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System failure? Exploring the interplay of fear of failure, competition, cooperation and sense of belonging in education in England and Flanders

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Abstract

Fear of failure is damaging in a host of ways yet is rife in many schools. Drawing on self-worth theory, we explore whether fear of academic failure is higher in education systems with features that increase students' experiences of competition. To do this, we compare two very different education systems: England, where, for instance, national high-stakes tests are frequent; and Flanders, which had no national testing. Using PISA data generated in 2018, we explore whether and how fear of failure is associated with competition, as well as if and how perceived cooperation and sense of belonging play a role. *t*-Tests (SPSS) of data of 5242 English and 4882 Flemish students show that, on average, English students display more fear of failure, report more competition in school, are more competitive, perceive less cooperation and report less sense of belonging than Flemish students. Multilevel analyses (HLM7.0) show that the association between region and fear of failure is explained partly by students experiencing more competition in England. We conclude that, to reduce fear of failure, it is important to create education systems that de-emphasise competition (e.g., by reducing high-stakes testing) and that instead foster cooperation and a sense of belonging. Reducing fear of failure is particularly important right now as there are mounting concerns in many countries about increasing mental health problems among young people.

KEYWORDS
competition, cooperation, fear of failure, self-worth protection, sense of belonging

Key insights

What is the main issue that the paper addresses?

Fear of failure is damaging yet rife in many schools. We explore the interplay between fear of failure, competition, cooperation and sense of belonging. Using PISA data (2018) we compare England and Flanders—regions that have very different educational systems (e.g., in relation to high-stakes testing).

What are the main insights that the paper provides?

English students display more fear of failure, report more competition in school, are more competitive, perceive less cooperation and report a lower sense of belonging than Flemish students. System-level factors drive these differences. To reduce the fear of failure, education systems could de-emphasise competition and foster cooperation and a sense of belonging.

INTRODUCTION

Fear of failure is rife in many schools (Banks & Smyth, 2015; Borgonovi & Han, 2021; De Castella et al., 2013; Jackson, 2006). This is a serious problem, as fear of academic failure is associated with reduced academic performance, missed opportunities for learning, poor time management, lower social and emotional wellbeing and higher levels of stress, anxiety, burnout and depression (Borgonovi & Han, 2021). At a time when many European countries are reporting mental health crises among young people—central to which is school-related stress—understanding what exacerbates and reduces school-related anxieties and fears is critical (Jerrim, 2023; Putwain, 2025). This paper contributes directly to such understanding through an analysis of PISA 2018 data from England and Flanders (the northern, Dutch-speaking part of Belgium); two regions chosen specifically because of their very different education systems. For example, while England has been referred to as an 'exam nation' (Wright, 2024) because of the frequency of high-stakes national tests, in Flanders there were no national standardised tests until 2024, and even now the tests are not high stakes. Students in England and Flanders also differ in levels of reported school-related stress. For example, the 2018 and 2022 Health Behaviour in School-Aged Children (HBSC) surveys explored the proportions of young people reporting feeling pressured by schoolwork across 45 countries. While England is consistently towards the top of the table, Flanders tends to be towards the bottom. For instance, England was third from top of the table of 11-year-old students feeling pressured by schoolwork in 2022; Flanders was eighth from bottom (see Table 1). At ages 11 and 15 in 2018 and 2022, a substantially greater proportion of English students felt pressured by schoolwork than was the case for their Flemish counterparts (see Table 1).

TABLE 1 Percentage of students who feel pressured by schoolwork (HBSC surveys 2018 and 2022).

	2018				2022			
	Age 11		Age 15		Age 11		Age 15	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
England	34	36	74	62	59	45	82	59
Flanders	14	18	38	32	23	23	63	43

Conceivably, the differences in stress and pressure levels reported by students in Flanders and England reflect differences between the two education systems. For instance, in England, the high-stakes centralised testing and restricted, results-based access to higher education may increase pressure because students experience more competition. In this paper, we contribute to understandings of what generates school-related fears by exploring whether fear of failure—as reported in PISA 2018 (OECD, 2019)—differs between students in England and Flanders, and whether the differences may be explained by perceived competition in school and students' own competitiveness. We also explore the relations with cooperation and sense of belonging. The differences between the English and Flemish educational systems provide us with an excellent opportunity to examine these relationships; they enable us to gain insights into the association between fear of failure and educational competition arising from specific policy choices, especially those relating to testing and selection. As such, this study not only contributes to the research into correlates of fear of failure, but also to knowledge on the consequences of system-level educational policies internationally.

Next, we elaborate on how fears of failure and their contexts can be understood in terms of achievement goal and self-worth theories, of which the cross-cultural relevance and applicability have been demonstrated, at least for WEIRD (Western, Educated, Industrialised, Rich and Democratic) contexts (Diaconu-Gherasim et al., 2024; King et al., 2017; Li et al., 2023). We theoretically develop the connection with competition, cooperation and sense of belonging. We then delineate relevant features of the English and Flemish educational contexts, before outlining the research methods.

FEAR OF FAILURE, ACHIEVEMENT GOALS AND SELF-WORTH THEORY

Martin Covington's self-worth theory of motivation is particularly useful in helping to understand why many students fear academic failure, and in which contexts these fears are likely to be strongest and most prevalent (Covington, 1992, 1998, 2000; Covington & Beery, 1976; De Castella et al., 2013). Covington's theory is inextricably related to achievement goal theory, so we briefly introduce that before moving to self-worth theory.

Achievement goal theory

Achievement goal theory provides valuable insights about the factors that influence student learning in school and emphasises the importance of how individuals think about themselves. It attempts to understand an individual's self-constructed meanings for pursuing a particular course of action, and to explore the individual and contextual factors that shape these constructions. Midgley et al. (2001, p. 77) define the achievement goal as ‘the purposes for behaviour that are perceived or pursued in a competence-relevant setting’. So,

when we ask what a student's achievement goal is, we are asking *why* they engage (or not) in an achievement-related behaviour (Kaplan, 2004; Kaplan et al., 2002).

Achievement goal theory has emphasised two main types of goals: learning goals (also known as mastery or task goals) and performance goals (also known as ego or ability goals). Learning goals are consistently shown to have positive effects on learning (Covington, 2000; Freeman, 2004; Kaplan, 2004; Kaplan et al., 2002; Midgley et al., 2001; Wolters, 2004). They relate to a focus on self-improvement, learning new skills and increasing understanding and appreciation of what is being learned. In other words, learning goals are about *developing* competence. In contrast, performance goals relate to a concern with social comparisons and with a *demonstration* of competence in relation to others; they involve 'outperforming others as a means to aggrandize one's ability status at the expense of peers' (Covington, 2000, p. 174). While there is a consensus among researchers that learning goals are beneficial for learning, there is no consensus about the effects of performance goals.

The mixed and sometimes contradictory research findings about performance goals prompted researchers to propose a division into performance-*approach* and performance-*avoid* goals (Elliot & Harackiewicz, 1996). Performance-*approach* goals refer to a student's concern to demonstrate high ability (e.g., I want to be the best in my class), whilst performance-*avoid* goals relate to a concern to avoid demonstrating low ability (e.g., I don't want to be the worst in my class) (Kaplan et al., 2002). Importantly, both performance-approach and performance-avoid goals are associated with fear of failure (Urdan et al., 2002).

Students who adopt performance-avoid goals, who are eager to avoid appearing stupid, frequently adopt strategies that involve reduced effort on academic tasks and so are often unsuccessful in academic terms. For example, a student concerned to avoid looking stupid might decide not to do a piece of homework rather than run the risk of doing it and getting it wrong. There is a consensus that performance-avoid goals are maladaptive in educational terms (Linnenbrink, 2004). According to Kaplan et al. (2002), students who adopt performance-avoid goals are likely to: (a) feel anxious; (b) have a low sense of academic efficacy; (c) avoid seeking help; (d) engage in academic self-handicapping; and (e) have lower grades. While performance-approach goals are not consistently associated with the range of negative feelings, behaviours and outcomes that performance-avoid goals are, performance-approach goals may be associated with test anxiety and self-handicapping; we elaborate on this in the next section.

Self-worth theory: Why do students fear failure and with what effects?

As noted earlier, self-worth theory is concerned with a fear of failure and its effects. Self-worth theory is a theory of motivation underpinned by the notion that the achievement goals adopted by students reflect 'a struggle to establish and maintain a sense of self-worth and belonging in a society that values competency and doing well' (Covington, 2000, p. 181). Covington's theory was developed initially in relation to US society, which he notes is very competitive; subsequently, self-worth theory has been shown to apply to many other western national contexts as well as some eastern ones (De Castella et al., 2013; Jackson, 2006). Covington argues that in the United States, and also many other countries, individuals are generally considered to be as worthy as their ability to achieve—individuals are judged by their (measurable) achievements. This is explicit and amplified in school contexts.

Achievements are diverse; students might demonstrate high ability at playing the piano, playing football, drawing or working with mathematical equations. However, academic prowess is the most highly valued and rewarded by secondary schools, and the values attached to different abilities are hierarchically ordered. For example, theoretical subjects are regarded as more valuable and important than practical and aesthetic ones (Bleazby, 2015;

Skaalvik, 1993). Reay and Wiliam's (1999, p. 345) discussion of Hannah vividly illustrates the ways in which students internalise this hierarchy of values and use grades as an indicator of their self-worth. Hannah was a Year 6 primary school student in England (aged 10–11 years) who was afraid of doing badly in her SATs (national tests in England), because poor performance would mean, in her words, that she would be '*a nothing*'. Reay and Wiliam point out that Hannah 'is an accomplished writer, a gifted dancer and artist and good at problem-solving yet none of those skills make her somebody in her own eyes. Instead, she constructs herself as a failure, an academic non-person, by a metonymic shift in which she comes to see herself entirely in terms of the level to which her performance in the SATs is ascribed' (p. 346). Hannah epitomises Covington's central point that academic ability is valued so highly within many education systems that it is inextricably intertwined with feelings of self-worth, a point also strongly supported by Jackson's (2006) research in secondary schools in England.

Academic achievement in schools is signalled primarily by grades; value is quantified. Covington argues that for many students, no single thing at school can boost feelings of self-worth like a good grade, nor devastate it so completely as a poor one. However, the competitive nature of the education system—which stems largely from its function of sorting and selecting—means that not everyone can succeed academically; many must 'fail' (Wright, 2024). The costs of failure in practical and emotional terms are high. Practically, 'failure' in most education systems can limit opportunities for advanced study, as well as careers, points which are made strongly and frequently by schoolteachers in England to attempt to scare students into working (Jackson, 2006, 2010; Putwain, 2025; Wright, 2024). Emotionally, a range of negative consequences is attached to feelings of failure, such as shame, anxiety and withdrawal (Jackson, 2006; Thompson, 1999). Covington argues that amidst this competitive climate, a fear of academic failure is common. As a result, instead of being motivated to achieve (approach goals), many students are motivated to avoid failure (avoidance goals), or to avoid *the implications of failure* (lack of ability), in order to protect their self-worth (see also Martin et al., 2003).

Some students who are motivated to avoid failure work extremely hard (sometimes known as over-strivers) to ensure they do not fail. Such students can be successful academically, but there are considerable costs. Costs include high levels of stress, anxiety and spending so much time on academic work that they neglect other areas of life, such as time with family and friends and other activities beneficial for wellbeing, including sleep (Banks & Smyth, 2015; Jakobsson et al., 2020). Other students who fear failure may adopt defensive strategies to avoid the damaging implication that they lack ability, and thereby protect self-worth. There are a range of defensive strategies, which are sometimes referred to as self-handicapping strategies. Defensive strategies are generally false, but plausible, explanations generated by students to justify or excuse potential or actual 'poor' academic performance. Common defensive strategies include: procrastination; withdrawing effort/rejecting academic work; avoiding the appearance of working hard academically; and disruptive behaviours. Using these defensive strategies enables failure to be attributed to something other than lack of ability; for example, not having enough time in the case of procrastination. In some cases, these defensive strategies can be claimed rather than actual (also known as reported self-handicapping); for example, pretending to have done no revision for an exam when actually they have worked hard. In other cases, they can be actual (actual self-handicapping); for example, getting drunk the night before an exam or doing no revision. Such strategies can feel like friends because they offer some emotional protection. Furthermore, as Jackson (2006) has demonstrated in English secondary school contexts, avoiding *overt* academic work can earn students 'cool points'; conversely, being seen to work too hard can attract negative labels such as 'swot' and also bullying or Othering. Thus, defensive strategies can be very attractive. However, longer term they are likely to lead to poorer performance and so

ultimately are self-defeating (De Castella et al., 2013; Martin, 2003). In sum, fear of failure is problematic for a host of reasons and is underpinned by competition.

COMPETITION, COOPERATION AND SENSE OF BELONGING

Competitive education systems and neoliberal societies are central to self-worth theory, as they create fears of failure and threats to self-worth that shape individuals' achievement goals in schools. Despite the critical importance of considering the macro-level when attempting to understand motivation, Covington's attention to it is unusual; the vast majority of motivation researchers are psychologists who focus on individuals. Research on education system-level impacts is rare (Banks & Smyth, 2015; Elliot et al., 2005; Högberg, 2023; Van Houtte, 2024), but it attests to the deleterious consequences of competitive education systems. For example, Högberg (2023) explored variations across countries and education systems using HBSC (from 31 countries) and PISA data (from 37 countries); Flanders was not included. His analyses generally supported his predictions that stress will 'be lower in education systems that (i) reduce the stakes attached to achievements and provide opportunities for adolescents in the absence of high achievements, (ii) temper unrealistically high aspirations, (iii) alleviate competition and (iv) weaken the link between achievements and self-worth' (p. 1016).

Borgonovi and Han's (2021) analysis of PISA data from 59 countries (including the United Kingdom but excluding Flanders) explored gender differences in fear of failure. Their analysis suggested that 15-year-old girls (especially high-achieving girls) report considerably higher fear of failure than 15-year-old boys, which is consistent with other research on gender differences in reported fear of failure and school-related anxiety around that age (Eriksson & Strimling, 2023).

Some researchers have explored the meso-level, investigating ways in which learning contexts (e.g., classrooms) shape individuals' achievement goals (Kaplan, 2004). Such research suggests that while personal goals are those that individuals construct and pursue in specific learning situations, these are related to, and influenced by, the goals emphasised or encouraged in the specific learning context (Kaplan et al., 2002; Linnenbrink, 2004). Goals emphasised within a learning context have been referred to as 'goal structures'. Kaplan et al. (2002, p. 24) conceptualise goal structures as 'the various classroom- and school-level policies and practices that make mastery [learning] or performance goals salient, as well as the explicit goal-related messages teachers communicate to their students'. For example, some teachers might emphasise the importance of learning and personal improvement, reward students for effort rather than getting right answers, discourage competition and relative-ability social comparisons, and place little emphasis on tests and grades. Such a classroom climate might convey a learning goal structure. By contrast, other teachers might encourage competition for top of the class, place high value on and reward good grades, emphasise differences between students and encourage relative-ability social comparisons. Such a classroom climate is likely to convey a performance goal structure. Of course, as Jackson (2006, 2010) argues, teachers are influenced and often constrained by the systems within which they work. For example, it can be difficult for an individual teacher to foster cooperation and de-emphasise grade comparisons if they are working in a system that is built upon competition and high-stakes testing.

Jackson (2006) provides vivid examples of how performance goal structures are constructed in classrooms. Secondary school students interviewed across all eight schools included in her research in England frequently lamented how teachers encouraged relative-ability social comparisons by reading out test results to the class and/or signalled ability hierarchies by other means. One striking example came from a top-set maths class

where students were seated according to relative ability based on their most recent test results: 'There's a bit of rivalry in the classroom …'cause part of the system is if you're not as clever then you sit at the front in the middle … Then the clever ones sit towards the back' (Jackson, 2006, p. 27). As Jackson notes, the teacher's method of ranking and then seating students according to ability is remarkable for its emphasis on performance goals. Such environments stoke a fear of failure. Other research in the United Kingdom also attests to how teachers attempt to motivate through comparisons and by emphasising the importance of good performance, with Denscombe's research suggesting that teachers are 'stress amplifiers', especially in relation to GCSE exams (Denscombe, 2000, p. 365; see also Putwain, 2009; Wright, 2024). In Flanders, evidence suggests that teacher cultures may be related to school intake. For example, an analysis of a representative sample of 84 secondary schools showed that schools with a more challenging student population—that is, lower socioeconomic student composition, higher proportion of boys, lower grade point average, less study-oriented student culture—tend to have a more competition-oriented teacher culture (Van Houtte & Van Maele, 2011).

While many teachers attempt to motivate through strategies that promote fear, competition and relative-ability social comparisons, it is cooperative climates that are particularly beneficial academically and socially (Covington, 1992; Martin, 2003; Younger et al., 1999). Overall, research suggests that cooperative learning and learning climates are associated with: higher self-efficacy; improved socio-emotional skills such as empathy, trust, cooperation, communication and teamwork; improved academic achievement, deep learning and critical thinking; positive attitudes towards school; reduced fear and anxiety; and an increased sense of belonging (Johnson, 2003; Ooi & Cortina, 2023; Wolf et al., 2021; Zhou & Colomer, 2024).

Sense of belonging generally refers to the degree of feeling accepted, respected, included and supported within the school environment (Aerts et al., 2012; Goodenow, 1993; Korpershoek et al., 2020). A positive sense of belonging in secondary school has been linked to better academic performance, positive mental health and wellbeing, greater happiness, reduced stress, higher attendance and engagement in schoolwork, and positive academic motivation (Allen et al., 2022; Banks & Smyth, 2015; Demanet & Van Houtte, 2012). For example, a recent meta-analysis by Korpershoek et al. (2020, p. 665) revealed that students who feel a sense of belonging in schools 'are likely to perform better in school (e.g., academic achievement) and show more favourable motivational (e.g., mastery goal orientations), social-emotional (e.g., self-concept and self-efficacy), and behavioural outcomes (e.g., behavioural, cognitive, and agentic engagement)'.

OUR RESEARCH

To gain a deeper understanding of fear of failure, in particular the interplay with competition, cooperation and sense of belonging, this research focuses on two regions with very different educational systems and levels of competition, namely England and Flanders (see Context section below). As such, our work is located in the gap between the few cross-national studies that include multiple countries and education systems, and the many studies that focus on individual or school-level factors.

First, we investigate whether English and Flemish students differ with respect to reported fear of failure. Additionally, we examine whether they differ in terms of competition, cooperation and sense of belonging. Second, we examine whether a difference in fear of failure between the two regions can be explained by differences in competition; both students' perception of competition in school and their own competitiveness. We consider whether fear of failure is less affected by perceived competition if students are more competitive

themselves. Given the connection between competition, cooperation and sense of belonging indicated in previous research, and the buffering capacity of cooperation and sense of belonging, these factors are explored as well. The guiding research questions are: (1) Do fear of failure levels differ between England and Flanders? (2) Can differences in competitive experiences explain differences in fear of failure? (3) Do cooperation and sense of belonging play a protective role? (4) How does fear of failure relate to competition, cooperation and sense of belonging in the two regions?

Context: Education in England and Flanders

In the Introduction, we noted some differences between schooling and students' experiences in England and Flanders. Here we delineate in more detail key features of the English and Flemish secondary education systems, focusing in particular on factors relevant to this paper at the time the data were generated through PISA in 2018 (see Data section below).

In England, education is compulsory until age 18, and all children aged 5–16 are entitled to free state schooling. There are various types of state-funded schooling with different requirements depending on the type. For example, while most state-funded secondary schools do not select by ability, a small minority of schools (grammar schools) select students based on performance in an exam called the Eleven-Plus. The majority of state-funded schools, including all maintained schools, must follow the national curriculum. While Academy schools are state funded, they do not have to follow the national curriculum, although there are regulations about the curriculum. Private schools are not funded by the government, instead they charge fees; they do not have to follow the national curriculum (GOV.UK, n.d.).

There are five key stages in the national curriculum: two in primary (KS1 and KS2) and three in secondary education (KS3, KS4 and KS5). Whether and how students are formally assessed at the end of each national curriculum key stage has varied over time. Standard Assessment Tests (SATs) were introduced in 1991 to monitor attainment in the different key stages and to compare schools (including via public league tables), as well as to measure individual attainment. Changes over time include a 'revised, "tougher" set of tests introduced in 2016 by the Conservative government' as part of a raft of changes (Bradbury et al., 2021, p. 147). In 2018, SATs were taken by pupils at age 7 (KS1) and 11 (KS2); tests for 14-year-olds (KS3) were no longer compulsory by this time. KS1 SATs were taken in maths, reading and grammar, punctuation and spelling (GPaS; optional) under informal exam conditions. These papers were marked by their teachers alongside writing and science teacher assessments. At KS2, tests were taken in maths, reading and GPaS under formal exam conditions. The papers were marked externally with additional teacher assessments in writing and science, which were marked by teachers. There were 'expected standards' for performance in SATs. Individual results were given to parents and school league tables were published. KS4 and KS5 were typically assessed by GCSEs and A-levels, respectively (BBC, 2018; SATS-Papers.co.uk, 2018).

These tests—especially those taken at ages 11, 16 and 18—are high stakes both for the students and the schools. Results not only impact league table performance but they also feed into the inspection process carried out by Ofsted (the Office for Standards in Education; they inspect services providing education and skills for learners of all ages). For instance, poor or declining results can trigger an Ofsted inspection, the outcomes of which have a range of serious consequences. For example, a school's reputation and therefore its ability to recruit and retain staff, as well as students, is affected by Ofsted inspections and exam results (Brady & Wilson, 2021). In primary schools, school leaders' concerns about Year 6 SATs results can mean that students are put into sets, 'triaged' for help or removed

from class for intervention (Bradbury et al., 2021). Results at GCSE, which mark the end of compulsory schooling, determine what education students can access at age 16, most notably whether they can study for A-levels. A-level results are used as entrance grades for higher education. Thus, GCSE and A-level results have profound implications for students and staff.

In contrast to England, education in Flanders is highly decentralised. There are two parallel school sectors, official education (*Officieel Onderwijs*) and 'private'—mainly Catholic—education (*Vrij Onderwijs*), both of which are state subsidised. Each sector and the schools within them enjoy a considerable degree of autonomy regarding the curriculum and teaching methods (Department of Education, 2008). One very notable difference between England and Flanders relates to high-stakes testing. Until 2024, in Flanders there were no nationwide, centrally administered, standardised tests. Centralised testing was introduced in 2024, but these tests are not high stakes for students or schools.

The absence of government-driven testing in Flanders is the result of the constitutional 'freedom of education'. This means that schools enjoy a high degree of autonomy: they are free to develop their own educational policies, including their own pedagogical plan, teaching methods, curriculum and assessments. Attempts to assure quality are via centrally set attainment targets, which function as minimal learning objectives. Schools are free to adopt their preferred teaching methods to achieve these attainment targets and, importantly, free to decide how to determine whether students have met them. So, teachers' assessment practices are not determined centrally (Ysenbaert et al., 2020). In 2018, there were no entrance requirements for secondary schooling or higher education. Thus, despite the rigid tracking system in secondary education in Flanders, there are no entrance exams. The only process undertaken is the offer of non-binding advice, based on students' performance, to students and their parents from schoolteachers (Boone & Van Houtte, 2013).

The early rigid tracking system in Flanders represents another difference between Flanders and England. After 6 years of primary education, Flemish students, usually aged 12, move to secondary education for another 6 years. There are four hierarchically ordered tracks: general/academic education (preparing for higher education); arts education; technical education; and vocational education (preparing for the labour market). Whereas general/academic education is widely regarded as the most prestigious and demanding track, vocational education has very low esteem and is considered to be undemanding. Technical and arts education occupy intermediate positions in the hierarchy.

Enrolment in higher education is open to students from all tracks, although for students on the vocational track a seventh grade is required before entry. Tuition fees are relatively low, especially in comparison with English universities, creating a very democratic Flemish higher education context. However, while unrestricted entry to higher education may imply that the track is irrelevant, in practice, preparation for higher education depends on the track. Therefore, at the transition to secondary education there is a tendency 'to aim high', because a student can always 'drop down' to a lower track, with almost all movement between tracks being in this direction—the so-called cascade system (Boone et al., 2018).

In Flanders, unlike England, grade retention is a common strategy to remedy poor achievement. In primary and secondary education, students must repeat an entire grade if they fail main courses. More than a third of students in Flanders are retained at least once before finishing secondary education. In the school year 2017–2018, 2.0% of the primary school and 4.2% of the secondary school populations were retained (Flemish Ministry for Education and Training, 2018). Research has demonstrated the negative impact of grade retention on several non-cognitive outcomes, such as self-concept, but also that it is more harmful in educational contexts where it is rarely applied (Van Canegem, 2022).

METHODS

Data

The data used were part of the seventh wave of the cross-national PISA student dataset, generated in 2018 (OECD, 2019). Unlike other PISA data waves, in this one all key variables relating to our research questions are present for England and Flanders. Furthermore, these data were generated pre-Covid, ruling out any potential impact of the pandemic, and before plans to implement centralised testing were widespread in Flanders. Respondents were 15 years old at the time of the survey. PISA employed a two-stage stratified sampling method. In stage one, schools were selected with probabilities proportional to their sizes, that is, systematic probability proportional to size (PPS) sampling (OECD, 2020). The second stage involved sampling students within selected schools. Generally, the target cluster size was 35 students for countries or regions using paper-based assessments and 42 students for those using computer-based assessments (including England and Flanders). In smaller schools, all students were sampled. It is demonstrated that both the English and the Flemish samples are nationally representative of students in the 15-year age group (De Meyer et al., 2019; Sizmur et al., 2019). We selected the data of the Flemish and English students based on the region variable in the school dataset. It includes data of 10,124 students in 346 schools, of which there were 5242 English students in 175 schools and 4882 Flemish students in 171 schools.

Variables

Fear of failure was measured by asking 'How much do you agree with the following statements?' followed by a three-item scale (ST183Q01HA–ST183Q03HA) with four answer categories from strongly disagree (score 1) to strongly agree (score 4). For example, 'When I am failing, I worry about what others think of me' (Cronbach's alpha α *all* = 0.821, Flanders $\alpha = 0.785$, England $\alpha = 0.832$). We calculated the sum score (range 3–12, $M = 7.89$, SD = 2.38; see Table 2 for descriptives).

Region distinguishes between students attending schools in Flanders (coded 0) and England (coded 1).

Competition perceived was measured by asking 'Think about your school: how true are the following statements?' followed by a four-item scale (ST205Q01HA–ST205Q04HA) with four answer categories from not at all true (score 1) to extremely true (score 4). For example, 'Students seem to value competition' (Cronbach's alpha α all = 0.827, Flanders $\alpha = 0.841$, England $\alpha = 0.802$). We calculated the sum score (range 4–16, $M = 10.49$, SD = 2.68).

Being competitive was measured by asking 'How much do you agree with the following statements about yourself?' followed by a three-item scale (ST181Q02HA–ST181Q04HA) with four answer categories from strongly disagree (score 1) to strongly agree (score 4). For example, 'I enjoy working in situations involving competition with others' (Cronbach's alpha α all = 0.762, Flanders $\alpha = 0.700$, England $\alpha = 0.787$). We calculated the sum score (range 3–12, $M = 8.23$, SD = 2.03).

Cooperation perceived was measured by asking 'Think about your school: how true are the following statements?' followed by a four-item scale (ST206Q01HA–ST206Q04HA) with four answer categories from not at all true (score 1) to extremely true (score 4). For example, 'Students feel that they are encouraged to cooperate with others' (Cronbach's alpha α all = 0.884, Flanders $\alpha = 0.861$, England $\alpha = 0.897$). We calculated the sum score (range 4–16, $M = 10.68$, SD = 2.49).

Sense of belonging was measured by asking 'Thinking about your school: to what extent do you agree with the following statements?' followed by a six-item scale

TABLE 2 Descriptives (means or frequencies) and mean difference between Flanders and England (*n* in brackets).

	Total (10,124)		Flanders (4882)		England (5242)			
	M/%	SD	*M*/%	SD	*M*/%	SD	*t*-test	Cohen's *d*
Fear of failure	7.89 (9364)	2.38	7.33 (4514)	2.19	8.41 (4850)	2.44	−22.555***	−0.465
Gender								
Female	50.7 (10,124)		50.1 (4882)		51.3 (5242)			
Socioeconomic status	55.70 (9138)	21.93	53.52 (4658)	22.06	57.97 (4480)	21.55	−9.745***	−0.204
Migrant								
First generation	7.5		6.2		8.6			
Second generation	10.2 (9684)		7.6 (4769)		12.7 (4915)			
Maths achievement	512.21 (10,124)	88.97	521.22 (4882)	90.33	503.81 (5242)	86.84	9.876***	0.197
Competition perceived	10.49 (8932)	2.68	9.93 (4301)	2.60	11.02 (4631)	2.64	−19.523***	−0.413
Being competitive	8.23 (9411)	2.03	7.76 (4535)	1.85	8.67 (4876)	2.09	−22.318***	−0.458
Cooperation perceived	10.68 (8612)	2.49	11.13 (4177)	2.32	10.25 (4435)	2.58	16.824***	0.362
Sense of belonging	17.84 (8937)	3.30	18.17 (4341)	3.06	17.53 (4596)	3.48	9.184***	0.194

***$p < 0.001$.

(ST034Q01TA–ST034Q06TA) with four answer categories from strongly agree (score 1) to strongly disagree (score 4). For example, 'I feel like an outsider (or left out of things) at school' or 'I make friends easily at school' (Cronbach's alpha α all = 0.822, Flanders $\alpha = 0.801$, England $\alpha = 0.836$). We recoded items so that a higher score indicated more belonging and calculated the sum score (range 6–24, $M = 17.84$, SD = 3.30).

Gender was measured by asking 'Are you female or male?' (ST004Q01TA). Male was coded 0 and female coded 1. Of the whole sample, 50.7% identified as female: 50.1% of Flemish students and 51.3% of English students.

Socioeconomic status (SES) was measured by an index of the highest parental occupational status (HISEI), based on the 'International Socio-Economic Index' (ISEI) scale (Ganzeboom et al., 1992). It is based on combined reports about the student's mother and father. It starts by asking the student about their father's and mother's occupations—naming the occupation by typing the job title and explaining what they do. The indicator is missing only if both ISEI scores (for mother and father) are missing (Avvisati & Wuyts, 2024). The mean SES in this sample is 55.70 (SD = 21.93, range 11.56–88.96) and the English students ($M = 57.97$, SD = 21.55) score on average significantly higher than the Flemish students ($M = 53.352$, SD = 22.06, $t = -9.745$, $p < 0.001$, Cohen's $d = -0.204$).

Migrant status is a dummy variable based on the question 'In what country were you and your parents born?' (ST019) and distinguishes between native students (coded 0), first-generation migrants (7.5% of the whole sample, 6.2% of the Flemish sample and 8.6% of the English sample) and second-generation migrants (10.2% of the whole sample, 7.6% of the Flemish sample and 12.7% of the English sample).

Maths achievement is measured by the mean of the set of plausible values in this dataset (PV1MATH–PV10MATH). In the PISA datasets, plausible values provide data that allow for an unbiased estimation of the plausible range and of the location of proficiency for groups of students. Plausible values are based on student responses to the subset of items they receive, as well as on other relevant and available background information (Von Davier et al., 2009). There are 10 sets of plausible values which intercorrelate highly ($r > 0.85$, $p < 0.001$), and here the mean was used as a proxy for cognitive abilities. The scores range between 182.20 and 759.10 ($M = 512.21$, SD = 88.97). On average, English students score significantly lower ($M = 503.81$, SD = 86.84) than Flemish students ($M = 521.22$, SD = 90.33, $t = 9.876$, $p < 0.001$, Cohen's $d = 0.197$).

Analytical strategy

We commenced by conducting *t*-tests (SPSS) to compare the average scores of Flemish and English students on the outcome variable fear of failure and the key variables: perceived competition, being competitive, perceived cooperation and sense of belonging. Next, we scrutinised the correlation matrix (Table 3) to preclude multicollinearity.

To assess and explain the association between region and fear of failure, we conducted stepwise multilevel analyses. Multilevel analysis (HLM7.0) was appropriate given the nested character of the data, with students clustered in schools. In clustered samples the cases are per definition not independent from each other, which is an assumption of regression analysis. Multilevel analysis accounts for this clustered character of the data by accounting for the school level. First, a null model or unconditional model was estimated to partition the variance in the outcome variable fear of failure between students and schools, by calculating the intraclass correlation coefficient (ICC) = between-school variance/(between-school variance + within-school variance). In the following first model, region was included as a student feature, comparing Flemish and English students. In the second model, the sociodemographic student features gender, SES, migrant status and maths achievement (as an indicator of ability) were added. In the third model, the students' perceived competition in school and the students' competitiveness were added. Since perceiving competition and being competitive might interact to affect fear of failure, in a fourth model the product of the grand mean centred competition variables was included. In the fifth and sixth models, the perceived cooperation at school and sense of belonging were added, respectively. Next, the same analyses, except for the first model with region, were carried out separately for students in Flanders and England to understand what mechanisms are at play in both regions. *Z*-scores $[z = b1 - b2/\sqrt{(se_1^2 + se_2^2)}]$ were calculated to state the significance of differences between the coefficients in the English and Flemish models.

In the multilevel analyses all metric variables were grand mean centred and variance components of all variables were allowed to vary, except for region in the first series of models—since the association between region and fear of failure cannot vary between schools. For effect sizes, following standard practice in multilevel analysis (Lorah, 2018), the standardised coefficients (γ^*) were calculated and are reported in the text. Missing values were handled through listwise deletion while running the analyses.

RESULTS

The *t*-tests (see Table 2) showed that, on average, students in England perceive significantly more competition in school ($M = 11.02$, SD = 2.64) and are more competitive ($M = 8.67$,

TABLE 3 Correlations England (below diagonal) and Flanders (above diagonal).

Flanders\England	Fear of failure	Gender	SES	Maths achievement	Competition perceived	Being competitive	Cooperation	Sense of belonging
Fear of failure	—	0.217*** (*n* = 4514)	0.021 (*n* = 4374)	0.026 (*n* = 4514)	0.165*** (*n* = 4279)	0.133*** (*n* = 4477)	0.051*** (*n* = 4144)	−0.164*** (*n* = 4313)
Gender	0.270*** (*n* = 4850)	—	−0.054*** (*n* = 4658)	−0.081*** (*n* = 4882)	−0.042** (*n* = 4301)	−0.119*** (*n* = 4535)	0.041** (*n* = 4177)	−0.031* (*n* = 4341)
SES	0.033* (*n* = 4321)	−0.026 (*n* = 4480)	—	0.461*** (*n* = 4658)	0.055*** (*n* = 4182)	0.032* (*n* = 4397)	0.038* (*n* = 4054)	0.060*** (*n* = 4214)
Maths achievement	0.038** (*n* = 4850)	−0.076*** (*n* = 5242)	0.314*** (*n* = 4480)	—	0.057*** (*n* = 4301)	0.077*** (*n* = 4535)	0.120*** (*n* = 4177)	0.065*** (*n* = 4341)
Competition perceived	0.140*** (*n* = 4594)	−0.013 (*n* = 4631)	0.059*** (*n* = 4153)	0.135*** (*n* = 4631)	—	0.253*** (*n* = 4274)	0.100*** (*n* = 4102)	−0.026 (*n* = 4188)
Being competitive	−0.055*** (*n* = 4803)	−0.230*** (*n* = 4876)	0.077*** (*n* = 4341)	0.155*** (*n* = 4876)	0.137*** (*n* = 4599)	—	0.083*** (*n* = 4144)	0.117*** (*n* = 4308)
Cooperation	−0.077*** (*n* = 4394)	−0.032* (*n* = 4435)	0.050** (*n* = 3985)	0.101*** (*n* = 4435)	0.137*** (*n* = 4342)	0.116*** (*n* = 4402)	—	0.245*** (*n* = 4058)
Sense of belonging	−0.310*** (*n* = 4563)	−0.106*** (*n* = 4596)	0.060*** (*n* = 4122)	0.054*** (*n* = 4596)	−0.009 (*n* = 4448)	0.207*** (*n* = 4556)	0.307*** (*n* = 4259)	—

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

SD = 2.09) than Flemish students (resp. $M = 9.93$, SD = 2.60, $t = -19.523$, $p < 0.001$, Cohen's $d = -0.413$ and $M = 7.76$, SD = 1.85, $t = -22.318$, $p < 0.001$, Cohen's $d = -0.458$). On average, English students perceive significantly less cooperation ($M = 10.25$, SD = 2.58) than Flemish students ($M = 11.13$, SD = 2.32, $t = 16.824$, $p < 0.001$, Cohen's $d = 0.362$) and report less sense of belonging (resp. $M = 17.53$, SD = 3.48 and $M = 18.17$, SD = 3.06, $t = 9.184$, $p < 0.001$, Cohen's $d = 0.194$). On average, English students display more fear of failure ($M = 8.41$, SD = 2.44) than Flemish students ($M = 7.33$, SD = 2.19, $t = -22.555$, $p < 0.001$, Cohen's $d = -0.465$).

The unconditional multilevel models (see Table 4) revealed that 7.23% of the variance in fear of failure is situated between schools ($p < 0.001$). In Flanders this is 3.01% ($p < 0.001$) and in England 1.53% ($p < 0.001$).

Accounting for sociodemographic student features, English students score significantly higher on fear of failure than Flemish students (see Table 5, Model 2: $\gamma^* = 0.237$, $p < 0.001$). Gender is associated strongest with fear of failure (female students have more fear of failure than males, $\gamma^* = 0.244$, $p < 0.001$), followed by region. The association between region and fear of failure decreases significantly ($z = 3.125$, $p < 0.001$) when taking into account students' experience of competition, but remains significant (Table 5, Model 3: $\gamma^* = 0.189$, $p < 0.001$), indicating that students' experiences of competition in the English education system are partly responsible for the higher fear of failure in English compared with Flemish students. Students perceiving more competition and displaying more competitiveness score significantly higher on fear of failure, although the association between being competitive and fear of failure is very small. Perceiving more competition in school ($\gamma^* = 0.152$, $p < 0.001$) is associated more strongly with fear of failure than being competitive ($\gamma^* = 0.051$, $p < 0.001$). The interaction between perceived competition and being competitive (Model 4) is negative and significant ($\gamma^* = -0.048$, $p < 0.001$), suggesting that the impact of perceiving competition on fear of failure is smaller the more competitive students are themselves. Adding perceived cooperation at school to the model decreases the association between region and fear of failure by a small amount ($\gamma^* = 0.172$, $p < 0.001$). The association between cooperation and fear of failure is negative and significant, but very small ($\gamma^* = -0.050$, $p < 0.001$), meaning that students perceiving the school environment as more cooperative display slightly less fear of failure. By adding sense of belonging to the model (Table 4, Model 6), the impact of region decreases even more, but remains significant ($\gamma^* = 0.160$, $p < 0.001$). Sense of belonging is significantly and negatively associated with fear of failure ($\gamma^* = -0.232$, $p < 0.001$), indicating that students reporting a higher sense of belonging have lower fear of failure. When adding sense of belonging to the model, the interaction between perceiving competition and being competitive becomes smaller and less significant ($\gamma^* = -0.028$, $p < 0.05$). According to this last model, fear of failure is associated most strongly with gender (female students displaying more fear of failure than males, $\gamma^* = 0.249$, $p < 0.001$), followed by sense of belonging ($\gamma^* = -0.232$, $p < 0.001$), region ($\gamma^* = 0.160$, $p < 0.001$) and perceived competition ($\gamma^* = 0.145$, $p < 0.001$).

TABLE 4 Multilevel analysis (HLM7.0) fear of failure—unconditional models.

	Between-school variance τ	Within-school variance σ^2	ICC = τ/($\tau+\sigma^2$)
England and Flanders	0.410***	5.261	0.0723
Flanders	0.144***	4.634	0.0301
England	0.091***	5.847	0.0153

***$p < 0.001$.

TABLE 5 Multilevel analysis (HLM7.0) fear of failure—Flanders–England.

		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept		7.326*** (0.044)	6.758*** (0.045)	6.878*** (0.047)	6.897*** (0.047)	6.934*** (0.048)	6.972*** (0.046)
Region (Flanders = 0)	γ	1.080 (0.061)	1.129 (0.052)	0.897 (0.053)	0.902 (0.053)	0.818 (0.055)	0.762 (0.053)
	γ^*	0.227***	0.237***	0.189***	0.190***	0.172***	0.160***
Gender (male = 0)	γ		1.159 (0.053)	1.217 (0.053)	1.212 (0.053)	1.233 (0.053)	1.185 (0.052)
	γ^*		0.244***	0.256***	0.255***	0.259***	0.249***
SES	γ		0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	0.003 (0.001)
	γ^*		0.022	0.020	0.019	0.015	0.026*
Migrant (native = 0)							
First generation	γ		−0.147 (0.105)	−0.181 (0.100)	−0.190 (0.100)	−0.203 (0.098)	−0.150 (0.094)
	γ^*		−0.016	−0.020	−0.021	−0.022*	−0.016
Second generation	γ		−0.121 (0.096)	−0.182 (0.098)	−0.193 (0.097)	−0.188 (0.096)	−0.127 (0.097)
	γ^*		−0.015	−0.023	−0.024*	−0.024*	−0.016
Maths achievement	γ		0.001 (0.0003)	0.0004 (0.0003)	0.0004 (0.0003)	0.0005 (0.0003)	0.0004 (0.0003)
	γ^*		0.040***	0.016	0.016	0.019	0.016
Competition perceived	γ			0.135 (0.011)	0.134 (0.011)	0.149 (0.011)	0.128 (0.011)
	γ^*			0.152***	0.151***	0.168***	0.145***
Being competitive	γ			0.060 (0.015)	0.064 (0.015)	0.065 (0.015)	0.098 (0.015)
	γ^*			0.051***	0.055***	0.055***	0.084***
Competition interaction	γ				−0.019 (0.005)	−0.017 (0.005)	−0.011 (0.005)
	γ^*				−0.048***	−0.043***	−0.028*
Cooperation perceived	γ					−0.047 (0.012)	0.017 (0.012)
	γ^*					−0.050***	0.018
Sense of belonging	γ						−0.168 (0.009)
	γ^*						−0.232***
Variance components							
Gender			0.142*	0.127*	0.124	0.109	0.101
SES			0.000	0.000	0.000	0.000	0.000
Migrant generation 1			0.258	0.224	0.250	0.222	0.150
Migrant generation 2			0.359	0.334	0.304	0.282	0.321
Maths achievement			0.000	0.000	0.000	0.000	0.000
Competition perceived				0.008***	0.007***	0.007	0.007
Being competitive				0.018*	0.016*	0.017*	0.014*

(Continues)

TABLE 5 (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Competition interaction				0.002**	0.003*	0.003*
Cooperation perceived					0.009	0.010
Sense of belonging						0.004

Note: Unstandardised coefficients γ (with standard errors) and standardised coefficients γ^*.
*$p \leq 0.05$.
**$p < 0.01$.
***$p \leq 0.001$.

In Flanders and England, female students show significantly more fear of failure than males (Flanders: Table 6, Model 1: $\gamma^* = 0.217$, $p < 0.001$; England: Table 7, Model 1: $\gamma^* = 0.280$, $p < 0.001$). In Flanders, perceiving more competition and being more competitive are associated with more fear of failure (Table 6, Model 2), whereas in England, only perceiving more competition is associated with more fear of failure (Table 7, Model 2). However, this association is less strong when students are more competitive themselves (see Table 7, Model 3, significantly negative interaction between perceived competition and being competitive in England). Model 5 (Table 7) might explain this: accounting for sense of belonging, the interaction gets smaller and less significant ($\gamma^* = -0.042$, $p < 0.05$) and a small significant association between being competitive and fear of failure appears ($\gamma^* = 0.046$, $p < 0.01$). Students who are more competitive display a higher sense of belonging in both Flanders and England (see correlations in Table 3, resp. $r = 0.117$, $p < 0.001$ and $r = 0.207$, $p < 0.001$), but this relation is significantly stronger in England than in Flanders (based on b-coefficients of bivariate regressions $z = -4.415$, $p < 0.001$).

In Flanders (Table 6), where the association between being competitive and sense of belonging is less strong, the positive association between being competitive and fear of failure is not buffered by sense of belonging, and the association between perceived competition and fear of failure is not moderated by being competitive (Table 6, Model 3—the difference between Flanders and England is significant at the 1% level, $z = 2.446$).

In neither England nor Flanders does perceived cooperation or sense of belonging explain away the association between perceived competition and fear of failure. In both Flanders and England, a higher sense of belonging decreases the fear of failure, but significantly ($z = 3.256$, $p < 0.001$) more so in England than in Flanders. In England, sense of belonging explains the negative association between perceived cooperation and fear of failure, because cooperation is associated with sense of belonging (see Table 3: $r = 0.307$, $p < 0.001$). In Flanders, however, adding sense of belonging (Table 6, Model 5) reveals a significant small positive association between perceived cooperation and fear of failure ($\gamma^* = 0.049$, $p < 0.01$): perceiving a school environment as cooperative goes with more fear of failure, but this does not show because cooperation and sense of belonging are positively related (Table 3: $r = 0.245$, $p < 0.001$) and sense of belonging decreases fear of failure (Table 6, Model 5).

DISCUSSION

We have examined fear of academic failure in England and Flanders to gain new and important insights into how these fears are produced in two very different education systems. Importantly, our finding that only a small portion of the variance in fear of failure is situated at school level confirms that system-level factors are driving the differences. The answer to our

TABLE 6 Multilevel analysis (HLM7.0) fear of failure—Flanders.

		Model 1	Model 2	Model 3	Model 4	Model 5
Intercept		6.885*** (0.052)	7.000*** (0.052)	7.000*** (0.053)	7.006*** (0.053)	7.000*** (0.053)
Gender (male = 0)	γ	0.952 (0.071)	1.048 (0.071)	1.050 (0.072)	1.085 (0.073)	1.072 (0.072)
	γ^*	0.217***	0.239***	0.240***	0.248***	0.245***
SES	γ	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	0.002 (0.002)
	γ^*	0.018	0.016	0.016	0.014	0.022
Migrant (native = 0)						
First generation	γ	−0.073 (0.164)	−0.163 (0.155)	−0.177 (0.154)	−0.192 (0.166)	−0.205 (0.160)
	γ^*	−0.008	−0.018	−0.019	−0.021	−0.023
Second generation	γ	−0.267 (0.134)	−0.429 (0.131)	−0.439 (0.131)	−0.404 (0.135)	−0.351 (0.137)
	γ^*	−0.033*	−0.053***	−0.054***	−0.050**	−0.043*
Maths achievement	γ	0.001 (0.0005)	−0.000 (0.0005)	−0.000 (0.0005)	−0.0001 (0.0005)	−0.0001 (0.0005)
	γ^*	0.025	−0.0002	−0.0003	−0.003	−0.003
Competition perceived	γ		0.126 (0.014)	0.125 (0.014)	0.137 (0.015)	0.119 (0.015)
	γ^*		0.150***	0.148***	0.162***	0.142***
Being competitive	γ		0.139 (0.019)	0.137 (0.019)	0.137 (0.020)	0.163 (0.021)
	γ^*		0.117***	0.115***	0.116***	0.138***
Competition interaction	γ			−0.001 (0.007)	−0.0002 (0.007)	0.002 (0.007)
	γ^*			−0.004	−0.0006	0.006
Cooperation perceived	γ				−0.003 (0.016)	0.046 (0.018)
	γ^*				−0.004	0.049**
Sense of belonging	γ					−0.139 (0.012)
	γ^*					−0.194***
Variance components						
Gender		0.128	0.143*	0.156	0.137	0.140
SES		0.000	0.000	0.000	0.000	0.000
Migrant generation 1		0.543	0.503	0.495	0.598	0.530
Migrant generation 2		0.172	0.126	0.138	0.144	0.178
Maths achievement		0.000	0.000**	0.000**	0.000**	0.000**
Competition perceived			0.006**	0.007**	0.007	0.007
Being competitive			0.008*	0.008	0.014*	0.014*
Competition interaction				0.002	0.002	0.002
Cooperation perceived					0.007	0.015*
Sense of belonging						0.006

Note: Unstandardised coefficients γ (with standard errors) and standardised coefficients γ^*.

*$p < 0.05$.

**$p \leq 0.01$.

***$p < 0.001$.

TABLE 7 Multilevel analysis (HLM7.0) fear of failure—England.

		Model 1	Model 2	Model 3	Model 4	Model 5
Intercept		7.764*** (0.058)	7.706*** (0.061)	7.715*** (0.060)	7.705*** (0.062)	7.726*** (0.061)
Gender (male = 0)	γ	1.366 (0.074)	1.371 (0.076)	1.372 (0.075)	1.359 (0.075)	1.278 (0.072)
	γ^*	0.280***	0.281***	0.281***	0.279***	0.262***
SES	γ	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.002 (0.002)	0.004 (0.002)
	γ^*	0.027	0.026	0.025	0.020	0.035*
Migrant (native = 0)						
First generation	γ	−0.186 (0.135)	−0.172 (0.124)	−0.188 (0.123)	−0.213 (0.117)	−0.117 (0.116)
	γ^*	−0.021	−0.020	−0.022	−0.024	−0.014
Second generation	γ	−0.031 (0.132)	0.005 (0.137)	−0.009 (0.133)	0.0003 (0.129)	0.053 (0.130)
	γ^*	−0.004	0.0007	−0.001	0.00003	0.007
Maths achievement	γ	0.001 (0.0004)	0.001 (0.0004)	0.001 (0.0004)	0.001 (0.0005)	0.001 (0.0004)
	γ^*	0.051***	0.028	0.024	0.032	0.025
Competition perceived	γ		0.136 (0.016)	0.146 (0.016)	0.163 (0.016)	0.137 (0.016)
	γ^*		0.147***	0.158***	0.176***	0.149***
Being competitive	γ		−0.007 (0.020)	0.015 (0.022)	0.014 (0.022)	0.054 (0.020)
	γ^*		−0.006	0.013	0.012	0.046**
Competition interaction	γ			−0.027 (0.008)	−0.025 (0.008)	−0.016 (0.008)
	γ^*			−0.072***	−0.066**	−0.042*
Cooperation perceived	γ				−0.084 (0.016)	−0.002 (0.016)
	γ^*				−0.089***	−0.002
Sense of belonging	γ					−0.192 (0.011)
	γ^*					−0.273***
Variance components						
Gender		0.114	0.120	0.111	0.120	0.098
SES		0.000	0.000	0.000	0.000	0.000
Migrant generation 1		0.205	0.303	0.306	0.266	0.139
Migrant generation 2		0.489	0.483	0.418	0.302	0.340
Maths achievement		0.000	0.000	0.000	0.000	0.000
Competition perceived			0.012**	0.011**	0.011	0.010
Being competitive			0.017	0.020	0.018	0.011
Competition interaction				0.003**	0.003*	0.003*
Cooperation perceived					0.009	0.005
Sense of belonging						0.002

Note: Unstandardised coefficients γ (with standard errors) and standardised coefficients γ^*.

*$p < 0.05$.

**$p \leq 0.01$.

***$p < 0.001$.

first research question is yes, fear of failure levels do differ between England and Flanders. We also answer our second question in the affirmative: the association can be explained by different levels of competition experienced in these two education systems.

These findings largely align with self-worth theory, in that fears of failure were higher in the education system of England, where national, high-stakes tests are common, and students perceive more competition. In Flanders, on the other hand, where there were no national tests and there is unrestricted entry to higher education, students perceive less competition, more cooperation, a higher sense of belonging and less fear of failure than their English peers. As discussed earlier in the paper, a wide range of negative consequences are associated with fear of failure, including increased stress as well as performance goals, defensive strategies and self-handicapping, and poorer academic performance. Relating to the latter, our analyses showed that the average maths attainment levels of students were significantly, but only slightly, higher in Flanders than in England.

The answer to our third research question is a qualified no: cooperation and sense of belonging do not play a protective role. In other words, these factors do not explain or buffer the impact of competition. However, a higher sense of belonging is associated with lower fear of failure, especially in England.

Our analyses in relation to the fourth research question suggest that the interplay between more experiences of competition, less perceived cooperation and lower sense of belonging is largely responsible for the higher fear of failure reported by English compared to Flemish students. In Flanders, perceiving more competition and being more competitive are associated with more fear of failure. In England, only perceiving more competition is associated with greater fear of failure, and the relationship is less strong when students are more competitive themselves. In other words, the situation for students in England is a double-edged sword: the educational environment requires students to be more competitive to fit in and enhance their sense of belonging, while at the same time such an environment also increases their fear of failure.

It now seems timely and imperative to undertake qualitative work to explain in more depth the findings, patterns and country-level differences we have delineated in this paper. Jackson (2006) explored fears of failure in English secondary schools and her rich interview data convey students' accounts of their fears of failure and the complex strategies many adopted in response. Her analysis of gender was also helpful, for example, in shedding light on why girls report more fear of failure than boys—a pattern evident in the data analysed in this paper. However, Jackson's data are now 20 years old and much has changed in the education landscape in England over the last two decades. Furthermore, no comparisons between nations and education systems are included. Thus, we call for qualitative work to elucidate the international patterns we have identified.

Qualitative research would also be helpful in explaining findings that we did not expect based on self-worth theory. Notably, in Flanders (but not in England) there is a small positive association between perceived cooperation and fear of failure, when accounting for sense of belonging. At present, we can only theorise about why this may be the case. Drawing on social interdependence theory, we suggest that performing poorly in collaborative work, and thereby letting down peers, may produce feelings of guilt or shame, thus prompting fear of failure in cooperative settings for students who lack confidence in their abilities (Johnson & Johnson, 2005; Wolf et al., 2021). Sense of belonging may suppress this effect because students gain confidence from feeling they belong. Alternatively, or additionally, it may be the case that Flemish students with high fear of failure feel less able to hide their failure/perceived lack of ability in situations where they are having to work collaboratively with others. For such students, the environment may not feel safe enough for cooperation to feel unthreatening, but increased sense of belonging may help to counter this. This raises the question of why this is not the case in England.

Perhaps in England, where students experience more competition than in Flanders, hiding (potential) lack of ability is difficult yet necessary in most contexts. This is because, in classrooms that convey performance goal structures, an individual's own performance relative to others is always key (Wolf et al., 2021). In such classrooms, hiding (potential) lack of ability may be no more difficult in collaborative than individual working contexts, because relative-ability comparisons are always rife, and fuelled by teachers as discussed earlier (Jackson, 2006). It may also be the case that, as Jackson (2006) demonstrated, many English students have developed (through necessity) well-honed strategies for hiding perceived lack of ability that they can apply in cooperative contexts. In Flanders, perhaps these strategies are generally less necessary and developed, so students are less able to employ them in cooperative learning settings and hence their fear of failure rises in such contexts (Johnson & Johnson, 2005; Wolf et al., 2021). Further exploring these possibilities through qualitative research would be extremely beneficial.

LIMITATIONS AND CONCLUSION

Inevitably, working with secondary data has some limitations. One of the most significant was our inability to control what data were generated and how. The PISA waves differ in terms of indicators that are included, and within each wave not all indicators are measured in all regions. It would have been interesting, for example, to examine how our findings relate to student wellbeing, but it was not measured in the same way in England and Flanders. The measures are sometimes suboptimal too, not being state-of-the-art instruments (e.g., Goodenow's (1993) PSSM scale for school belonging). Finally, the data do not allow us to ascertain whether and how the considered indicators are causally connected. A way to assess this would be, for instance, experience sampling, which is a method to evaluate contextual influences on within-person variability in developmental processes (Myin-Germeys et al., 2022).

Overall, our analyses lend considerable support to the importance of creating education systems (and schools and classrooms) that de-emphasise competition and instead foster cooperation and a sense of belonging. We have demonstrated how such systems are associated with a lower fear of failure. Reducing fear of failure is crucial given that it is associated with a broad range of negative factors, including reduced academic performance, lower social and emotional wellbeing and higher levels of stress, anxiety and depression (Borgonovi & Han, 2021). At a time when school-related stress is a major concern in many European countries, and has been linked to growing mental health problems among young people, our findings, and their implications, are particularly timely and important.

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The authors have no conflicts of interest.

DATA AVAILABILITY STATEMENT
An existing dataset—PISA 2018—was used for this research.

ETHICS STATEMENT

Ethics approval was not required for this study.

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