Reducing early school leaving in Malta

Report for the Ministry of Education and Employment

This report was part of a wider project to support the Ministry of Education and Employment (MEDE) in complementing the existing data framework and to develop a monitoring system for identification of students at risk of Early School Leaving (ESL) in Malta. ESL has been identified as a priority to be tackled, in line with the 2017 National Reform Programme of Malta, the 'Strategic Plan for the Prevention of Early School Leaving in Malta' (MEDE, 2014a) and the national EU2020 targets on reducing ESL.

The report provides a summary of some approaches to ESL prevention that may be effective in Malta. It is the fourth deliverable for the project. It was preceded by three confidential reports, which reviewed existing data and data sharing procedures, and identified business objectives for a proposed monitoring system. It was followed by a final report, outlining some potential scenarios for the development of a centralised monitoring system, drawing on this document and earlier deliverables.

The project was commissioned by the European Commission's Structural Reform Support Service (SRSS) and awarded to the International Association for the Evaluation of Educational Achievement (IEA).

The report was written by Dr Eemer Eivers, working on behalf of the IEA. It was submitted to MEDE in September 2019. The author acknowledges the considerable assistance of stakeholders, particularly the ESLU team, in the development of the report. Any inaccuracies or misunderstandings contained therein are the responsibility of the author.

Funded by the European Union and implemented in cooperation with the Structural Reform Support Service (SRSS) of the European Commission.

Table of contents

List of acronyms

AfL	Assessment for Learning
ALP	Alternative Learning Programme
CRC	Cottonera Resource Centre
ECEC	Early Childhood Education and Care
ESL	Early School Leaving / Leavers
ESLU	Early School Leaving Unit
FCS	Free Childcare Scheme
HSCL	Home School Community Liaison
ITS	Institute of Tourism Studies
IY	Incredible Years
LSE	Learning Support Educator
MATSEC	Matriculation and Secondary Education Certificate
MCAST	Malta College of Arts Science and Technology
MEDE	Ministry for Education and Employment
MQF	Malta Qualifications Framework
SEC	Secondary Education Certificate
SES	Socioeconomic status
TA	Teaching Assistant / Teacher Aide
UoM	University of Malta
VET	Vocational Education and Training

1. Introduction

This report contains the fourth deliverable in a project commissioned by the European Commission's Structural Reform Support Service. The aim of the project was to assist authorities of the Republic of Malta, specifically the Early School Leaving Unit (ESLU) in the Ministry of Education and Employment (MEDE), to develop a centralised monitoring system for ESL in Malta.

This document summarises potential approaches to the prevention of ESL in Malta – approaches either currently not in use in Malta or in use, but not on a broad scale. It is divided into five sections. The first section provides some background and outlines the methods used. The second section outlines considerations that guided identification of potentially suitable measures, generally, and specific to use in Malta. The third describes measures identified as most appropriate for Malta, while the fourth section describes additional measures that might be considered for implementation in Malta. The fifth section summarises the document.

The report is preceded by three earlier deliverables, which proposed a work plan for the project, summarised the current situation regarding the monitoring of ESL in Malta, and defined the business objectives for an ESL monitoring system in Malta. It is followed by a final report, outlining some potential scenarios for the development of a centralised monitoring system, drawing on this document and earlier deliverables. The first three deliverables will not be publicly released, while an abridged version of the final deliverable (with commercially sensitive information removed) has been released.

All reports delivered for this project use the European Commission's definition of early school leavers: those aged 18 to 24 with lower secondary education attainment at most and not currently in formal or non-formal education and training. In a Maltese context, this is taken as those who do not have achieved at least five Secondary Education Certificate (SEC) passes at grades 1 to 7, or equivalent, and are not currently in any training or educational programme. Unless otherwise stated, Malta refers to the Maltese islands.

Scope

The key elements of this report include:

- some successful approaches to ESL prevention that might be implemented or upscaled.
- a review of some current national and local, smaller-scale initiatives.

As the report is part of an overall project that focusses on *early identification* of risk of ESL, the emphasis is largely on prevention and intervention, rather than on compensatory mechanisms.

Method

Five main activities were used to identify approaches to ESL prevention that may be effective in Malta. First, the contractor examined the literature in relation to ESL interventions used in other countries, with an emphasis on countries within the EU. Second, the contractor interviewed stakeholders in MEDE and other agencies to better understand what might be effective in a Maltese context, to understand what was currently working well or less well, and to identify the reasons behind the relative effectiveness of various measures. Third, the contractor spoke to those implementing interventions in a small number of other countries. Fourth, the contractor and some staff from ESLU visited a number of programmes currently being implemented in Malta. Fifth, the contractor interviewed two international experts, one in the field of ESL and one in the more general field of educational disadvantage. Rather than present the results of each of these activities separately, they form the basis for an integrated analysis of interventions that seem most suited to introduction or expansion in Malta.

2. Considerations for identifying initiatives / changes

A number of factors were considered as part of the process of identifying potentially suitable measures or changes to existing systems or procedures. First, the efficacy of broad *types* of measures was considered, including some consideration of cost. Second, measures were mapped against the phases of prevention, intervention and compensation (a framework used in MEDE's [2014a] and the European Commission's [2011] strategic plans to address ESL), and against different types of predictors of ESL (e.g., individual, familial, structural). Third, existing provision in Malta was mapped against the outcomes of the review, identifying gaps by type of initiative, phase, and type of predictor addressed.

Efficacy and costs of types of measures

When identifying appropriate measures, two contrasting problems need to be considered. First, we need to guard against choosing measures that have been incorrectly identified as effective (false positives). Second, we cannot be overly prescriptive about the acceptable standards for evidence of effectiveness (false negatives). Interventions in educational settings can rarely meet the gold standard criterion of a randomised controlled trial and often have multiple potentially confounding factors to consider.

Taking false positive findings first, there are many, many measures that that have been proposed as effective ways to reduce ESL. Often, closer examination shows that positive effects cannot be replicated, or were never properly established in the first place. This can be attributed to a variety of factors, including publication bias (generally, studies that show statistically significant "effects" are more likely to be published than studies where no significant effects are found), poor study design, and poor data analysis. Thus, it is necessary to be cautious when an intervention's efficacy has not been widely replicated.

Conversely, it can sometimes be difficult to prove a causal link between certain types of high-quality interventions and completion of compulsory education or improved academic outcomes (usually an important precursor to school completion). For example, the efficacy of early childhood interventions in reducing ESL cannot be fully assessed until many years after initial implementation. Other interventions can be difficult to evaluate in isolation because they may be implemented as part of a set of measures, or other important variables cannot be controlled for. Further, in the case of wide-sweeping measures, it may not be possible to have an adequate baseline or control group against which to compare.

To address these twin issues during the review process, systematic reviews and meta-analyses of the efficacy of broad *types* of educational interventions were considered in parallel with an examination of *specific* interventions that might be implemented in Malta. Such over-arching analyses are designed to reduce problems of false positive or negative findings from research. Taking an overall picture, they identify where collated research indicates that there may be substantive evidence of effects from interventions. Sometimes, interventions are also compared by effect size (a standard/comparable measure of the size of the difference between those who did and did not experience an intervention).

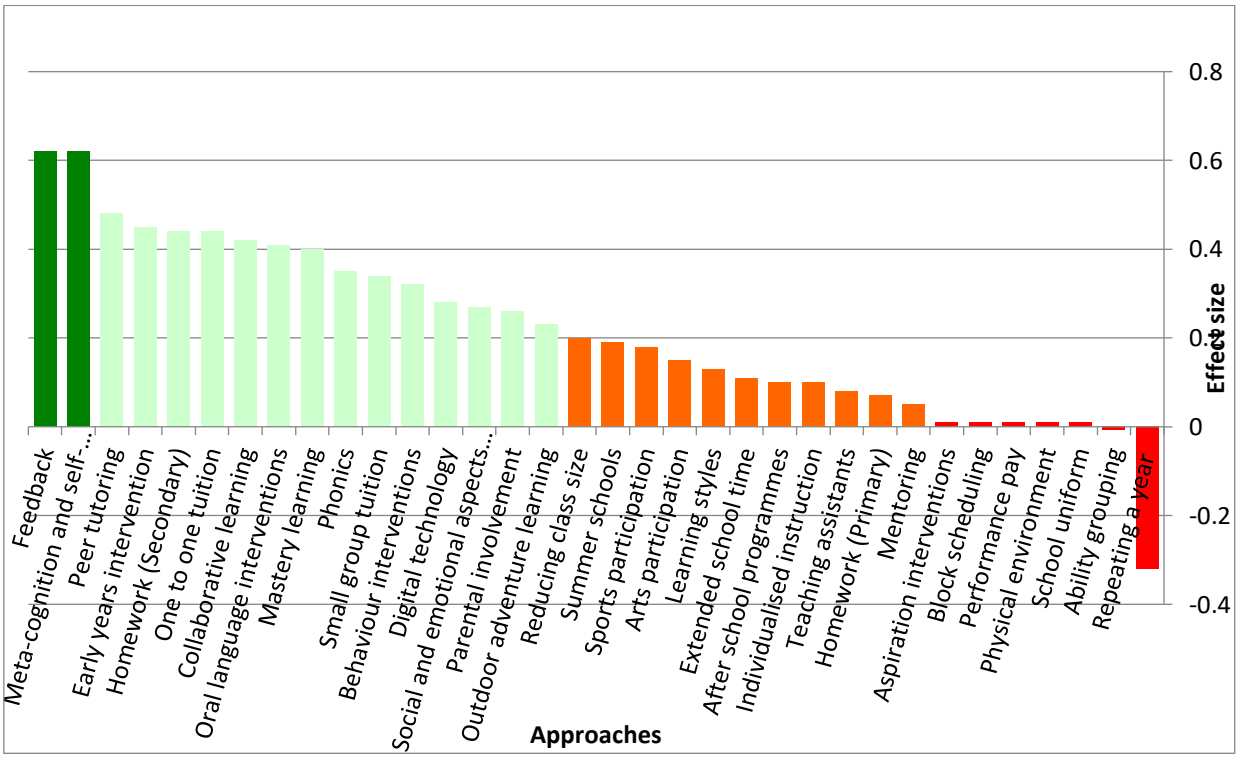
A useful resource that draws on multiple systematic reviews and meta-analyses is the Sutton Trust / Education Endowment Foundation Toolkit. The Sutton Trust is a foundation aimed at improving social mobility in the UK. The Education Endowment Foundation was founded by the Trust in 2011 to focus on breaking the link between family income and educational achievement (see https://educationendowmentfoundation.org.uk/ and https://www.suttontrust.com/.) Their Toolkit

was initially developed in 2011 by researchers in Durham University (see Higgins, Katsipataki, Kokotsaki, Coleman, Major, & Coe, 2013 for methodological details), and has since been updated a number of times and extended for use in Australia and Scotland. The Toolkit's aim is to help English schools and Local Authorities make informed decisions about how to best use "Pupil Premium" funds (additional funds allocated based on number of disadvantaged students enrolled) to improve educational outcomes amongst disadvantaged students.

The Toolkit draws on meta-analyses to give indicators of the efficacy of different types of interventions on achievement and attainment. However, rather than just examining effect size, the Toolkit also tries where possible to consider per-head costs, thereby providing the basis for a cost-benefit analysis. Effect sizes are averages across multiple implementations of similar types of interventions, some of which may have been better implemented than others. Given this, the Toolkit is **not** intended to provide a definitive answer as to whether or not specific interventions are effective, but rather to inform decision-making when selecting interventions.

As can be seen from Figure 1, the work underpinning the Toolkit identified that some of general types of interventions that proved most effective in boosting attainment were those that promoted independent learning skills. This included developing meta-cognitive skills and self-regulation, providing feedback on performance, and peer tutoring. Least effective was grade retention, which had strong negative effects on attainment (and ESL). Ability grouping is another intervention that has a negative correlation with attainment. Retention is now relatively uncommon in Malta (only 7% of 15-year olds have repeated at least one grade) but grouping students by ability remains far more common than the OECD average (OECD, 2016).

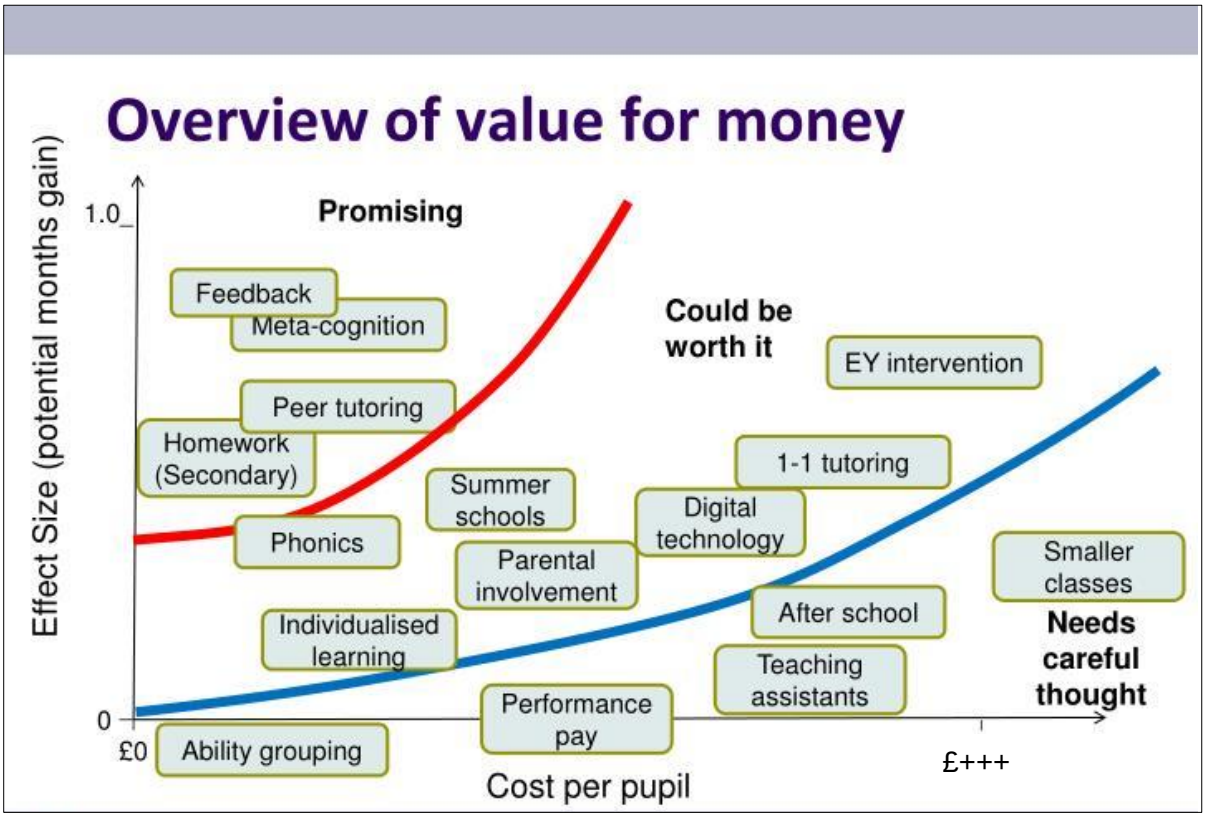
Figure 1: Average effect sizes of interventions on attainment, from most effective to least.



Adapted from Katsipataki & Higgins (2016).

Figure 1 does not consider cost, an important consideration in the selection of any strategy that might be widely implemented. In contrast, Figure 2 shows a subset of common interventions by effect size on achievement indicators (number of months gained) and by increasing cost (based on approximate costs per pupil, in England). Interventions above the red line combine reasonably large effect sizes with relatively low costs per student (e.g., teachers providing feedback to students). Interventions between the red and blue lines may be considered slightly less cost effective due to higher costs and/or lower effect sizes (e.g., summer schools, parental involvement, pre-school ["EY intervention"]). Finally, those on or below the blue line are either ineffective or so expensive that their cost may not be justified (e.g., performance-related pay for teachers, smaller classes, after-school,[1] Teaching Assistants). While the Figure broadly reflects what the balance of research evidence suggests is true, teachers often query the finding that neither small classes nor Teaching Assistants are particularly effective in addressing educational attainment gaps.

Figure 2: Effect sizes of standalone interventions versus approximate costs per pupil.



Adapted from Higgins (2014).

Important caveats

The Toolkit targets measures to improve achievement generally, not to reduce ESL, specifically, and largely ignores compensatory measures (i.e., efforts to re-engage students who have already left education). This is in part because its main target audience is schools and Local Authorities, not a system-level audience. The Toolkit also focusses on *discrete* interventions rather than complex, whole school interventions. This is because they are methodologically more complex to evaluate (the Toolkit developers are currently examining how best to do so).

[1] After-school includes any programme to lengthen the school day, including those that run before or after the standard school day.

The developers of the Toolkit also emphasise that interventions should not be adopted or excluded solely on the basis of their position in Figure 2. For example, in the case of Teaching Assistants, evidence shows that they *can* be effective under certain conditions. However, they often have limited or negative effects, typically when they are used as a substitute for rather than supplement to the role of teacher. Similarly, class size reduction tends not to show noticeable benefits unless the reduced class size is quite small (e.g., reducing from 30 to 25 will show little effect) or reductions are targeted at low-achieving or low-socioeconomic status (SES) students rather than at the general student population. Also, after-school measures can be effective, especially if they have a clear structure, curricular links, and are targeted at disadvantaged students. However, they fall below the blue line because they are expensive to implement, relative to general gains arising.

In sum, the Toolkit is a useful way to examine discrete prevention and intervention measures but doesn't cover whole school or compensatory measures.

Mapping Malta onto a Value for Money analysis of measures

Bearing in mind the highlighted caveats, it is nonetheless interesting how provision in Malta maps onto Figure 2. There is a strong emphasis on interventions on the lower right-hand side of the chart where the less effective and/or more expensive interventions are clustered. Internationally, the more intensive and expensive interventions tend to be targeted only at those most in need (e.g., low-SES or low-achieving students), where benefits tend to be more pronounced. This is not the case in Malta.

For example, children whose parents are not socioeconomically active or in education are *excluded* from the Free Childcare Scheme and have reduced access hours to Klabb 3-16 and Skolasajf, despite being most in need of additional support and being most likely to benefit from it. The most recent data from PIRLS and PISA show that primary and secondary school classes in Malta are smaller than in most countries (Mullis, Martin, Foy, & Hooper, 2017; OECD, 2016). However, there is no policy of targeting smaller classes at high-need students. PISA 2015 data also show that Maltese schools make more use of ability grouping (or streaming, banding) than is the norm for OECD countries, despite the fact that there is a slight negative association between banding and achievement.

The top left corner of Figure 2 identifies some of the most cost-effective types of interventions. Feedback (usually in the form of Assessment for Learning [AfL]), peer tutoring and the explicit teaching of metacognitive strategies are all relatively inexpensive yet effective interventions. As recently as 2014, the European Agency for Special Needs and Inclusive Education audit of inclusive education in Malta reported that:

> "there is very little evidence of assessment for learning across schools and limited possibilities for learners to have any control over their learning" (p. 45).

The audit also recommended the introduction of peer tutoring and the teaching of strategies for students to monitor and evaluate their own learning, while noting that the very competitive nature of the education system in Malta and emphasis on high-stakes assessment militated against the adoption of these broader assessment and learning techniques.

Some attempts have been made in Malta in recent years to de-emphasize summative assessments. The National Curriculum Framework (MEDE, 2012)[2] was intended to shift emphasis from topic-based syllabi to Learning Outcomes and enable greater use of diverse assessment methods, including both

[2] Although the Framework was published prior to the 2014 audit, new practices arising would not have been "bedded in" at the time the audit was conducted.

assessment for and of learning. The very recent cessation of mid-year exams is another example of efforts to de-emphasize summative assessment and encourage greater use of continuous and formative assessment by teachers. These changes, in conjunction with AfL professional development offered within schools, courses in the Institute for Education, and an AfL support team suggest that efforts are already being made to implement the types of assessment and self-directed learning that the Toolkit suggests would be beneficial.

Homework (at secondary level) is also in the top left corner. There is evidence that judicious assignment of relevant homework that is integrated into classroom learning can improve *achievement* at secondary level. However, homework's relationship with ESL is more complex, and MEDE have just introduced a national homework policy (MEDE, 2018). Thus, proposing new homework-related interventions does not currently seem a fruitful avenue to reduce ESL in Malta.

That leaves a number of "middle ground" interventions providing a good balance between cost and effectiveness. As noted earlier, Malta already has an extensive Early Years intervention, in the form of the Free Childcare Scheme (although it excludes some of the most educationally at-risk children). Digital technology is also being addressed by initiatives such as the One Tablet Per Child Scheme, and ongoing work by the Directorate of Digital Literacy and Transversal Skills. There is also an extensive summer school programme, although again, those who are most in need of additional support have access to the least hours.

Gaps in provision

Examining effective measures shown in Figure 2, what is currently weak or missing in Malta are systematic approaches to peer tutoring, individualised learning, programmes to support parental involvement, and, possibly phonics instruction. Also missing, but not shown in the Figure for reasons outlined earlier, are whole school, compensatory, and system-wide initiatives, including targeted prevention measures directed at at-risk children. While MEDE endorses whole school approaches to tackling ESL, the contractor's view and the view of many stakeholders interviewed is there currently is little evidence of the adoption of whole school approaches within schools or colleges.

Target stage

Using the framework underpinning MEDE's ESL prevention strategy, initiatives were considered under one of three stages – prevention, intervention, and compensation.

Prevention refers to any activity designed to reduce the risk of ESL, and can include system-wide or school-wide measures (e.g., to increase engagement and provide for alternative pathways), as well as targeted measures designed to redress educational disadvantage at an early age (e.g., some of the initiatives provided to low-SES families in LEAP centres). Preventative measures typically focus on early childhood education and care and structural features of the education system. They can also encompass features of examination systems, such as widening access for students with disability or impairment, allowing bilingual dictionaries for migrant students, increased emphases on ongoing or practical assessments. In Malta, the introduction of the Free Childcare Scheme and the imminent My Journey are examples of system-wide preventative measures to combat ESL, as are the access arrangements for students with certain disabilities offered by the Matriculation and Secondary Education Certificate (MATSEC) Examinations Board.

Intervention includes measures to improve the quality of education *generally*, as well as measures providing targeted support to *specific* students who have been identified as at risk (e.g., additional supports for students with reading difficulties, contact with families where attendance is poor). School-wide measures are directed at all students but are most help to those at risk of dropout.

Student-focused measures draw from early warning systems to holistically support individual students. The close monitoring of student attendance is an example of a school-wide measure that feeds into the more student-focused work carried out by social workers dealing with students flagged as at-risk due to poor attendance.

Finally, **compensation** measures refer to initiatives to re-engage students who have disengaged or are in the process of disengaging from the education system. Measures include second chance programmes, re-integration into mainstream schooling, and targeted individual support. In Malta, existing measures include GEM16+, and Malta Qualifications Framework (MQF) Foundation programmes run in Malta College of Arts Science and Technology (MCAST) and in the Institute of Tourism Studies (ITS).

In terms of current provision, there are a number of preventative measures in place, but targeted preventative measures are relatively lacking. There are numerous interventions targeted at individual students (e.g., Learning Support Educators [LSEs], learning support zones and nurture classes, the Alternative Learning Programme [ALP], Unit Ghozza) but few whole-school interventions. Finally, there are numerous compensatory measures in place for those who have disengaged with education or who have not successfully completed the SEC (e.g., SEC revision classes, Foundation programmes, GEM 16+, Youth.Inc, and targeted measures such as Embark for Life and Pathways).

Target predictors

There are many potential predictors of ESL, and many possible ways in which they can be categorised. To facilitate linkages with other documents, the categorisation used here is taken from the European Commission/EACEA/Eurydice/Cedefop (2014) report on measures to tackle early leaving from education. Potential predictors of (or factors contributing to) ESL can broadly be grouped under three categories:

- Individual and familial characteristics. At student-level this includes gender, educational performance, attendance, and positive and negative behaviour. At the level of family, predictors include low income or education, negative attitudes towards schooling, lacking "social capital", migrant status.
- School and system policies and practices. School factors that help to minimise ESL rates include differentiated and engaging classroom practice (delayed or no ability grouping), support for extra-curricular activities, positive disciplinary environment, positive relations between students and teachers, and parental engagement. System-level contributors to higher ESL rates include early tracking, grade repetition, socioeconomic segregation across schools, poor transition to second level, and lack of vocational and educational training (VET).
- Labour market conditions. A strong economy that has many low-skilled job opportunities (e.g. tourism, construction) can act as a pull factor for students at risk of ESL. However, well-developed VET options can encourage students to remain in school.

In Malta, considerable attention is paid to the characteristics of the individual student, but not of their family. In particular, efforts are targeted at monitoring individual-level attendance and poor performance (albeit in the absence of a universally comparable measure of achievement). However, whereas measures to target at-risk *families* form an important tool in tackling ESL in most European countries, targeting of family characteristics receives relatively little formal emphasis in Malta.

At the system-level, recent changes arising from MEDE's ESL strategy have seen the gradual re-introduction of VET options, the introduction of middle schools and of transition supports, and attempts (albeit partial) have been made to de-emphasise early tracking. Nonetheless, schools remain relatively segregated socioeconomically (e.g., MEDE, 2016), with little evidence of the types of targeted compensatory mechanisms found in many other EU countries. At school-level, there is still considerable resistance by teachers to classrooms covering a range of abilities. Further, some stakeholders commented that lessons are not always engaging, and that some students are bored. Regarding school climate, data from international studies show a mixed picture. Maltese 15-year olds were marginally more likely than average to feel like an outsider in school (20%, vs OECD average of 17%), whereas Year 5 students (10-year olds) were slightly higher than the international average on sense of belonging in school (64% had a high sense of belonging, compared to a PIRLS average of 59%) (Mullis et al., 2017; OECD, 2017).

Regarding labour market conditions, Malta's economic situation is very strong, with low unemployment rates and many low-skilled job opportunities. This acts as a strong pull factor for students nearing the end of compulsory schooling. The introduction of My Journey is one of a number of VET options available or being introduced, along with Youth.Inc (which combines work placement with training).

3. Proposed initiatives/changes

A review of current practice shows that there is a plethora of recent measures – particularly compensatory – designed to directly or indirectly address the issue of ESL in Malta. However, it is also apparent that most are standalone measures, acting independently of each other. As such, while there are many measures that *could* be recommended in the next two sections, only a few are suggested. Put simply, efforts to reduce ESL in Malta need more coordination, not more things to coordinate. Thus, potential measures identified were those that targeted areas for which a particular issue exists in Malta. Also, emphasis was placed on those that integrated with existing work or with other proposed measures, rather than standalone measures.

Bearing in mind the framework set out up to this point, four main types of measures are proposed. These are relatively feasible to introduce, have been identified here as gaps or issues in current provision, address a mixture of stages and predictors, and offer short-term and longer-term solutions. The four changes proposed are:

1. Extend the Free Childcare Scheme to all children in the target age group.
2. Introduce the option to complete SEC papers in Maltese.
3. Introduce whole school approaches to ESL prevention and to improving student engagement more generally.
4. As part of point 3, specific initiatives targeting parental engagement and involvement.[3]

Extend the Free Childcare Scheme to all children

As Heckman notes:

> "We can invest early to close disparities and prevent achievement gaps, or we can pay to remediate disparities, when they are harder and more expensive to close. Either way we are going to pay. And, we'll have to do both for a while. But, there is an important difference between the two approaches. Investing early allows us to shape the future; investing later chains us to fixing the missed opportunities of the past" (2011, p. 47).

Since 2014, participation in the Free Childcare Scheme (FCS) has risen from about 1500 children to about 6700 (personal communication with staff from FCS). The FCS is primarily intended as an active labour market intervention – to facilitate parental employment – and is not specifically designed to support educational attainment or retention. One of its main aims was to redress the large gender imbalance in labour force participation in Malta. However, not using the scheme to target children most at-risk of educational disadvantage and of subsequent ESL is wasteful, a point also strongly argued by Gatt (2017) who referred to the "golden opportunity" offered by the FCS.

Research evidence shows that Early Childhood Education and Care (ECEC) is particularly effective for those who are disadvantaged. For example, Cebolla-Boado, Radl and Salazar (2017) found that length of time spent in pre-school was positively associated with reading achievement among students in PIRLS 2011 (i.e., equivalent of Year 5) in almost all of the 28 countries they analysed. Benefits were generally apparent for all children, but most pronounced for disadvantaged children - i.e., those most at risk of later ESL. Heckman's broader body of work shows however that quality of pre-school provision is important, and that poor-quality care may in fact have negative effects on

[3] Although parental outreach typically forms an important part of most whole school initiatives, it is treated separately here. Parental engagement initiatives are relatively rare in Malta, do not seem to enjoy widespread support, and may not receive adequate attention if subsumed under whole school interventions. Thus, due to its importance in tackling educational disadvantage and ESL, it is treated as a separate point.

boys from disadvantaged backgrounds (e.g., Garcia, Heckman & Ziff, 2017). This underscores the important role of the Quality Assurance Department in monitoring the quality of provision and encouraging improvement. Further, while there is some debate about the capacity of ECEC to maintain long-term effects on achievement, there is clearer evidence of long-term benefits for perseverance, mental health benefits, and academic attainment. As Van Belle's (2016) review of ECEC for the European Commission noted, while the effects of ECEC on educational attainment is considerably smaller than the effects of SES:

> "from a policy perspective, preschool is one of the largest modifiable environmental predictors of educational outcomes" (p. 19).

As such, it is an obvious target for the present project.

MEDE should extend the FCS to allow access to all children within the target age range. Eligibility should not be restricted to children whose parents are in employment or in education as this blocks access for many of those most in need and most likely to benefit from the FCS.

Opening access to the FCS to all children in the target age group is relatively easy to introduce, particularly as the number of children involved is small. It may be hampered slightly in the short term by shortages of qualified staff and of places. However, similar issues also arose when the scheme was originally introduced and have largely been overcome. Efforts to widen the scheme may also encounter political resistance, as the contractor's interviews with stakeholders revealed that many saw access to childcare as a *parental* issue, rather than as a means of supporting children's education and wellbeing. A clear political message that this is an investment in the future and principally intended to help the children, not the parents, would be important. In terms of impact, stakeholders interviewed about the efficacy of the FCS felt it had contributed to greater "school readiness" among children who had attended, so it is likely it could have a relatively immediate positive effect on school readiness. Effects on school engagement and completion rates would take longer to manifest, but, provided the quality of provision is good, are likely to be significant.

Permit choice of language for SEC examinations

Currently, students who wish to take the Secondary Education Certificate (SEC) will encounter most papers set in English and are expected to answer in English. Grima, Camilleri, Chircop and Ventura (2005) indicated that the reasoning behind the requirement was that students who wished to pursue post-secondary education needed to be competent in English. However, the SEC is not just an access route to further education. It is intended to be a certificate of completion of compulsory schooling, and to assess student competencies. The SEC is neither intended to be, nor is it used as, a university admission assessment. That function falls to subsequent Matriculation examinations.

As Malta's education system is formally bilingual, and many students' primary language of instruction is *not* English, it is hard to see the logic of requiring students to complete most SEC examinations in English. Moreover, it introduces "construct irrelevant variance", which is counter to good assessment practice. Put simply, a good assessment provides an accurate measure of the construct you want it to measure and minimises the influence of other, unrelated factors. For example, examiners developing a mathematics assessment may minimise the reading load required so that reading proficiency does not interfere with the assessment of mathematical skills. Requiring students to be assessed through English when they may have been largely taught through Maltese is a prime example of how to introduce construct irrelevant variance: a students' competence in English will influence their results across a range of different subjects. An English-only SEC also privileges those whose instruction has been largely or exclusively through English.

The issue of SEC assessment language was previously raised by Grima et al. (2005) in terms of how it affected the accuracy of the examination. However, it is also highly relevant to the current project. The recent review of post-secondary education noted that many teachers surveyed were concerned about students' low levels of English competence (Working Group on the Future of Post-Secondary Education, 2017). Yet, they were discussing students who had *completed* the SEC. It is reasonable to assume that those who opted not to take the SEC might have even more limited English proficiency. For lower-performing students and students with limited English proficiency, the requirement to be assessed in English is yet another barrier to SEC completion. It may be the final straw in a process of disengagement from the education system.

The requirement that most SEC examinations are completed in English is an unnecessary barrier to certification. This is particularly true for weaker students and for students whose instruction has primarily been through Maltese. For each SEC paper, students should have the option to choose the language in which they take the examination.

Relative to many potential changes, allowing examinations to be completed in Maltese is easy to implement and can be executed quickly, subject to political will. It does not require significant additional staffing, although it does require translation that takes into account version equivalence, subject-specific terminology, and comparability of the accessibility of the language used. An interim option could be to allow students to respond in the language of their choice, while gradually rolling out the number of papers available in both languages. Impact would be relatively immediate, once students became aware of the changes. Associated costs would be minor.

Whole school approaches

A whole school approach to reducing ESL incorporates a range of structures and interventions designed to create a school that is flexible, caters to a variety of student needs and offers integrated and tiered support to those students who need additional support. Whole school approaches can be contrasted with models whereby additional supports are targeted at individual students, where assistance is not proactive but reactive, and where students must manifest problems before assistance is provided.

As conceptualised by the European Commission's ET2020 Working Group on Schools Policy (2015), whole school approaches to ESL involve all school staff and all members of the wider school community (parents, social services, other stakeholders and the wider community). For schools with a relatively high proportion of at-risk students, the Group recommended that supports include:

- school-wide measures to ensure that all students can demonstrate key competencies to enable them to engage with lessons (e.g., ensuring basic literacy and numeracy skills)
- supports for students with additional needs (e.g., language assistance for migrant students)
- supports for student well-being (e.g., an anti-bullying culture)
- supports to facilitate parental engagement with their child's learning.

Further, the organisation of provision may differ from that in schools with relatively few students in need of support. For example, the focus shifts from the individual student receiving long-term support to intensive targeting of students in the early years, and a school-wide re-structuring of the teaching of core skills. This can require additional funds targeted at high-need schools.

Whole school approaches to ESL target not only retention, but also achievement (especially reading), behaviour and well-being. Thus, whole school approaches to ESL are also highly relevant to primary schools, where the precursors of ESL first manifest. Targeting literacy and reading achievement is of particular importance in a Maltese context. Reading difficulties are a very strong flag of individual

ESL risk, and international studies such as PIRLS, TIMSS and PISA show that reading and literacy is a relative national weakness in Malta (e.g., Mullis, 2013; Mullis, Martin, Foy & Arora, 2012; Mullis et al, 2017; OECD, 2016). Whereas Malta's performance on mathematics assessments at both primary and secondary level is close to the international average, performance on reading is not.

It is possible for each school and/or college to develop their own whole school approach, and this is somewhat facilitated by the current two-tier approach to funding whereby some ESL funds are centrally disbursed, and can be used at schools' discretion. However, externally developed and supported approaches tend to be implemented with greater fidelity, and to therefore have stronger effects (e.g., Nunnery, 1998). Also, the contractor's meetings with stakeholders suggested that while some schools believed they were currently implementing a whole school approach to ESL, the concept was neither fully understood nor implemented. Thus, it is advisable that an overarching support structure is put in place, that key elements are defined centrally and collaboratively (e.g., led by the ESL Working Groups), and then rolled out in all participating schools. This report proposes four key elements for whole school approaches in Malta:

- At primary level, the implementation of a minimum time allocation for reading, language and literacy.
- Targeted funding to address at-risk students, rather than a scattergun approach to funding, with additional funds to high-need schools.
- For schools with a large number of students with additional needs, a re-structuring of how support is provided, changing the focus from one-on-one to whole class and whole school supports.
- A whole-school, proactive approach to attendance.
- The introduction of a parental engagement programme (dealt with in a separate section).

Minimum time allocation for reading and literacy

Early reading difficulties (and to a lesser extent, early numeracy difficulties) are a strong predictor of later ESL. Those who have difficulty in engaging with lessons due to reading difficulties are at an elevated risk of disengaging from school and of eventual dropout. Research also shows that students from low SES families, or who have relatively little "cultural capital" to draw upon are most likely to experience reading difficulties (e.g., Kellaghan, Sloane, Alvarez, & Bloom, 1993).

For this reason, Shanahan (2001) argues that at least two hours a day need to be allocated to reading and writing instruction in primary schools with a high proportion of disadvantaged students. Some of the best-known and effective large-scale interventions targeting at-risk students focus on the development of competency in reading (and, to a lesser extent, numeracy) via increased lesson time and targeted supports. For example, the *Success for All* programme developed by Slavin and Madden in the US advocates 90 minutes of daily reading instruction.

Increased or minimum time allocations for literacy and mathematics have been features of some countries' national-level strategies to improve literacy and numeracy – a well-known example being the "Literacy Hour" in the UK. Where these national-level changes have been introduced as part of a co-ordinated broader strategy (e.g., the Republic of Ireland, Northern Ireland, UK) levels of reading achievement have improved. For example, national reading (and mathematics) standards[4] have

[4] Unlike high-stakes assessments used to track standards in the UK, the Republic of Ireland uses low-stakes, National Assessments. A nationally representative sample of students is assessed using assessment materials that allow measurement of performance and of trends. Only national level results are reported. As tests are low-stakes for schools and students, there is little evidence of teaching to the test or curriculum distortion.

been tracked in the Republic of Ireland since the early 1970s. No statistically significant improvement in performance was apparent from the early 1980s until after the introduction in 2011 of a national literacy and numeracy strategy. The strategy included a significant increase in the amount of time required to be devoted to literacy [in both national languages] and numeracy instruction (Department of Education and Skills, 2011; Shiel, Kavanagh & Millar, 2014).

Of course, simply adding teaching time is not sufficient. Data from international comparative studies of achievement show there is by no means a linear association between time allocated to a subject and student performance on that subject – e.g. PIRLS reveals that Chilean students spend twice as much time in reading lessons as do students in Singapore, a disparity not reflected in national reading performance differences (Mullis et al., 2017). Nonetheless, to ensure that all students are supported in developing core reading skills, a certain minimum time for reading and language instruction is necessary, and an increased minimum time is recommended for schools where a sizeable number of students are likely to experience difficulties.

PIRLS data show that primary school teachers in Malta spend considerably *less* time on reading and language instruction than is the norm, internationally. Drawing on PIRLS 2011 data, the National Literacy Strategy (MEDE, 2014b) flagged this issue and recommended an increase in the time to be allocated to reading at primary level. However, subsequent data from PIRLS 2016 show that the time allocated has dropped in the interim and is not only well below international averages but also well below what might be expected, based on proposed time allocations in the 2007 circular *Time Management in the Primary Classroom*. For example, in 2016, Maltese teachers reported spending 178 hours per annum on language instruction (PIRLS average: 242 hours) and only 83 hours on reading instruction (PIRLS average: 156) (Mullis et al., 2017). In contrast, the most recent Maltese data from TIMSS show that time spent on mathematics instruction in primary school is slightly higher than the TIMSS average (Mullis, Martin, Foy, & Arora, 2012), and more closely aligned with the time allocation outlined in the 2007 circular.

There is a clear gap between the amount of time MEDE expect to be devoted to reading and language instruction and actual time allocated. The gap was sufficiently large that the contractor was concerned about the accuracy of PIRLS data. However, after consultations with some stakeholders who have regular contact with schools and are aware of the anomalous PIRLS data, it seems that PIRLS data are an accurate reflection of practice in most schools, whereas the aforementioned circular is not.

MEDE should provide primary schools with new and explicit guidelines about the minimum acceptable amount of time that must be allocated to reading and language instruction. At a minimum, all schools should spend 90 minutes per day on language and reading instruction. Schools with many low-achieving students should consider allocating additional time to reading. As guideline and practice on minimum time currently diverge quite significantly, MEDE should monitor schools' adherence to new guidelines.

Introducing updated guidelines is relatively easy to do and can be executed quickly. It does not require significant additional staffing and does not represent a major change from MEDE's current formal position on time allocations for reading. However, it is likely to face objections (referencing curriculum overload, narrowing of the curriculum, etc) and will require political effort. It is also likely to require some monitoring to ensure that schools meet the guidelines. Positive impact on reading achievement would be relatively quick, but the effects on ESL would be much slower to manifest. Associated costs would be minor.

Targeted funding

Targeted additional funding for disadvantaged students is common. Across the EU, additional funding is provided from central funding sources in about two-thirds of all education systems. In many countries where this is not the case, targeting still occurs, but allocation is devolved to local level (e.g., communities [Spain], Länder [Germany], and municipalities [Denmark, Sweden and Norway]) or is provided through social or EU-funded programmes (e.g., Romania, North Macedonia) (European Commission/EACEA/Eurydice, 2016). The extent to which explicit formula-based policies reallocate education resources to disadvantaged populations is also one of the thematic indicators for the UN's Sustainable Development Goal 4.5 (equal access to education).

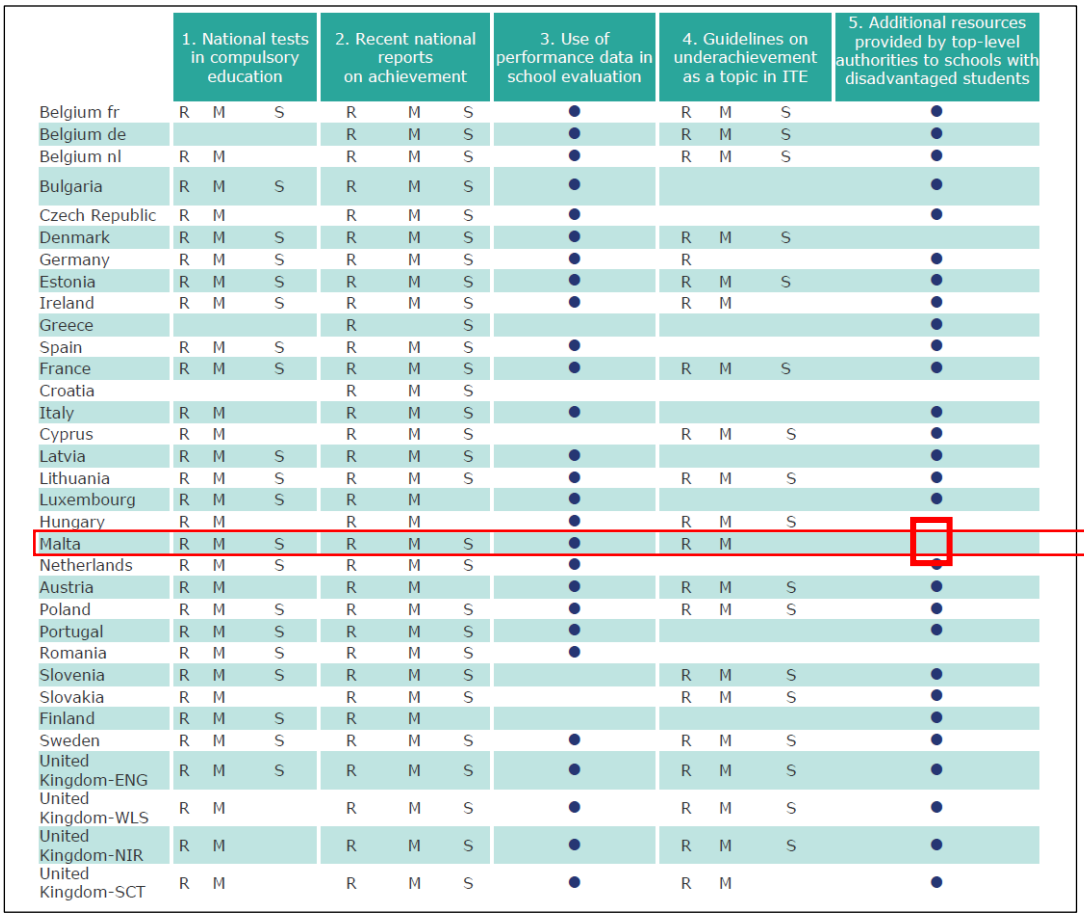
In a small number of countries, central authorities do not track how additional funding is used, as it is at the discretion of schools to decide how best to use the additional funds. However, in most, central authorities influence how such funds are used. The most common use is to provide additional staff – either educational or other professionals. These staff are typically involved in remedial and additional language classes, providing support for students with special educational needs (SEN) or at risk of ESL. Other common uses of additional funds include professional development for teachers, enhanced career guidance, and student or family allowances.

How schools are identified for additional funding varies by country, but the most common identifiers are low SES, migrant status, and disability, followed by a variety of indicators such as geographic location, ethnicity, and achievement. Most countries use a variety of these criteria to identify where additional funds should be targeted (European Commission/EACEA/ Eurydice, 2016). Figure 3 (overleaf) is extracted from a report on structural indicators in EU countries (European Commission/ EACEA/Eurydice, 2018). As can be seen, Malta is one of the very few member states that do not allocate additional support to *schools* with disadvantaged students (defined as nationally allocated financial and/or other resources that require additional funding).

The motivation for targeted funding is clear. There are links between disadvantage and underachievement, not only at the level of the individual student but also for "school context" effects (e.g., OECD, 2010). For example, Sofroniou, Archer and Weir (2004) found that after controlling for individual SES, there was a significant relationship between school-level SES and achievement in primary and secondary school, with effects most pronounced for boys. McCoy, Quail and Smyth (2014) used longitudinal data to examine school social context effects on achievement. They found a 'threshold' effect for school context, meaning that a relatively high level of disadvantage was required before it significantly affected student achievement, and that school context effects were much weaker in rural schools. Nonetheless, in disadvantaged schools, the socioeconomic composition of the school exerted an influence on student outcomes additional to the effects exerted by students' own characteristics.

Specific to Malta, PISA data show that the performance gap between advantaged and disadvantaged students is significantly larger than the OECD average (OECD, 2016), In addition, the percentage of "resilient" students (students who perform well despite a low SES background) in Malta was significantly below the OECD average. Data at primary school level from PIRLS and TIMSS 2011 also show a very pronounced effect of school context on individual student achievement in Malta, even after taking the student's own home background into consideration (Martin, Foy, Mullis & O'Dwyer, 2013). All else being equal, students in Malta who attend higher SES schools exhibit higher reading, mathematics, and science achievement than those who attend lower SES schools (with effects most pronounced for reading). Thus, rather than providing equality of educational opportunity, the Maltese education system can amplify disadvantages arising from students' family context.

Figure 3: Structural Indicators for Monitoring Education and Training Systems in Europe



	1. National tests in compulsory education			2. Recent national reports on achievement			3. Use of performance data in school evaluation	4. Guidelines on underachievement as a topic in ITE			5. Additional resources provided by top-level authorities to schools with disadvantaged students
Belgium fr	R	M	S	R	M	S	●	R	M	S	●
Belgium de				R	M	S	●	R	M	S	●
Belgium nl	R	M		R	M	S	●	R	M	S	●
Bulgaria	R	M	S	R	M	S	●				●
Czech Republic	R	M		R	M	S	●				●
Denmark	R	M	S	R	M	S	●	R	M	S	
Germany	R	M	S	R	M	S	●	R			●
Estonia	R	M	S	R	M	S	●	R	M	S	●
Ireland	R	M	S	R	M	S	●	R	M		●
Greece				R		S					●
Spain	R	M	S	R	M	S	●				●
France	R	M	S	R	M	S	●	R	M	S	●
Croatia				R	M	S					
Italy	R	M		R	M	S	●				●
Cyprus	R	M		R	M	S		R	M	S	●
Latvia	R	M	S	R	M	S	●				●
Lithuania	R	M	S	R	M	S	●	R	M	S	●
Luxembourg	R	M	S	R	M		●				●
Hungary	R	M		R	M		●	R	M	S	
Malta	R	M	S	R	M	S	●	R	M		●
Netherlands	R	M	S	R	M	S	●				●
Austria	R	M		R	M		●	R	M	S	●
Poland	R	M	S	R	M	S	●	R	M	S	●
Portugal	R	M	S	R	M	S	●				●
Romania	R	M	S	R	M	S	●				
Slovenia	R	M	S	R	M	S		R	M	S	●
Slovakia	R	M		R	M	S		R	M	S	●
Finland	R	M	S	R	M						●
Sweden	R	M	S	R	M	S	●	R	M	S	●
United Kingdom-ENG	R	M	S	R	M	S	●	R	M	S	●
United Kingdom-WLS	R	M		R	M	S	●	R	M	S	●
United Kingdom-NIR	R	M		R	M	S	●	R	M	S	●
United Kingdom-SCT	R	M		R	M	S	●	R	M		●

Source: p.15 European Commission/EACEA/Eurydice, (2018)

Although the link between family background/SES and achievement is stronger in Malta than in most countries, MEDE does not generally target resources specifically at low SES families or at *schools* with a higher proportion of low SES students. MEDE has traditionally collected relatively little data on students' socioeconomic circumstances, and what is collected is linked to the student (e.g., the recently introduced Scheme 9 benefits) not to the level of the school. In a country where SES is so closely linked to outcomes, and where school-level SES is an important consideration, this represents a major oversight. As a first step, MEDE should aggregate the already available Scheme 9 data to the level of school, in order to gain some *quantifiable* insight into how disadvantaged students are clustered within schools. MEDE should also review what other data relevant to individual and familial risk is already available and could be analysed, or might be easily collected.

Once a more informed picture of SES-clustering is available, MEDE will be better able to evaluate how funds might be best targeted (e.g., at school- or student-level). However, we know that schools currently make limited use of whole school approaches. Thus, school-level targeted funds might be more effective in helping to foster whole school approaches. For example, additional support posts (or partial posts) could be allocated based on intake characteristics.

MEDE should take school social context into account, in particular the socio-economic profile of the student population, when allocating funds to schools. Given the sizeable social context effect evident in Maltese schools, significant additional funds should be made available to schools with a high percentage of students from a low SES background.

Introducing targeted funding would represent a major change from MEDE's current position and is likely to meet with opposition. It is, however, a model that is used by most EU countries, and may go some way to address the considerable social context effects apparent in Maltese schools. To facilitate the introduction of targeted funding, MEDE should stress how targeted funding can help to support equality of opportunity. To be effective, additional funding needs to be sizeable and sufficient to allow useful support. Associated costs would be significant.

Restructuring of additional supports

As noted earlier, the Sutton Trust Toolkit suggests that, on balance, Teaching Assistants – LSEs in the Maltese context – are not associated with improved student academic achievement. This section looks a little more closely at how LSE-type roles might be best allocated and used. The term Teaching Assistants (TA) is used to encompass the variety of types of support and terminology used in different countries and across different research studies (e.g., LSE, Teacher Aide, Special Needs Assistant, Learner Support, Classroom Aide, paraprofessional assistant).

Like many other countries, Malta has experienced a large increase in the number of students in receipt of additional support in mainstream classrooms, and in the number of additional staff required to provide this support. For example, in England, the number of TAs has more than trebled between 2000 and 2017 (Department for Education, 2018). In the Republic of Ireland, the National Council for Special Education recently completed a wide-ranging review of special needs provision. It reported that TA posts cost the Irish ministry €476M in 2017 alone, and noted that the "unprecedented growth" in TA posts in many countries was counterintuitively coupled with a widespread view of declining provision and post shortages (NCSE, 2018).

Most research finds that, as is the case in Malta, the TA role is viewed positively by teachers, students and parents but that effects on achievement are mixed. Sharma and Salend's (2016) review of practice in 11 countries found that the TA role often included instruction, classroom management, and curricular decisions, none of which was part of their formal remit. There is evidence that where TAs did not adopt the role of primary instructor, and were also appropriately trained and supervised, they *could* support improved student outcomes (e.g., Ashbaker & Morgan, 2012; Brock & Carter, 2013; Farrell, Alborz, Howes & Pearson, 2010). However, adequate training is not common and few initial teacher education programmes provide sufficient guidance on working effectively with TAs in inclusive classrooms (e.g., Douglas, Chapin, & Nolan, 2016).

Sharma and Salend (2016) note that, relative to self- and teacher-report, *observational* studies of TA behaviour indicated much higher levels of direct instruction by TAs, including unsupervised instruction, and less teacher-directed instruction. In other words, in practice, TA's often adopted the role of teacher, rather than the role of supporting the teacher. The observational studies also showed fewer student opportunities to interact academically or socially with peers due to the constant presence of a TA. Thus, Sharma and Salend concluded that:

> "ineffective and separate instruction delivered by untrained and unsupervised TAs as well as their constant physical presence inadvertently undermine the inclusion, learning, socialization and independence of students with disabilities, and the pedagogical roles of their teacher" (p.125).

In terms of student outcomes, Blatchford, Russell and Webster (2012) followed over 8,000 students for a year and found that those who received most support from TAs made *least* progress in core subject areas (e.g., English, maths), even after taking into account characteristics such as prior attainment and level of SEN. They attributed the negative effects to a mixture of poor training, lack

of pedagogical skills amongst TAs and the tendency for student-TA interaction to replace student-teacher interaction.

In sum, while the TA role can be effective, poor quality training, gaps in teacher training, and unclear guidelines about roles and responsibilities can undermine the pedagogical role of the teacher and adversely affect student learning.

How the role is assigned also matters. Assigning TAs to individual students rather than to a classroom or teacher can act as a barrier to inclusion, socialization and student independence. In contrast, the model used in the Alternative Learning Programme (ALP) (and in schools adopting a whole school approach) is a class-level support, whereby the LSE is shared among a group of students and assistance is provided based on student need at a given point. For example, ALP staff noted that students who previously had a full-time LSE initially struggled with the lack of one-to-one attention. However, they gradually became less dependent and engaged more with their class group. Also, the ALP tries to match the LSE's interests and skills to subjects, meaning they are often better able to assist than an LSE who has no subject knowledge.

In a related vein, school-wide reform programmes such as *Success for All* advocate a concerted effort to keep pupils with learning problems out of special education. Used in high poverty schools, *Success for All* organises instruction and support to benefit all pupils in a school, rather than addressing only the needs of pupils who qualify for additional support. For example, TAs are trained to engage in intensive interventions with small groups of students. They are a school-wide resource, not tied to a student. This approach is also an element of Sharples, Webster and Blatchford's (2015) evidence-based guide to the most effective use of TAs.

To facilitate assigning LSEs to classes rather than to individuals, it would be necessary to provide a majority of inclusive education teaching supports directly to schools based on their intake profiles – a frontloaded model. This would increase school autonomy in allocating teaching resources to a variety of additional needs such as social, emotional and behavioural difficulties, migrant status, additional learning needs and physical needs. It would significantly reduce the requirement to apply for supports and allow schools to foster continuity and experience among support teams. Assigning such resources correctly requires a school profile containing information about the number of pupils with complex needs, the social context of the school (SES and gender), and ideally, comparable indicators of achievement. Currently, the only universal or close to universal indicator of SES in Malta is Scheme 9 data. There is no universal indicator of achievement other than the SEC, although the end of primary school Benchmark examination has very wide coverage and covers the full state school population.

Finally, another characteristic of whole-school approaches to ESL and to low achievement is that the class teacher retains a central role in each student's education. Ability ranges and differentiated teaching practices are the norm in classrooms.

The role and activities of LSEs should be reconfigured to align with what research has found to be effective (e.g., Sharples, Webster and Blatchford's [2015] guide for effective use of TAs).

MEDE should consider a partially frontloaded allocation model, whereby posts are assigned based on general school characteristics, with a smaller number of posts reserved for exceptional circumstances. This would reduce the need for individual applications, change the focus from the individual to the school, and facilitate whole school approaches to addressing the needs of at-risk students. It would also foster student independence and greater inclusion.

Whole-school, proactive approaches to improving attendance

Attendance monitoring probably represents one of the main methods by which schools in Malta try to reduce risk of ESL. However, other than general advice to parents about the importance of regular school attendance, responses to poor attendance are mainly reactive. Also, monitoring is often not seen as part of the core activities of all teachers, but rather as part of the work of the senior management team or the assigned social worker.

As flagged in an earlier report for this project, monitoring attendance tended to be seen as an individual student issue. There was little evidence that data on attendance are mined to identify student, class, or grade level patterns of absence. However, these types of analyses are needed to shift the focus from the individual student to the identification of general patterns that may contribute to absence. They may also help to inform whole-school responses to absence.

An earlier report for this project outlined some approaches used in Northern Ireland to monitor attendance. There, there is a strong emphasis on proactive approaches, coordinated central- and school-based monitoring, and a concomitant eschewing of legal and punitive approaches. For example, the SIMS system (similar to MySchool) provides a monthly attendance report for each school, shared not only with school management but also with relevant sections of the Northern Irish Ministry and with their Education and Training Inspectorate (who fulfil a role similar to Malta's Quality Assurance Department). These provide data on *patterns* of attendance and absence, and school staff strive not only to deal with individual absences but also to maintain an overall low absence rate in the school.

Many Northern Irish schools use positive incentive schemes to reward good attendance (e.g., certificates for excellent attendance rates, Breakfast Clubs, class-level attendance league tables posted on notice boards). Some provide weekly text messages to parents, summarising their child's attendance records. This acts as positive reinforcement in the case of good attendance levels. Lateness is considered a flag for disengagement and is dealt with in a manner similar to absence. All staff are expected to play a role in promoting attendance and the Ministry recommend that there is regular data sharing with teachers about non-attendance rates. Responses to absences are prompt and follow an escalating pattern. However, legal action or threat of legal action is a last recourse and is rarely invoked.

This can be contrasted with the typical approach in Malta. It is true that some current initiatives have brought about improvements in attendance rates (e.g., parent texts were cited as helpful by parents). However, the early recourse to a Tribunal is out of step with MEDE's ESL strategy, and with practice in most EU countries. It is also an ineffective method that consumes social worker time, alienates parents, and is not treated seriously by most people. It is thus counterproductive as it unintentionally takes attention from more effective methods and diminishes how seriously parents take non-attendance.

Attendance needs to be addressed as a whole-school issue, with all staff responsible for improving attendance. Greater emphasis is needed on proactive measures to improve overall school rates. Responses to individual non-attendance should be tailored, proportionate, and recourse to legal or punitive options should be a last resort, not a first response.

Support parental engagement

It is well known that parental engagement in their child's education can have positive effects on both student achievement and behaviour, each of which is strongly linked to risk of ESL (e.g., Desforges & Abouchaar, 2003; Goodall, 2017). Indeed, Desforges and Abouchaar's review suggested that variations in parental engagement at primary level had a stronger effect on achievement and behaviour than did variations in the quality of school. Engaging parents is also an effective way to narrow the achievement gaps associated with socio-economic differences (Goodall, 2017).

There are many types of parental engagement (see, for example, Epstein [1992] for one of the best-known typologies of parental involvement). While not all types of engagement have been shown to be directly associated with individual achievement outcomes, more general benefits have been identified for almost all forms. For example, discussing school activities at home is associated with higher achievement (e.g., Sui-Chu & Willms, 1996), whereas the link between achievement and formal parental involvement in school management structures is less clear (e.g., Desforges & Abouchaar, 2003; Gilleece, 2015). Also, of course, the relationship between home-school communication and achievement is complicated by the fact that such communication often increases in response to poor achievement or behaviour.

Those caveats aside, engagement matters, but it is not simply about getting parents to be physically present in schools or improving attendance at parent-teacher meetings. It involves engaging parents in their child's *learning* (e.g., reading with them at home, engaging in numeracy activities, supporting homework and generally being interested in what they do in school). However, as noted in an earlier report, parents in Malta have traditionally had little involvement in school life – which by extension is associated with lower involvement in their child's education. Despite this, parents in Malta surveyed as part of PIRLS overwhelmingly agreed that their child's school did a good job including them in their child's education and informing them about progress (93% of parents in Malta strongly agreed with both statements, the highest of all participating countries) (data extracted from PIRLS 2016 international database). Thus, goodwill exists.

On a number of occasions, the contractor discussed parental participation – or lack thereof – with stakeholders. Common responses to this issue mentioned the 1984 strike and the fact that Malta was no longer a traditional society where the mother stayed at home (i.e., parents were no longer available for contact with the school). It is true that Malta has a very high employment rate and that there has been a dramatic increase in female labour force participation rates, relative to the EU average (e.g., from 38% in 2007 to 61% in 2017, compared to an EU-wide increase from 63% to 66%) (Eurostat interactive database). However, the Labour Force Survey shows that between the ages of 25-54 (the age of most parents of school-aged children), Malta has one of the highest rates of female labour force *inactivity* in the EU. Further, among those with children under the age of six, one-third of women in Malta are not in the labour force (Eurostat database).

Thus, while the most parents are employed, a large minority are not. A sizeable minority of Maltese students have at least one parent who is unemployed, economically inactive, working atypical hours, or employed on a part-time basis, and thus able to engage with the school during the school day. It is also possible for some school staff to engage with parents outside of the regular school day and to use types of communication that do not require a physical presence in the school during the day. Finally, the ideal may be to increase all parents' engagement with their child's education. However, the largest benefits accrue for students who can draw on limited "social capital" (i.e., whose parents have low or no educational qualifications, and/or whose employment status is low or precarious, or

who are unemployed). In other words, those most likely to be available are likely to benefit most, yet little is currently being done to engage with them.

Integrated programme for parental engagement

The Home School Community Liaison (HSCL) scheme is a well-structured programme in existence in the Republic of Ireland for over 20 years. It is a mainstream preventative strategy targeted at students at risk of low attainment and ESL, focusing on the salient adults in children's educational lives to help them support the children's attendance, participation and retention in the education system. It has been found to have positive effects on parental engagement (e.g., Archer & Shortt, 2003).

The over-arching aim of the scheme is to promote *partnership* between parents and teachers, guided by five main themes:

- supporting marginalised students.
- promoting co-operation between home, school, and community.
- empowering parents.
- retaining young people in the education system.
- disseminating best practice.

The scheme is integrated across primary and secondary levels and it has a strong emphasis on prevention rather than intervention or compensation.

The HSCL scheme is available to those schools identified as having a sizeable number of at-risk students. Additional funds are provided for a post and the provision of activities and supports. Only qualified teachers are eligible to fill the role of HSCL coordinator, and the coordinator remains a member of the teaching staff. It is a full-time post, can be shared between schools (depending on school size), and the appointee must be an existing member of school staff. This ensures HSCL activities are woven into the formal and informal fabric of school life.

As the title suggests, an important element of the work is establishing coordinated linkages with local welfare services and community supports and activities. In a Maltese context, this would mean establishing linkages not only with school social workers but also with agencies such as local LEAP Centres, Klabb 3-16, Skolasajf, Aġenzija Żgħażagħ, FCS centres, local voluntary and community groups, as well as primary-secondary links.

With regard to parents, the role operates at two levels – general strategies to improve parental engagement and targeted contact with at risk families.

General strategies

General strategies include activities to entice reluctant parents into the school (e.g., computer courses, cookery and art classes) and parental information courses (e.g., helping your child begin school, understanding maths homework). Such activities require appropriate physical space, and part of the HSCL budget may be allocated to making a classroom more adult-friendly and suitable for use with parents. This element of the scheme is somewhat similar to the recent piloting of *Schools as Community Learning Spaces Programme* in Valletta Primary School, where parents received classes on topics such as healthy eating, first aid, and approaches to learning.

Adult-adapted spaces are also used as a "Parents' Room", where parents can attend welcome meetings, coffee mornings, and informally talk to the HSCL coordinator or other parents. It is operated in partnership between the coordinator and parents, who may manage its day-to-day

activity. The room typically contains literature on the various aspects of education, notice boards about courses and school activity, children's' toys, etc. Sometimes parents use the room for cooperative child-minding (e.g., where parents mind the children of others who are attending classes or parent-teacher meetings). In line with the emphasis on partnership, some parents are trained as *home visitors*. This provides them with basic content knowledge, communication skills and allows for outreach visits to much larger numbers of homes.

Targeted strategies

A significant part of the role is targeted contact with parents whose children are flagged as at risk of low achievement or ESL. Contact takes the form of school and home visits. Home visits form one-third of the workload of HSCL coordinators and may not always take place during the school day. Many, but not all, visits are to the homes of at-risk children. Most visits are pro-active rather than reactive, meaning that parental attitudes to such visits tends to be relatively positive. The purposes of the visits are to make parents aware of their importance in their child's education, instil confidence, reduce negative attitudes to school, and support good parenting skills.

Schools need to make much greater efforts to engage parents in their child's education. Ideally, measures to improve engagement should form part of a whole school approach to targeting ESL. MEDE should introduce a programme to facilitate parental engagement in schools where a large number of students are at risk of low achievement/ESL. A model such as Ireland's HSCL scheme addresses many of the gaps in current provision and should be considered for introduction in Malta.

Introducing a scheme similar to the HSCL scheme is quite complex and cannot be executed quickly. It would require identification of target schools, some additional staffing, and access to (or creation of) suitable physical space in target schools. As posts should be provided only to a subset of high-need schools, the scheme would be likely to face objections from schools that do not meet eligibility criteria. It will thus require significant political support. The scheme would also require a major cultural shift in Maltese schools. However, it is a necessary shift, and one that is unlikely to occur in the absence of a significant change such as a HSCL-type scheme. The impact on ESL would take a number of years to manifest. Associated costs would be moderate, depending on how many schools were assigned a post.

4. Other potential measures

This section outlines some additional measures that could be considered by MEDE. They are organised by the point in a child's or student's life at which they occur, beginning with initiatives targeted at birth to pre-school years. Also suggested are some administrative changes.

Books for at-risk young children

Many studies have established a correlation between SES, income, education and number of books in the family home, and that the latter in turn has a strong correlation with academic achievement at that point in time (e.g., Mullis et al., 2017; OECD, 2016). However, number of books in the home in the very early years is also predictive of vocabulary in the pre-school years (McNally, McCrory, Quigley & Murray, 2019) and of language skills at school entry age (Roulstone, Law, Rush, Clegg, & Peters, 2011), even after taking SES and other communication aspects of the home environment into account. McNally and colleagues also note that the research evidence suggests that:

> "Book reading may be particularly protective for low education families … by providing a rich vocabulary and content that might be missing from daily conversations and by enabling consolidation of new words through opportunities for rereading" (p.11).

Further, Evans, Kelley, Sikora and Treiman's (2010) review of data from 27 countries suggested that having many books in the home was predictive of longer engagement with formal education, even after controlling for SES, with effects most pronounced for those from the least educated families. In other words, books in the home reduces dropout from education, and has the greatest impact on children whose parents have low levels of education.

Analyses of the combined PIRLS and TIMSS datasets from 2011 show that, in Malta, parental education had a stronger relationship with achievement than was the case in most countries, that the gap in achievement between those with many and few books in the home was larger than the average, and that the number of books in the home interacted with parental education in its relationship with achievement (Gustaffson, Hansen & Rosén, 2013).

In light of the research evidence, the work of Malta's National Literacy Agency is of particular relevance. However, as noted in an earlier report, despite the efforts of the Agency, most of their engagement tends to be with middle-class and educated parents. Some exceptions are the Home Libraries Scheme and book distribution through the Fund for European Aid to the Most Deprived (FEAD). The former scheme helps to create home libraries for kindergarten-aged children identified as at-risk. Families are given 24 books (12 in Maltese and 12 in English), leaflets advising how to use the books, and information about the 'Aqra Miegħi/Read with Me' programme. However, only 93 families benefitted from the scheme in 2018. In contrast, FEAD book distribution reached 584 families in 2018, but each family only received two books.

MEDE should work with the National Literacy Agency on targeted measures to improve access to books to children from low income/education families, as early as possible in the child's life. The expansion of the Home Libraries scheme to more families is one option, supplemented with targeted distribution and support from other sources. Options could include a combined initiative with the Ministry for Family and Social Solidarity/Health, targeting parents of young babies, a model such as the *Reach Out and Read,*[5] perhaps modified to be delivered through Well Baby Clinics.

[5] Reach out and Read is a literacy programme through which medical providers are trained to offer parents guidance about the importance of reading. It focuses on children from 6 months to 5 years of age, and at each health visit during that period, the child receives a new developmentally appropriate book.

Incredible Years programme

Incredible Years (IY) is a multifaceted training programme for parents, teachers, and children. It is designed to promote emotional and social competence and to address aggression and emotional problems in young children from birth to 12 years old. Developed in the United States, it has been used in over 20 countries (including Malta) and, unusually for such a programme, has been evaluated on a number of occasions using randomised control trials. Modular in design, there are three main inter-locking programmes, targeted at parents, children and teachers.

IY has been found to support significant short- and long-term reductions in child conduct disordered and hyperactive-type behaviour, increased pro-social behaviour, more positive parenting strategies, and improved teacher classroom management strategies (e.g., McGilloway et al., 2012). Subsequent to a recent pilot in Fgura, the IY Parent Programme is gradually being extended and will run in three LEAP Centres and in the Corradino Correctional Facility. The Parent Programme is designed to enhance school readiness skills and encourages parents to partner with teachers. Longer-term goals include reducing school dropout and delinquent behaviours and improving academic outcomes.

MEDE should liaise with LEAP centres to consider providing the IY Teacher Programme in conjunction with the IY Parent Programme currently being introduced by LEAP.

Schools as Community Learning Spaces Programme

The earlier section covering the HSCL scheme referred to a pilot programme in Valletta Primary School called *Schools as Community Learning Spaces Programme.* The programme provided parents in a low-SES school with a school-based training course, delivered by a school coordinator and designed to improve parental engagement with the school and with their child's education. Another project goal was to destigmatize parents being in a school during school hours (which was associated with problems rather than with positive engagement).

The target group was parents of children attending early years education (Kindergarten to Year 2). Parents were invited by the school head to suggest courses that might be of interest. From that a course that combined healthy eating, first aid and basic digital skills was developed, but with a heavy emphasis on literacy & numeracy skills, and effective learning.

The course ran for an afternoon per week (three hours for 10 weeks), with childcare provided. Although part of the EU Agenda for Adult Learning in Malta, content also related to supporting children's learning. Allocated funding was used to provide adult-sized furniture, and to pay for the after-hours work of the coordinator and four educators. Of 22 parents who applied to attend a course, 20 (all female) attended and completed the course. All participants were unemployed.

Similar courses are currently being rolled out in four primary schools and the Naxxar Induction Hub, where two courses provide a focus on learning either basic Maltese or English. Thus, despite the common refrain that it was impossible to get parents to engage with schools, the programme provides evidence that schools can improve engagement with low-SES parents.

Ideally, the *Schools as Community Learning Spaces Programme* would integrate with initiatives developed as part of a wider home-school liaison approach. However, if such an approach is not implemented, *Schools as Community Learning Spaces* should be not only retained but rolled out to other schools.

Peer tutoring

Peer tutoring is where children help other children to learn. It can involve cross-age tutoring (where an older child tutors a younger child), same-age tutoring (more able child helps less able child of the same age), and/or reciprocal tutoring (learners alternate roles). For it to be effective, it typically requires a good deal of support from teachers to ensure the quality of peer interaction as well as close linkages with wider classroom instruction. It also seems to be more effective in a cross-age setting, and more effective for reading than for mathematics. As such, it requires "buy-in" from teachers, some teacher training, cross-teacher collaboration, and a willingness to move away from traditional teacher-led methods. As noted earlier, it can be a cost-effective effective approach in improving achievement in the short- to medium-term, especially for struggling students, but is not widely used in Malta. Also, there is not yet clear evidence of the longer-term efficacy of peer tutoring on achievement and more generally on retention and engagement within the classroom.

Peer tutoring methods would require a significant departure from teaching practices currently found in many Maltese classrooms. However, it would be worth considering as a longer-term option, in conjunction with a broader shift from traditional, undifferentiated teaching styles.

MEDE should explore the possibility of cross-age peer tutoring, drawing on Shenderovich, Thurston and Miller's (2016) review to identify detailed general characteristics of effective models. In terms of a specific effective model that was trialled with comprehensive research protocols, the Fife Peer Learning Project (https://www.cem.org/fife-peer-learning-project) is worth consideration.

Anti-bullying measures

The link between being bullied and negative consequences for student achievement, school completion, and broader mental health is well established (see, for example, Downes & Cefai's 2016 review). Longitudinal data shows that repeated bullying at the start of secondary school is a particular risk factor for subsequent dropout (Byrne & Smyth, 2010). Student characteristics influence risk of being bullied, with rates higher for students who wear glasses, are of atypical weight or height, from low-SES background (Williams et al., 2018), have special educational needs (Chatzitheochari, Parsons, & Platt 2016), are lesbian/gay/bisexual/transgender/queer (LGBTQ) or are perceived as such (Kosciw, Greytak, Palmer, & Boesen, 2014), or are from an ethnic minority group (Vitoroulis & Vaillancourt, 2015). PISA data also show that recently arrived migrants are at higher risk of bullying than migrant students who came to a country at a younger age (OECD, 2017), an issue of particular relevance to Malta.

Schools where bullying is prevalent can increase risk of ESL, even among students not personally bullied. For example, in the US, Cornell, Gregory, Huang, & Fan's (2013) longitudinal study found that school-level prevalence of teasing and bullying, as rated by students and by teachers, was predictive of dropout rates four years later, even after controlling for other relevant factors. Similarly, Strøm, Thoresen, Wentzel-Larsen and Dyb (2013) found that high levels of bullying in a school affected all students' academic performance, even after controlling for differences in school composition.

In sum, whether experienced directly or indirectly, bullying can have significant negative effects on achievement and retention in school. Nonetheless, bullying receives relatively little attention in the national strategy to reduce ESL (although it is referenced as part of the rationale for the introduction of middle schools). However, levels of cyberbullying and bullying in Maltese schools is broadly in line with international averages (Inchley et al., 2016). At primary level, Maltese primary school teachers were less likely than the PIRLS international average to rate their school as having a safe and orderly atmosphere, and 16% of students reported that they were bullied *about weekly* (Mullis et al., 2017).

While the latter is a reduction on the 22% of students who reported this in the 2011 cycle of PIRLS, it still represents a sizeable minority of students, especially as an additional 30% reported being bullied *about monthly*. Malta also remains slightly above the PIRLS international average for frequency of reported bullying. Given all of the above, anti-bullying measures can have a valuable contribution to make to efforts to reduce ESL rates.

Potential interventions

Meta-analyses of anti-bullying programmes identify the *Olweus Bullying Prevention Program* (a Norwegian programme developed by Dan Olweus, and one of the best-known programmes [Olweus, 1992]) and *NoTrap!* (an Italian web-based programme [Menesini, Nocentini, & Palladino, 2012]) as among the most effective programmes[6] (Gaffney, Farrington, & Ttofi,2019; Ttofi & Farrington, 2009, 2010). More generally, common effective programme elements were parent training/meetings, improved playground supervision, disciplinary methods, classroom management, teacher training, classroom rules, and a whole-school anti-bullying policy.

A recent review by Hall (2017) examined the effects of anti-bullying *policy* rather than interventions. He found evidence that policy (if implemented) had some effect on reducing the more overt forms of verbal and physical bullying but less effect on social or relational bullying. Hall also noted that:

> "One area of consistent agreement in the findings relates to the benefits for LGBTQ students who are in schools with anti-bullying policies that explicitly provide protections based on sexual orientation and gender identity" (2017, p. 58).

This, coupled with the fact that LGBTQ youth are at elevated risk of being bullied in school (e.g., Kosciw et al., 2014), suggests the implementation of MEDE's 2014 and 2015 policies on anti-bullying, and on trans, gender variant and intersex students is especially important. However, Falzon (2016) noted issues about the non-binding nature of the policies and the difficulty in disseminating and mainstreaming in non-state schools, meaning it is unclear to what extent MEDE's policies are implemented in schools.

Bullying remains a significant issue in Maltese schools, and can affect both individual- and school-level retention. Two anti-bullying programmes that could be considered by MEDE for implementation are the Olweus Bullying Prevention Programme and the less resource-intensive NoTrap!.

Implementing anti-bullying policy can reduce levels of bullying. MEDE should assess the extent to which relevant MEDE policies have been implemented in schools, and strongly encourage implementation.

Self-evaluation of school culture

As noted earlier, a feature of current school-level measures to address ESL is the very strong focus on monitoring absenteeism. Relatively little attention is paid to the possible effects of the wider school culture on student engagement, even though it directly affects absenteeism and retention. This report has already proposed that whole school approaches to tackling ESL be introduced. As an interim step, however, schools might be supported in reflecting on existing school culture.

The European Toolkit for Schools is a project of the European Commission, published on its School Education Gateway. The toolkit contains many resources for promoting inclusive education and tackling ESL. One that may be of particular use in the Maltese context is Nairz-Wirth, Feldmann and Diexer's (2012) self-assessment checklist for schools. It has 59 recommendations for improvement of

[6] The efficacy of the Olweus programme varies by location. However, as it is most effective in a European setting (least effective in Canada and the US) it is likely to be suited to a Maltese context.

school attendance, pupil engagement and school culture, proposals for behaviour agreements and examples of questionnaires for teachers and parents. Based on research, it is an extremely practical and detailed tool that can help schools to identify areas in which action is needed.

As part of the initial stages of adopting a whole school approach to tackling ESL, school staff should consider using Nairz-Wirth, Feldmann and Diexer's (2012) self-assessment checklist for the prevention of absenteeism and dropout.

Integrating migrant students

A recent Eurydice report on integrating migrant students into education systems examined data from the 2016 cycle of the International Civic and Citizenship Study. Of 24 participating countries, Malta was one of only two where foreign-born students in secondary school reported a lower sense of school belonging than did native-born, and one of only three where those who did not speak the language of instruction reported a lower sense of school belonging (European Commission/ EACEA/Eurydice, 2019). In a related vein, PIRLS 2016 shows that Malta was one of only two countries where the parents of students who do not speak the language of instruction at home have a less positive appreciation of school than parents of children who do (Mullis et al., 2017).

Malta has experienced a significant increase in the number of foreign-born students in recent years. Initiatives such as the introduction of the Migrant Learners Hub and the Migrant Integration Strategy and Plan are welcome, but further measures to promote integration may also be of benefit. E-EVALINTO (https://evalinto.eu/) is a project specifically designed to target young people from migrant backgrounds who are elevated risk of ESL. It is designed to foster peer mentoring among students as a tool to reduce ESL in migrant students and to acknowledge the value of interculturality itself. Led by the University of Salamanca, it is a two-year Erasmus+ funded project (2016 – 2018).

E-EVALINTO aims to give secondary teachers tools to deal with diversity in their classrooms and work with students at risk. Materials are available in five languages, including English. Teacher materials include information about intercultural management methodology and patterns, strategies for promoting peer mentoring actions at schools, and ICT tools for enhancing intercultural dialogue.

Given the sizeable number of migrant students in Maltese schools, and the evidence that migrant students in Malta may not feel as engaged with school as their Maltese counterparts, schools should consider how best to improve the integration of migrants. This might include peer mentoring activities such as those supported by E-EVALINTO.

Better use of SEC data

MATSEC provide all secondary schools with details of their students' performance on the SEC examination. In the case of state schools, they also provide the data to MEDE. The data cover the main and supplementary sessions and include results for each individual candidate, by subject, in that school, as well as comparison national statistics for each subject. Since 2018, each school's data are provided in editable form in an Excel file, with an option to input and correlate school marks with SEC examination grades.

It is now relatively easy to collate student results, establish a school-level picture of performance on the SEC, compare internal grades with SEC grades, and make general comparisons of school performance with national performance. However, informal communication with MATSEC indicates that, as yet, few schools have made use of the data to identify school-level strengths and weaknesses or to correlate raw scores. This is a lost opportunity to mine highly relevant data.

MEDE and MATSEC should provide a workshop to school heads and college principals to encourage mining MATSEC data, including how to identify subjects that are relative strengths and weaknesses.

Expand Alternative Learning Programme (ALP) services

As outlined in an earlier report, the ALP is a pull-out intervention measure for students who do not plan to sit SEC examinations or are low academic achievers and/or habitual absentees. Students take three core subjects (Maltese, maths and English), two vocational subjects, and some supplementary subjects. There is a focus on applied learning in small group settings, leading to qualifications up to MQF level 2, and potential access to courses at MCAST and ITS. Students can also progress to the ALPplus, a one-year post-secondary course which leads to the ALPplus Certificate at MQF level 3.

The most recent tracer study data show that for students who attended the ALP in 2017/18, 50% transferred to ALPplus, 20% continued in other studies, and the remainder sought employment (personal communication, Mr Mario Bugeja, ALP). Given that the ALP's target students are those who are likely to become ESL, this is clear evidence that the ALP can help disengaged students to re-engage with education.

However, the ALP is the only facility of its type in Malta and Gozo, and its location in Paola means that many students have a long daily commute to attend. For disengaged students, this is not ideal. Although increasingly popular, the facility is close to capacity, expansion on the current site is not feasible, and sports and other facilities are limited due to space constraints, building and health and safety regulations. Thus, a second ALP is worth considering, even with the imminent introduction of My Journey. The location should be decided based on a combination of factors such as availability of a site or premises, distance from existing ALP, and proximity to areas in which there are high concentrations of students who leave school without completing the SEC.

MEDE should consider a second ALP on another site. This would allow expansion beyond current student numbers, allow for better facilities, and address lengthy travel times experienced by some students.

Blended and distance learning

Even with an expanded ALP service, there may be a very small number of students who are unable to attend either a mainstream school or the ALP. Reasons may be unrelated to academic difficulties – for example, anxiety, a social phobia, behavioural issues, experience of bullying, or an illness or physical disability. Supports such as the Msida Hub may not be suitable for their needs. In such cases, blended or distance learning may provide a solution.

Distance learning has evolved to incorporate digital technology and blended learning in both urban and rural settings. A review by Means, Toyama, Murphy, Bakia and Jones (2009) found that online and blended learning could provide significant benefits to students at risk of ESL. There are a number of models of blended or distance learning, distinguished by varying amount of time spent in a bricks and mortar school environment, and by whether the programmes were considered complementary or supplementary to formal schooling, or as a separate programme.

One model that contains features of interest is iScoil (https://iscoil.ie/), a non-profit online learning programme that provides young people with an alternative pathway to qualifications. It builds on an existing programme called notschool.net. To enrol, students must be referred by welfare services after being identified as an ESL, be between the age of 13-16, and be deemed suitable for the programme. Numbers supported are small (less than 100), in part to facilitate a very tailored learning programme.

Students can "attend" from home or a mixture of home and a local blended learning centre. All students take four core modules (communications, maths, personal and interpersonal skills, and

computer literacy) and two other modules (e.g., career preparation, hairdressing, personal effectiveness, digital media). The programme uses Moodle, with online support available from remote tutors and mentors who monitor and evaluate work submitted. Some may attend blended learning centres, youth-friendly spaces where students receive a combination of digital and face-to-face support. Although many students progress to VET, some return to mainstream school. The most recent data (2016/17) show that 67% of students achieved accreditation and progression to further education, training or employment, while 13% returned to mainstream school (iScoil, 2017).

MEDE should consider a distance or blended learning facility for students who have difficulty attending a mainstream school for reasons unrelated to academic difficulty. The iScoil model is provided as an example.

Access and inclusion at third level

There are numerous examples of universities and third level institutions that provide "access"[7] programmes to students who are from socioeconomically disadvantaged backgrounds, or from families and areas where few or none have third level qualifications. Even where the institution is situated in or close to a disadvantaged area, there is a cultural gap that needs to be bridged before local students might consider attending the institution, or indeed, before a third level institution is seen as personally relevant. In addition to social class barriers, the intersection of disability and low SES can be particularly difficult to overcome. Specific to Malta and a small number of other countries, facilitating third level access for migrants can be particularly difficult.

There are many approaches to inclusion, and what works in some countries will not be appropriate in others. For example, collecting data on ethnicity as part of inclusion measures is common in the UK but would not be considered appropriate in some other countries (Claeys-Kulik & Jørgensen, 2018). However, access programmes and inclusion strategies have gradually been shifting emphasis away from targeting a particular group (e.g., low SES or refugees) to a more comprehensive diversity management strategy (Claeys-Kulik & Jørgensen). Thus, strategies are becoming more general and more generalisable.

Effective access programmes tend to have some common characteristics: significant long-term funding (often including philanthropic industry support), partnerships with schools and industry, and opportunities for students from low-SES schools to visit and become familiar with the university campus. Access programmes also often involve setting aside a specified number of third level places for students on an affirmative action (reduced entry requirements) basis. Typically, places are restricted to those who have no family history of third level education, and who are from a socioeconomically deprived area and/or school. Access may also be dependent on completing preparatory programmes.

Three sample access programmes are presented as illustrative of the types of activities found in other European countries. This is followed by a very brief description of access activities in the University of Malta (UoM). The comparison with UoM rather than other institutes such as MCAST or ITS is deliberate, as the former would be considered a much more remote possibility for low-SES students.

King's College London

K+ is a two-year programme of events, activities and academic workshops designed to help support university applications from students in non-selective schools whose parents have not attended university. Students choose one of seven different subject streams (e.g., sciences, languages,

[7] The term *access* encompasses not only entry to third level education, but also retention and completion.

healthcare) and take part in tailored events and activities for that subject stream. The programme includes a Spotlight Summer School which is a free, non-residential programme. It provides academic tutorials with King's College PhD tutors, assistance with university applications, campus orientation, and social activities. Those who successfully complete the programme are eligible to attend King's College with a reduced offer (i.e., slightly lower A-Level grades).

Queen Mary, University of London

Queen Mary's access programme incorporates partnership with target schools, aiming to raise student aspiration and achievement, and provide advice and guidance. The college supports two local multi-academy trusts in socially disadvantaged areas by providing tutoring for students, additional training for teachers, coding clubs and reading challenges for primary school students, and campus visits and summer schools for both primary and secondary schools students. Once enrolled in Queen Mary, access students can avail additional supports such as:

- QMentoring: A six-month programme where alumni act as mentors by providing insights into their industry, helping students to set and achieve career goals.
- QConsult: Students are placed into mini-consultancy projects in local businesses. They receive advice from industry professionals and support on project management, presentation and professional skills from the university Careers & Enterprise team.
- QEngage: Student engagement in their programme of study is monitored using a learning analytics system which contains information on attendance, coursework submission, grades and engagement with QMplus (the online learning environment in the college).

Dublin City University

Dublin City University has had an access programme since 1989, prioritising students from socioeconomically disadvantaged areas and schools. They have multiple programmes covering engagement with primary schools, lower and upper secondary school, preparatory programmes and in-college supports. Students still in school can avail of supports such as:

- On-campus weekly after-school programme (educational, but hands-on and engaging) for a college term, targeted at primary school students.
- On-campus events and training related to sport, maths, and introduction to college life, targeted at secondary school students
- A school-based programme for 15-16-year olds, designed to increase student engagement in education and raise motivation.

At the end of each support programme, there is a "graduation ceremony" to which students can invite their parents and teachers. The university also hosts on-campus annual awards ceremonies for students in linked secondary schools who have excelled in academics, sports, arts, or in community activity.

Out of term time, students in the equivalent of Form 6 in selected schools can attend a week-long "college ready" course, and attendees receive preferential consideration for admission. Once enrolled in university, "Access Scholars" (as university students benefiting from the access programme are called) are assigned a support officer and required to attend an initial orientation programme. Subsequently, low-, medium- and high-level supports are provided based on the individual needs of students. Additional academic tuition supports are available for First year students, as is ongoing access to a support officer, peer mentoring and the student health service. As students from disadvantaged backgrounds often lack the social connections and networks that provide employment opportunities, Access Scholars receive extra help with internships, networking

opportunities, placement support and guidance. A small number of Access places are reserved for migrant students, as part of the "University of Sanctuary" programme (see next section).

University of Malta

The examples of access programmes presented can be contrasted with the outreach conducted by UoM, which is restricted to measures located in a single support centre. Very limited funds and staffing are provided to the Cottonera Resource Centre (CRC) to promote (among other things) higher and tertiary education among communities in the inner harbour area. The CRC provides revision classes for Form 4 and 5 students, a robotics course, and a summer science school, but the numbers of students involved is very small and activities are not targeted at students in schools in the local area. Courses do not access UoM facilities and campus familiarisation is not part of their activities. Further, there is no formal outreach from the CRC to local schools or colleges.

The above is not a criticism of the CRC or its staff. Despite a small budget, it provides useful services to the local adult and student community. However, without adequate funding or wider institutional support, the CRC is constrained in what it can achieve.

Consideration should be given to expanding the "access" role of the CRC, to complement its work in community outreach. Activities that encourage links between the UoM and schools with low-SES intakes should be prioritised. In addition, providing on-campus activities to familiarise students with the facilities and make them aware of the possibilities that may arise from school completion and from further education should form part of the expanded role.

Access for asylum-seeking students

A number of European universities have taken measures to become a *University of Sanctuary* (https://universities.cityofsanctuary.org). This initiative recognises the good practice of universities which welcome people seeking sanctuary into their communities and foster a culture of awareness and inclusivity. It fits into a broader City of Sanctuary network and is based on the principle that university should be a possibility, irrespective of personal history. Similar to general access programmes, it works to make further education a viable aspiration, which in turn can help with engagement in compulsory education.

As well as raising awareness of issues facing asylum-seekers, providing access to university facilities, and facilitating links to employers, bursaries are provided for asylum-seeking students. Such students – because of their status – may be required to pay sizeable tuition fees and be unable to access student grants or stipends. The universities, either through access programmes or through corporate sponsorship, provide financial and other supports to allow asylum-seekers access third level education.

Similar projects exist in other countries. For example, the Kiron model (https://kiron.ngo/) started in Germany as an initiative to provide online courses to refugees and asylum seekers to cover one to two years of higher education courses, including materials and exams. If students pass these years, they are then eligible to continue studies at a regular German university.

MEDE and third level institutions should consider how to address the obstacles to accessing third level education that are faced by asylum-seekers. Initiatives such as those used by Universities of Sanctuary / Kiron should inform considerations.

Procedural and administrative interventions

Registration for SEC

The process of applying to register for the SEC examinations is already undergoing changes as a result of the removal of fees. This could be used as an opportunity to simplify the application process, make it more student-friendly and better integrated with school management systems. Students unable to draw on home support to complete the application process are likely to find the current process daunting.

Integrate with existing datasets

Students must make the decision to register for the SEC and indicate their choice of subjects very early in the school year. An earlier report for this project outlined data sharing practices between Ministry / school databases and awarding bodies (i.e., the equivalents of MATSEC) in the Republic of Ireland and Northern Ireland. Both countries have implemented a legislative framework that permits the sharing of student subject choices with awarding bodies.

The shared data form the foundation for each year's examinations database and simplify the student experience of registering for examinations. As the basics of an examinations database are available relatively quickly, awarding bodies can allow later subject and level changes than is permitted in Malta. Current changes to the process of registering for the SEC offer an opportunity to examine the registration process and how it could be simplified by drawing on existing data held in systems such as MySchool and Klikks.

MEDE and MATSEC should consider if providing MATSEC access to existing school datasets could simplify the process of registering for the SEC examinations, reduce MATSEC's workload, and facilitate later registrations. MEDE and MATSEC should also consider the implications of using an opt-out, rather than opt-in, model for SEC registration.

Simplify information for applicants

The MATSEC website and documentation are couched in quite formal language, and present particular difficulties for those with limited English proficiency or with low levels of reading skills. For example, to find out how to apply to take SEC examinations, candidates must read a 36-page Candidate Guidebook. While the Guidebook contains information about how to apply for the SEC, it also contains information about MATSEC, syllabi, the Intermediate and Advanced Matriculation, and past papers. Applicants must read as far as page 10 before seeing information on SEC applications.

MATSEC's own analyses of feedback from examinations candidates indicates that only 37% made use of the Guidebook, and very few who sought help from MATSEC referred to the Guidebook (MATSEC, 2018). A large majority with queries phoned or emailed MATSEC offices. Given the pressures under which MATSEC staff operate, any change that reduces the number of queries that must be dealt with in person would be helpful.

To reduce hurdles to SEC participation, potential SEC examination candidates should be able to access a short Guidebook that deals with the SEC only (separate booklet for Matriculation). It should be written in simple language, use the active voice, any web pages and email addresses in the Guidebook should be hyperlinked, and the main steps in the application process should be covered, in sequence.

Use administrative data to identify areas of disadvantage

The identification of pockets of disadvantage within schools and more generally is an underdeveloped area of work in Malta. The relatively small size of Malta (both population and geographical) means that, to a certain extent, everyone "knows" which areas or schools are affluent or not. However, this is not a sound basis on which to distribute MEDE funds or funds from other Ministries, and it would not be accepted as a basis for disbursement of EU targeted funds.

For example, the EU funds for the *Schools as Community Learning Spaces* programme could only be used for communities where there was some evidence of social disadvantage. The original pilot school was identified on the basis of Labour Force Survey data on library use in certain areas. While this was a creative solution to data gaps, the large measurement error associated with sub-populations in the Labour Force Survey data mean it is a far from ideal tool for providing small area data on disadvantage.

Many countries use database tools to identify concentrations of disadvantage in local areas, developing indices of disadvantage or deprivation. The indices are used by national and local organisations to identify physical locations for prioritising resources, to develop an evidence base for policies and interventions, and – importantly – for regular use in bids for funding at national and EU level.

In particular, the English government makes wide use of a number of deprivation indices based on national census data. Some, such as the Index for Multiple Deprivation, refer to general population characteristics, while others relate to sub-populations such as children and older people (Smith, Noble, Noble, Wright, McLennan, & Plunkett, 2015).[8] Almost 33,000 local areas in England alone can be ranked by relative deprivation, with very similar indices used in Northern Ireland, Scotland and Wales. Examples of other countries using census data to identify deprivation in discrete local areas include the Republic of Ireland (the Pobal HP Deprivation Index identifies the relative deprivation of 18,488 Small Areas, each typically containing only 50 to 100 households [Haase & Pratschke, 2017]), and New Zealand (the NZDep index reports to the level of "meshblocks", populations of between 60 to 110 people [Atkinson, Salmond & Crampton, 2014]).

In a related vein, the EU's Statistics on Income and Living Conditions (SILC) study – in which Malta takes part – includes a material deprivation measure. Its purpose is primarily to facilitate between-country comparisons and within-country trend comparisons, although some analyses by large subpopulations (e.g., gender) are possible. However, researchers have recently combined SILC with national census data in a small number of countries (France, Spain, Italy, UK, Portugal, Slovenia) to produce a small area deprivation measure that is broadly comparable across countries (Launoy, Launay, Dejardin, Bryère, & Guillaume, 2018). A further six EU countries are in the process of developing national versions.

The Maltese authorities, specifically the National Statistics Office, should consider developing an area-based deprivation indicator. This could provide an evidence base for targeted funding and interventions and assist in bids for funding at national and EU level.

[8] IDACI (Income Deprivation Affecting Children Index) and IDAOPI (Income Deprivation Affecting Older People Index (IDAOPI) are two widely used sub-population indices.

5. Summary

This document has examined the types of initiatives that have generally been found to be effective in preventing or reducing ESL. As part of a wider project focused on the early identification of ESL, it has largely focused on prevention and intervention, rather than compensation, measures.

Four significant changes to current practice in Malta were recommended:

1. The extension of the Free Childcare Scheme to children whose parents are unemployed.
2. The option to complete SEC papers in Maltese.
3. The introduction of whole school approaches to ESL prevention and improving student engagement, more generally. This includes targeted funds for low-SES schools, setting minimum times for reading instruction, re-structuring of additional supports, and a proactive approach to attendance.
4. As part of point three, specific initiatives targeting parental engagement and involvement.

A number of additional measures were also recommended for consideration. Some were specific programmes found to be effective (e.g., Incredible Years), while other recommendations were more general (e.g. make better use of available data, especially data on SEC outcomes).

School-based measures for consideration included rollout of the Schools as Community Spaces programme, peer tutoring, school self-evaluation, better integration for migrant students, and anti-bullying measures. Suggestions external to schools included books targeted at at-risk pre-schoolers, extended ALP services, blended learning, and better access and inclusion at third level. Finally, administrative measures included simplifying registration for the SEC and using administrative data to identify small geographical areas of disadvantage.

A concern is that there are already many measures in place to address ESL in Malta, operating independently and not integrated at school or area level. In the case of school-based measures, adding more add-on measures to a system that already has a number of add-on measures, yet remains unchanged it its core, is not a sensible way to proceed. School life, teaching and learning in Malta remains largely traditional, with a reluctance to embrace diversity and differentiation within the classroom.

While there are numerous supports for students experiencing difficulty, most are outside of the classroom. Student difficulties are treated as individual rather than structural problems. However, in the case of schools with a very disadvantaged intake, the problems *are* structural and need a different type of response. Therefore, rather than present a long "shopping list" of measures that show promise, this report has focussed on a small number of measures that facilitate targeted and integrated responses, or address gaps in current provision. As noted earlier, what is needed is more coordination, not more things to coordinate.

Appendix 1: Stakeholders interviewed

As well as extensive communication with members of the ESLU, the contractor met with the following (some on a number of occasions):

- Minister for Education and Employability
- Permanent Secretary, Ministry for Education and Employability
- MEDE Directors General for Curriculum, Lifelong Learning and Employability, and Educational Services
- Director for Research, Lifelong Learning and Employability
- Chief Information Officer, Information Management Unit
- Director, Quality Assurance
- Assistant Director, Lifelong Learning
- Assistant Director, Research and Innovation
- Assistant Director, Educational Assessment Unit
- ICT Officer, Governance and Security
- ICT Officer, School Systems
- Director, Education Resources
- National School Support Services (NSSS)
- Education Officer, Institute for Education
- Education Officer, staff and students, Prince's Trust International Achieve Programme
- Education Officer, staff and students, Migrant Learner Hub
- Foundation for Educational Services (FES)
- Director, National Literacy Agency
- Youth Guarantee
- Free Childcare Scheme – JobsPlus
- Representatives from private providers, Free Childcare Scheme
- Malta Union of Teachers
- Staff from MATSEC
- Staff from National Statistics Office
- Identity Malta
- MySchool developers
- Klikks developers
- Representatives from schools (state, church), including a mixture of principals, heads, social workers and administration staff
- Representatives from the Kuria
- Representatives of parents
- Representatives from Schools as Community Spaces programme
- Staff and students at the ALP
- Staff at the Cottonera Resource Centre
- Staff from Fgura LEAP Centre and LEAP Head Office
- FCS staff in a FES-managed site

In addition to stakeholders, the contractor met MEDE's GDPR experts and legal team.

Regarding comparisons with similar systems in the Republic of Ireland and in Northern Ireland, the contractor drew on prior knowledge of procedures used in each jurisdiction. This was supplemented by interviews with representatives from the following entities:

Republic of Ireland

- Tusla, the Child and Family Agency.
- Social Inclusion Unit, Department of Education and Skills.
- Statistics Section, Department of Education and Skills.
- Education Welfare Service.
- Home School Community Liaison team.
- School Completion Programme.
- Central Statistics Office.
- Project team evaluating the *DEIS* educational disadvantage programme, Educational Research Centre.

Northern Ireland

- Youth Training Statistics and Research Branch, Department of Economy.
- Curriculum and Assessment Team, Department of Education Northern Ireland.
- Statistics and Research Team, Department of Education Northern Ireland.
- Analytical Services Unit, Department of Education Northern Ireland.
- Tackling Educational Disadvantage Team, Department of Education Northern Ireland.
- Standards and Improvement Team, Department of Education Northern Ireland.

References

Archer, P., & Shortt, F. (2003). *Review of the Home-School-Community Liaison Scheme. Report to the Department of Education and Science*. Dublin: Educational Research Centre.

Ashbaker, B. Y., & Morgan, J. (2012). Team players and team managers: Special educators working with paraeducators to support inclusive classrooms. *Creative Education*, (3)3, 322-327. http://dx.doi.org/10.4236/ce.2012.33051

Atkinson J., Salmond C., & Crampton P. (2014). *NZDep2013 index of deprivation*. Dunedin: University of Otago.

Blatchford, P., Russell, A., & Webster, R. (2012). *Reassessing the impact of teaching assistants: How research challenges practice and policy.* Oxon: Routledge.

Brock, M. E., & Carter, E. W. (2013). A systematic review of paraprofessional-delivered educational practices to improve outcomes for students with intellectual and developmental disabilities. *Research and Practice for Persons with Severe Disabilities*, 38, 211-221. doi: 10.1177/154079691303800401

Byrne, D., & Smyth, E. (2010). *No way back? The dynamics of early school leaving*. Dublin: Liffey Press.

Cebolla-Boado, H., Radl, J., & Salazar, L. (2017). Preschool education as the great equalizer? A cross-country study into the sources of inequality in reading competence. *Acta Sociologica*, *60*, 41–60. https://doi.org/10.1177/0001699316654529

Chatzitheochari, S., Parsons, S., & Platt, L. (2016). Doubly disadvantaged? Bullying experiences among disabled children and young people in England. *Sociology*, *50*, 695-713.

Claeys-Kulik, A-L., & Jørgensen, T.E. (2018). *Universities' strategies and approaches towards diversity, equity and inclusion: examples from across Europe*. Brussels: European University Association. Retrieved on April 17, 2019 from https://eua.eu/resources/publications/311:universities%E2%80%99-strategies-and-approaches-towards-diversity,-equity-and-inclusion.html

Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. *Journal of Educational Psychology*, 105, 138-149.

Department for Education (2018). *School workforce in England: November 2017*. Retrieved April 18, 2019 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719772/SWFC_MainText.pdf

Department of Education and Skills (2011). *Literacy and numeracy for learning and life: The national strategy to improve literacy and numeracy among children and young people 2011-2020.* Dublin: Government Publications.

Desforges, C., & Abouchaar, A. (2003). *The impact of parental involvement, parental support and family education on pupil achievements and adjustment: A literature review* (Report RR433). London: Department for Education and Skills.

Douglas, S. N., Chapin, S. E., & Nolan, J. F. (2016). Special education teachers' experiences supporting and supervising paraeducators: Implications for special and general education settings. *Teacher Education and Special Education*, 39, 60-74. http://dx.doi.org/10.1177/08884064105616443

Downes P., & Cefai, C. (2016). *How to prevent and tackle bullying and school violence: Evidence and practices for strategies for inclusive and safe schools,* NESET II report, Luxembourg: Publications Office of the European Union. doi: 10.2766/0799

Epstein, J. L. (1992). School and Community Partnerships. In *Encyclopedia of educational research*, M. Alken (Ed.), 1139–1151. New York: Macmillan.

European Agency for Special Needs and Inclusive Education (2014). *Education for all: Special needs and inclusive education in Malta*. *External Audit Report*. Odense: Author.

European Commission (2011). *Reducing early school leaving.* Commission staff working paper. Accompanying document to the proposal for a Council recommendation on policies to reduce early school leaving. SEC (2011) 96 final. Retrieved November 23, 2018 from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2011:0096:FIN:EN:PDF

European Commission ET2020 Working Group (2015). *A whole school approach to tacking early school leaving: Policy messages*. Retrieved February 27, 2019 from http://ec.europa.eu/assets/eac/education/experts-groups/2014-2015/school/early-leaving-policy_en.pdf

European Commission/EACEA/Eurydice. (2016). *Structural indicators on achievement in basic skills in Europe – 2016. Eurydice report*. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice (2018). *Structural indicators on achievement in basic skills in Europe – 2018. Eurydice report*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice (2019). *Integrating students from migrant backgrounds into schools in Europe: National policies and measures*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice/Cedefop (2014). *Tackling early leaving from education and training in Europe: Strategies, policies and measures*. *Eurydice and Cedefop report*. Luxembourg: Publications Office of the European Union.

Evans, M.D.R., Kelley, J., Sikora, K., & Treiman, D. (2010). Family scholarly culture and educational success: Books and schooling in 27 nations, *Research in Social Stratification and Mobility*, 28, 171-197, ISSN 0276-5624, https://doi.org/10.1016/j.rssm.2010.01.002

Falzon, N. (2016). *Sensitivity, safety and strength: an inter-agency review of Malta's policy on trans, gender variant and intersex students*. MGRM: Mosta.

Farrell, P., Alborz, A., Howes, A., & Pearson, D. (2010). The impact of teaching assistants on improving pupils' academic achievement in mainstream schools: A review of the literature. *Educational Review*, 62, 435-448. http://dx.doi.org/10.1080/00131911.2010.486476

Gaffney, H., Farrington, D.P., & Ttofi, M. (2019). Examining the effectiveness of school-bullying intervention programs globally: A meta-analysis. *International Journal of Bullying Prevention*, 1, 14-31

Garcia, J.L., Heckman, J. & Ziff, A., (2017). *Gender differences in the benefits of an influential early childhood program*. IZA Discussion Paper No. 10758. Available at SSRN: https://ssrn.com/abstract=2971354

Gatt, S. (2017). *Labour Market Policy Thematic Review 2017: An in-depth analysis of the impact of reforms on inequality MALTA.* Publications Office of the European Union, Luxembourg.

Gilleece, L. (2015). Parental involvement and pupil reading achievement in Ireland: Findings from PIRLS 2011. *International Journal of Educational Research* 73, 23–36. doi:10.1016/j.ijer.2015.08.001

Goodall, J. (2017). *Narrowing the achievement gap: Parental engagement with children's learning*. London: Routledge.

Grima, G., Camilleri, R., Chircop, S., & Ventura, F. (2005). *MATSEC: strengthening a national examination system.* Floriana; Ministry of Education, Youth and Employment.

Gustafsson, J.-E., Hansen, K.Y., & Rosén, M. (2013). Effects of home background on student achievement in reading, mathematics, and science at the fourth grade. In M.O. Martin & I.V.S. Mullis (Eds.), *TIMSS and PIRLS 2011: Relationships among reading, mathematics, and science achievement at the fourth grade—Implications for early learning* (pp. 181–287). Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College.

Haase, T., & Pratschke, J. (2017). *The 2016 Pobal HP deprivation index for small areas*. Dublin: Author.

Hall, W. (2017). The effectiveness of policy interventions for school bullying: A systematic review. *Journal of the Society for Social Work and Research*, 8, 45-69.

Heckman, J.J. (2011). The economics of inequality: The value of early childhood education. *American Educator*, 35, 31-35.

Higgins, S. (2014, May 21). *Research evidence and effective use of the Pupil Premium*. Pupil Premium Conference. Cavendish Conference Centre London.

Higgins, S., Katsipataki, M., Kokotsaki, D., Coleman, R., Major, L.E., & Coe, R. (2013). *The Sutton Trust - Education Endowment Foundation Teaching and Learning Toolkit*. London: Education Endowment Foundation.

Inchley J., Currie, D., Young, T., Samdal, O., Torsheim, T., Auguston, L., Mathison, F., Aleman-Diaz, A., Molcho, M., Weber, M., & Barnekow, V. (2016). *Growing up unequal: gender and socioeconomic differences in young people's health and well-being*. *Health Behaviour in School-aged Children (HBSC) study: International report from the 2013/2014 survey*. Copenhagen: WHO Regional Office for Europe.

iScoil. (2017). *iScoil Annual Report 2016/2017*. Dublin: Author.

Katsipataki, M., & Higgins, S. (2016). What works or what's worked? Evidence from education in the United Kingdom. *Procedia - Social and Behavioral Sciences,* 217, 903–909.

Kellaghan, T., Sloane, K., Alvarez, B., & Bloom, B.S. (1993). *The home environment and school learning. Promoting parental involvement in the education of children.* San Francisco: Jossey Bass.

Kosciw, J. G., Greytak, E. A., Palmer, N. A., & Boesen, M. J., (2014). T*he 2013 National School Climate Survey: The experiences of lesbian, gay, bisexual and transgender youth in our nation's schools*. New York, NY: Gay, Lesbian and Straight Education Network.

Launoy, G., Launay, L. Dejardin, O., Bryère, J., & Guillaume, E. (2018). European Deprivation Index: designed to tackle socioeconomic inequalities in cancer in Europe, *European Journal of Public Health*, 28, 214. https://doi.org/10.1093/eurpub/cky213.625

McCoy, S., Quail, A, & Smyth, E. (2014). The effects of school social mix: unpacking the differences, *Irish Educational Studies*, 33, 307-330. DOI: 10.1080/03323315.2014.955746

McGilloway, S., Ni Mhaille, G., Furlong, M., Hyland, L., Leckey, Y., Kelly, P., Bywater, T., Comiskey, C., Lodge, A, O' Neill, D., & Donnelly, M. (2012). *Long-term outcomes of the Incredible Years Parent and Teacher Classroom Management training programmes (Combined 12-month Report).* Dublin: Archways.

McNally, S., McCrory, C., Quigley, J., & Murray, A. (2019). Decomposing the social gradient in children's vocabulary skills at 3 years of age: A mediation analysis using data from a large representative cohort study, *Infant Behavior and Development*, 57, 101326, ISSN 0163-6383, https://doi.org/10.1016/j.infbeh.2019.04.008.

Martin, M., Foy, P., Mullis, I., & O'Dwyer, L. (2013). Effective Schools in Reading, Mathematics, and Science at the Fourth Grade. In Martin, M.O. & Mullis, I.V.S. (Eds.) *TIMSS and PIRLS 2011: Relationships Among Reading, Mathematics, and Science Achievement at the Fourth Grade—Implications for Early Learning.* Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College.

MATSEC (2018). *Candidates' feedback: MATSEC first/main examination session*. Msida: Author. https://www.um.edu.mt/__data/assets/pdf_file/0009/367695/CandidateFeedback2018NewFormat.pdf

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidenced-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, DC: Office of Planning, Evaluation and Policy Development, US Department of Education.

Menesini, E., Nocentini, A., & Palladino, B. E. (2012). Empowering students against bullying and cyberbullying: evaluation of an Italian peer-led model. *International Journal of Conflict and Violence, 6*, 314–320.

Ministry for Education and Employment [MEDE] (2012). *A national curriculum framework for all*. Floriana: Author.

Ministry for Education and Employment [MEDE] (2014a). *A strategic plan for the prevention of early school leaving*. Floriana: Author.

Ministry for Education and Employment [MEDE] (2014b). *A national literacy strategy for all in Malta And Gozo 2014-2019*. Retrieved from http://education.gov.mt/en/Documents/Literacy/ENGLISH.pdf.

Ministry for Education and Employment [MEDE] (2016). *PISA 2015: Malta.* Floriana: Author.

Ministry for Education and Employment [MEDE] (2018). *National homework policy.* Floriana: Author.

Mullis, I. (2013). Profiles of Achievement Across Reading, Mathematics, and Science at the Fourth Grade. In M. Martin & I. Mullis (Eds.) *TIMSS and PIRLS 2011: Relationships among reading, mathematics, and science achievement at the fourth grade—implications for early learning.* Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College.

Mullis, I., Martin, M.O., Foy, P., & Arora, A. (2012). *TIMSS 2011 international results in mathematics.* Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College. Retrieved January 5, 2019 from https://timssandpirls.bc.edu/timss2011/downloads/T11_IR_Mathematics_FullBook.pdf

Mullis, I. V. S., Martin, M. O., Foy, P., & Hooper, M. (2017). *PIRLS 2016 international results in reading*. Retrieved on February 27 2019 from: http://timssandpirls.bc.edu/pirls2016/international-results/

Nairz-Wirth, E., Feldmann, K., & Diexer, B. (2012): *Handlungsempfehlungen für Lehrende, Schulleitung und Eltern zur erfolgreichen Prävention von Schulabsentismus und Schulabbruch. Aufbruch zu einer neuen Schul-kultur*. Wien: Wirtschaftsuniversität Wien. Retrieved on February 27 2019 from: https://www.schooleducationgateway.eu/files/esl/downloads/84_Checklist_and_Recommendations_EN.pdf

NCSE (2018). *Comprehensive review of the Special Needs Assistant scheme: A new school inclusion model to deliver the right supports at the right time to students with additional care needs.* Author: Trim, Co. Meath.

Nunnery, J. (1998). Reform ideology and the locus of development problem in educational restructuring: Enduring lessons from studies of educational innovation. *Education and Urban Society*, 30, 277-299.

OECD (2010). *PISA 2009 results: Overcoming social background – equity in learning opportunities and outcomes (Volume II).* Paris: OECD Publishing. Retrieved February 10 from http://dx.doi.org/10.1787/9789264091504-en

OECD. (2016). *PISA 2015 results (Volume II): Policies and practices for successful schools*. Paris: OECD Publishing. Retrieved February 15 from https://doi.org/10.1787/9789264267510-en.

OECD (2017). *PISA 2015 results (Volume III): Students' well-being.* Paris: OECD Publishing. Retrieved February 15 from https://doi.org/10.1787/9789264273856-en.

Olweus, D. (1992). Bullying among school children: intervention and prevention. In R. D. Peters, R. J. McMahon, & V. L. Quinsey (Eds.), *Aggression and violence throughout the lifespan* (pp. 100–125). London: Sage.

Roulstone, S., Law, J. Rush, R., Clegg, J., & Peters, T. (2011). *Investigating the role of language in children's early educational outcomes: An analysis of data from the Avon Longitudinal Study of Parents and Children (ALSPAC)*. Department for Education, Nottingham.

Shanahan, T. (2001). Improving reading education for low-income children. In G. Shiel & U. Ní Dhálaigh (Eds.), *Reading matters: A fresh start* (pp. 157-165). Dublin: Reading Association of Ireland/National Reading Initiative.

Sharma, U., & Salend, S. J. (2016). Teaching Assistants in inclusive classrooms: A systematic analysis of the international research. *Australian Journal of Teacher Education*, 41, 118-134. http://dx.doi.org/10.14221/ajte.2016v41n8.7

Sharples, J., Webster, R., & Blatchford, P. (2015). *Making best use of teaching assistants. Guidance report*. London: Education Endowment Fund. Available online at https://educationendowmentfoundation.org.uk/public/files/Publications/Teaching_Assistants/TA_Guidance_Report_MakingBestUseOfTeachingAssistants-Printable.pdf

Shenderovich, Y. Thurston, A., Miller, S. (2016). Cross-age tutoring in kindergarten and elementary school settings: A systematic review and meta-analysis, *International Journal of Educational Research*, 76, 190-210. ISSN 0883-0355, https://doi.org/10.1016/j.ijer.2015.03.007.

Shiel, G., Kavanagh, L., & Millar, D. (2014). *The 2014 National Assessments of English Reading and Mathematics. Volume 1: Performance report*. Dublin: Educational Research Centre.

Smith, T., Noble, M., Noble, S., Wright, G., McLennan, D., & Plunkett, E. (2015). *The English Indices of Deprivation 2015: Technical Report*. London: Department for Communities and Local Government. Retrieved April 20 2019 from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464485/English_Indices_of_Deprivation_2015_-_Technical-Report.pdf

Sofroniou, N., Archer, P., & Weir, S. (2004). An analysis of the association between socioeconomic context, gender and achievement. *Irish Journal of Education* 35, 58–72.

Strøm, I. Thoresen, S., Wentzel-Larsen, T., & Dyb, G. (2013). Violence, bullying and academic achievement: A study of 15-year-old adolescents and their school environment. *Child Abuse & Neglect*, 37; 243-251, https://doi.org/10.1016/j.chiabu.2012.10.010.

Sui-Chu, E. H., & Willms, J.D. (1996). Effects of parental involvement on eighth-grade achievement. *Sociology of Education,* 69, 126–141. doi: 10.2307/2112802.

Ttofi, M., & Farrington, D. (2009). What works in preventing bullying: effective elements of anti-bullying programmes. *Journal of Aggression, Conflict and Peace Research*, 1, 13-24.

Van Belle, J. (2016). *Early Childhood Education and Care (ECEC) and its long-term effects on educational and labour market outcomes*. Research report. RAND Corporation.

Vitoroulis, I., & Vaillancourt, T. (2015). Meta-analytic results of ethnic group differences in peer victimization. *Aggressive behaviour*, 41, 149-170.

Williams, J., Thornton, M., Morgan, M., Quail, A., Smyth, E., Murphy, D., & O'Mahony, D. (2018). *The lives of 13 year olds: Growing Up in Ireland, national longitudinal study of children in Ireland*. Dublin: Department of Children and Youth Affairs.

Working Group on the Future of Post-Secondary Education. (2017). *Report to the Minister for Education and Employment*. Floriana, Ministry for Education and Employment.