individual cantonal systems are under pressure to produce similar outcomes at the end of compulsory schooling (see SCCRE, 2014). One reason for this is that all Swiss baccalaureate schools lead to nation-wide, free access to all universities. The other reason is that most firms that offer vocational apprenticeship training[3] operate across cantonal borders.

An additional advantage of having autonomous cantons deciding on educational policies, within a common framework of goals, is the strong path dependency of educational decisions on subject-specific numbers of hours of instruction. The path dependency is because changing the hours of instruction has many important consequences such as determining the number of subject-specific teachers employed, the curricula of teacher education institutions and many more. If the educational authorities were to increase or decrease the number of hours in a specific subject they would either create an additional demand for a specific category of teachers, who would need to be trained first, or they would create a surplus of teachers that would have to be laid off, which would then create resistance by teacher unions. The fact that changing the hours of instruction has so many important consequences is the reason why educational authorities only change them – at least in Switzerland – in very rare cases. This, in turn, means that it is possible to assess the causal relation between hours of instruction and student outcomes with a cross-section of observations between different cantons. In the context of our analyses this is helpful, because we can consider the differences in instructional time between the cantons as an external source of potential differences in the student outcomes.

The PISA survey, which we also use, provides extensive material to document the attainment gap and inequity issues within lower-secondary education in Switzerland. Results from PISA 2012 show that among Swiss students 12 per cent did not reach the baseline level of proficiency (level 2) in mathematics, 14 per cent in reading and 13 per cent in science. Compared to OECD countries in PISA 2012, Switzerland ranks seventh among the countries with the lowest share of low performing students (Finland, Estonia and East Asian countries are ranked above). A glance at the average across OECD countries, shows us 28 per cent of the students scoring below level 2 in at least one of the three subjects (OECD, 2016b). Several criteria need to be taken into consideration in identifying the risk factors for low performance and for judging inequity issues. Needless to say, it would go beyond the scope of this article to discuss these here in detail (see SCCRE, 2014 for further details). The principal

2. The Swiss cantons are comparable with US states, German Länder or the Canadian provinces in terms of their degree of autonomy in educational policy.
3. Two thirds of the school leaving cohort do apprenticeship training.

aim for Switzerland – as for many other countries – is that young people are able to participate in education successfully and develop their skills regardless of their social background and gender.

The strong degree of federalism as a central characteristic of the Swiss education system explains why there is a wide variation of programmes, related to attainment or inequity, in different cantons. For various reasons, there is very little known about the effectiveness of these initiatives. Together, the federal state and the cantons agreed in 2011 on a set of common political goals to be reached. One of these is the assessment of basic competences in a nationwide test, which will be carried out for the first time in 2016 and 2017 (the results are not available yet). In Switzerland a national programme to raise attainment or tackle inequity issues does not exist. The results of the mentioned assessment will prospectively provide important data on performance and characteristics of low performers, which could be the base for a future programme.

DATA AND METHOD

The data used is from the PISA 2009 test, conducted by the Organisation for Economic Co-operation and Development (OECD, 2010). This is the only nationwide standardised test in Switzerland. Fifteen year-old students are assessed in three domains: reading, mathematics and science. In some of the Swiss cantons an additional representative PISA sample of students in grade 9 (age 14 or 16), the last year of compulsory education, was collected. This national sample is what we use in our analysis. First, the over-sampling in the national PISA sample increases the number of observations considerably. Second, we have information on the official hours of instruction for all students in grade 9. Finally, a comparison of students attending the same grade is more suitable for our purposes, i.e. providing evidence on the effect of instructional time for the lower secondary. In 2009, this additional PISA sample of students in grade 9 was collected in only 12 out of 26 cantons. Our sample consists of 11,433 9th graders with an average reading score of 509 points, an average mathematics score of 543 points [4], and an average science score of 518 (Konsortium PISA.ch, 2011). The PISA data set provides, in addition to the information on test performance, a wide range of family and socioeconomic background characteristics on students as well as information on school type and school quality.

We combined the PISA dataset with official information on mandatory instruction time for grade 9 out of official administrative data provided by the Swiss Conference of Cantonal Ministers of Education (EDK, 2008). From this data we use the number of lessons and minutes per lesson per subject. We use this information for each canton and for each different type of school (ability tracks) as an approximation for the actual instruction time the students are taught. A potential drawback is that we cannot be sure that each school and teacher actually follows the official cantonal guidelines. In addition, some schools might choose to offer a range of optional lessons for some subjects.

The average number of hours of instruction over all three subjects and for all cantons is 3.4 hours per week. Each week the students have on average 3.9 hours reading lessons, 3.7 hours mathematics and 2.5 hours science lessons. The number of lessons per subject varies from ability track to ability track. For example, students in lower-level tracks are, on average, taught 3.85 hours per week in reading. In comparison, students from the highest-level tracks are, on average, taught 3.98 hours in reading every week.

When analysing the impact of hours of instruction on student performance one of the greatest difficulties is the possibility that unobservable student, teacher and school characteristics might influence the number of school lessons or

4. In each PISA test subject, the score for each participating country is the average of all student scores in that country. The average score among OECD countries is 500 points and the standard deviation is 100 points.

the test scores and bias the results. The PISA data structure allows us to use the within-student differences of instruction time for each subject[5]. Every student has three different outcomes (PISA reading, mathematics and science scores) and three different inputs (subject-specific hours of instruction from official administrative data). We use this variation to analyse if the individual differences in hours of instruction between subjects are systematically associated with the individual differences in subject test scores. In other words, if a student has more hours of mathematics than hours of science, we can test whether, as a consequence of this, his or her results in mathematics are also better than his or her test scores in science. Using the relative differences on both sides of the equation we avoid biases that arise when regressing on levels of achievement. As a consequence, we avoid all problems of potential confounding factors such as students' ability and school quality.

In order to identify if more hours of instruction increase test performance, we need to assume that the effect of one hour of instruction is the same for all subjects. Estimating another model that takes this into account can test this assumption. After doing this we have not found reasons to reject the assumption that the effect is the same for all subjects.

RESULTS

In this section, we present the results from the models that examine the average impact of instruction time on student performance. Additionally, we show the impact of instruction time on the performance heterogeneity in schools.

DOES ADDITIONAL HOURS OF INSTRUCTION RAISE ATTAINMENT?

Our analyses show that increasing instruction time has a causal impact on student test performance: one additional hour of instruction per week (over 38 weeks in the school year) increases the PISA score by 4.2. This impact is very low. According to the OECD, an average student should progress by 42 PISA points per year (OECD, 2016a). Swiss students are average both in terms of hours of instruction as well as in terms of most of the test scores. In other words, a Swiss student had, on average, 3.4 hours per week of subject specific instruction (over all three subjects). Therefore, if an average Swiss student was to also progress by 42 PISA points per year, an average weekly hour of instruction should generate a gain of 12.35 PISA points. Our results (4.2 points) indicate, therefore that the gain is only a third of the effect of an OECD average hour (12.35 points) on PISA scores (see Figure 3 above).

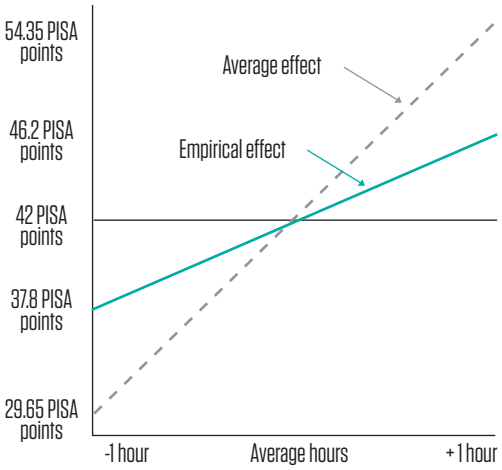

Figure 3: Causal impact of a variation of hours of subject specific instruction compared to the expected average impact of an average hour of instruction
Source: OECD (2015) and own calculations

The non-proportionality of the effect of an additional hour of instruction, compared to the average effectiveness of an average hour of instruction, must not be mistaken with non-linearities of such a variation of hours of instruction. The non-proportionality shows the differences between the effect of deviating by one hour from the average input of hours of instruction and the effect of an average hour of instruction on student outcomes. Non-linearities, however, would result if the impact of additional hours (or conversely a reduced number of hours) was not a linear addition of an hourly effect, but a decreasing function of an increase of hours of instruction. We empirically tested for non-linearities and found that indeed, the impact of

5. We analyse the effects of variations in subject-specific instruction time on student test scores, mainly originating from variations in the number of lessons taught per week. Another source of variation of instruction time is the organisation of the school day, weeks and school year (see OECD, 2016). We do not analyse these kinds of differences because of limitations of the database.

additional hours of instructions is not linear but that non-linearities only show when deviating quite substantially from the average investment of hours of instruction. In the proximity of the average investment of hours of instruction, the effects can therefore be considered to be linear. In other words, the effect of the first additional hour of instruction on attainment is not exactly the same as the effect of seventh or eighth additional hour. Nonetheless, additional instruction time in the lower range of hours (the range of our interest) increases attainment linearly.

IMPACT OF INSTRUCTION TIME ON THE PERFORMANCE HETEROGENEITY IN SCHOOLS

If students learn more when more time for instruction is provided, then it would be interesting to know whether all students profit to the same extent from this. Carroll (1989), in his well-known model of how instruction time may affect student learning, had already incorporated the possibility that students do not only differ in terms of school and teacher quality or class climate but also in their individual time needed to learn. If, therefore, we assume that students all differ in terms of the time needed to learn the same thing, then teachers using additional instruction time in a completely equitable way, would increase the differences in learning outcomes between the fastest and the slowest learners. In the same amount of time the fast learners would achieve a higher level of proficiency than the slowest learners. Only if teachers were to use the additional time in a very specific way, for example only for the repetition of content, could we expect that the additional time could close the gap between the fastest and the slowest learners. Only the last possibility could possibly enable the slower learners to achieve the same level of proficiency as fast learners.

In the view of the above mentioned context, we analyse the effect of number of hours of instruction time on the heterogeneity in school performance. Our results show that one extra hour of instruction does not close the performance gap but rather increases the range of PISA performance scores (by almost 110 points) within a school. And furthermore, the increase of hours does not affect the distribution of the test results within a school. A change of the score distribution could have been expected if additional instruction time had been used specially to support the weakest students, or the opposite, the most gifted students.

CONCLUSIONS

The purpose of this analysis was to investigate the impact of additional instruction time as an instrument to raise student performance using PISA 2009 data and official administrative information. The results can be summarised as follows: we find a rather small but statistically significant causal impact of additional instructional time on learning outcomes. As we showed, the effectiveness of an additional hour is very low compared to the OECD average effectiveness of one hour. In our analysis an additional hour of instruction is only about thirty per cent of the impact that we would expect from an average hour of instruction.

In the debates about raising attainment the high costs of additional instruction have to be considered. Consequently, an increase of hours of instruction in order to raise the education performance should be examined very carefully by educational authorities, as the gain from more lessons might be too low compared to alternative instruments. Further, our results provide causal evidence that the impact of instructional time varies greatly between higher and lower performers, and that teachers on average do not use additional (or reduced) time in a way to reduce the attainment gap. The result of this is that additional hours of instruction increase the gap between the best and the poorest students rather than closing it.

As a consequence, the empirical results point to a dilemma for policy makers. If they wish to increase the average effectiveness of additional instruction time, they would need to raise the

expected standards of outcomes, risking that the gap between fast and slow learners may further increase. If they prefer instead that additional time is used to tackle inequity, i.e. achieve more homogenous learning outcomes, they would risk lowering the average effectiveness of additional instruction time even more. Although it is difficult to identify ways that might increase the effectiveness of additional instruction time and at the same time produce more equitable outcomes, the current situation seems to be the least desirable of all, namely having a low effectiveness of additional instruction time combined with more heterogeneous student outcomes.

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THE NETHERLANDS

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ABSTRACT

The education system in the Netherlands is known for its strong average performance and few low performers. Nevertheless, there are growing concerns about social inequality in education. Not all pupils achieve their full potential and the effect of SES on pupils' educational career is substantial. There are concerns about the system of early tracking. The authors discuss the different views on the assets and challenges of this structure in terms of equity and conclude that equitable education is also about relevant education, i.e. that pupils learn what they need for a prosperous future and meaningful contribution to society. The Dutch government recently embarked on a broad national dialogue to establish what is worth learning for pupils who start their educational career today and will graduate in 2032. This curriculum reform has set out a new vision on what pupils need in terms of knowledge development, socialisation and personal development. The reform calls for a concise common core curriculum that provides pupils with an equal basis for learning, but also room for schools to address the individual needs of pupils. The authors discuss the opportunities of the curriculum reform in terms in equity and equality.

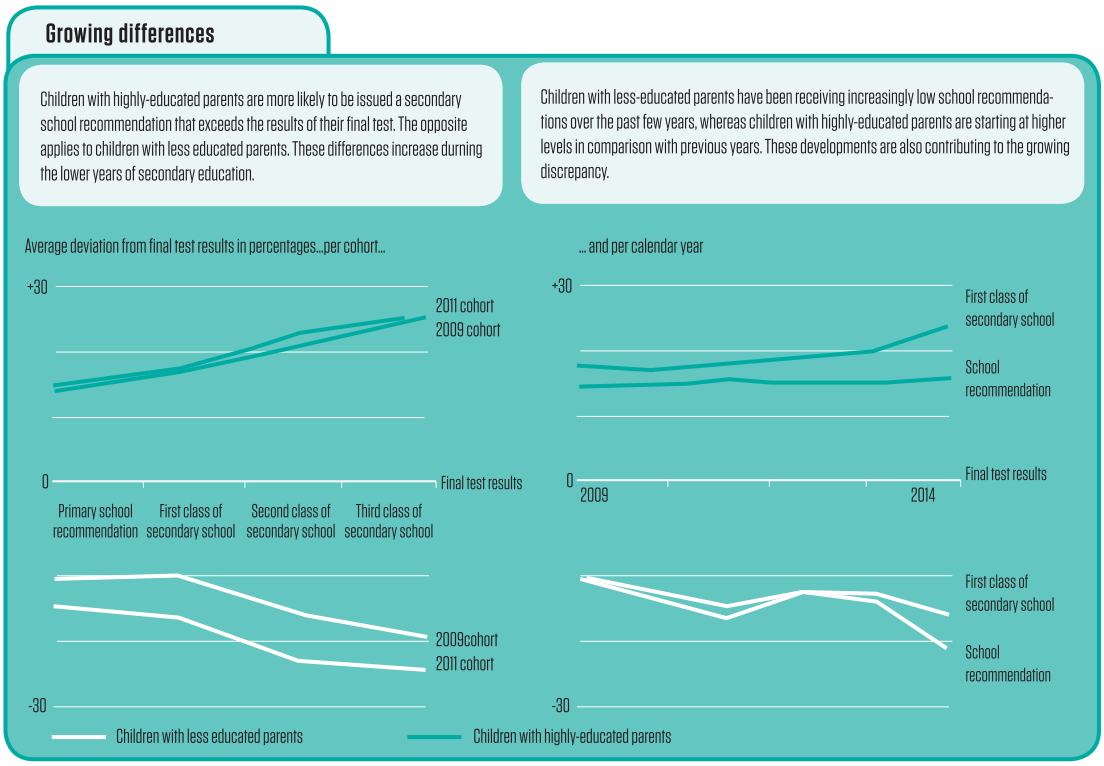
In this article we will reflect on issues related to equity and equality in the context of the Dutch education system and the current curriculum reform. We will focus on equity and equality both in terms of what pupils achieve (attainment) as well as in terms of relevance of what they learn (curriculum). We will explore the concepts of equity and equality and the Dutch context, including recent policy developments. We will conclude with a discussion of the dilemmas and opportunities regarding relevant and fair education for all pupils.

Dutch education consistently achieves high rankings in various international comparisons (OECD, 2015a; World Economic Forum, 2015), with a strong average performance and few low performers (OECD, 2016a). This does not imply, however, that all pupils achieve according to their full potential. Compared to other countries, the scores of the best pupils lag behind. International comparisons such as PISA (OECD, 2010), TIMMS and PIRLS (Meelissen, Netten, Drent, Punter, Droop & Verhoeven, 2012) show that there are few exceptionally high-performing pupils. Moreover, recent research by Schmidt et al. (2015) suggests that Dutch schools exacerbate inequality based on socioeconomic status (SES) instead of reducing it. The inspectorate supports the claim that pupils raised in families with low SES are more often sent to lower level secondary education than pupils from high SES families, and that the gap is growing (Inspectorate of Education, 2015). Figure 1 below shows the increasing gap between pupils with lower SES and higher SES. The left hand graph shows the deviation from the national primary test results for 2009 and 2011 for pupils from higher SES families and lower SES families. The graph also shows the track advice given by the primary school and how the placement in tracks deviated from the national primary test results from 2009 to 2014.

The Inspectorate describes lower SES in terms of education levels of parents and family income. Family background also appears to be influential: the performance level of pupils with ethnic minorities is lower in both primary and secondary education as compared to native Dutch students.

The national statistics body (CBS) concludes on the basis of yearly annual statistics that pupils raised in families

Figure 1.
The growing gap between lower and higher SES pupils (Inspectorate of Education, 2016)



with non-western backgrounds are more likely to leave secondary education with a lower-level certificate than pupils from families with originally Dutch backgrounds. About half of the pupils from families with Dutch origins end up in the pre-academic tracks after two years of secondary education. In contrast 43 per cent of pupils with other non-western backgrounds, 33 per cent of pupils with a Surinamese background, 29 per cent of pupils with a Caribbean background, 26 per cent of pupils with a Moroccan background, and 23 per cent of pupils with a Turkish background end up in the pre-academic tracks. A possible explanation provided for these - rather significant - differences is found in circumstances at home: pupils growing up in families where the Dutch language is not spoken also show lower achievement scores on the national end of primary school tests. Other correlations are found with the lower educational levels of parents, a lower household income and a relatively higher incidence of single parent families (CBS, 2014).

Early tracking is suggested as one of the promoting factors behind the growing inequity. In the Dutch secondary school system, lower achievements can result in transfer to a lower level of secondary education. In secondary education, school pupils are grouped in six tracks based on teacher recommendation at the end of primary school. The system consists of four pre-vocational and two pre-academic tracks. In addition, schools differ considerably in terms of intake and placement. Some schools place pupils at a higher level than recommended, while others may place pupils almost a full level lower (Inspectorate of Education, 2016). During the lower years of secondary school, more pupils transfer downwards rather than upwards. These facts raise concerns about equity and equality in Dutch education. As in many countries, raising attainment has been high on the policy agenda in the past years, as will be discussed in the next paragraph.

THE DUTCH CONTEXT

Considering the supposedly egalitarian nature of Dutch society, the diversified system of education may come as a surprise. Due to the constitutional freedom of education, there is a large diversity of education programmes based on various pedagogical and religious views. The

organisation of the tracked system in secondary education, the placement in different levels and the curriculum are the responsibility of the school or school boards themselves. The effect of this freedom is a wide variety in how tracking is organised and the argumentation for the way the pupils are grouped. Some schools are convinced that pupils are better off in early tracked classes, where others are strong believers in heterogeneous groups for the first two years of lower secondary education. The national trend, however, is towards early tracking. We will reflect on these unique features of education in the Netherlands and will then describe policy developments in the last ten years.

EARLY TRACKING

Tracking is the practice of segregating pupils based on their intellectual capacities in different streams, usually into pre-vocational and pre-academic tracks. Due to the fact that this practice in the Netherlands happens at a rather young age – at the transition from primary to lower secondary school – this is called early tracking. Schools are free in their decisions on how tracking is organised. Schools can decide to organise mixed transition classes in the first years so that the selection of pupils is postponed. In practice, however, few schools do so. There is an increasing trend towards organising homogenous transition classes based on strict placement and selection criteria (Inspectorate of Education, 2016). In this system, more pupils transfer down rather than upward.

The practice of early tracking has been a topic of debate for many years in the Netherlands. In 1997, the Education Council of the Netherlands (Ledoux & Veen, 2009) acknowledged underrepresentation of specific socio-economic groups in the higher-level tracks and in higher education. Early tracking was mentioned as a key structural barrier. In the current debate, many argue that because pupils at the end of primary school – usually at the age of twelve – are still developing their intellect and are unsure about their future aspirations, early selection is not conducive to continuous learning. Evidence from international comparative studies shows that early tracking, in combination with strict selection, can be detrimental to pupils from lower socioeconomic backgrounds and for ethnic minorities (van de Werfhorst, Elfers & Karsten, 2015). Another opinion is that tracking is conducive to differentiation and as such increases the possibility of providing relevant education based on the needs and capacities of pupils (OECD, 2016b).

According to the OECD (2012), early tracking should be avoided and pupil selection delayed until upper secondary, as early pupil selection can have a negative impact on pupils assigned to lower tracks. In their recent review of the education system in the Netherlands (2016a), the OECD also points out that the large performance differences within tracks are problematic. Recent research by Schmidt, Burroughs, Zoido and Houang (2015) indicates that the Netherlands has one of the largest indirect SES effects between schools on pupil learning. Direct SES involves factors such as parental guidance and the economic situation within the home, whereas indirect SES involves issues such as content coverage in schools and the difficulty of tasks. Based on the conceptual model presented in Figure 2, Schmidt et al. (2015) examined the PISA 2012 data for mathematics literacy in various countries. It is important to keep in mind that the article talks about basic mathematics literacy skills that all pupils are supposed to master. The indirect SES influence on pupil learning

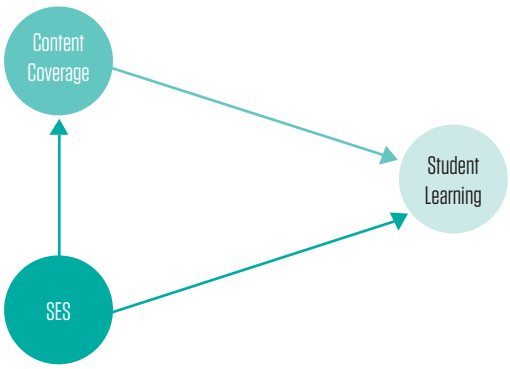


Figure 2.
The conceptual model of Schmidt et al. (2015)

outcomes in the Netherlands appears to be one of the highest when compared to other countries. OTL is described as Opportunities To Learn; i.e. the time a school makes available to pupils to experience and master basic mathematics literacy in class. The research identifies a direct linkage between the Between-School OTL gap and the Between-School performance gap (Figure 3). These findings indicate that the choice to differentiate the curriculum between schools has an effect on the opportunities pupils have to master what their peers in other schools learn, possibly resulting in lower learning outcomes in mastering basic skills.

The Netherlands has been struggling with the question of how to organise education in such a way that pupils experience equitable education while respecting the constitutional freedom of education. There is no general consensus: neither over time, nor in viewpoints, on how education should be organised to foster equity. In the recent past, the Dutch government has tried to change the structure of education in order to extend the period pupils learn together in one group over the years. Various attempts to extend the heterogeneity of lower secondary education have, however, failed: the middle school (middenschool) in the 1980s and basic lower secondary school (basisvorming) in the 1990s/2000s both tried to delay early tracking until the age of 15 and offer pupils a common core programme. However, schools, teachers and parents found that these programmes were not conducive to pupils' individual capacities and interests.

The current Dutch government leaves decisions on the structure of lower secondary education to the schools. In practice, schools appear to organise more homogenous tracks and tend to avoid or reduce a heterogeneous transition period at the start of secondary education. Schools focus on one track and there are fewer multi-tracked schools (Van de Werfhorst, Elffers and Karsten, 2015; Inspectorate of Education, 2016). As a result, the flexibility to switch to another track becomes more difficult and many parents try everything in their capacity to get their child into the highest possible track. Placement is based on primary teachers' advice at the end of primary education, and research shows that pupils from low SES backgrounds more often receive a recommendation for lower-level tracks, and children of highly educated parents are more likely to be directed towards higher-level tracks. According to the recent OECD review (2016a) a more

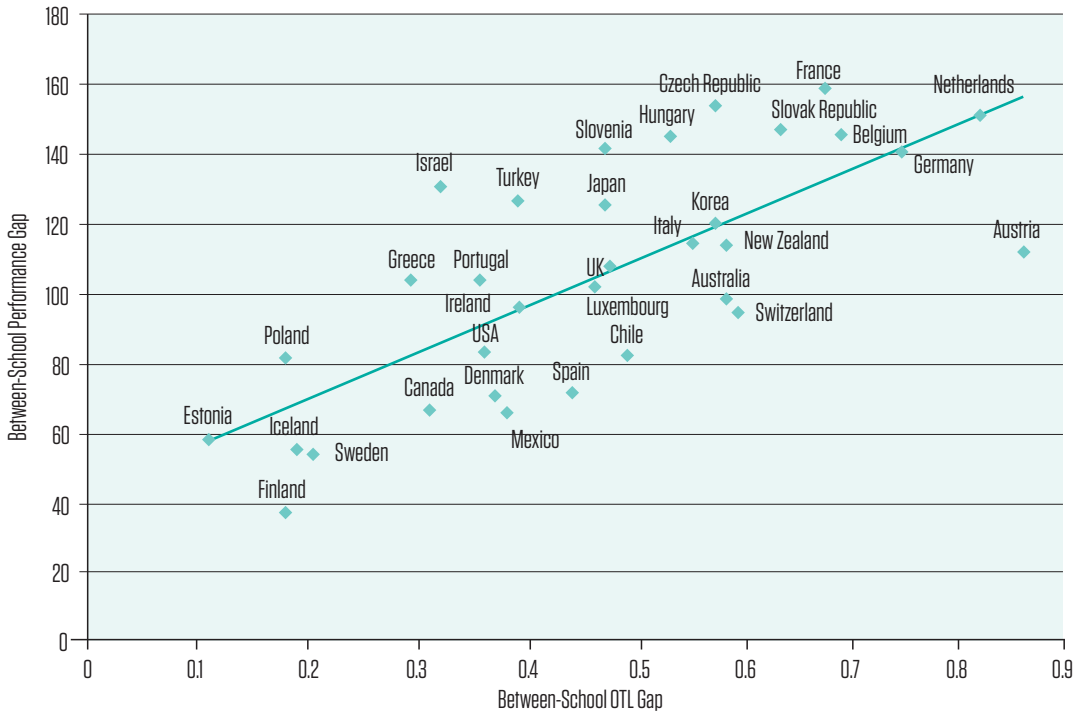


Figure 3. Relationship of size of opportunity to learn gap and performance gap between schools (Schmidt et al., 2015)

standardised selection of pupils, based on a national test, should be preferred in order to improve the match between students' potentials and the learning opportunities they are provided within the track.

ACHIEVING EQUITY THROUGH MINIMUM STANDARDS

A fair and inclusive education system is crucial in order to ensure that all pupils develop the knowledge and skills they need to be able to make a meaningful contribution to the labour market and civil society. In this respect, equity and equality are important concepts. Equity refers to the 'fairness' of education, i.e. providing everyone with the best opportunities to achieve their best potential. Equality in education means that everyone is treated equally, regardless of individual traits and characteristics. It is important to understand that equality does not automatically lead to fairness, on the contrary: because not everyone has the same starting point or needs, equality often favours the majority, or the most valued group, instead of everyone. The Organisation for Economic Co-operation and Development (OECD) looks at the need for equity from the perspective of the economy, its social costs. The line of reasoning is that more educated people contribute to societies and sustainable economies because they are less dependent on public aid and less vulnerable to economic downturns (OECD, 2012). In the definition of the OECD, equity means that personal or social circumstances, such as gender, ethnic origin or family background, are not obstacles to achieving educational potential (fairness) and that all individuals reach at the least a basic minimum level of skills (inclusion) (OECD, 2016b). This OECD definition expands the concept of equity with the addition of 'a minimum level'. With this addition, the definition invites learners to achieve the best within their abilities but at least at the minimum basic level, and asks teachers to challenge their pupils to do so. It also sees such a minimum level of skills as a guarantee for inclusion: involving or engaging everyone in society.

In the last years, policy in the Netherlands has focused on defining minimum levels for all pupils by introducing standards for Dutch language and numeracy. In line with the international trend of increased standardisation and emphasis on qualification and accountability for measurable outcomes, standards for Dutch language and numeracy were introduced in 2013 and a national numeracy test was introduced in 2015. The prevailing policy agenda at the time (OCW, 2011) included a strong focus on raising learning outcomes and opportunities through reducing the number of underperforming schools, increasing opportunities for over-achieving pupils and establishing standards for literacy and numeracy levels. The responsibility to achieve the intended outcomes was given to the schools, with an important role for the inspectorate. National and international comparative studies were identified as important instruments to measure the effect of the policies. Budget was allocated both to improve underperforming schools – with mostly under-achieving young people – and creating opportunities for schools to support high-achieving pupils.

The subsequent policy agenda (Bussemaker & Dekker, 2013) continued along the ideas of developing the future workforce, but also reflected the ambition to develop education to excellent levels in order to become one of the highest performing educational systems in the world. In the 2013 Education Agenda, raising literacy and numeracy remained important, but not as prominent as in previous years. Customisation was an important new policy measure. Customisation as differentiation could either be convergent or divergent. In convergent differentiation schools work from a common core, differentiating in instruction, instruction time and methodology in order for all pupils to achieve common goals. Divergent differentiation could be characterised as differentiation in which the individual needs of pupils are leading, usually through enriching assignments. Combinations are often found in Dutch education (SLO, 2015), but especially in

Figure 4.
Key features of future-oriented education (Platform Education2032, 2016)

Knowledge development is an important purpose of education. In future-oriented education, there should be more emphasis on cultivating and encouraging pupils' innate inquisitiveness and creativity: their ability to ask relevant questions and to use their imagination and flair to devise new ideas and products. Education should provide them the knowledge they need to become lifelong learners, and to enable them to view the world from various angles and perspectives, combining knowledge from various disciplines. Education also has a key role to play in supporting pupils' personal development. In future-oriented education more emphasis is put on pupils' personal development to allow them to become independent adults with all the competencies they need to participate in society. They learn to make independent choices and to accept responsibility for their actions. They develop enterprise, resilience and self-confidence.

Future-oriented education also fosters social development. It helps pupils to develop social skills and helps them to appreciate the major societal challenges of today, and to think about viable solutions. Education will encourage pupils to exercise personal responsibility in various aspects of their daily lives: health; finances; or care for the environment. It will introduce the international perspective, whereby pupils acknowledge and appreciate their role as global citizens and are able to look beyond the boundaries of their own city or country.

Future-oriented education should develop pupils' digital awareness and skills, enabling them to continue developing this digital literacy throughout later life. A sound knowledge of information technology and computational thinking will ensure that pupils can understand how to use new technology products and services. They will learn the role of logical reasoning and programming, how to find digital information and how to make it readily retrievable for others, and how to work with digital media and images.

The education of the future will address pupils' personal interests and abilities, encouraging them to develop to their full potential. Education will actively involve them in the learning process and will provide the opportunity to make personal choices. All pupils will be expected to acquire a broad basis of knowledge and skills to prepare them for further education and for life as responsible members of society. But there will also be a varied curriculum with the opportunity to select certain subjects or topics according to individual interests, abilities and learning styles.

secondary education, where such differentiation happens within the tracks pupils are selected in.

FINDING COMMON GROUNDS ON THE PURPOSE OF EDUCATION

As mentioned earlier, the freedom of education is firmly embedded in the national constitution and allows for the provision of education following religious or pedagogic visions. This has led to a long-standing tradition of strong curriculum autonomy for schools. For a long time, the government kept away from thoroughly describing what pupils should learn in school. The current national curriculum consists of two sets of core attainment targets, one for primary and the second for lower secondary education. These goals to strive for are broad in nature and focus on subject content and skills. The introduction of the more detailed achievement standards, for Dutch language and numeracy, indicate a growing tendency for the government to gain more influence on the outcomes of what children should learn. The how remains the responsibility of schools. The distinction between what (content) and how (pedagogy) is an important issue in Dutch policy debates on education. On the one hand, the government refrains from providing regulations on how pupils should learn, on the other hand, the distinction between the what and the how is sometimes difficult to make in practice.

In order to arrive at a shared vision on the purpose of education, the Dutch government recently embarked upon a broad national dialogue, known as Education Reform2032. The main question was: "what knowledge and skills are of most worth for pupils who start their educational career today and will graduate in 2032?" This key question was broken down into other questions such as: "What is relevant in terms of qualification?"; "What is relevant for socialisation?"; and "What do pupils need for their personal development?" The outcomes of the dialogue raised interesting questions about what is worth learning, and also in terms of equality and equity: What knowledge

and skills are relevant for all pupils and should be part of the core curriculum? And what is needed to develop individual talents to the full?

THE CURRENT REFORM: EDUCATION2032

In 2015, the Secretary of State for Education appointed an advisory committee: Platform Education2032. Its assignment was to conduct a thorough public consultation examining the goals and content of primary and secondary education in the Netherlands. The objective was to identify the knowledge and skills that young people must acquire if they are to function effectively in a rapidly changing society. The main intention was to initiate a broad social dialogue and to come to a shared vision on the purpose of education. A wide range of stakeholders – teachers, pupils, parents, school administrators, researchers and the representatives of social and cultural organisations, the private sector and political parties – were invited to contribute. A large number of meetings and events were organised by all these stakeholders, and many written requests, manifestos, research papers and other reports were submitted for the Platform's consideration. Scientific insights were used as well as lessons learned from recent curriculum reform in other countries such as Finland, Norway and the United Kingdom. The contributions to the dialogue were rich and varied, and pointed at key principles for future-oriented education. Figure 4 describes the defining features of future-oriented education that are needed to equip all Dutch pupils with the knowledge and skills they need for their future working and adult life.

A COMMON CORE FOR ALL

Although addressing equality and equity was not one of their tasks, the Platform2032 does provide a shared vision on the purpose of education, and as such points out what pupils should achieve and what they should learn. The report calls for a different regulation of the curriculum: a concise core curriculum, regulated by the government, and more room for local decision-making by schools. The framework for the core curriculum is to define learning objectives more precisely than is currently the case, so that teachers have more support in determining what is compulsory and where there is room for school-specific choice. The common core for schools will thus be clearer and this may contribute to a more shared curriculum basis for all pupils.

This mandatory core curriculum should be restricted in scope and content, in order for schools and teachers to have more time and opportunity to address the individual needs, ambitions and personal talents of their pupils by means of a discretionary or elective curriculum to be designed at the local level. The Platform proposes that the compulsory components of the curriculum should be language (Dutch and English), numeracy and computer literacy. Citizenship education is another important element of the core curriculum the Platform proposes. The Platform sees the school as an essential learning community where pupils will develop the values and behavioural skills of good citizenship. The components of the proposed core curriculum are depicted in figure 5.

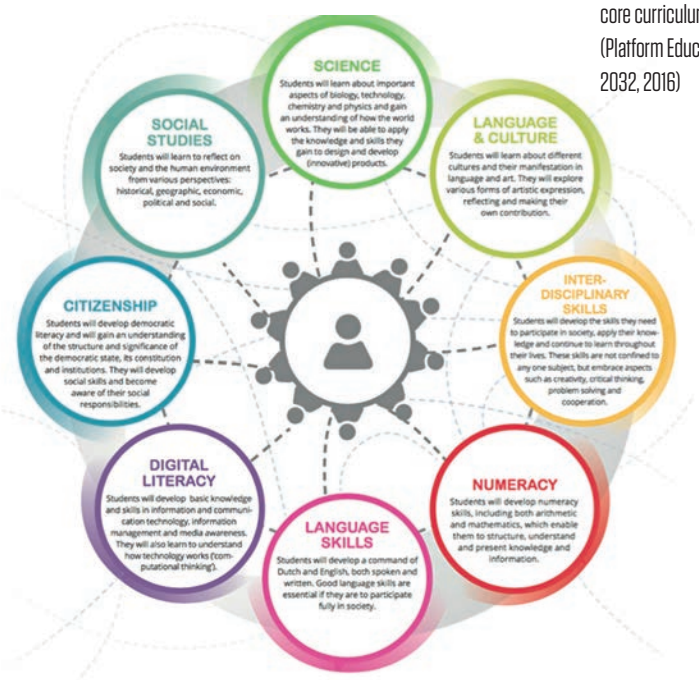


Figure 5.
The proposed core curriculum (Platform Education 2032, 2016)

Aside from the aforementioned areas, the core curriculum should consist of knowledge of the world. Pupils must acquire the knowledge they need to understand the world around them and make a meaningful contribution. The Platform further suggests that this knowledge should be divided into three clusters: social studies; science; and language and culture. Pupils will acquire in-depth knowledge of selected topics within each domain. Rather than knowing 'little about a lot', they will learn 'a lot about a little'. They will also learn to connect knowledge from different disciplines as they examine various social and societal issues from different perspectives and develop interdisciplinary skills such as learning skills, creativity, critical thinking, problem-solving and collaboration.

Although the core curriculum is envisaged to be equal in content for all pupils, the Platform does not consider it necessary for all pupils to achieve the same attainment level for all components. The Platform recommends that grade levels should be specified as 'reference points', so that pupils are challenged and motivated to perform at their full potential. These reference points are essential to monitor both the longitudinal cohesion of the syllabus and the progress of the individual pupil. They are also considered to be an important safeguard to ensure social equality. Research has shown that social inequality is more likely in countries that do not have any form of national standards or assessment in education (van de Werfhorst, Elffers & Karsten, 2015).

ROOM FOR INDIVIDUAL INTERESTS

Because the proposed mandatory core curriculum is limited in scope, there will be time within the schedule for activities designed by schools and pupils themselves. Individual schools must decide how to add depth and breadth to the basic curriculum in a manner which is appropriate to their vision, the professional abilities of their staff, the interests and abilities of their pupils, the preferences of parents and the requirements of the employment market or higher education. It is the responsibility of schools themselves to decide how to enrich the core curriculum in such a way that it addresses pupils' interests and is in line with their abilities. If pupils are to be given every opportunity to maximise their potential, they must be informed of all the possibilities so that they can make choices which are relevant to their personal perspective and needs. It is the school's responsibility to ensure that this is the case.

This open space for pupils to pursue their own interests in what they would like to learn might help to increase school motivation, and the room for differentiation provides the possibility to provide individual support and stimulate the unique talents and capacities of pupils. This could potentially be conducive to equity, providing pupils with more opportunity to develop their personal capacities and as such contribute to equity. The crucial factor, however, will be the role of the teacher. Meeting the learning needs of all students is a complex and challenging task for teachers, and requires a wide array of pedagogical competencies. Especially in secondary education, teachers find it difficult to differentiate in learning activities, subject content and instruction time (Inspectorate of Education, 2016). The OECD review (2016a) also argues that teacher capacity to respond to individual learning needs should be improved. Another challenge for schools and teachers will be to take advantage of the proposed increased local autonomy. This will require new types of conversation and collaboration among teachers, as well as the capacity to design and implement a school-based curriculum. Curriculum discussions are not common practice in schools, and many schools do not yet take full advantage of the freedom of education to develop their curriculum in line with local circumstances and preferences, and to enact such a curriculum in class. Support will be needed to stimulate curriculum thinking and foster

curriculum design competences, as well as conditions in schools that are conducive to collaboration and reflection. The recent OECD review (2016a) of the Dutch system emphasises the essential role of school leadership in this respect, and the need to develop a leadership strategy that promotes professional collaboration and a culture of continuous improvement in schools.

CONCLUDING REFLECTIONS

The Dutch discourse on raising attainment has been ongoing for decades, following a pendulum swing movement in terms of government regulation versus local autonomy for schools. The current debate focuses on how equitable education can be organised in terms of the curriculum. The implications of the proposed vision of Education2032 are currently being discussed with teachers and other stakeholders and explored in school practice. One of the central issues in this exploration is how teacher leadership can be stimulated as part of the reform process. This illustrates once again that curriculum development cannot take place without school development and teacher professional development (Nieveen, Sluijsmans & van den Akker, 2014).

Considering the current concerns of the Inspectorate of Education (2016) about equity and equality in education, these issues are likely to be part of the continuing curriculum debate. At this point in time it is too early to predict what the current reform will mean in terms of raising attainment. Many decisions have yet to be taken. We do note that certain themes are recurrent in the debate and have resulted in additional policy measures. Regarding the issue of social inequality, several financial measures were recently introduced to stimulate and smooth the transition from junior to senior vocational education and from secondary to higher education. Moreover, schools will receive funding to organise homework facilities, so that these facilities are not only available for students from families that can afford them. Besides funding, the significance of creating an inclusive environment within the school is emphasised, i.e. an environment in which all students feel welcome and part of the school community. This sense of belonging is considered a precondition to raising attainment for all students. The curriculum, as developed within the current reform, can contribute to this through its emphasis on citizenship education and personal development. In addition to the curriculum, a more comprehensive approach is considered necessary involving not only educational partners but also societal parties. The Minister recently announced a broad coalition of all these stakeholders who will join forces to stimulate equity and equality in education.

The current debate is also dominated by concerns about the way in which education is organised as a system, and policy measures are taken to optimise the flexibility of the system. Recently, the Secretary of State allowed pupils to sit the exams at a higher level for their best subjects. Another proposal is to allow pupils to sit their matriculation exams twice a year instead of only once, allowing pupils to graduate for subjects they are good at while creating space to focus on their more difficult subjects or take on additional subjects of interest. For now, such customisations might help to counteract some of the complications coming forth from early tracking, but it does not yet address the basis of the structures as such, the vulnerability of pupils from low SES families and migrant children, nor the negative filtering effect on late blossoming pupils, or pupils who underachieve in their tracks. Further analysis of the positive and negative effects of early tracking in the Netherlands and on the broader issue of social inequality in education is needed so that we gain more insight into what is needed to achieve the best possible individual learning outcomes in an equitable way.

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