Preventing School Failure

A Review of the Literature

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European Agency for Special Needs and Inclusive Education

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LIST OF ABBREVIATIONS

Abbreviation	Full version
ADHD:	Attention deficit and hyperactivity disorder
CBT:	Cognitive behavioural therapy
ESL:	Early school leaving
European Agency:	European Agency for Special Needs and Inclusive Education
IBE:	International Bureau of Education
OECD:	Organisation for Economic Co-operation and Development
PSF:	Preventing School Failure
SEN:	Special educational needs
SES:	Socio-economic status
UIS:	United Nations Educational, Scientific and Cultural Organization Institute for Statistics
UN:	United Nations
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNICEF:	United Nations Children's Fund
USA:	United States of America

INTRODUCTION

Most learners successfully complete their education, but some do not. Researchers and policy-makers have long sought to understand the latter phenomenon, which is known as 'school failure'. Two perspectives can be addressed: how individuals might fail within the school system and how the school system might fail individual learners. The first perspective focuses on personal characteristics, while the second focuses on teaching and learning. The latter perspective also considers that school failure is more prevalent in some schools than others. This leads to the concept of 'failing schools' and has spurred research around school improvement.

School failure is also linked with early school leaving (ESL) (OECD, 2010). This is when learners leave formal education before completing upper-secondary school (European Agency, 2017a). This outcome can lead to lifelong marginalisation. Research shows that school failure can have a lifelong impact on individuals, limiting their chances to build careers and participate in society. This can affect social cohesion and increase health and social costs (Borgna and Struffolino, 2017; OECD, 2010; 2012).

School success – the opposite of school failure – emphasises that all learners should have the chance to develop into good citizens who can participate fully in society. If education systems do not provide adequate services to enable successful learning and progression, they may contribute to school failure and eventual non-participation in society (OECD, 2010). Thus, preventing school failure also means building schools' capacity to raise achievement and close the gap between higher and lower achievers (European Agency, 2016a).

The OECD argues that policy can help to prevent school failure by reducing inequity in education systems. Actions at the school level, particularly in low-performing or disadvantaged schools, can also prevent school failure (OECD, 2012). Many strategies that the OECD identifies are consistent with those for reducing ESL (European Agency, 2016b; 2017a; 2017b). These include:

- not allowing grade retention or repetition;
- avoiding tracking into vocational or academic routes until upper-secondary level;
- increasing parental engagement in children's education;
- promoting positive teacher-learner and peer relationships;
- improving monitoring of learning;
- reducing segregation in education.

Other strategies the OECD identifies include strengthening school leadership and developing and retaining high-quality teachers. Yet school failure should not simply be considered a problem for school leaders or teachers. Over 30 years ago, research revealed complex inter-related factors that lead to school failure, including SEN, disability, illness, family factors and social problems (see Dworkin, 1989).

It is relevant to consider preventing school failure from the perspective of inclusive education systems operating within inclusive societies. In this context, high-quality

education and full participation in society are viewed as human rights. This is underpinned by international conventions, such as the UN *Convention on the Rights of the Child* (UN, 1989) and the UN *Convention on the Rights of Persons with Disabilities* (UN, 2006). These conventions provide an impetus for developed nations to consider how to make schools more inclusive.

Relevant international declarations include the *Salamanca Statement and Framework for Action on Special Needs Education* (UNESCO, 1994), the *Dakar Framework for Action: Education for All* (UNESCO, 2000) and the *Incheon Declaration: Towards Inclusive and Equitable Quality Education* (UNESCO, 2015a; World Bank, 2015). The United Nations' Sustainable Development Goal 4 is to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (UNESCO, 2015b, p. 1). Along the same lines, the *Council Recommendation on promoting common values, inclusive education, and the European dimension of teaching* specifically notes:

> *PISA data illustrate that students from poorer households are three times more likely to perform worse than their wealthier counterparts and that students of migrant background are more than twice as likely to be low achievers as other students. To prevent the marginalisation of young people, it is vital to have inclusive and equitable education systems that foster cohesive societies and lay the foundations for active citizenship and enhance employability* (Council of the European Union, 2018, p. 2).

Such policy documents stress the importance of preventing marginalisation and ensuring effective and equal access to quality inclusive education with support for all learners. While education systems in most European countries are committed to the policy goals and priorities presented above, they still face challenges. Low academic achievement of particular groups and the wider systemic issue of school failure are still of significant international concern. Through a detailed review of recent research, this report sheds light on how preventing school failure and improving inclusive education are inter-related and inter-dependent goals.

AIMS OF THE REVIEW

This review is an output of the thematic project entitled [Preventing School Failure](): Examining the Potential of Inclusive Education Policies in Relation to the System and Individuals (the PSF project) by the European Agency for Special Needs and Inclusive Education (the Agency). The project examines evidence to suggest that inclusive education policies have the potential to prevent school failure.

The PSF project encompasses desk research along two parallel strands. The first strand reviewed and analysed international research literature regarding the prevention of school failure in relation to inclusive education. The second strand analysed existing national policy measures for preventing school failure. This involved collecting information from European countries through a survey.

This report is the result of the first strand of project activities. It puts forth the findings of the review of research on preventing school failure in Europe and beyond. Its overall aim is to identify ways that inclusive education can prevent school failure. The review examines international literature to identify key concepts and themes underpinning policy and practice for preventing school failure. Its findings serve to inform and complement the second strand of the project and the development of the project synthesis report.

The review is organised into three main sections. After outlining the review's methodology, the subsequent sections aim to answer the following questions regarding preventing school failure:

- How does international research literature define school failure?
- What approaches to tackling school failure does the research suggest?
- What does research say about the relationship between preventing school failure and inclusive education systems?

METHODOLOGY

This review looks at how education systems and schools contribute to the failure of individual learners. By consolidating research literature, the review seeks to understand how inclusive education can improve the success of individual learners.

As a starting point, the literature search focused on material published in English that related to school failure, with an emphasis on European countries. Eventually, the search was extended to include non-European literature as European sources were limited.

Initially, school failure was considered synonymous with 'academic failure', so this was used as a search term on PsycINFO, yielding 1,704 results. However, papers used the term widely and only a few related directly to school failure. From there, a new search was conducted using the term 'school' and requiring a full text to be listed. As expected, this led to a large return of 45,412 papers. The second search term 'failure' led to 65,110 results. Once the search terms were combined, a more manageable 1,036 papers were identified.

Research on school failure has a long history, but education systems and society have evolved significantly over time. Therefore, this review looked at the 100 most recent papers from 2011 to 2018. Unsuitable papers were removed based on their abstracts, and the remaining papers were read in detail to identify:

- definitions of school failure;
- types of difficulty, e.g. learner, school or community/social characteristics;
- the country of research;
- indications of preventative, intervention or compensation approaches;
- key findings or outcomes.

Literature was drawn from the following countries: Australia, Belgium (Flemish community), Canada, Finland, France, Germany, Iceland, Ireland, Italy, Japan, Netherlands, Qatar, Spain, Sweden, United Kingdom (England, Scotland and Wales) and the USA.

The types of learner circumstances covered included:

- immigrant backgrounds;
- history of low academic performance, learning difficulties or reading difficulties;
- experience of parental death;
- history of poor attendance or poor punctuality;
- parenting styles;
- teenage motherhood;
- race – particularly African American and Latino learners in the USA;
- history of foster care;
- diagnosable conditions such as attention deficit and hyperactivity disorder (ADHD), conduct disorder, autism spectrum disorder or oppositional defiant disorder;

- low socio-economic status or disadvantaged backgrounds;

- history of violence;

- young offenders;

- inner-city youth;

- alcohol and/or recreational drug consumption;

- challenging behaviour.

Upon gaining a clearer idea of definitions and content, more papers were added by following interesting leads and ideas. Additionally, literature on ESL was revisited through previous Agency reports (European Agency, 2016b; 2017a; 2017b). In this sense, this review does not claim to be comprehensive, but exploratory. The review was not restricted by a systematic methodology that would filter out studies not conforming to predefined criteria.

The range of papers identified employ different methodologies. In-depth qualitative studies with few participants provide insights into how individual circumstances can contribute to or prevent school failure. Meanwhile, some studies quantify important factors or involve quasi-experimental approaches to preventing school failure. Each methodology adds value in this exploratory framework. Different approaches answer questions such as what factors are significant (quantitative), how interventions lead to different outcomes (quasi-experimental) and why approaches might be helpful or unhelpful (qualitative).

This literature review aims to provide an international overview of preventing school failure that will inform the next stage of the PSF project. Findings from a particular study might or might not be applicable to other contexts and countries. The models used in this report encourage a local interpretation based on the breadth of available literature. Additionally, when reviewing the findings of correlational studies, it is important to avoid interpreting causation. Two factors may be correlated, but one does not necessarily cause the other.

Finally, the review makes no attempt at a systematic account of policy responses to prevent school failure across Europe. Rather, it complements the PSF project synthesis report, which includes a related review of policy documents and European country developments on preventing school failure. Please refer to the PSF project web area for more information.

DEFINITIONS OF SCHOOL FAILURE IN THE INTERNATIONAL LITERATURE

Overview

The term 'school failure' is used in many ways and is often not defined in the literature. Some authors apply the term broadly, encompassing the outcomes of school failure. This is due in part to the long history of research in the area, making the concept seem well-understood. This review discovered three main definitions of school failure, centring on ESL, low academic achievement and poor transition to adulthood.

Definitions that focus on the learner **dropping out of school** or **leaving school early** are consistent with the literature on ESL (see European Agency, 2016b; 2017a; 2017b). These definitions cover aspects of ESL such as:

- time of departure (Archambault, Janosz, Dupéré, Brault and McAndrew, 2017; Blondal and Adalbjarnardottir, 2014; Engh, Janson, Svensson, Bornehag and Eriksson, 2017; Erskine et al., 2016; Handzel, Brodsky, Betancourt and Hurt, 2012; Hodis, Meyer, McClure, Weir and Walkey, 2011; Kelly et al., 2015);

- lack of school engagement by learners (Archambault et al., 2017; Goldfarb et al., 2017; Jonkman, Steketee, Tombourou, Cini and Williams, 2014; Kelly et al., 2015; Pears, Kim, Fisher and Yoerger, 2013);

- lack of adequate qualifications even if leaving at the correct age (Berg, Rostila, Saarela and Hjern, 2014; Ivers, Milsom and Newsome, 2012; Latsch and Hannover, 2014);

- inability to meet requirements for meaningful employment (Chase, 2017);

- truancy (Birioukov, 2016; Gregory and Bryan, 2011), which is when a learner is absent from school or class for non-legitimate reasons (see UNICEF and UIS, 2016, p. 23);

- school refusal (Martin, 2014) or not pursuing an academic programme needed for further study (Engh et al., 2017; Hyde et al., 2017).

Some definitions emphasise **low levels of academic achievement** (Casillas et al., 2012; Darensbourg and Blake, 2013; Erskine et al., 2016; Fernández-Martín et al., 2015; Gauffin, Vinnerljung, Fridell, Hesse and Hjern, 2013; Goldfarb et al., 2017; Gregory and Bryan, 2011; Inglés et al., 2015; Jonsson, 2014; Kelly et al., 2015; Latsch and Hannover, 2014; Lucio, Hunt and Bornovalova, 2012; Savolainen et al., 2015) or **academic failure** (Hughes, Wu, Kwok, Villarreal and Johnson, 2012; Lin-Siegler, Ahn, Chen, Fang and Luna-Lucero, 2016; Martin, 2014). Low academic achievement can encompass:

- the failure of set tasks, leading to the whole of the learner's participation being negated (Jacobs, 2012);

- poor performance in specific academic subjects, including reading fluency (Grima-Farrell, 2014), reading ability (Horowitz-Kraus, Schmitz, Hutton and Schumacher, 2017; Jones, Yssel and Grant, 2012; Kempe, Gustafson and

Samuelsson, 2011; King, Lembke and Reinke, 2016; Mason et al., 2016) and maths ability (Sorvo et al., 2017);

- repeating a school year (Levine and Levine, 2012; Martin, 2014) – the terms 'grade repetition', 'over-age retention' or 'grade retention' can be used to describe this. This report uses the term grade retention.

Poor adult well-being can result from various school-level difficulties. Some definitions of school failure focus on schools' responsibility to prevent drug and alcohol problems (Ferrer-Wreder, Sundell, Eichas and Habbi, 2015) or to reduce anxiety for learners with mild to moderate learning difficulties in the **transition from school to adulthood** (Young, Dagnan and Jahoda, 2016). Gázquez et al. (2016) suggest poor social support can lead to increased drug use and aggressive behaviour, and ultimately to school failure and delinquency.

Thus, contributing factors include learners engaging in risky behaviours (Handzel et al., 2012), such as high levels of alcohol consumption (Jonkman et al., 2014; Kelly et al., 2015). Avoiding challenging problems (Lin-Siegler et al., 2016), poor language skills (Gregory and Bryan, 2011), ADHD (Kempe et al., 2011) and gender-related issues (Jonsson, 2014; Latsch and Hannover, 2014) can also play a role. Authors Hemmingsson and Borell (2018) emphasise that some learners are unable to participate in school; however, this requires investigating whether schools provide all learners with the chance to participate.

Because school failure is such a widely used term, it is helpful to consider the different ways it has been defined and contextualised. Furthermore, school failure can be viewed through the lens of prevention, interventions used to reverse or reduce its effects and compensatory strategies for when the point of school failure is reached. Research papers often use data to directly inform their definitions and recommendations. Sometimes, however, authors suggest strategies for prevention, intervention and compensation that may be logical but are empirically untested.

School failure defined as early school leaving

As mentioned, many studies identify risks, protective factors and preventative strategies relating to ESL. There is often an emphasis on family circumstances and parental involvement. For example, a study in Canada revealed that within areas of low socio-economic status (SES), the first generation of immigrants exhibited higher school engagement than non-immigrant learners, and ESL was higher in successive generations of immigrants. This suggests that first-generation immigrants may tend to value success in education, which can outweigh the disadvantages they face in areas of low SES (Archambault et al., 2017).

Archambault et al. (ibid.) argue that the enthusiasm of being a new immigrant and the ability to overcome challenges carry over to motivation for learning, and the associated anxiety has a beneficial effect on learners. These characteristics were not evident in second- and third-generation learners exposed to the risks associated with low SES, who exhibited increased disengagement with school. Differences within the group also suggest preventative factors such as family values and how strict parents are regarding dress,

friendships and school attendance. According to the study, stricter parenting may correlate with lower levels of ESL.

The importance of parenting style is also evident in a study in Iceland in which parents who had an authoritarian style were more likely to raise learners who graduated (Blondal and Adalbjarnardottir, 2014). This implies that parents should take an interest in the learner's life and set fair standards. A study in Italy suggests the importance of parental education levels, with low parental education being a strong predictor of school failure (Borgna and Struffolino, 2017).

One way for schools to prevent ESL and school failure, then, is by increasing parental engagement. For learners with SEN in England, conversations between teachers and parents led to improved outcomes (Humphrey and Squires, 2010; 2011a; 2011b). A USA-based programme, Families and Schools Together (FAST), illustrates how learner-centred information can contribute to intervention planning (Fearnow-Kenney, Hill and Gore, 2016). Also in the USA, Hyde et al. (2017) explored parents' role in motivating learners to engage with academic subjects. The study found that when mothers of ninth-grade learners mentioned personal connections with maths and science, the uptake of these subjects in twelfth grade was higher.

In contrast, Goldfarb et al. (2017) challenge the view that family experiences can prevent school failure. They assert that the role of families is more complex than previous literature suggests. Their study analysed data from the USA National Longitudinal Survey of Youth to see if any factors in the learners' lives could be identified as leading to school failure. They did not find significant links between family activities (such as having dinner as a family and having fun as a family) and school failure.

A large-scale study in Sweden found that parental death was associated with lower academic grades and an increased risk of school failure (Berg et al., 2014). The authors suggest that teachers should provide additional support to bereaved learners to overcome potential declines in school performance. They also suggest that health services could support bereaved learners by addressing psychological needs.

Another Swedish study found that foster children had a greater risk of school failure, health problems and risky behaviour and a higher incidence of conditions such as ADHD, autism spectrum disorder and intellectual disability than the wider school population (Engh et al., 2017). These factors were linked to a high drop-out rate at age 16. The authors noted that higher drop-out rates were found in districts where school nurses were not able to offer as much support, implying that increasing in-school health support for learners would reduce the risk of school failure. Improving access to mental health support for learners with ADHD and conduct disorders might also contribute to lower rates of poor academic outcomes and school failure (Erskine et al., 2016).

A single case study approach focused on one Latina learner in the USA who was at high risk of ESL (Ivers et al., 2012). The authors argue that Gottfredson's Theory of Circumscription and Compromise (Gottfredson, 1981; 2004) could improve success and reduce school failure. Ivers et al. (2012) suggest that as Latino learners develop, they may limit their career choices (in part due to seeing adult Latinos in low-paying jobs) and consequently devalue the importance of education. Teachers and counsellors can reverse this

'premature circumscription' by exposing learners to a wide array of career choices and adult roles. Interventions based around this principle can include:

- finding role models from the same demographic who have high-achieving careers;

- engaging with parents in setting higher aspirations and career goals;

- challenging circumscription and compromise in career choices;

- presenting career opportunities that might be outside the learners' lived experiences.

In the case study reported by Ivers et al. (ibid.), these interventions led to a re-engagement in school and improved school performance.

In terms of gender-related discrepancies, a study in France found that boys were more likely to underperform than girls. This finding was linked to assessments of academic performance which compared learners with one another (Latsch and Hannover, 2014). The study showed that learners tend to respond to this by developing the belief that for some people to get high grades, others must receive low grades. Learners may believe that when good grades have been given out there is less chance of getting one. This belief in the scarcity of high grades reduces motivation, as it leads learners to think that effort does not always correspond to positive outcomes.

In the French study, boys were found to be more susceptible to this 'zero-sum' belief system. Latsch and Hannover (ibid.) suggest it is possible to address this by conducting assessments based on criteria rather than comparison. In this case, it is possible for anyone to get a high grade based on effort and skill.

Jacobs (2012) highlights the need for carefully designed criteria that are not simply based on completing a task. Jacobs undertook an ethnographic study observing a pair of learners in an eighth-grade classroom in the USA. These learners had been given the task of using the internet to search for information and then produce PowerPoint slides over several lessons. The learners completed all of the subtasks. However, at the final step of saving their work to a pen drive, they made a mistake and the work was lost. The pair did not receive any credit for their effort or collaboration and their participation was effectively ignored. In grading, the teacher had only focused on the presentation of the final product. The two learners got no credit for the work they had done or the learning that had taken place; it was as if they had not been present.

This study points to the teacher's role in maintaining learner motivation and engagement. Regular monitoring of learning and progress is important in recognising success, even when the overall task is incomplete or lost. Teachers can provide on-going feedback to learners about their development and can conduct assessments based on well-defined criteria at key points throughout the project.

Inglés et al. (2015) identify different motivational profiles among Spanish learners: high generalised motivation, low generalised motivation, learning goal and achievement goal motivation and social reinforcement motivation. The groups differ in the extent to which they attribute their success or failure to ability, effort or external causes.

In the study, the social reinforcement motivation group tended to attribute failures to external causes, protecting their self-esteem but lowering their responsibility. The authors

recommend that teachers encourage learners to set multiple goals (achievement, effort and social) and train learners to re-frame successes or failures based on effort and ability.

Similarly, researchers in the USA found that self-attributions concerning effort and ability in a subject influenced motivation and academic success for ninth- and tenth-grade learners (Lin-Siegler et al., 2016). Learners who had a fixed mindset about their low ability or low effort tended to give up easily in the face of setbacks. This led to fewer opportunities to learn and an increased risk of academic failure. The authors suggest that schools could focus on developing growth mindsets (based upon Dweck, 2006).

Risk factors identified by one Canadian study are consistent with the general literature on ESL (see European Agency, 2016b; 2017a; 2017b). The authors mention factors such as low rates of learning, absenteeism, disengagement, drug use and deviant friends (Archambault et al., 2017). Though links between absenteeism and ESL have been established in the research, some literature is criticised for distinguishing between excused and unexcused absences without considering voluntary and involuntary absences. This places all agency with parents and schools rather than with learners themselves (Birioukov, 2016). Voluntary absences take learner agency and motivation into account, while involuntary absences consider the context of learners' lives.

Voluntary absenteeism seems to relate to 'fade-out', where motivation for school declines over time. It may be associated with poor teacher-learner relationships, unjust or harsh school discipline policies and poor building quality or learning environments. Voluntary absenteeism can also be related to 'pull-out', where factors such as employment can gradually draw a learner out of school. In either case, the learner is deciding not to be in school (Birioukov, ibid.).

A USA-based study focusing on poor, inner-city African American learners found that risky behaviours altered developmental trajectories and increased the likelihood of dropping out of school (Handzel et al., 2012). The authors found that trajectory-altering events – such as drug use, school failure and teenage pregnancy – were higher for these African American learners than for the general adolescent population. However, they were similar to other learners of the same SES. They also report that early intervention programmes led to learners experiencing fewer trajectory-altering events and resulted in higher rates of graduation and less school failure.

Kelly et al. (2015) explored the effects of drug and alcohol use in 152 schools in Australia. They discovered an increased likelihood of non-completion of school among learners aged 13–14 years old who were either polydrug users or alcohol consumers, compared to those who were not. Their study found that risky behaviours such as alcohol and drug use were associated with non-completion of grade 12 (assessed at ages 19–23), but were independent of poor self-reported grades and low levels of school commitment. The authors suggest that preventative programmes should aim at reducing alcohol and recreational drug use.

Learners' personal history can affect school completion. A study in the USA found that maltreated children who were placed in foster care had an increased risk of school failure (Pears et al., 2013). This study indicated that the children had lower levels of school engagement. The authors suggest that interventions aiming to improve affective and cognitive engagement are likely to reduce the chance of school failure. These interventions

include improving academic skills, developing positive teacher-learner relationships and helping learners to develop self-regulation skills.

A study focusing on foster children in Sweden showed that this group was at greater risk of school failure, health problems and poor mental health, and was likely to engage in risky behaviours (Engh et al., 2017). The study responded to an earlier American study that had found an increased risk of dyslexia for fostered children. The authors imply that problems within this group can be reduced with better access to district nurses to monitor health.

Another American study found that teenage motherhood can contribute to school failure. The study found that teenage motherhood led to learners dropping out of school without promising employment opportunities (Chase, 2017). A study of three Latina and black teenage mothers showed the drop-out rate can be reduced if support is provided, e.g. through free childcare on the school site, availability of sheltered accommodation, supportive parents and a person in the school who takes an interest in the learner.

Summary points

Literature linking school failure with ESL identifies risks and preventative factors at different levels of action.

- **The societal level:** Factors include low SES, access to mental health services, availability of support services (such as district nurses and provision of childcare for teenage mothers).

- **The family level:** Studies indicate that parental and family influences have to go beyond engaging in shared activities. Other factors include generational changes in immigrant populations, parenting styles, parental levels of education and parental ability to motivate their children's academic engagement.

- **The school level:** Factors explored include a school's ability to engage parents, support bereaved learners, combat low career expectations, use criteria-based assessments, improve monitoring of learning, encourage a growth mindset among learners, foster quality teacher-learner relationships, provide safe environments and set fair school policies.

- **The individual level:** Personal circumstances that may play a role include low school engagement, SEN, parental loss, engagement in risky behaviours such as drug or alcohol use, low attendance, deviant friendships, history of maltreatment, fostering and teenage pregnancy.

School failure defined as low levels of academic achievement

Another set of researchers defines school failure through low academic achievement. This literature explores preventative factors and approaches to support academic success. For instance, Lucio et al. (2012) define academic failure as applying only to those who are severely underachieving, i.e. those in the bottom two per cent of learners. In a study conducted in the USA, the researchers list several factors associated with academic achievement, including:

- academic engagement, expectations and self-efficacy;

- the perceived relevance of school;

- homework completion;

- teacher-learner relationships;

- lack of grade retention;

- not changing schools;

- compliance with the school behavioural expectations;

- school safety.

According to Levine and Levine (2012), in some countries, successful transition from one year to the next depends on literacy achievement, despite grade retention's association with school failure. The authors argue that intervention is necessary and that learners should progress with their age group.

Grima-Farrell (2014) reports on an Australian study in which curriculum-based measurement of oral reading was used with 94 second-grade learners as an approach to prevent school failure. The approach measures reading fluency, identifies poor reading skills and enables learners to demonstrate improvement over a short period of time. A more sophisticated approach goes beyond benchmark scores, using a statistical technique called latent class analysis to compare learners' progress. This allows teachers to split learners into groups with common growth trajectories and identify those in need of interventions (King et al., 2016).

Jones et al. (2012) discuss the importance of evidence-based practices for reading interventions that can be used to differentiate instruction within the main classroom. They argue that teachers should not need to identify learners as failing before implementing an intervention. One example of an intervention to improve reading accuracy is using visual markers in text to improve discrimination in reading similar texts (Mason et al., 2016). The teacher assigns a one-minute reading task in which the learner has to accurately read as many words as possible. A visual goal marker is shown on the sheet at the number of words accurately read previously, so the learner can see how to surpass their previous score. In this study, the use of visual goal markers led to improved performance compared to when no visual goal marker was used.

In their discussion paper, Horowitz-Kraus et al. (2017) argue that the cognitive skills underpinning the development of reading ability (such as language and attentional control) can be taught from birth. They assert that with appropriate early years screening, early intervention can be implemented.

The need for early intervention is demonstrated in a study of learners with ADHD and conduct disorder. The study showed that learners in these groups are more likely to have low levels of academic achievement and increased risk of failure to complete school (Erskine et al., 2016). Poor academic achievement was linked to poor behaviour for learners in Finland with ADHD and those with disruptive behaviour disorder (Savolainen et al., 2015). Learners with ADHD and disruptive behaviour disorder were at risk of school failure and subsequently at risk of criminality. The risk increased if they were also engaged in alcohol use. The authors suggest that schools could intervene to reduce alcohol misuse and tackle educational disengagement.

Challenging behaviour contributed to Swedish boys' underperformance compared to girls in two schools with low SES and poor job opportunities (Jonsson, 2014). A case discussion of a learner with ADHD sets out several interventions that could be adopted to improve achievement (Keder, Sege, Raffalli and Augustyn, 2013), including:

- making accommodations such as changing seating arrangements or giving additional time on tests;

- providing cognitive behavioural therapy (CBT);

- assessing the school climate to see if improvements can be made to teacher-learner relationships, teaching practices (for example, teachers should avoid using shame as a control strategy as it lowers learner self-esteem), the physical environment and learner safety.

An American study by Hughes et al. (2012) stresses the importance of teacher warmth. The researchers noted that as boys get older, they perceive more conflict with teachers, and this increases the risk of academic failure. They suggest that interventions to tackle poor academic progress also need to actively reduce perceptions of conflict.

The interplay between learner behaviour and teacher perception of behaviour was found as an unexpected consequence of a CBT intervention for a group of learners with disruptive behaviour in a school in England. Teachers reported that both the learners who received CBT and a control group that did not receive the intervention became less disruptive. However, while the learners who received CBT perceived their own behaviour as less disruptive, those who did not receive CBT perceived themselves as being more disruptive. Only the teachers perceived that all learners had become less disruptive. The authors hypothesised that this was due to a reduction in the workload of the teachers, who were previously tasked with managing the behaviour of both groups (Squires and Caddick, 2012). Thus, this study suggests that improving behavioural management and reducing teacher overload can boost achievement and help prevent school failure.

The CBT study also implies that providing therapeutic interventions for some individuals can have a wider impact on preventing school failure for other individuals by reducing teacher overload. In general, supporting teachers' mental health and well-being can have a positive impact by improving relationships and reducing perceptions of conflict (Squires, 2010a).

In Qatar, Kamal and Bener (2009) underscore a range of psychological and social factors associated with learners who are grade-retained. Such factors include family structure, disengaged parents, low family income, frequent absence from school, incomplete homework, hyperactivity, inattentiveness and challenging behaviour.

Kempe et al. (2011) challenge the view that poor reading ability leads to disengagement from learning and to behavioural difficulties. The researchers divided 141 six-year-olds in Sweden into two groups. The first group included those at risk of developing reading difficulties, and the second was a comparison group. The researchers observed an association between attentional control and reading difficulty, but not between behaviour and reading difficulty. This finding implies that a common factor – attentional control – can contribute to both reading difficulties and problematic behaviour. It can also explain the co-occurrence of reading difficulty and ADHD.

Darensbourg and Blake (2013) explore the expectancy-value model prediction that the more African American learners value school, the more they invest in learning and improving their reading competency or maths ability. Their study looked at the link between task values, behavioural engagement and achievement. Task values were split into three components: interest in the task, how important it was to be seen as good at the task and the task's perceived utility in meeting life goals. The study found a significant link between behavioural engagement and achievement in maths but not for reading. The analysis also indicated that previous success in maths was linked to increased behavioural engagement. This implies that successful teaching in younger years leads to greater engagement in the subject later.

More broadly, this finding also implies that monitoring learners early on gives teachers the opportunity to modify teaching approaches to encourage future behavioural engagement and academic success.

Finally, one study asserts that stress levels can play a role in academic achievement. In the study by Fernández-Martín et al. (2015), 100 Spanish primary school learners completed a daily stress scale combined with salivary cortisol measures of stress. It found that increased stress led to lower academic performance. This suggests that schools could implement interventions to support learners' emotional states and reduce stress.

Summary points

The literature that defines school failure through low levels of academic achievement pinpoints several important factors and approaches at each level.

- **The societal level:** Availability of community-based resources and therapeutic interventions for learners and for teachers, as well as policies to avoid grade retention, can impact academic success.

- **The family level:** Familial factors, such as disengaged parents and a low SES, can lead to lower academic achievement.

- **The school level:** School procedures and academic success are inextricably linked. Associated factors include school safety, teacher-learner relationships and perceptions, curriculum-based measures to identify learner progress and apply interventions (such as assessment for learning), evidence-based programmes to support learners, teaching cognitive skills from an early age and accommodations based on learner needs (e.g. seating arrangements or additional time in examinations).

- **The individual level:** To obtain a holistic view of academic achievement, personal challenges must be considered. These can include low academic engagement, low expectations, low levels of self-efficacy, perceived unimportance of school, low levels of homework completion, poor behavioural expectations and challenging behaviour, SEN or other difficulties (i.e. high stress, hyperactivity, poor attentional control) and previous academic success.

School failure defined as poor transition to adulthood

A third group of studies connects school failure with the long-term outcome of poor adult well-being. Early school leaving and school failure can put learners at risk of being unable to participate in society as adults. Educational experiences can impact these later-in-life outcomes. For example, the way a school is organised can present barriers for learners with disabilities to participate in the physical and social environment (Hemmingsson and Borell, 2002; 2018). The Agency's ESL project highlighted this (European Agency, 2016b; 2017a; 2017b).

In a Swedish study, school failure at age 15 was found to be a strong predictor of illicit drug use (Gauffin et al., 2013). A study of 822 learners aged 14–18 in secondary school in Almería, Spain, found that the more participants used tobacco and alcohol, the more they perceived higher social support and lower family support. The authors suggest that intervention programmes to reduce tobacco and alcohol use should also focus on developing family support (Gázquez et al., 2016).

One risk factor explored in young offenders in non-custodial settings in England is the incidence of poor speech and communication skills (Gregory and Bryan, 2011). The authors found that intensive speech therapy led to improvements in communication skills. This suggests that if speech therapy is offered early, it might reduce the risk of later school failure and help prevent youth offending.

Negative self-beliefs can lead to learners avoiding challenges and underachieving. In general, adolescents with learning disabilities may worry more about school failure, starting a relationship, getting a job and living independently compared to their peers without learning disabilities (Young et al., 2016). One intervention took a novel approach using stories about people who had faced challenges before achieving success (Lin-Siegler et al., 2016). American ninth- and tenth-grade learners heard one of three stories. One told how eminent scientists had made mistakes, the second was about how the scientists struggled in their personal lives and the third focused on the scientists' great discoveries (control condition). The authors found that learner engagement was greater – particularly among lower performing learners – if they heard one of the two struggle-based stories compared to the group that heard the control story.

The study suggests that to increase motivation, teachers should challenge the belief that learning should be avoided if it does not come easily. This is similar to the aforementioned concept of encouraging a growth mindset (Dweck, 2006). Boosting motivation and engagement early on can reduce fade-out, ultimately preventing school failure and later negative outcomes.

Summary points

Literature that defines school failure from the perspective of poor adult well-being pinpoints influential factors operating at three main levels.

- **The societal level:** Drug and alcohol intervention programmes can help families develop support for learners. Early access to community-based services (e.g. speech and language therapy) can reduce incidences of youth offending.

- **The school level:** School organisation and practices, such as promoting a growth mindset through interventions that challenge low self-belief, can eliminate barriers to learning and increase learner motivation and engagement.

- **The individual level:** Poor speech and communication skills, SEN or disability, low self-belief and low engagement can influence school failure and adult well-being.

CONCEPTUALISATION OF PREVENTING SCHOOL FAILURE

Although authors define school failure in different ways, they tend to agree on the key contributing issues. These include school-level and societal factors, parental roles and individual challenges. The research also suggests a variety of actions schools can take to help prevent school failure. Earlier Agency work, for example, has recommended strengthening schools' capacity to develop improvement processes that contribute to raised achievement (see European Agency, 2016a; 2018a).

Unsurprisingly, many ideas for preventing school failure overlap with those found in the ESL literature (European Agency, 2016b; 2017a; 2017b). The literature on ESL supports an understanding of school failure and suggests ways of tackling it. Research on ESL sheds light on three particular processes that run through life, school and society:

- push-out, where the way the school operates pushes the learner out of education;

- pull-out, where factors outside the school pull the learner out of education;

- fade-out, where the learner becomes disengaged with education over time.

These processes can be thought of as risks or protective factors. Actions to combat these processes are categorised in research literature and in European policy documents as **prevention**, **intervention** and **compensation** (European Agency, 2018b; European Commission, 2011a; Council of the European Union, 2011). These three types of actions are reflected in European-level work and wider thinking about educational quality (European Agency, 2017c; 2017d).

Much of the research suggests preventative factors and actions as well as interventions to halt the processes leading to school failure. However, authors of research papers and policy documents use the terms 'prevention' and 'intervention' differently. In this review, prevention refers to actions taken to avoid school failure by reducing risks. Intervention refers to actions taken to reverse the trajectory towards school failure once risk has been identified.

Regarding compensation, some studies outline negative outcomes after school failure occurs, requiring compensatory measures later in life. For example, if school failure occurs there is an increased risk of poor adult mental health that requires on-going medical and mental health services. This also lessens the adult's participation in the workplace (Layard, 2005; 2008; Layard, Clark, Knapp and Mayraz, 2007). Compensation is a reactive strategy to try to enable learners who experienced school failure to re-engage with learning or to participate in society.

Compensation is not a focus of this literature review, but many countries provide opportunities for learners to continue their education at a later point. Such approaches include 'second-chance' education schemes in which learners return to formal education, usually in intensively resourced small group settings with a focus on education for employment. Examples include the Youthreach programme in Ireland (see Squires, Kalambouka and Bragg, 2016). Other compensatory schemes focus on lifelong learning or on developing adult literacy skills.

These second-chance approaches may be successful for some individuals, but they are criticised for a variety of reasons. First, they divert resources that could be used to improve 'first-chance' education and prevent school failure (Coffield, 1998). Second, they imply that those who failed the first time can catch up with those who have already succeeded and are continuing to move forward (Fernández Enguita et al., 2010). Finally, the approaches have a low uptake and do nothing to reduce the number of learners who experience school failure. Compensation should thus be considered a last resort, and preventing school failure should be prioritised.

The conceptual model designed for the ESL review encompasses Lewin's notions of 'force-field analysis' (Lewin, 1943). This means that there are a series of forces in the learner's life (risks and protective factors) and external forces that policy-makers and teachers can influence (preventative strategies and interventions). These forces are at play within the community, school and individual (Squires, 2019). The model also acknowledges the ecosystem in which the forces operate (Bronfenbrenner, 1986; 1999; 2005). It connects the policy macro-level to the individual micro-level (European Agency, 2017c; 2017e). The research can be mapped onto this model to conceptualise school failure.

Rather than repeating the ESL literature review, the revised PSF model includes literature reviewed for this project. The model illustrates how various forces push and pull the learner between school success and school failure. As this project is about preventing school failure, the compensation strand from the original model is not relevant. The model presented in Figure 1 thus omits compensatory approaches and emphasises prevention and intervention.
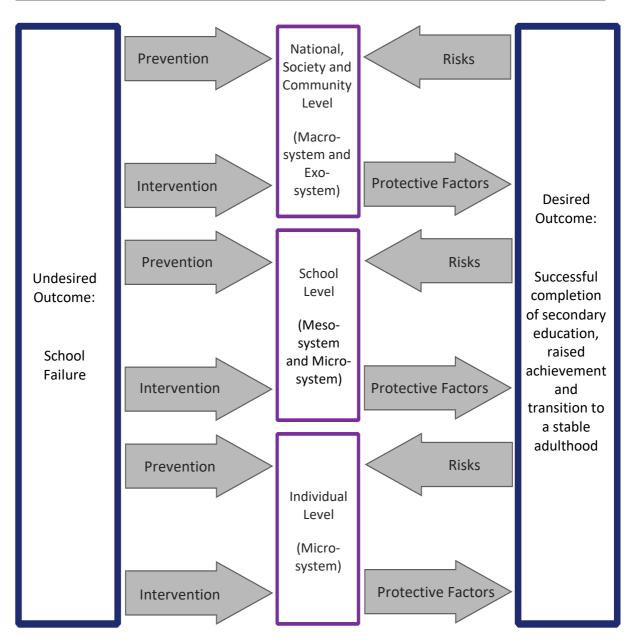
Figure 1. Combined eco-systemic and force field analysis model of factors influencing school failure (adapted from European Agency, 2017a; Squires, 2019)

As stated throughout this review, school failure is an undesirable outcome for all learners, and minimising school failure benefits society at large. The literature covered in this report and the ESL reports identifies a range of possible risks, protective factors, interventions and preventative approaches (European Agency, 2016b; 2017a; 2017b). National and local-level policies, for instance, can improve the organisation and staffing of school systems. These kinds of overarching policy changes can make a difference for individual learners who might otherwise experience poor outcomes.

The next section summarises specific examples of preventative measures and interventions. It delves into the eco-systemic approach to preventing school failure. It should be noted that some interventions and preventative approaches can be used for multiple risks but have only been included once. In addition to the literature cited above, the section includes information drawn from the literature used in the ESL project (Christenson and Thurlow, 2004; De Witte, Cabus, Thyssen, Groot and Maassen van den Brink, 2013; Dekkers and Claassen, 2001; Doll, Eslami and Walters, 2013; Jugović and Doolan, 2013; Lamote, Speybroeck, Van Den Noortgate and Van Damme, 2013; Lee and Breen, 2007; Lee and Burkam, 2003; Lindsay, 2007; Markussen, Frøseth, Sandberg, Lødding and Borgen, 2010; Persson, 2015; Persson, 2013; Prince and Hadwin, 2013; Ruijs and Peetsma, 2009; Sinclair, Christenson and Thurlow, 2005; Smith and Douglas, 2014; Watt and Roessingh, 1994a; 1994b; Wehby and Kern, 2014; Winding and Andersen, 2015).

An eco-systemic approach to preventing school failure

Much of the literature reviewed suggests policies and actions to prevent school failure. These are presented across three main levels: **national**, **school** and **individual**. Each level has its own set of risks and protective factors. For each risk there are practical suggestions for interventions and preventative approaches. However, many authors only provide information on one area, creating gaps in the literature.

Effective policy ideas that can prevent school failure can be mapped onto the ecosystem model to show relationships among different factors and themes (European Agency, 2017c; 2017e). The Ecosystem of Support for Inclusive Education (ibid.) reflects recent Agency work which aims to help education decision-makers identify key areas for local and/or national review.

In particular, this model sets out the main structures and processes that influence learner participation and could improve learner progress within inclusive education systems. The framework places the learner at the centre, and each contributing factor is located in relation to the learner's educational ecosystem (European Agency, 2017e). Such a model permits a meaningful exploration of inclusive processes within and across diverse education systems. By identifying factors both internal and external to the individual, it moves away from the dichotomous question of whether learning and inclusive outcomes depend on either the individual or the context.

The ecosystem framework is comprised of the following inter-related systems, illustrated as four concentric rings:

- The ring around the centre of the model is the micro-system of institutions or groups that directly affect the learner's development. These include immediate

family and – for most learners – processes within the school and interactions with peers and adults.

- The second ring from the centre is the meso-system. It shows inter-connections between the micro-systems – interactions which influence school structures and systems.

- The third ring is the exo-system – the community context that the learner may not directly experience, but which may influence other levels.

- In the outer ring is the macro-system – the wider social, cultural and legislative context that encompasses all the other systems (European Agency, ibid.).

Figure 2 illustrates the key ideas from this review mapped into the ecosystem framework. In the outer ring, the macro-system includes national actions related to preventing school failure and promoting inclusiveness. The next ring – the exo-system – focuses on local community actions. The meso-system encompasses school-level interactions which can help tackle school failure. The centre-most ring shows influences at the individual, micro-system level. It considers specific learner-centred practices that can increase attendance and engagement in school.

Some themes run across multiple levels. For example, joint policies between ministries aim to reduce inequality and take a rights-based approach to equity and participation in society. This encourages inter-agency and inter-disciplinary co-operation, cohesive provision of services and a continuum of support. Additionally, initial teacher education for diversity must be followed up with continuing professional development for diversity. This is further supported by leadership which recognises diversity and builds positive relationships. As another example, governance and funding of education systems must operate in tandem with the provision of local services including health, social care, youth services and mental health services. Inevitably, this is linked to monitoring progress of individual learners and allocating resources within schools to improve engagement, motivation, attendance and academic outcomes. Furthermore, the success of schools is monitored using national quality assurance standards to ensure accountability.
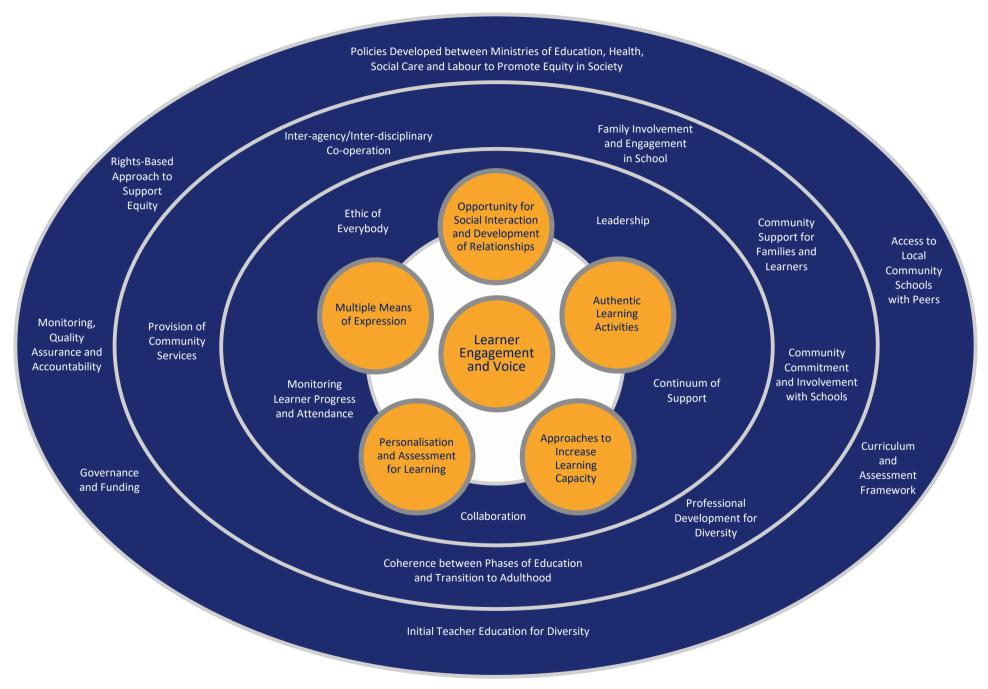
Policies Developed between Ministries of Education, Health, Social Care and Labour to Promote Equity in Society

Inter-agency/Inter-disciplinary Co-operation

Family Involvement and Engagement in School

Rights-Based Approach to Support Equity

Community Support for Families and Learners

Access to Local Community Schools with Peers

Ethic of Everybody

Leadership

Opportunity for Social Interaction and Development of Relationships

Monitoring, Quality Assurance and Accountability

Provision of Community Services

Multiple Means of Expression

Learner Engagement and Voice

Authentic Learning Activities

Community Commitment and Involvement with Schools

Monitoring Learner Progress and Attendance

Continuum of Support

Governance and Funding

Personalisation and Assessment for Learning

Approaches to Increase Learning Capacity

Curriculum and Assessment Framework

Collaboration

Professional Development for Diversity

Coherence between Phases of Education and Transition to Adulthood

Initial Teacher Education for Diversity

Figure 2. Ecosystem Model to Prevent School Failure (adapted from European Agency, 2017a; 2017b; 2017c; 2017e)

At the **national and community (macro-system and exo-system) levels**, it is evident that preventing school failure is not simply the responsibility of ministries of education. Ministries responsible for social care and welfare, health, labour and employment should also be involved. The overarching goal is to **reduce social inequality and support equity**.

Ministries of education themselves can work to **improve data monitoring, set policies around school leaving ages and develop specific programmes in school** (e.g. early intervention programmes for drug or alcohol abuse) to prevent related difficulties from leading to school failure.

The research literature outlines several risks and presents ways to deal with them.

- Financial difficulties and family needs may require a learner to care for relatives or work to support the family, launching a pull-out process.

    o The family having adequate financial resources can be a protective factor. Otherwise, interventions may help prevent school failure. One example is to develop **community-based resources to support families in need**, such as food banks. Preventative approaches include **national policies aimed at reducing inequality**, such as ensuring housing and financial support for all families, offering grants and allowances or extending social benefits contingent on school attendance and introducing redistributive approaches such as provision of free school meals, sports equipment and school books (e.g. see European Commission, 2011b, para. 32).

- Schools in lower-income areas may be less effective in preventing school failure.

    o Preventative strategies include socio-economic de-segregation, which would allow learners from poorer neighbourhoods to attend schools in more affluent neighbourhoods. Policy-makers can also introduce reforms to **improve funding** of schools in areas of low SES and to allow local **adaptation of curricula**.

- Some schools are less effective in preventing school failure than other similar schools.

    o Prevention focuses on improving **school leadership** and implementing **teacher training**, particularly for responding to diversity and developing inclusive attitudes.

- There may be a lack of national data regarding at-risk groups or reasons for school failure.

    o This can be addressed by **developing data collection and monitoring systems** to track individual learners and look for patterns across learner sub-groups (e.g. learners with SEN, Roma populations, etc.).

- Poor attendance (often due to external factors) can lead to drop-out.

    o Introducing **national monitoring of absenteeism** will improve understanding of absenteeism, which may be involuntary and a product of social context. There is also a need to ensure school buildings are safe, high-quality and fit for purpose.

- Learners may leave school too early for education to be considered meaningful.

  o Preventative approaches include raising the national school leaving age to 18, improving career guidance in schools, improving apprenticeship schemes and providing free childcare for learners who become pregnant before completing school (for example, see Dale, 2010).

- Some groups of learners are marginalised.

  o This necessitates clear **policies that reduce segregation** and **promote inclusion** in education, allowing learners with sensory, physical or cognitive disabilities to learn in their local mainstream schools.

- Learners who experience parental death are at particular risk of leaving school early.

  o Preventative measures could focus on training teachers in how to support bereaved learners. Interventions could include developing bereavement services for learners and assessing bereaved families to see what additional support they might need.

- Risky adolescent behaviour interferes with education and home life.

  o Providing **support services for families** can help with managing behaviour, e.g. through provision of school nurses or psychiatric nurses. Also, setting up **early intervention programmes** can reduce trajectory-altering events and community-based programmes can target alcohol and drug abuse.

At the **school (meso-system and micro-system) level**, a range of interventions and preventative actions can be considered. Schools should:

- Ensure strong school leadership.

- Develop and retain high-quality teachers.

  o Prevention starts with **initial teacher education** that focuses on inclusiveness. This training should run post-qualification through **continuing professional development**. This improves teacher expectations of learners with SEN. It also equips teachers to work with learners who they find problematic. Interventions include involving specialist support staff to work alongside teachers and incorporating team teaching.

- Encourage warm relationships between teachers and learners.

  o Teachers should understand each learner's interests and encourage positive relationships among learners.

- Provide appropriate curricula and track progress (assessment for learning).

  o Assessments should be meaningful for all learners and allow learners to demonstrate knowledge and skills.

- Improve school disciplinary policies to increase attendance, avoid punitive consequences, reduce learner exclusion from school and ensure school is perceived as a safe place.

  o Protective factors include positive behaviour management. At the preventative level, this means staff are trained in positive approaches to behaviour management, e.g. restorative justice or strategies that reduce conflict. Interventions can include teaching learners alternative ways of responding to negative interactions. Promoting a **positive school ethos** helps learners feel safe, respected and valued, and enables staff to develop a sense of belonging to the school (see 'Ethic of Everybody' in Figure 2). Interventions can also address poor attendance through systems for managing absenteeism, such as telephone checks to parents and differentiating between truancy and school refusal and seeking to understand the reasons for each.

- Improve access to school.

- Teach cognitive skills like language and attentional control from an early age.

  o Identify at-risk learners and groups in need of support or differentiated instruction.

- Engage with families and improve parental involvement in education.

  o School leaders should develop early warning and follow-up systems that involve **close co-operation between schools, parents and local communities**.

- Emphasise successful transitions.

  o Eliminate grade retention by providing interventions for learners who fall behind their peer group. Also, **avoid early tracking** into vocational or academic routes and devise strategies to reduce anxiety for learners with mild to moderate learning difficulties in the transition from school to adulthood.

- Develop preventative programmes to reduce drug, tobacco and alcohol use.

  o These interventions should also focus on developing family support.

Risk factors at the **individual (micro-system) level** can be complex, but research suggests that schools should:

- Co-operate with external agencies to expand services such as childcare facilities, speech therapy, counselling and mental healthcare.

- Expose learners to a wide array of career choices, find suitable role models, engage with parents in raising expectations and challenge limited career aspirations.

  o Schools can provide mentors from the local community to support at-risk learners. Some learners need to develop a stronger sense of belonging to school and community. Clubs, extra-curricular activities and after-school programmes can help. Support may be especially necessary for individuals adjusting to new schools.

- Implement assessment for learning.

  o Assessment should be competency-based and on-going rather than only occurring upon task completion. It can also help identify at-risk groups and improve teacher-learner ratios.

- Ensure the curriculum is relevant to learners' interests, aspirations and needs and fosters independent learning.

- Support learner motivation.

  o Poor study habits and negative attitudes towards homework can lead to fade-out and eventual academic failure. Prevention includes improving learner autonomy, assigning tasks with immediate and tangible outcomes, teaching study skills, setting up homework clubs or supported homework sessions and improving flexible learning pathways in secondary education. Teachers can provide positive feedback throughout projects as well as for overall task completion. They should also challenge zero-sum beliefs by replacing normative testing with criteria-based assessment.

- Strengthen individualised approaches, particularly for learners with SEN.

  o **Address poor academic progress early** and provide enough educational support across schools at the individual and small group level. Individual and academic support needs to consider financial, social, psychological and educational factors.

- Avoid grade retention.

  o Preventative approaches involve **improving transition between all levels of education** and between school and adulthood.

- Encourage balance between work and school.

  o When learners work for more than 20 hours per week, there is a risk of ESL. **Prevention includes expanding and improving vocational programmes** and offering work placement.

- Support learners with illnesses that prevent them from attending school.

  o Create **good home-school links**. Hospital schools should be staffed with trained teachers and use technology such as Skype or virtual learning environments to allow off-site participation.

- Provide additional support to sub-groups of learners to improve participation and prevent school failure.

  o These sub-groups include learners who get married or become pregnant before completing their education, those with a history of maltreatment and those with mental health difficulties, SEN or disabilities.

INCLUSIVE EDUCATION TO TACKLE SCHOOL FAILURE

Education systems worldwide have become more inclusive over time. However, there have long been groups of marginalised learners, some even deemed 'uneducable' (Squires, 2012). In certain cases, learners with SEN or those otherwise unable to attend mainstream schools are enrolled in separate schools. This separation only enlarges the gaps between different types of learners.

Many international organisations make concerted efforts to ensure education is a basic right and enable all learners to be educated in their local mainstream schools (European Agency, 2015a; UN, 1989; 2006; Committee on the Rights of Persons with Disabilities, 2016; UNESCO, 1994; 2000; 2015a; UNESCO-IBE, 2016; World Bank, 2015).

Countries are moving towards rights-based education in which all learners are valued and included in their communities. This is highlighted in international conventions that strive to protect the rights of people with disabilities (UN, 2006). Specifically, Article 24 of the UN *Convention on the Rights of Persons with Disabilities* proclaims the right to inclusive education. It prescribes the steps that have to be taken to this end (ibid.). Overall, efforts towards inclusiveness should address any societal structures that prevent people from participating fully in schools and communities.

Recent European policy documents re-affirm the need to include all learners in mainstream education and equip them to participate in society. For example, the recent *Council Recommendation on promoting common values, inclusive education, and the European dimension of teaching* (Council of the European Union, 2018) underscores the importance of quality inclusive education with support for all learners. The European Commission's *A New Skills Agenda for Europe* communication sets out a joint agenda for the EU, member states and stakeholders at all levels, aiming to:

> … *reach shared vision and commitment to work together on improving the quality and relevance of skills formation in order to keep step with the rapidly changing skills requirements of the labour market, equip everyone with a minimum set of basic skills and make qualifications easier to understand* (European Commission, 2016, p. 16).

Finally, the *Conclusions on Inclusion in Diversity to Achieve a High Quality Education for All* invite member states to promote democratic, stimulating, nurturing and inclusive school environments. These environments must value diversity and provide flexible pathways for all learners, allowing them to realise their full potential (Council of the European Union, 2017).

This challenging task starts with recognising that not all learners are the same and that they can have very different needs. The use of diagnostic criteria and labelling is helpful in describing broad areas of difficulty that impinge upon education. However, labelling can lead to policy-makers overgeneralising or teachers making decisions based on labels rather than actual needs (Arishi, Boyle and Lauchlan, 2017).

Policy should remain focused on reducing school failure in terms of ESL, low academic achievement or poor transition to adulthood and poor participation in society. However, to effectively prevent school failure, policy should be flexible enough to accommodate

individual circumstances. For example, the diagnostic label of autism might be applied to two learners because they both have difficulties with social communication, flexibility of thought and obsessional behaviour. Suppose one has limited language skills and expresses frustration and desire physically and at an intensity that is potentially dangerous to those around them. With two adults to support this learner every day, though, they are able to learn and to develop skills that might lead to less challenging modes of communication. The second learner is verbal, communicates relatively effectively and needs minimal teacher intervention in a mainstream classroom. Using the same label could lead to the same level of support for both learners, unless individual needs are considered (Squires et al., 2016).

There is a spectrum of possibilities when it comes to inclusive educational placement systems. One alternative to complete separation is to set up small group settings for learners with special needs within mainstream schools. This ensures individualised needs are met while all learners participate in the same community. As this example demonstrates, there are varying levels of segregation, integration and inclusion across approaches, such as:

- learners with SEN or disabilities are housed on the same site, but do not share facilities with mainstream learners;

- a special unit attached to a mainstream school in which learners with SEN or disabilities are taught, but they share common areas such as playgrounds or the school canteen with all learners;

- a special unit or classroom in a mainstream school in which the learners with SEN or disabilities are taught for most of the time, but they also go into mainstream lessons for part of the curriculum;

- integration – all learners are placed together for lessons, but are not necessarily doing the same work or participating to the same extent;

- partial inclusion – learners with SEN or disabilities attend the majority of lessons with their peers, but a special unit or resource base is used for part of the time;

- inclusion – all learners are in the same classroom such that their social and academic needs are met;

- inclusion – all learners are in the same school and their social and academic needs are met despite differences in development, extent of poverty, linguistic background or culture;

- inclusive communities extending beyond school and based on equity, care for others and valuing diversity in society (Frederickson and Cline, 2015).

One question that arises is whether learners with SEN and disabilities require a substantially different education to others. This must be answered on an individual basis: How can each learner's needs be met within an existing mainstream classroom? Some argue that certain learners have limitations that may prevent them from completing learning tasks, thus they require a different teaching approach. However, teachers can monitor and evaluate factors relevant to SEN, such as attendance, cognitive ability, academic progress and emotional and behavioural tendencies from early on. This early warning system can be applied to preventing school failure (Bear, Kortering and Braziel,

2006; Bruce, Brigeland, Fox and Balfanz, 2011; Heppin and Therriault, 2008; Herzog, Davis and Legters, 2012; Nouwen, Clycq, Braspenningx and Timmerman, 2015).

A review of approaches to teaching learners with SEN and disabilities in mainstream schools in England found that largely the same teaching strategies were recommended regardless of needs (Davis and Florian, 2004). The report reveals the need to respond to individual differences rather than global labels such as 'specific learning difficulty'. Some scholars argue that the 'special' teaching approaches and strategies are not sufficiently different from those used to teach all learners to justify the use of the specific term 'SEN pedagogy' (Norwich and Lewis, 2005; Florian and Black-Hawkins, 2011).

In contrast, a review of special education literature in the USA concluded that there are effective techniques used in special education settings for specific sub-groups of learners. However, these are not always used with fidelity (Cook and Schirmer, 2003). The challenge is to maintain fidelity while being flexible enough to adapt to local circumstances. This may explain why the recommendations designed for special educational needs discussed in this review are not always implemented properly. One consideration is the extent to which teaching must be changed for all learners in order to include those with SEN. How much does teaching need to be changed or specific strategies adopted for a few learners? What evidence exists that such changes will produce better outcomes for all learners, including those with SEN?

Another review of pedagogical approaches to learners with SEN in mainstream classrooms found a shortage of quality evidence-based guidance for teachers (Nind et al., 2004). The authors explain that teachers need to consider individual differences and circumstances. More recently, the Agency's Raising Achievement project literature review affirms this, noting that:

> *Quality instruction includes the flexible use of various teaching strategies, as well as teacher collaboration, in order to increase understanding and determine how and when to use these strategies* (European Agency, 2016a, p. 60).

One approach is to consider how a classroom can include diverse groups of learners. This generally starts by asking the question: 'What are the barriers to inclusion, learning and participation and how can these be removed?' Schools can involve all members of the community in an audit of what is working and what is not. They can then create action plans to remove physical, pedagogical, attitudinal or organisational barriers. Schools can continue to evaluate the impact of these changes and develop further action plans to ensure all learners can participate and thrive.

This has been a focus of recent Agency work, particularly the Raising the Achievement of All Learners in Inclusive Education (European Agency, 2017d) and Organisation of Provision to Support Inclusive Education (European Agency, 2013) projects. These projects emphasise that building school capacity and combating school failure are crucial steps towards more inclusive education systems. For example, the Evidence of the Link Between Inclusive Education and Social Inclusion project found that attending and receiving support within inclusive education settings is linked with better academic and social outcomes and improved life chances for education, employment and independent living (European Agency, 2018c).

Agency work calls for inclusive policy frameworks at national and local levels to effectively enable schools to include all learners, prevent failure and ensure learner success in school and life. Monitoring and evaluation systems should focus on actionable factors rather than assuming learner deficits.

Examples of monitoring systems include the Index for Inclusion (Booth and Ainscow, 2002) and the Agency's self-review tool (European Agency, 2017e). Evidence exists that schools that undertake a period of self-review and development have improved educational outcomes for all learners relative to schools that do not (Squires, 2010b). However, certain schools may have higher capacity to boost inclusiveness compared to other schools.

Applying universal design to inclusive education

A more recent approach has been one of designing the education system from the perspective of including all citizens. The idea comes from the architect Ronald Mace. He asserts that when designing a building, the architect must consider the end users' needs and accommodate as many people as possible (Mace, 1988). He believes spaces should be accessible to all, regardless of age or disability. Importantly, he distinguishes between barrier-free design, universal design and assistive technology.

Barrier-free design focuses on the person with disability or the learner with SEN. This approach is about anticipating potential barriers for certain people and removing them in advance. Universal design, on the other hand, includes all people. Mace argues that we should consider that anyone could have a disability and not assume everyone is 'perfect, capable, competent, and independent' (Mace, 1998).

Though his work was published in the 1980s, much of what Mace says about assistive technology is true today. His main point is that assistive technology allows users to be functional in a given environment. He goes on to suggest that much of what is considered assistive technology (because it is designed with disability in mind) is also useful to other people and often becomes commercialised as a result. This last point is useful in thinking about applying universal design to education. It suggests that approaches originally meant to allow one person with a disability greater access may in fact be applicable to the majority of learners.

For instance, university students who have dyslexia benefit from additional time to pre-read learning materials and slides that will be shown in lectures. The lecturer could email these to individual students, thus removing a barrier to learning. However, these slides can be placed on a web-based service referred to as a virtual learning environment (an example of assistive technology). In this way, the slides are available to all students, who also benefit from receiving the materials in advance. An attempt to make the lecture more accessible to a particular group of learners with a disability benefits all learners and saves the lecturer time. Other similar strategies can be built into programme design at the development stage (Squires, 2018).

Universal Design for Learning builds on the general principles of universal design (Meyer, Rose and Gordon, 2014; Rose and Meyer, 2002). Principles for instructional design

focusing on preventing school failure (for example, see Bost and Riccomini, 2006) can be mapped onto those of Rose and Meyer. Teachers might consider the following questions:

- How can learning be stimulating and interesting enough to motivate all learners and encourage social and academic success?

- How can content be presented in different ways so as to develop resourceful and knowledgeable learners?

- How can learners express what they know in different ways and formats?

- How can teachers develop strategic and goal-directed learners?

Answers to these prompts include increasing opportunities to learn, generalising learning, creating alternative groupings to allow tailored support, team teaching, small group teaching and peer tutoring. Teachers can also encourage learners to recognise their own learning styles. This can be done by teaching **how** to learn rather than **what** to learn and how to apply the same knowledge across the curriculum. It involves addressing both procedural (how to do something) and declarative (what to do) knowledge and scaffolding instruction to ensure learners succeed.

Importantly, teachers must understand how to include all learners. This can be achieved through teacher training for developing inclusive attitudes and practices (see European Agency, 2015b). Schools can also employ monitoring and early warning systems to assess performance, inclusiveness, teacher-learner relationships, teaching quality and wider learner development.

The principles of Universal Design for Learning can help maximise teacher reach and foster motivated, resourceful, goal-directed learners. This approach presents some challenges, however. Given the diversity of learners, some learners may need environments that adversely affect others. For example, a learner with ADHD may require a fast-paced, stimulating environment while a learner with autism might need a predictable environment where stimulation is reduced. This could require zoning within the classroom in which the level of stimulation is adjusted in different areas. Another example is if a learner with visual impairment who needs high-contrast materials to read is in the same classroom as a learner with dyslexia who finds that high contrast leads to interference patterns and disrupts reading. The content should be presented in a format in which the contrast can be adjusted to suit the learners' respective needs. This could result in a blended system which uses adaptive technology and attempts to be accessible to as many learners as possible. Once in place, on-going audits allow teachers to reflect, remove barriers to learning and solve problems.

Universal design principles must extend beyond the school gates. Policy frameworks inform the inclusiveness of society and determine how well it meets the needs of all citizens through a rights-based approach. School failure must be prevented through national and local policies, school organisation, classroom dynamics and understanding individual circumstances (Lyche, 2010).

Countries must monitor their education systems by looking at key data such as school completion rates, qualification levels, performance of sub-groups of learners with different background characteristics (e.g. SEN, levels of social inequality) and access to the labour market (European Agency, 2017a). While school-level actions can make a significant difference to individual learners, schools cannot do this alone. Preventing school failure requires a co-ordinated response among ministries and organisations.

CONCLUSIONS

This report presents research literature that applies a range of methodologies to understand and identify solutions to school failure. Among other methods, some researchers identify trends through context-specific, small group studies. Many findings are consistent with those in Agency reports which support policy initiatives put forth by the European Union, Council of Europe, United Nations and World Bank.

The definitions of school failure taken from the literature focus on individual learners rather than on school improvement. These fall into three main themes:

- Early school leaving

- Low academic achievement

- Inability to participate fully in society or poor well-being in adulthood.

The literature illustrates the complexity of factors that can lead to school failure and outlines steps that might be taken to prevent school failure. Each theme is characterised by **a set of risks, protective factors, preventative strategies and interventions**. These forces push and pull the individual between school success and school failure.

Forces associated with school failure and success operate at the societal level through national policies and local context. They function at the school level through school organisation and flexibility to respond to individual learners. They also operate at the family and individual level, encompassing intra-personal factors (e.g. motivation, physical, sensory, genetic, cognitive, linguistic) and inter-personal factors (e.g. family needs, support available, social skills and opportunities).

Various approaches can be taken to reduce risks and prevent problems from arising and to reverse or reduce the likelihood of school failure. At each level, the literature suggests the following areas for action:

- **At the national, societal and community level (macro-system and exo-system)**, there is a need to address social inequality, promote equity and tackle poverty, improve access to mental health services and therapeutic interventions for learners and teachers, increase availability of community-based support services and develop drug and alcohol intervention programmes that also help families.

- **At the school level (meso-system and micro-system)**, there can be significant barriers to learning and participation. Schools should create environments in which learners feel safe and valued and parents are engaged. Overall, studies indicate that parental and family influence must go beyond shared activities. Schools should consider ways to enable parents to engage in their children's education, develop services to improve parenting skills, handle generational changes in immigrant populations that might affect motivation and engagement, and assist marginalised families.

   Other approaches schools and teachers can take include supporting bereaved learners, exposing learners to a range of career roles to encourage aspirations and maintaining quality of school buildings. The literature also stresses the importance

of teacher-learner relationships, positive teacher perceptions of learners, avoiding the use of shame as a teaching strategy and employing fair disciplinary policies.

The literature reviewed also suggests strategies for monitoring learner progress. Researchers recommend assessments based on criteria. They also suggest that learners should receive credit through formative assessment rather than a single task outcome. Generally, teachers should be able to identify when learners are not making progress so that interventions (such as assessment for learning) can be used. They can also teach cognitive skills that underpin learning from an early age and accommodate diverse learner needs.

When it comes to ensuring learner motivation, researchers also recommend avoiding grade retention and making sure teachers are aware of self-serving attributions. It is particularly important for teachers to encourage a growth mindset among learners. Individual circumstances can require additional support; for example, on-site childcare for teenage mothers may be necessary.

Overall, schools can:

- o develop **strong school leadership**;
- o improve **teaching quality**;
- o foster **good relationships**;
- o provide appropriate **curricula**, **assessment** and tracking of learners;
- o **improve attendance** and reduce exclusion;
- o **improve access** to school;
- o implement **preventative programmes**;
- o **engage with families**;
- o focus on **successful transitions** over time.

- **At the individual level (micro-system)**, there are many nuances to consider. Learners may have SEN or disabilities, low levels of academic engagement, low expectations and low levels of self-efficacy. They may perceive school as having little relevance to their lives. Individual learners can exhibit differing levels of attendance and homework completion, compliance with school rules or behavioural expectations, previous success in learning, stress levels, hyperactivity, attentional control and communication ability. Specific individual challenges include parental death, risky behaviours such as drug or alcohol use, deviant friendships, history of maltreatment, history of fostering or the care system and teenage pregnancy. Schools and communities can help alleviate difficulties by:

  - o **promoting co-operation between external agencies and schools** and the development of services such as childcare facilities in schools, speech therapy, counselling and mental healthcare;
  - o **focusing on assessment for learning** that is competency-based and on-going;

- o developing **curricula** that are **relevant** to learners' interests, aspirations and needs with an emphasis on study skills and independent learning;

- o supporting learner motivation by **involving the local community** and developing individual resilience;

- o **strengthening individualised approaches**, particularly for learners with SEN;

- o **addressing poor academic progress early on** and providing support when necessary;

- o **avoiding grade retention**.

It is necessary to regularly review the effectiveness of strategies to reduce school failure. Through on-going monitoring, school, community and national leaders may identify unforeseen consequences, i.e. some learners may experience positive outcomes while others do not. Prevention should preclude the need for compensatory action, but unintended challenges can arise and be addressed through further interventions.

The Ecosystem Model to Prevent School Failure (Figure 2) captures the key strategies and approaches presented in this review. The model has been developed on the basis of previous Agency work (European Agency, 2017a; 2017b; 2017c; 2017e). It suggests that actions should encompass national policy, local community provision and co-ordination of services, school organisation, family engagement, and individual context (see Figure 1).

The Ecosystem Model can be used at the **policy level** to determine how to increase inclusion by preventing circumstances that contribute to school failure. The model can be applied at the **school level** to remove barriers to learning and participation and to support sub-groups of learners with specific difficulties. At the **individual level**, the model is used to understand what moves a learner towards school failure and to devise interventions to promote success. Mapping these out for individuals, groups of learners or entire schools can allow for reflection on the inclusiveness of educational and societal systems. It can also enable the development of early warning systems to identify individuals at risk of school failure.

Research literature shows that education systems can be organised to effectively meet the diversity of learner needs and prevent school failure. This review points to the universal design approach to help determine how to increase inclusiveness and promote the success of all learners.

As the research implies, national and global policies that impact healthcare, employment, housing and social welfare are also relevant to this discussion. Overall, the international drive towards inclusive education (see United Nations' Sustainable Development Goal 4) aligns with the need to develop a more inclusive society as a whole. Ultimately, preventing school failure helps ensure that all learners can participate in society, lead healthy lives and make meaningful contributions to their communities.

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