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Pathways of absenteeism and early leaving from education and training

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Pathways of absenteeism and early leaving from education and training

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Contents

1. Introduction

This *ad hoc* report explores the pathways of absenteeism and early leaving from education and training (ELET), identifying at-risk groups as well as the preventive measures and interventions adopted in the European context, as identified in the research literature. ELET has significant negative consequences not just for the individual, but for society as a whole. It is therefore crucial to explore its pathways in order to build a society in which all members are included and have access to contextual support to develop their potential. Several predictors of ELET are identified at individual, school and societal level. In addition, emphasis is placed on the importance of considering all **contextual levels, and the multifaceted and developmental nature of ELET** when choosing preventive measures and interventions that have a potential positive impact in the European context.

1.1. Identifying the problem and its outcomes

ELET describes the situation of individuals aged 18 to 24 who have attained a lower secondary education, but are no longer engaged in education and training (European Commission, 2019). It is a result of **gradual behavioural, emotional and cognitive disengagement from education** (Nouwen and Clycq, 2019; Wang and Fredricks, 2014), and manifests in signs that are more (e.g. absenteeism) or less (e.g. withdrawal of interest in learning) overt (Putrik et al., 2023).

Such a conception of ELET assumes that its characteristics and causes need to be identified and studied long before the onset of absenteeism and school leaving. This long-term perspective has significantly advanced our understanding of the antecedents of ELET, highlighting key implications for the early prevention of ELET while recognising that individual trajectories depend on the interaction between personal characteristics and specific contexts.

The **personal and societal costs** of ELET are well documented. On a personal level, it reduces an individual's productivity and earnings, and increases poverty (low-paid or insecure jobs, unemployment). It can also lead to delinquency (violence, substance use) and mental health difficulties (suicide attempts). At a societal level, it affects economic growth directly through reduced productivity, but also indirectly due to the expenses associated with crime, poorer health outcomes (physical and mental illness, sick leave), reliance on social transfers and lower civic engagement. Further down the line, the additional societal costs of ELET are a labour force that lacks skills – and, as a result, lower economic competitiveness in the global knowledge economy (Cairo and Cajner, 2018; Castellvi et al., 2020; Cook and Kang, 2016; Nouwen and Clycq, 2019; Zhu et al., 2025).

1.2. Methodology

The present report is based on a review of existing research, and is structured into two parts. These focus on: (i) pathways to ELET and absenteeism, identifying predictors of ELET and absenteeism that have been detected in the research; and (ii) preventive measures and interventions identified in the research as being effective, or having the potential for further exploration. Due to the complexity of the phenomenon being researched, the review focuses on research literature published in the last 10 years. Search was carried out using the research repositories Web of Science, ERIC and PsyInfo, with the following search terms, for (i) and (ii) part of the report, respectively:

search for (i) TI OR AB “early school leaving” OR “early school leavers” OR “dropout”; exclusion criteria: NOT university, preference: European region; additional search term: TI (review of literature OR literature review OR meta-analysis OR systematic review; search terms for (ii) (TI “school” AND TI (“leaving” OR “absenteeism” OR “leavers” OR “dropout”) AND AB (“intervention” OR “prevention” OR “strategies” OR “practices” OR “retention” OR “program” OR “programs” OR “programme” OR “programmes” OR “engagement” OR “support” OR “experiment”).

Priority was given to recent studies; therefore, when multiple studies addressed similar topics, the most up-to-date research was included, to reflect current advances in the field. Meta-analyses and systematic reviews were prioritised for their ability to synthesise evidence across studies; all relevant reviews were therefore included in the report. Given that experimental design is the gold standard in intervention research, all experimentally evaluated studies on measures targeting ELET and absenteeism were included. Given that the report was requested to be relevant to the European context, greater attention has been given to measures evaluated in Europe.

2. Pathways to absenteeism and early leaving from education and training

Aspects of human development – including ELET and absenteeism – are contextually embedded in a micro context (the individual), a mezzo context (family, school, peers, teachers) and a macro context (policy and system level), with these levels being embedded within one another and in constant interaction (Ecological systems theory, Bronfenbrenner, 1994). Thus, this overview of recent findings (published in the last 10 years) involving ELET and absenteeism is organised according to these contextual levels. For the purpose of clarity, the predictors are listed one by one. However, it is important to bear in mind the constant interactions within and between contextual levels, the multifaced nature of ELET and absenteeism, and the cumulative effect of the predictors. For this reason, we return to these interactions at the end of this section.

2.1. Predictors of ELET at the individual (micro) level

A systematic review of systematic reviews clusters the predictors of ELET into "academic" and "non-academic" predictors (Gonzalez-Rodrigez et al., 2019). Non-academic predictors include sociodemographic characteristics (gender, social class or having an ethnic minority background) and mental health difficulties (behavioural and emotional difficulties). Academic predictors, which are significantly associated with non-academic predictors, can be classified as: (i) academic difficulties (e.g. low achievement, learning difficulties), (ii) academic failure (e.g. grade retentions), and (iii) absenteeism.

Sociodemographic: low socioeconomic status remains one of the strongest predictors of ELET and absenteeism (Gubbels et al., 2019, Klein et al., 2020; Sosu et al., 2021); however, not all studies confirm this association (Samuel and Burger, 2020). Because the socioeconomic status concerned is, in fact, the socio-economic status of an individual's family, this is discussed in detail in the subsection that follows on mezzo-level predictors.

It should be noted that non-majority students are at higher risk of ELET in comparison to majority students (Hippe and Jakubowski, 2018; Nouwen and Clycq, 2019). Furthermore, in most contexts (including Europe), boys and men are involved in ELET significantly more often than girls and women (Bonnet and Murtin, 2023; Holsen et al., 2018; Nouwen and Clycq, 2019; Quin, 2017). This is not true in all countries, however – as evidenced in Slovakia, Turkey (Bonnet and Murtin, 2023) and Bosnia and Herzegovina (Jugović et al., 2013). Traditional gender roles and lower educational expectations by parents are possible explanations for female students being more prone to ELET in some contexts (Bonnet and Murtin, 2023). Meanwhile, contexts in which there are more employment opportunities for males represent possible explanations for male

students being more prone to ELET in some contexts (Borgna and Struffolino, 2017).

Mental health: difficulties with mental health, whether externalising (aggression, conduct difficulties) (Holsen et al., 2018; Lau et al., 2021) or internalising (depression, anxiety) (Dupere et al., 2018; Finning et al., 2019; Gubbels et al., 2019), represent a significant and consistent risk factor for ELET and absenteeism. Several moderators of this relationship have been identified, including gender, academic difficulties and student-teacher relationships (Fortin et al., 2013; Sagatun et al., 2014; Veldman et al., 2014). In the Netherlands, the level of externalising and internalising difficulties for girls at the age of 11 predicted their educational attainment at 19 (Veldman et al., 2014). With respect to internalising difficulties, a gender effect has also been confirmed by other studies (e.g. Sagatun et al., 2014). In Norway, a 10 % reduction in externalising difficulties led to a reduction in ELET rates; however, around 75 % of this effect was mediated by school grades.

Along with academic difficulties, students with externalising difficulties are more likely to have negative relationships with teachers (Fortin et al., 2013; Hamre and Pianta, 2001; Rudasill et al., 2010), and externalising difficulties and teacher-student relationships negatively influence each other over time. The same goes for peer relationships: exhibiting aggressive behaviour and associating with aggressive peers is identified as a strong predictor of ELET (Fortin et al., 2010; Fortin, 2006). Because male students are shown to be more prone to ELET than female peers, externalising difficulties have been suggested as one of the main contributing factors (Putrik et al., 2023), and are suggested to be especially problematic when combined with internalising difficulties (Lau et al., 2021).

Academic difficulties: academic achievement and academic self-efficacy are among the most consistent predictors of ELET (Battin-Pearson et al., 2000; Gonzalez-Rodrigez et al., 2019), although some exceptions do exist in the literature (e.g. Samuel and Burger, 2020). However, attention needs to go beyond looking at test results and grades, and towards the direction of possible support mechanisms. Higher rates of ELET and absenteeism are reported in combination with learning difficulties and grade retention (Nouwen and Clycq, 2019). As grade retention is a common school measure for students with difficulties (either learning or behavioural), this association is important. Grade retention disconnects students from their teachers and peers, and lowers their engagement. This makes them even more vulnerable to ELET and absenteeism (Foreman-Murray et al., 2022). Absenteeism is, on its own, one of the early signs of ELET (Gonzalez-Rodrigez et al., 2019).

Negative life events: one in three ELET students who leave school show no early signs of disengagement (e.g. obvious academic or behavioural difficulties) a year before ELET (Dupéré et al., 2015; Janosz et al., 2008). Among this group, negative life events have been detected as possible triggers. One longitudinal study in Switzerland showed that both long term disengagement and transitionary

stressors increased the risk for ELET – even more so when such stressors accumulate. The researchers also found that negative events (e.g. physical illness, the death of someone close, being involved in an accident, being involved with the police, an unhappy relationship, fights with friends or family, parental divorce or separation) – more specifically, an individual's response to a negative life event – can trigger ELET even when low socio-economic status, mental health difficulties and academic difficulties are controlled for (Samuel and Burger, 2019).

2.2. Predictors of ELET at the family (mezzo) level

At family level, the predictors of ELET and absenteeism can be grouped into (i) predictors associated with the socioeconomic status of the family, (ii) predictors associated with the structure of the family, and (iii) predictors associated with parental behaviour.

Socioeconomic status of the family: the low educational level of parent(s) and poverty operate independently as predictors of ELET (Bonnet and Murtin, 2023). However, their effect is intensified when combined (Kaye et al., 2017) – even more so when family poverty is embedded into community poverty (Brooks-Gunn and Duncan, 1997; De Witte et al., 2013). Chronic family poverty correlates strongly with a range of adverse outcomes including residential instability, restricted access to nutritious food, disrupted parental involvement due to incarceration or separation, heightened exposure to community or domestic violence, increased incidence of substance misuse, and the accumulation of chronic psychosocial stressors (Shonkoff et al., 2012).

Structure of the family: students from non-traditional families (e.g. single-parent households, divorced or separated parents) are at greater risk of ELET than students from cohabiting families (Song et al., 2012). Students with parents who have separated are at higher risk of ELET, especially when this is combined with low socioeconomic status and low levels of parental education (Karhina et al., 2023).

Parental behaviour and practices: a recent meta-analysis showed a significant association between parental practices and the risk of ELET and absenteeism – both positive (e.g. support, acceptance, clear boundaries) and negative (e.g. intrusive control, corporal punishment, conflicts). Negative practices are especially important at secondary school level (Marlow and Rehman, 2021). The effect sizes for positive parental practices range between -0.15 and -0.12. Especially important is parental support with regard to education – that is, the degree to which parents are involved in and promote their children's education, as assessed from the perspectives of parents, students and teachers (Bowen et al., 2012; Nguyen et al., 2022). At least four distinct forms of parental support have been identified as particularly significant in a student's educational development: parent–child discussion relating to education, formal parental involvement in the parent–teacher meetings, parental monitoring of children's

behaviour, and direct parental involvement in educational practices – with first of these four having the greatest influence (McNeal, 1999). Other family circumstances, such as the birth of a sibling, have also been associated with ELET (Putrik et al., 2023; Theunissen et al., 2015).

2.3. Predictors of ELET at school (mezzo) level

Student engagement is deeply rooted in the fulfilment of social-emotional needs, particularly the need to belong. Since schools represent significant social environments, constructs such as perceived school belonging, interpersonal dynamics with teachers, and peer relations, are pivotal in shaping students' engagement trajectories (Pianta et al., 2012).

School belongingness: a student's sense of belonging in school is a widely recognised factor in the research literature when it comes to preventing ELET and absenteeism (Korpershoek et al., 2020). School belongingness is a reflection of positive relationships on the one hand, and school culture and climate on the other. Students will be more likely to succeed (i.e. to not be involved in absenteeism and ELET, to make academic progress, and to feel accepted and included) in schools with a positive school culture. This is characterised by a shared sense of what is important, a shared ethos of caring and concern, and a commitment to helping students learn, as well as a commitment to meeting students' needs (Deal and Peterson, 2016; Tilleczek et al., 2011). Moreover, school culture is also reflected in whether and how a school deals with ethnic, linguistic and cultural diversity in those regions and schools that feature greater diversity in their classrooms.

Student-teacher relationships: research consistently shows a significant association between student-teacher relationships and a student's school engagement and academic achievement (Burns et al., 2025; Cornelius-White, 2007; Jiang et al., 2022), including across ethnic groups (Kaye et al., 2017). A meta-analysis by Roorda and Koomen (2011) found that both positive and negative student–teacher relationships significantly impact engagement (effect sizes for positive relationships were 0.41 using the same informant, and 0.23 using a different informant; effect sizes for negative relationships were -0.42 using the same informant, and -0.30 using different informant). The same meta-analysis also found a significant effect of student–teacher relationships on achievement (effect sizes for positive relationships were 0.14 using the same informant, and 0.17 using different informant; effect sizes for negative relationships were -0.13 using the same informant, and -0.19 using different informant). The student–teacher relationship is important even after accounting for school context variables such as teacher reward policies (Barile et al., 2012), country (Chiu et al., 2012), school type (Conner and Pope, 2013; Langenkamp, 2010), school choice, level of urbanisation, socioeconomic status, and school size (Lee and Burkam, 2003). This association is also confirmed in a review of longitudinal

studies, which indicates that a change in the quality of this relationship is associated with a consequent change in emotional engagement, academic achievement and ELET, thereby confirming that the quality of such relationships is a predictor of ELET (Quin, 2017). A meta-analytical review of the association between student–teacher relationships and students' outcomes shows a correlations of 0.55 for student engagement, -0.35 for ELET reduction and 0.25 for absenteeism reduction (Cornelius-White, 2007). Despite this, relational support is not yet standard practice in schools (Beaman and Wheldall, 2000), even though stronger emotional support from teachers has been shown to help prevent ELET (Tvedt et al., 2021a).

Peer relationships: closeness with classmates in upper-secondary schools is a predictor of school engagement (Mikami et al., 2017); thus, peer support has been identified as a protective factor against ELET (Archambault et al., 2009). There is a strong positive association between loneliness among peers in upper-secondary school and intentions towards ELET (Frostad et al., 2015; Haugan et al., 2019; Tvedt et al., 2021b). However, relationships with peers can go in both directions, representing either a risk or a protective factor with regard to ELET and absenteeism (Wang and Eccles, 2012), depending on the characteristics of the peer group. School engagement can also lead to self-selection, thereby influencing the risk of ELET and absenteeism. Other research findings show a positive link between an individual's sense of belonging in school and school-based peer relations, especially for those students whose status places them at risk (Elffers et al., 2012). This positive relationship differs between ethnic groups, however, and thus affects the degree to which school-based friendships are reflected in a sense of school belonging among ethnic minority students (Faircloth and Hamm, 2003).

2.4. Predictors of ELET at the (macro) level of society and policy

At a macro level, the characteristics of a given society (such as societal inequality, including gender and income disparities) has a significant influence on ELET and absenteeism. Furthermore, labour market characteristics such as the level of unemployment or sector structure are frequently mentioned in conjunction with ELET. Another important element is the structural characteristics of school systems (such as tracking systems, class sizes and school autonomy).

Societal characteristics: greater societal inequality (e.g. in terms of gender, income inequality) is associated with higher rates of ELET and absenteeism. Conversely, a low gender gap (e.g. as in Slovakia and the Czech Republic; Bonnet and Murtin, 2023) and low income inequality are associated with lower rates of ELET (Bonnet and Murtin, 2023). This is achieved through the pursuit of equity and equal opportunities in the creation of learning paths in which all students are enabled to participate, regardless of their background. Globally, a

significant association can be seen between regional income and ELET (Bonnet and Murtin, 2023); however, this relationship is less clear in Europe, where such a relationship is not present. This lack of relationship between regional income and ELET is attributed to regional diversity: for example, there are several regions in Poland and Greece where incomes are among the lowest in the EU, but which exhibit low rates of ELET. Conversely, many regions of southern Spain and Italy, where incomes lie within the same range, record much higher rates of ELET (Bonnet and Murtin, 2023). Therefore, when analysing the societal influences of regional and national income, education policies must be taken into consideration (Bonnet and Murtin, 2023), as well as the characteristics of the region and the student population (De Witte et al., 2015)

Labour market characteristics: several characteristics of the labour market need to be considered. The first is the level of unemployment. Adult unemployment may have a discouraging effect on students, as it gives away a message that education and training do not lead to employment (De Witte et al., 2013). Seeing that adults with a qualification are easily able to find a job motivates youth to stay in school, while current levels of youth unemployment – together with the associated greater likelihood of unemployment faced by early school leavers – also encourages students to stay in school. However, the attractiveness of the labour market can also play a negative role. Even starting a part-time job notably increases the risk of a student fully leaving school, highlighting the correlation between a dynamic labour market for youth (high adolescent employment, high adult employment) and a higher rate of ELET (Staff et al., 2020). Moreover, in countries such as Italy and Spain, studies based on regional-level data have highlighted the influence of the sectoral composition of the labour market – e.g. the size of the construction and agriculture sectors being positively associated with ELET, and the size of high-tech/science sector being negatively associated with ELET (Bayón-Calvo et al., 2020; Borgna and Struffolino, 2017; Bonnet and Murtin, 2023). The impact of unemployment on ELET appears to be mostly relevant in times of economic crisis.

Structural characteristics of school systems: the characteristics of school systems are directly linked to ELET and absenteeism. The factors mentioned most frequently in research literature are:

(i) the age set for compulsory education (a positive example can be seen in Portugal, where increasing the legal age of school leaving resulted in a decrease in ELET; however, possible side effects such as an increase in disruptive behaviour in classes needs to be considered) (Cabus and De Witte, 2011);

(ii) the diversity of the tracks available in the system – in particular, the variety of vocational tracks (Bonnet and Murtin, 2023; Ozer and Perc, 2020);

(iii) systems in which students enter into different tracks at an early stage. This is associated with ELET, as it reinforces social inequalities (Bäckman et al., 2015; Nouwen and Clycq, 2019), especially for students from disadvantaged socioeconomic backgrounds (Bonnet and Murtin, 2023);

(iv) class sizes, with (smaller classes being associated with lower rates of ELET (Koc and Celik, 2015);

(v) preschool attendance, with higher levels of attendance being associated with lower levels of ELET (Koc and Celik, 2015);

(vi) the level of autonomy given to school management, with greater autonomy being associated with higher levels of ELET. This is explained by increased inequalities between schools at local level, with quality declining among poorer schools (Bonnet and Murtin, 2023; Madeira, 2012);

(vii) teachers' professional development, with greater opportunities being associated with lower rates of ELET (Bonnet and Murtin, 2023); and

(viii) the amount of public funding. While the amount of funding is not explanatory on its own, the way in which funding is spent may be a better predictor (De Witte et al., 2013); however, more resources being devoted to education leads to high levels of academic achievement among students (Koc and Celik, 2015).

2.5. Interplay between predictors

In alignment with Bronfenbrenner's ecological systems theory (1994), recent literature on ELET and absenteeism illustrates how these phenomena are embedded within intersecting micro (individual), mezzo (family, school, peers), and macro (societal, policy) contexts. Although individual predictors – such as sociodemographic background, mental health, academic struggles and exposure to life stressors – are commonly foregrounded, their effects are neither uniform nor isolated. Instead, they interact dynamically with relational determinants (e.g. family structures, parenting practices, school belonging, peer and teacher relationships) as well as structural determinants (e.g. socioeconomic inequality, labour market conditions and education policy). These intersecting domains mutually reinforce or mitigate vulnerabilities, with cumulative and context-contingent effects being particularly salient in the case of minoritised and socioeconomically disadvantaged populations. An intersectional and individualised approach highlights the need to focus not only on individual factors, but also the broader social and institutional systems that create unequal risks of ELET and absenteeism.

2.6. Theoretical models for ELET

Up to now, no single theory (e.g. the full academic mediation theory, general theory of deviance, theory of deviant affiliation, poor family socialisation theory, structural strains theory, reviewed in Gonzalez-Rodriguez et al., 2019) has been able to explain the process of ELET across its full range. The aforementioned approaches suggest that ELET is not caused by a single set of variables, but rather that the trigger for ELET may be a combination of multiple sets of variables. However, the following theories are those most frequently used as a baseline for preventive and intervention measures:

- **Socio-cognitive theory (Vygotsky et al., 1978)**

Vygotsky's socio-cognitive theory claims that cognitive development is fundamentally shaped by social interactions, where learning occurs through mediated activities within contexts. In this regard, the relationship between a more skilled individuals (teachers, mentors or older peers, etc.) and less skilled students is a driver of development. The theory thus emphasises the role played by supporting others, mentors, teachers and peers in preventing ELET.

- **Self-determination theory (Ryan and Deci, 2000)**

Self-determination theory represents a broad framework for the study of human motivation. It defines amotivation (a lack of motivation that can also characterise ELET) as a result of unfulfilled psychological needs for autonomy, competence and connection. The degree to which these three psychological needs are unsupported within a social context will have a robust impact on an individual's success in that setting. This theory is directly transferable to the school setting and to ELET.

- **Social cognitive theory (Bandura, 1982)**

Social cognitive theory views human behaviour as the product of interactions between an individual's environmental, cognitive and personal factors. It therefore proposes the interactional nature of the factors that influence ELET and absenteeism, and focuses on the contextual antecedents of self-efficacy.

- **Expectancy-value theory (Eccles and Wigfield, 2002)**

Expectancy-value theory states that people's choices in relation to achievement are influenced by their expectations of success, and the subjective value they place on tasks in specific domains.

- **Positive youth development perspective (Lerner et al., 2011)**

Positive youth development perspective promotes a strengths-based approach. According to this perspective, positive development (which includes the absence of ELET) is a result of positive interactions between the internal and external assets of every individual. This is operationalised through indicators of thriving – specifically, the 5 'C's of competence, confidence, caring, connection and character.

- **Self-system model of motivational development (Skinner et al., 2022)**

The self-system model of motivational development builds upon Bronfenbrenner's system theory (1994), placing an emphasis on the contexts as well as the developmental processes involved in motivational development.

- **Job demands-resources (JD-R) model (Salmela-Aro, 2017)**

School engagement and burnout can be approached via the job demands-resources model. This model distinguishes two processes, the first of which is an effort-driven, energetic process in which academic demands such as workload and academic pressure exhaust a student's energy and lead first to stress, and then to burnout and difficulties in mental health. The other process is a motivational one, in which the availability of resources leads to student engagement that fosters life satisfaction.

3. Preventive measures and interventions

Based on the predictors of ELET identified by the review of research literature and the theoretical models for ELET listed above, this section of the report presents evidence-based preventive measures and interventions identified in the scientific literature. It includes all of measures identified through the literature review; however, it should be noted that not all of these have been evaluated using experimental designs. Nevertheless, we do see potential in exploring the impacts of such measures on ELET and absenteeism through future research.

In line with the ad-hoc request, the main focus in this section is on measures to combat absenteeism and ELET in relation to upper-secondary education. However, given that ELET is the result of gradual disengagement from education, measures implemented during previous education levels are also included. The section includes examples of prevention and intervention measures that are mostly (but not exclusively) drawn from the European context. In alignment with Bronfenbrenner's theory (1994), which emphasises layered, contextual development, in the measures identified in the research literature are presented according to their contextual layers, starting with the mezzo level and continuing with macro-level measures. It concludes with a discussion of the need to take into account all layers in order to advance the prevention of absenteeism and ELET.

3.1. Measures at school and family (mezzo) level

Students are embedded within the contexts of their family, school and community. For this reason, prevention and intervention need to start at mezzo level, through a "whole-school, whole-community" approach including parental involvement being the gold standard. While holistic approaches to supporting student well-being (which include academic as well as social and emotional support) are recommended, for the purposes of clarity we distinguish between those measures that place greater emphasis on academic competences, and those that emphasise social and emotional competences and well-being.

Focus on students' academic competences

Given that academic achievement is among the most robust predictors of ELET and absenteeism, and considering that academic support constitutes a core element of educational institutions, schools typically prioritise interventions with an academic focus as primary measures in the prevention of ELET (De Witte and Cabus, 2012). Several such measures identified in the review of recent research literature are listed below.

Setting academic goals: the aim of this type of intervention is to strengthen academic motivation and commitment to educational goals, either in an individual

(the most common, reviewed in Snape and Atkinson, 2016) or group setting (Iachini, 2023), in relation to both the academic and the behavioural domain (Bruhn et al., 2016).

Iachini (2023) tested the effectiveness of the "Aspire Group Intervention (AGI)", a goal-setting intervention, in the group setting of a class of 9th-grade students at risk of ELET. The intervention consisted of a nine-lesson structured curriculum focusing on the processes of engaging, focusing, evoking and planning (Miller and Rollnick, 2013). The AGI intervention is based on self-determination theory (Ryan and Deci, 2000) and positive youth development (Catalano et al., 2002). Iachini's qualitative evaluation yielded positive effects from the perspectives of both students and teachers. However, the quantitative evaluation (small sample of 38 students, without a control group) did not find a significant improvement in school belongingness, academic motivation or social skills (Iachini, 2023).

Alternative learning pathways: this type of targeted intervention was piloted in Italy as a way to prevent ELET. The results – albeit preliminary and based on a small sample size – show promising effects on ELET. Despite the small sample size (21 students in seven schools), the intervention was evaluated in a randomised control trial involving a control group. A sample of students at risk of ELET (migrant students with manifested behavioural difficulties) from lower-secondary schools were engaged in alternative vocational and training courses outside school (two out of five school days students were spent in vocational and training centres, focusing on basic literacy skills as well as specific vocational skills). While some of the students in the control group left school, none of the students in the intervention group did so.

Factors that were mentioned as possibly contributing to the positive effects observed were the trial's small class sizes (especially important for migrant students, due to language difficulties); mentors with migrant backgrounds (boosting migrant students' self-confidence and motivation, and at the same time providing a language bridge); and a focus on citizenship education (which fosters school inclusion) (Lamonica et al., 2020).

Another option that has shown positive effects is modular education. This offers partial certification and greater flexibility, as well as supporting students' autonomy – but it can lead to lower educational quality. For example, in Flanders, modular education has been observed to have positive effects (calculated using the difference-in-difference quasi-experimental method) on ELET rates. These were identified across genders (by 2.5 percentage points), with larger effects being found among migrant students (a 7.7 percentage-point drop among migrant students and 2 percentage point drop among non-migrant student (Mazrekaj and De Witte, 2020).

Learning camps: learning camps take place outside the school premises, and aim to improve academic competences. Meta-analyses of maths-focused learning camps show an average weighted impact estimate of +0.10 standard

deviations on achievement outcomes in mathematics, based on experimental and quasi-experimental studies (Lynch et al., 2022). One example is the Norway-based **"**Guttas Campus", a targeted intervention for boys in 9th grade. This is a two-week, group-based learning-focused camp, with 25–40 boys per group, engaging in individualised learning activities in the domains of reading, writing and maths. The initiative includes scheduled twice-monthly follow-ups with a mentor, as well as mandatory parental support (parental meetings prior to and after the camp). The main focus of Guttas Campus is "learning to learn", together with support for well-being (e.g. positive habits, character strengths). The evaluation found both academic improvement and lower levels of ELET rates among those who completed the intervention (Ramsdal and Wynn, 2022; Ramsdal and Wynn, 2024).

Another example is "Aim High" – a USA-based, five-week summer learning camp. This intervention integrates with the curriculum, and offers additional academic to support at-risk students from the 6th to the 9th grade. Additional focus is placed on social and emotional learning. The intervention was found to have positive long-term effects on absenteeism, evaluated using a difference-in-difference quasi-experimental design(a 4.8 percentage point decrease), with more pronounced effects being detected among students who attended camps during more than one summer, as well as among male students and migrant students (Pyne and Dee, 2021).

Mentoring: this type of intervention involves mentors who guide the positive development of the student in both academic and non-academic domains. Mentors often act as a bridge between parents, school and non-school communities. It is one of the most frequently documented measures to improve the academic engagement of students at risk of ELET (Larose et al., 2020; Laco and Johnson, 2019; Meltzer et al., 2020). Mentoring is either school or community based, and is carried out in either a group (rarely) or an individual setting (Fehervari and Varga, 2023). A recent qualitative review (Fehervari and Varga, 2023) looking at empirical research on mentoring interventions (which also included interventions that featured a mentoring component) found mostly positive effects, with more effects being found in the non-academic domain. Time constraints, inadequate mentor expertise and preparation, as well as limited engagement and motivation among learners, emerged as the most frequently cited barriers to the effective implementation of mentoring interventions. The review listed five European mentoring interventions, some of which have so far published study protocols ("Twonsscholen 020" in the Netherlands; "Reconnect-Catalyst" in Norway); some have been evaluated using a qualitative approach ("Playing for success" in the Netherlands); while others have been evaluated using experimental designs ("Dream School" in Norway; "School Based Mentoring Program" in Portugal).

"SMART" is another example found in the research literature. This academic goal-setting intervention aimed to promote SMART goal-setting skills (i.e. specific, measurable, attainable, realistic/relevant and time-bound) through self-

regulation training. The findings of a qualitative evaluation, while limited by the lack of a control group and a small sample size (49 students) as well as non-attendance, show that at the end of the intervention, most students increased their number of academic goals. The intervention was framed within a nationwide mentoring programme in Portugal (Martins et al., 2024).

Examples of peer-group mentoring also exist, such as "Peer Group Connection-High School", a school-based cross-age peer mentoring programme, evaluated using a randomised control experiment, which showed positive effects on disciplinary problems, school belongingness, educational expectations, school engagement and, with a higher dosage, even on academic achievement (Jenner et al., 2023).

Focus on students' social and emotional competencies and well-being

Social and emotional learning interventions have shown positive effects on a wide range of factors associated with ELET, as well as directly on ELET itself (Lee-St. John et al., 2018; Wexler et al., 2015). Teaching students to regulate their emotions and behaviour, particularly when dealing with psychologically stressful moments, is critical to fostering engagement and preventing ELET (Montero-Sieburth and Turcatti, 2022). Several social and emotional learning programmes targeting students – often combined with a cognitive behavioural approach (Maynard et a al., 2015; Walter et al., 2023) –have been evaluated in the European context. Examples are provided below.

Dream teens: this is a social and emotional learning programme developed in Portugal (Gaspar de Matos and Simões, 2016). The programme includes three key elements: youth participation (opportunities for youth to participate in the leadership of activities); skills building (emphasis on the development of life skills); and adult mentorship (in the context of sustained and caring adult–youth relationships). Although in the qualitative evaluation, the great majority of youth involved in the programme reported positive outcomes, when comparing the results reported in the quantitative evaluations before and after the intervention, no significant differences were found (Branquinho, de Matos, 2019; Branquinho et al., 2020).

Resilience curriculum: this is a universal, school-based intervention aimed at promoting resilience-related competences in children and adolescents, paying special attention to at-risk groups, such as those with disabilities, special educational needs, minorities and refugees (Cefai et al., 2014). It comprises six main themes: developing communication skills; establishing and maintaining healthy relationships; developing a growth mindset; developing self-determination; building on strengths; and turning challenges into opportunities (Gaspar de Matos and Simões, 2016). Teachers and children themselves consistently reported positive behavioural changes in resilience-related competencies after implementation. The evaluation, using a quasi-experimental

design on a large sample, showed improvements in mental health and academic performance (for the preschool phase) (Simões et al., 2021).

Dream school: this Norway-based programme applied a universal, whole-school approach aimed at improving the psychosocial environment in schools. Its goals were: (a) to establish a framework and tools for holistic work within the psychosocial learning environment in the school; (b) to increase the competences of employees with regard to working to promote a good psychosocial environment; (c) to strengthen relationships between students, as well as between students and staff; (d) to strengthen students' sense of belonging, participation, mastery and motivation; (e) to increase students' motivation to complete and pass school; and (f) to use students as resources in a systematic manner to promote a good psychosocial environment. The intervention is structured in the form of 3-hour "Dream classes" (at the beginning of each semester), led by pre-trained student mentors (Urke et al., 2023). The COMPLETE project evaluated the programme, testing the effectiveness of the "Dream school" approach (single-tier group), as well as the effectiveness of a combination of "Dream school" and "Mental health support teams" (muti-tier group). The multidisciplinary "Mental Health Support Team" is used to support students at risk of ELET. It aims to provide psychosocial and academic guidance to students struggling with absenteeism and academic progress. The help offered includes academic or social support, alternative school schedules, or reducing the number of subjects that a student has to complete within a given academic year, in order to increase their chances of passing, as well as prolonging the study period, etc. (Urke et al., 2023). An experimental evaluation study using three groups – control, single tier and multi-tier – reported mixed findings. Specifically, the participants in the multi-tier intervention group reported a significantly more positive school climate compared with the single-tier intervention group. With regard to ELET, the opposite was found – the multi-tier intervention group showed significantly higher rates of ELET within three years compared with the control group and the single-tier intervention group (Urke et al., 2023).

FRIENDS programme: this is a structured evidence-based social and emotional learning intervention for the prevention of child and youth anxiety using cognitive behavioural approach (Barrett et al., 2006). It was developed in Australia and has been evaluated in several European countries, including Ireland (Ruttledge et al., 2016), Slovenia (Kozina, 2021) and Sweden (Ahlen et al., 2012). An evaluation of the FRIENDS programmes, carried out using randomised control trials, showed a positive impact on anxiety, with small-to-medium effect sizes reported – 0.13 for anxiety, and 0.11 for depressive symptoms (Ahlen et al., 2015; Higgins and O'Sullivan, 2015). While FRIENDS was modelled after individual cognitive behavioural programmes, it was specifically designed for use in schools as a universal preventive programme (Higgins and O'Sullivan, 2015). However, it was not found to be effective in the domain of school outcomes (specifically, in standardised tests – Rodgers and Dunsmuir, 2015).

EMOTION: "Coping kids": this targeted cognitive-behavioural anxiety and depression prevention programme was evaluated using a randomised control trial in Norway (Martinsen et al., 2019). This showed positive effects in terms of a decrease in anxiety and depression and an increase in emotion regulation skills, self-esteem and self-perceived quality of life (Martinsen et al., 2021). However, the programme has not showed a positive effect on school functioning (Pedersen et al., 2023), in contrast to meta-analyses which show cognitive-behavioural approaches targeting anxiety leading to short-and long-term improvements in general functioning (Kreuze et al., 2018).

Dropout prevention model: this model, based on the whole-school approach and carried out in Serbia, includes three types of ELET interventions: (i) individual supportive interventions at school level, with the involvement of the local community; (ii) preventive measures and interventions at the school, with parental involvement, peer support and corrective educational processes; (iii) increasing school capacity and activities to change school culture, as well as teacher training to prevent ELET. The quantitative and qualitative evaluation (before–after comparisons without a control group) was performed two years after the model was implemented, and showed positive effects in the form of a drop in ELET rates (a 66 % decrease) and absenteeism (a 30 % decrease) in participating schools. However, the intervention was not found to have led to academic improvements in achievement (Jovanović Vitomir et al., 2018).

Check and connect: this USA-based programme to promote student participation and prevent ELET uses the following measures: (i) establishing relationships and strengthening communication through a commitment to the student's educational success; (ii) routine monitoring of indicators such as student attendance, academic and behavioural performance; (iii) immediate and timely intervention and the provision of support that is suitable to the individual needs of the student, based on the extent of interaction with the school, the effects of the home, and the use of local resources; (iv) long-term commitments, including following the student and his/her family through the transition between school levels, as well as knowing the student and informing those around him/her about the programmes offered; (v) solving problems by improving problem-solving skills and finding solutions instead of identifying culprits; (vi) facilitating student access and active participation in school activities and events. When the situations before and after the intervention were compared (without a control group), the programme was found to have significantly reduced school absenteeism (a 28 % decrease) and increased students' involvement in school activities (a 30 % increase) (Lehr et al., 2004; Eslamian et al., 2023).

Behavioural interventions: the review of research carried out for the present report supports the positive effects of behavioural interventions aimed at youth at risk (e.g. in relation to hyperactivity, aggression, and dysthymia, fighting, irritability, disobedience, lying and bullying, negligence, biting, kicking, and hitting) (Eslamian et al., 2023). However, it should be noted that punishments (e.g. school suspensions, penalties for students, penalties for caregivers, juvenile

court system), are not found to be effective (Ekstrand, 2015; Montero-Sieburth and Turcatti, 2022). Expelling a disruptive student from class affects not only the expelled student's emotional and behavioural engagement with school; it also affects the levels of engagement among those students who remain in the classroom (Montero-Sieburth and Turcatti, 2022).

One of more empirically supported types of intervention (evaluated using randomised control trials) used in USA is behavioural interventions that focus on learning skills and behaviour management, e.g. "Positive behavioural interventions and supports" (Montero-Sieburth and Turcatti, 2022). In Europe, a modular cognitive behavioural-based programme was developed with the aim of supporting students with mental health difficulties and absenteeism (school refusal, truancy). This consists of cognitive behavioural techniques, family counselling, school counselling and psycho-educational physical exercises (Reissner et al., 2018). This was evaluated using a randomised control trial, which showed a 60 % increase in school attendance (Reissner et al., 2015).

Focus on teachers

Given the central role that teachers play within educational environments, it is essential to implement measures that support these professionals in both academic and non-academic domains. The former involves aspects such as the curriculum, assessment and evaluation, teachers' teaching practices, and teachers' expectations. The latter includes relational and social emotional support for teachers. In the academic domain, the following are especially important in the prevention of ELET: matching the curriculum to students' interests and identities, and their active participation (Main and Whatman, 2016); setting high expectations for student achievement, especially for at-risk students (Montero-Sieburth and Turcatti, 2022; Tarabini et al. 2019); the use of innovative teaching practices, such as gamification (Guerrero-Puerta and Guerrero, 2021); and the use of adaptive and flexible assessment (Montero-Sieburth and Turcatti, 2022). In the non-academic domain, the following aspects are important: relational competences, non-authoritarian practices, and inclusive practices (Laursen and Nielsen,2016; Montero-Sieburth and Turcatti, 2022) – especially in the case of novice teachers (Bonnet and Murtin, 2023). A quasi-experimental design evaluating the effects of providing social and emotional support for teachers has shown an effect (with a size of 0.13) on the level of student attendance (Hunt and Henschel, 2024). In the European context, the programme "HAND in HAND: Empowering teachers" has been developed, implemented and tested in five countries. Qualitative and quantitative evaluation (via a randomised control trial) has yielded promising effects in relation to teachers' social, emotional and diversity awareness competences. These effects are small to medium in size, although the effects vary between countries (Kozina, 2024).

Focus on parents

Measures that target parents allow teachers and schools to address ELET risk factors that originate in a student's family background (Calvagna 2015; Ainscow et al., 2004, González-Rodríguez et al., 2019). Using such measures, a school can identify changes in a student's circumstances that may cause distress and result in their disengagement from school. These measures can also detect possible differences in the values that can lead to ELET, as seen in the case of some Roma students (Calvagna 2015; Doyle and –Keane 2019; Flores et al. 2019). Research shows that consistent and structured parent–teacher communications improve academic outcomes (Himmelsbach et al., 2022). In particular, it is important to ensure that parental perspectives are meaningfully incorporated into the development of institutional policies and curriculum resources. This is especially crucial in the case of families with migrant backgrounds, whose voices are often underrepresented in educational decision-making processes (Belghazi 2019; Montero-Sieburth and Turcatti, 2022). In France, as part of one ELET intervention, the principals of some secondary schools were required to identify students at risk of ELET, and to provide information what would help their families to adopt less unrealistic aspirations and make better school choices. Two meetings were held between the principal and the selected families. These meetings aimed to identify the specific aspirations of families, to evaluate whether or not these were realistic, to provide information on alternative options, and to explain the merits of vocational education. Using an experimental design featuring a control group, an evaluation determined that the intervention yields positive effects, with its effect persisting two years after the treatment (a drop in ELET levels from 20 % to 15 %) (Goux et al. 2014).

3.2. Measures used at system (macro) level

Due to the longer time it takes to implement processes at policy and system levels, there is a lack in the research literature of evidence-based evaluations of the effects of such measures. However, a number of clusters of measures do appear across the literature – most commonly, structural measures that address the area of vocational tracks.

Increasing the age to which youth must remain in compulsory education or training: this is one of the options countries use to address ELET. However, an evaluation of such a measure in England found that it did not lead to a reduction in ELET (Brown et al., 2024). In Spain, where an increase in compulsory age was combined with vocational reforms, the results are more positive (Bellés-Obrero and Duchini, 2021). This reform increased the share of individuals with a general secondary or tertiary qualification, and reduced the share of those with advanced vocational qualifications. The reform also increased average wages and the likelihood of being employed in a high-skilled occupation in the working population. However, all of these positive effects were driven by individuals with

medium to high levels of education, while the reform significantly reduced the employment prospects of those with only a basic general education.

Vocational education reforms: because early school leavers are found in larger numbers in vocational tracks (De Witte et al., 2013), many efforts to prevent ELET have been made in this area. As in case of Spain, mentioned above, most reforms across Europe have taken the direction of prolonging vocational education by adding extra content to the general academic track, adding more vocational tracks, and opening up the path from vocational educational into tertiary education.

Examples of prolonging vocational education can be found in Sweden (Hall, 2016), the Netherlands (Oosterbeek and Webbink, 2007), Finland (Ollikainen and Karhunen, 2021), Croatia (Zilic, 2018), Norway (Bertrand et al., 2021) and Italy (Comi et al., 2022). While such prolongation is associated with higher attainment, it is also associated with increased rates of ELET among at-risk students (with the exception of Norway, where ELET decreased). In Norway and Croatia, gender-specific effects were detected. In some countries, there are examples of the compulsory age moving in the opposite direction. For instance, in Hungary, a vocational education reform reduced the length of studies, leading to a decrease in general skills, but also a decrease in ELET rates (Hermann and Horn, 2023). In addition to prolonging the vocational track, another option is to provide greater flexibility by offering more tracks; however, this has not been found to yield positive effects (Brown et al., 2024). Bonnet and Murtin (2023) identified that offering vocational tracks to a larger share of students yielded the benefit of reducing ELET rates. However, the authors also pointed out that solely aiming to increase the number of pupils enrolled in vocational programmes could reinforce social inequalities. It is also important to avoid early tracking, to avoid the concentration of low-performing students for several years in the same classes.

Later starting times for schools: because early starting times do not align with the circadian rhythms of adolescents, there is a policy recommendation for schools' start times to be later for adolescents. A USA-based study (Lenard et al., 2020) showed that beginning the school day 40 minutes earlier significantly increased absenteeism, lateness and rates of ELET, and reduced student engagement. Recent meta-analyses have also established that delaying the start of the school day yields positive effects on developmental outcomes and mental health (Yip et al., 2022; Ferrante et al., 2024).

Learning support: in 2013, Spain introduced its "Law for improving Educational Quality", with a specific focus on the prevention of ELET (Alonso-Dominquez et al., 2024). The law introduced the "Learning and Performance Improvement Program" (PMAR) to tackle ELET. This focused on diversity and creating different education paths to keep students in schools through its nationwide implementation. Under PMAR, students are placed into small group to engage in focused learning activities: language and social studies, scientific and

mathematical studies, and foreign languages. The programme has been evaluated positively using qualitative measures (Alonso-Dominquez et al., 2024).

A similar initiative was launched in Norway. “New possibilities” is a nationwide initiative initiated by the Norwegian Ministry of Education to support low-achieving students during the last year of compulsory schooling. The target group comprises the 10 % of students in each school who fall into the following categories: (i) low motivation for education; (ii) a high record of absence; and/or (iii) who have not acquired sufficient basic skills. The targeted students received intensive training in literacy for up to 7.5 hours per week. The evaluation (an experimental design incorporating a control group) showed a limited positive effect on academic achievement, and overall positive evaluation by the students and teachers who participated in the project. Nevertheless, effects in relation to grade progress were not seen across all of the students who participated (positive effects were only detected for those students with the lowest academic performance). Some reasons for this indicated in the research are the heterogenous sample targeted, diversity in the interpretation and implementation of the initiative by schools, stigmatisation, the intervention being implemented too late in students’ educational career, and students missing other subjects due to the additional classes (Holen et al., 2020)

Early warning systems: these systems identify students at risk of ELET. Various data sources, including academic performance, attendance records and sociodemographic information, are used to identify students who may be struggling and require additional support. Early warning systems use statistical and machine learning techniques to analyse student data and identify patterns that indicate a risk of ELET. Even though such systems have been deemed effective (McMahon and Sembinate, 2020), a criticism mentioned in research is that they come too late and are based on a limited range of formally acquired data, thereby neglecting relational, social and emotional components. However, examples exist of systems that attempt to move beyond this situation. In the Netherlands, every child has a digital dossier in which health-related information is collected. These dossiers also monitor physical and socio-emotional development relevant to each age up to 18 years (Putrik et al., 2023). The measure used for to monitor social and emotional development is the “Strengths and Difficulties Questionnaire (SDQ)” (Goodman, 1997). The SDQ detects an increased risk of emotional problems, behavioural problems, hyperactivity, peer problems and a lack of pro-social behaviour, and is efficient in predicting ELET. Its predictive power at 10 and at 14 years of age has been tested, with earlier use demonstrating greater effectiveness – indicating the need for early warning systems to be used early in order to have a larger window of opportunity to engage with school and family (Putrik et al., 2023).

A similar intervention in Brazil uses a scale called IAFREE – the “Relational Factors for Risk of School Dropout Scale”. The scale comprises five interrelated dimension or relations: student–school, student–school professionals, student–family, student–community, and student–student (Vasconcelos et al., 2023).

Additional models mentioned in the literature are the ABC model and UNESCO model. The former is designed to assist schools in identifying students who may be in danger of dropping out, by closely monitoring these three decisive factors: Attendance (A), Behaviour (B), and Course Performance (C). The UNESCO model is broader, identifying five key factors that contribute to ELET, These include individual, family, school, community and systemic components (Vasconcelos et al., 2023)

Financial measures: these measures consist of financial investments and conditional transfers. Conditional transfers can allocate additional financial resources either to students or to schools. While these have proved beneficial in developing countries, in Europe the results are mixed (Leuven et al. 2010, De Paola et al. 2012; Brunello and Paola, 2014). England has used the allocation of additional financial transfers to students (targeted at low-income students, and consisting of reduced education fees, or payment by attainment). A positive and significant effect on post-compulsory education was found, with a higher percentage of individuals from income-eligible families completing two years of post-compulsory education (Dearden et al. 2009). In contrast, the allocation of additional financial transfers to schools with higher percentages of at-risk students, as in carried out in France (Bénabou et al. 2009), was not shown to have an effect. A similar lack of effect was found for such an intervention in the Netherlands (Leuven et al., 2007). Conversely, in the UK, Machin et al. (2012) found that financial support contributed to both better learning and higher pupil attendance. Analysis of the relevant research leads to the conclusion that it is not financial investments *per se* that are important, but how and for what these investments are used. Overall, findings are mixed due to highly diverse ways in which such investments are spent at the level of individual schools.

3.3. Comparative findings

Building on meta-analyses of the impact of ELET prevention programmes by Chappell et al. (2015) and Wilson et al. (2011), a meta-analysis on the impact of ELET prevention programmes was conducted very recently by Wang et al. (2024). This reviewed studies published between 2010 and 2022.

Wilson (2011) compared 152 studies, establishing an effect size of 0.29 (the ELET rate for students participating in intervention programmes was 8 % lower than that for students who did not participate in any programme). Campbell et al. (2015), meanwhile, reported an effect size of 0.15. The findings of the meta-analysis by Wang et al. (2024), which looked at 26 USA-based studies, show that ELET intervention programmes had a positive, albeit moderate effect (with a size of 0.19) on improving students' school attainment. The authors compared academic interventions (learning support, learning camps); behavioural and social-emotional learning interventions); community–school collaborations and field trips; mentoring interventions; early childhood education; and school reform

(school restructuring or school closure), and found behavioural interventions to be most effective (with an effect size of 0.33). These findings indicating the effectiveness of behavioural approaches are supported by Eklund et al. (2022) in their meta-analysis of evidence-based interventions targeting absenteeism. The meta-analysis found an overall effect size of 0.25 when analysing 22 studies, with the largest effect size (0.26) being found for behavioural approaches. Furthermore, the meta-analysis by Wang et al. (2024) found combined interventions to be the second-most successful (with an effect size of 0.31). Where measures incorporated at least two from the list of academic, behavioural, community or mentoring interventions, this strengthened their effect by addressing multiple risk factors and collaborating with multiple resources. The latter finding by Wang et al. (2024) advocates for the consideration of various environmental influences on student development, in alignment with Bronfenbrenner's theory (Bronfenbrenner, 1994).

4. Conclusions

This report concludes by focusing on the starting points, open issues and ways forward identified through our review of research literature. These conclusions stress the complexity of a field in which no simple or straightforward exist, and nor can they be expected, based on the knowledge base accumulated so far.

4.1. Where to start?

Youth at risk of ELET are a diverse, heterogenous group. A range of risk factors are identified in the literature, ranging from those that are obvious and easily detected (e.g. low socioeconomic status, migration), to more subtle ones that often go unrecognised (e.g. internalisation difficulties).

Given the importance of multidimensional engagement with students in understanding the process of ELET, early screening tools need to be used to flag the early signs of ELET – not just in terms of behaviour, but also on an emotional and cognitive level (Bowman et al., 2020; Lee-St. John et al., 2018).

Focusing on obvious signs of disengagement, such as absenteeism, disruptive behaviour or low academic achievement, can lead to ELET being targeted too late. A shift towards identifying subtle early warning signs is therefore needed, e.g. through systematic evaluations of **emotional engagement** in addition to behavioural engagement. Acknowledging the progressive nature of the process leading to ELET, it would be a step in the right direction to begin such evaluations as early as during early childhood education (Chang and Romero, 2008), and to involve as many contextual layers as possible with taking intersectionality into account.

4.2. How to start?

The following learning pointers can –be derived from the research reviewed:

⇒ **Relationships are key:** relationships and social support are central to understanding the processes of disengagement, with teacher support and positive student–teacher relationships being the most important (Holen et al., 2018; Nouwen and Clycq, 2019; Wang and Eccles, 2012).

⇒ **Inclusive classrooms, schools and societies:** a positive school culture, characterised by a safe school environment, as well as a more open and inclusive approach to involving parents from lower socioeconomic classes and with ethnic minority or immigrant backgrounds, are crucial protective factors against the processes of school disengagement (Nouwen and Clycq, 2019). Teachers and mentors with migrant backgrounds, and a

focus on citizenship education that integrates culturally relevant curricular content is a promising direction (Lamonica et al., 2020; Nouwen & Clycq, 2019).

⇒ **Muti-target interventions:** multi-target preventive measures and interventions have a better chance of capturing the complexity of ELET. In contrast, placing a sole focus on one specific intervention rarely pays off (De Witte et al., 2013; González-Rodríguez et al., 2019).

4.3. Open issues and ways forward

The complexity and progressive nature of the disengagement that leads to ELET makes the prevention and intervention of ELET **a persistent challenge** for European societies. Even though progress has been made, with individual steps in the right direction, there still remains a long journey ahead.

Due to the urgency of the problem and the stream of negative outcomes associated with it, ELET is a buzzword that has triggered numerous findings across disciplines. However, the research literature contains very few studies that have rigorously evaluated the preventive measures and interventions that can address it. In particular, there is an **absence of randomised control experiments** that empirically test measures aimed at tackling disengagement and ELET, and which would bring us closer to making causal interpretations.

Furthermore, there is a lack of long-term, longitudinal designs, which are especially necessary, due to the lengthy process leading to ELET. Such designs need to take into account the multidimensional nature of ELET and the intersecting developmental factors that contribute to it. This could include methodological innovations, such as multi-informant dynamic time-series data to track intra-individual process and dyadic relationships (Blaauw et al., 2019). An additional challenge is the inclusion of relevant outcome measures for the evaluation of ELET interventions and preventive measures (Heyne et a., 2020) – in particular, those measures that target social and emotional competences and mental health. Another relevant question is that of **fidelity and the adaptation and cultural transferability of interventions**, especially “multi-component, multi-layer” interventions (Kern et al., 2021).

In some European regions, ELET has remained largely unresearched (Jugović et al., 2013) – a lack that needs to be considered when planning future research. In particular, there is a lack of cross-country comparative studies as well as a lack of meta-analyses. The meta-analyses reviewed in this report are based on limited numbers of (mostly) non-European studies, each of which has various limitations listed.

4.4. Closing remarks

All of the layers that contribute to ELET and absenteeism need to be acknowledged, as well as the interplay between them and their intersectional nature. However, **school-based factors hold the most promise** in relation to prevention and intervention efforts that seek to improve engagement. This is because school factors – unlike many background and family-related factors – are viewed as being malleable and open to modification by the school community (Fredricks et al., 2004; Hattie, 2008). Nevertheless, in most cases, preventive measures and interventions are directed towards students and ignore the contextual effects of teachers as active ingredients in the learning process and key contributors to student engagement. The potential offered by high-quality student–teacher relationships is increasingly recognised (Cornelius-White, 2007; Roorda et al., 2011). In this context, it is concerning that, more often than not, **teachers and schools ignore their role in ELET and absenteeism**, instead attributing failures at school to the individual characteristics and backgrounds of students (Rodríguez-Izquierdo, 2022). One way to confront this is to include students' voices. This is a vital step, as the perspectives of youth on the reasons for their disengagement differs significantly from those of educators. For instance, students and teachers agree on the importance of relationships, they disagree regarding the importance of academic achievement as a trigger of ELET (Brown et al., 2024; Torland et al., 2024). The **absence of youth voices** is an issue identified in the literature (Downes, 2013).

In conclusion, we wish to direct attention to the fact that ELET prevention requires **structural changes**. ELET is especially prevalent among the most economically, socially and culturally disadvantaged groups. Therefore, it must be viewed as a central question in relation to educational equality and social justice. Thus, every step taken in the direction of **equity and the promotion of democratic values and inclusion** is a step forward in the prevention of absenteeism and ELET.

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