

More Than Winning: Rethinking Academic Competitiveness as a Double-Edged Trait

Weijie Zhou

Faculty of Art and Social Sciences, The University of Sydney, New South Wales, Sydney, 2050, Australia

ABSTRACT

Academic competitiveness is often viewed as essential for student success; however, it can also trigger stress and counterproductive behaviors. This paper explores academic competitiveness as a nuanced, double-edged trait through the lens of psychological theories such as trait theory, goal orientation, and the opposing processes model. It emphasizes that competitiveness is not a fixed characteristic but rather shaped by context and teaching practices. By distinguishing healthy, mastery-driven competitiveness from potentially harmful, performance-focused competition, educators can support diverse learners more effectively, fostering motivation and academic achievement while reducing anxiety. The paper advocates for classroom approaches emphasizing personal growth, reflective practice, and collaborative learning environments, transforming competitiveness into a positive educational influence rather than a mere source of pressure.

KEYWORDS

Academic competitiveness; Goal orientation, Mastery-oriented climate; Performance orientation; Educational psychology; Trait theory, Student motivation; Teaching strategies

1 Rethinking competition in academic life

In high-stakes education systems like China's National College Entrance Examination (Gaokao) and Australia's Australian Tertiary Admission Rank (ATAR), competitiveness is deeply embedded. Students are expected to outperform peers, embedding competitiveness deeply within schooling. Despite reforms, Gaokao students continue to face immense pressure due to the centrality and consequences of the exam. Yang et al. (2023) reported that during the Gaokao transition period, Chinese adolescents exhibited significantly elevated rates of depressive symptoms, with academic pressure and family expectations identified as key contributing factors. Similarly, ATAR significantly contributes to emotional strain among Australian students and parents (UNSW Sydney, 2019). While competition can motivate, it may also induce stress and divert attention from meaningful learning (Murayama & Elliot, 2012; Schneider & Preckel, 2017). Thus, academic competitiveness can foster growth or cause harm, depending on context.

This paper draws on psychological theories—including trait theory, goal orientation, and the opposing processes model—to examine how competitiveness functions as a nuanced trait shaped by personality and educational context. It also considers whether this trait can be constructively shaped through targeted teaching strategies.

The paper is organized into four parts: competitiveness's definition and theoretical foundations; classroom implications, student diversity, and teaching impact; competitiveness's malleability; and making the case for an equilibrium educational approach beyond zero-sum thinking (Krugman, 1994).

2 Conceptual and empirical foundations of competitiveness in education

2.1 From general to academic competitiveness: definitions and conceptual distinctions

Competitiveness has been largely theorized as an individual personality characteristic that predicts an individual's motivation to excel over others with the goal of acknowledgment or reward, for example, grades or social status (Ross et al., 2003; Ruhl et al., 2017). Though mostly considered as a stable trait, recent research highlights that its manifestation depends on situational factors.

In education, this general trait becomes more specific—academic competitiveness—describing how students strive to do better in environments characterized by testing, grading, and comparison with others. It includes both intrinsic motivations and extrinsic pressures inherent in schooling (Murayama & Elliot, 2012; Midgley et al., 2001). Understanding this construct is facilitated by initially examining broad typologies of competitiveness.

Ryckman et al. (1990) distinguish between hypercompetitive orientation, founded on insecurity and a win-at-all-costs mentality, and personal development competitiveness, which is self-development-oriented.

Murayama and Elliot (2012) expand upon this by outlining three sources especially relevant in the educational setting: trait competitiveness (individual predisposition), structural competition (ranking and grading systems within institutions), and perceived environmental competitiveness (subjective perception of competition among students). This framework

explains how competitiveness is established by both personality and environment.

These distinctions have classroom implications. Students focused on personal growth show mastery orientation, while hypercompetitive peers tend to exhibit higher anxiety, lower agreeableness, and a reduced willingness to collaborate with others (Ryckman et al., 1990; Shimotsu-Dariol et al., 2012). Academic competitiveness is thus both a motivational force and a possible source of stress.

2.2 Measuring competitiveness in educational contexts

To expand on earlier differentiation, it is important to consider how competitiveness, especially in schools, is measured. Adequate measurement informs the teachers about the effect of competitiveness on students' learning and also directs adaptive teaching strategies.

Competitiveness Index (CI), as developed by Ryckman et al. (1990), is one of the widely used tools for measuring general competitiveness, distinguishing between hypercompetitive orientation and personal development competitiveness. Although initially designed for personality studies, CI's limited educational focus reduces its classroom applicability. In response to this issue, Bing (1999) created the Hypercompetitiveness in Academia (HIA) scale, a modification of Ryckman's Hypercompetitive Attitude Scale (HCA) for academic settings. The HIA targets competitive motivations specific to academic contexts, assessing behaviors driven by fear of failure or a desire to outperform peers. This tool helps assess students' competitive tendencies in high-pressure academic settings (Bing, 1999).

Other methods, including scenario-based tasks and implicit measures, are employed to tap into underlying competitive mindsets. For example, Shimotsu-Dariol et al. (2012) employed classroom competition vignettes to examine students' reactions. While such methods provide more in-depth insight, they are not without problems. Some instruments have a little problem, and may be inappropriate for use in collectivist settings, therefore posing cultural incongruity and measurement validity concerns (Chen, 2008; Schneider & Preckel, 2017). Moreover, self-report measures tend to have difficulties in differentiating anxiety from healthy competition (Schneider & Preckel, 2017).

Generally, measures differ in breadth and classroom applicability. Teachers and researchers need instruments that are culturally and contextually sensitive to track competition or enhance motivation.

2.3 Theoretical perspectives and key research on competitiveness in education

A theory of educational competitiveness needs an integration of personality models, motivation theories, and empirical research. This section is essential in examining these perspectives, illustrating how competitiveness can facilitate and thwart student growth depending on personality traits and environmental contingencies.

Trait theories provide a fundamental framework for explaining competitiveness. Research has shown that competitive behavior is closely associated with specific personality traits within the Five-Factor Model, particularly high conscientiousness and low agreeableness—dimensions that influence how individuals strive for excellence (Petrides & Furnham, 2001; Houston et al., 2002). These personality traits contribute to distinct motivational orientations that shape how students approach academic competition. For example, mastery and personal development will be important to some, demonstrating task-involved motivation, whereas others will be ego-involved motivated through the need to be superior to their classmates (Midgley et al., 2001).

Goal orientation theory explains how students react to competitive learning contexts. Individuals with mastery goals are concerned with their own development, frequently marked by persistence and deep involvement. In comparison, students with performance goals are preoccupied with the image of being superior, an orientation that may cause anxiety or prompt avoidance actions (Murayama & Elliot, 2012). Instructional practices—from grading systems to teacher feedback and peer interactions—define these motivational orientations to a large degree.

Garcia et al. (2013) propose that competition influences performance through two psychological pathways—one motivating, the other anxiety-inducing. Murayama and Elliot (2012) made this case in school contexts, demonstrating that students' responses to competition are a function of their perceptions of the demands of competition.

Literature indicates that educational and cultural frameworks influence the degree of competitiveness. Wang et al. (2023) found that students' perceptions of social competition in school climates significantly shaped behavioral and emotional outcomes, including increased stress, decreased empathy, and a rise in bullying behaviors. These findings suggest that when competition is perceived as unfair or excessive, it can undermine moral regulation and motivation. Schneider and Preckel (2017) explained that some current measurement instruments tend to confound adaptive and maladaptive competitiveness types, challenging their usefulness in various cultures. Chen (2008) also cautioned against the uncritical application of Western-developed scales to Eastern settings, and called for culturally responsive motivation models.

Collectively, these theoretical models and empirical findings underscore that academic competitiveness is a multilevel and contextually dependent characteristic. Its effects on learning are moderated by factors such as individual personality,

motivational orientations, school climate, and cultural contexts. Notably, contemporary research shows that although competitiveness possesses dispositional qualities of its own, it is not stable. Classroom practices, instructional approaches, and feedback systems can powerfully influence how students manifest and internalize competitiveness (Ames, 1992; Midgley et al., 2001). This highlights the important role that teachers play in developing adaptive competitive orientations through purposeful pedagogical actions.

3 Educational applications: using insights into competitiveness to support student learning

3.1 Recognising competitive orientations in the classroom

To apply research insights in educational settings, teachers must first identify the different forms that student competitiveness can take. As previously discussed, competitiveness is not a single, uniform trait—it emerges through various goal orientations and personality traits. Understanding these distinctions is a key step in supporting a diverse range of learners.

One helpful framework is the distinction between mastery-oriented and performance-oriented goals. Mastery-oriented students are motivated by personal development and are more likely to view challenges as a means to develop. In contrast, performance-oriented students are motivated by a desire to prove superiority or avoid failure (Dweck, 1986; Midgley et al., 2001). Although both might seem equally competitive on the surface level—for instance, working towards high grades or eager participation—the reasons behind them are fundamentally different.

Recognising these motivational patterns enables teachers to better predict students' responses to competition. For example, students with high trait competitiveness and mastery goals may excel in environments that emphasise personal challenge over peer comparison. Meanwhile, performance-oriented students may experience heightened anxiety or disengagement in highly evaluative settings. As Murayama and Elliot (2012) point out, it is often students' interpretations of competitive cues—not just the cues themselves—that determine how they respond.

Teachers can gather insight into these orientations through informal observations, such as how students engage in discussions, respond to feedback, or collaborate with peers. Some researchers have developed formal tools, like the Patterns of Adaptive Learning Scales (Midgley et al., 2000), though these may be difficult to implement regularly in classroom contexts.

Recognising students' competitive orientations not only supports more responsive teaching but also lays the groundwork for creating learning environments that encourage healthier, more adaptive expressions of competitiveness. As the following sections will explore, competitiveness is not set in stone—it can be shaped by how classrooms are structured and how learning is framed.

3.2 Designing instructional contexts to channel healthy competition

Once teachers recognise diverse competitive orientations, the next step is to shape classroom environments that guide them positively. Research shows that how a classroom is structured—especially its goal climate—has a major impact on how students respond to competitive situations (Ames, 1992).

One effective approach is shaping the classroom goal structure. Ames (1992) distinguishes between mastery and performance climates—not as student traits, but as teaching strategies. Mastery climates emphasise learning and self-improvement, while performance climates focus on peer comparison and ranking. Although performance climates may sometimes drive achievement, they can also lead to stress and disengagement, especially for students who lack confidence (Midgley et al., 2001; Urdan & Schoenfelder, 2006). Research has linked hypercompetitive environments with anxiety and reduced peer support (Ross et al., 2003; Ruhl & Lordly, 2017).

To promote healthier forms of competitiveness, teachers can foster mastery climates by offering choices, focusing on progress, and providing feedback that highlights effort and strategy. These strategies ease harmful effects of competition while motivating students to improve (Meece, Anderman, & Anderman, 2006). Group tasks can foster cooperative competitiveness without peer outperformance. It's also important to broaden how success is defined. When achievement is limited to beating others, students with different strengths may feel excluded. Diverse assessments and personal goal-setting can validate more forms of achievement and reduce zero-sum thinking in classrooms (Murayama & Elliot, 2012; Weissman et al., 2022). Research has shown that students' perceptions of academic competitiveness are influenced by trait competitiveness, fear of failure, and academic self-efficacy—factors that also affect how they define and pursue success.

In brief, creating a positive competitive climate demands careful considerations of classroom atmosphere, feedback strategies, and criteria for success. With planning, competition can shift from merely a stressor to a driver of motivation and deep learning.

3.3 Supporting adaptive competitiveness through interventions and feedback

Furthermore, classroom environments and thoughtful intervention can refocus student competitiveness more productively. Although some students will inevitably be drawn to competitive inclinations, empirical data indicates that such inclinations are malleable and can be redirected through reflective intent and purposeful teaching (Dweck, 2006).

One of the strategies is facilitating organized self-reflection to allow students to recognize their own internal competitive drives. Assisting them to differentiate between mastery and performance goal orientations promotes a shift towards self-development instead of the pursuit of external validation. Exercises that foster a growth mindset—a belief in the possibility of ability change through concerted effort—can eradicate the undesirable concomitants of hypercompetitiveness (Dweck, 2006; Murayama & Elliot, 2012).

Feedback should emphasize growth, effort, and strategic thinking over outperforming others. The approach removes fear for less confident students while also leading more competitive students to channel their ambition into positive results (Shute, 2008). When achievement is defined in terms of gaining knowledge and improvement, students are more likely to seek long-term and sustainable goals for success.

Peer review and collaborative learning can significantly shape how students self-regulate and engage with competition. De Backer et al. (2022) identified distinct self-regulated learning profiles in collaborative digital environments, finding that students who actively co-regulated and monitored each other's progress demonstrated higher motivation and self-efficacy. This highlights the importance of structuring collaborative tasks to encourage mutual feedback and shared goal-setting—transforming peer dynamics into a source of both motivation and academic support.

In total, pedagogical interventions and carefully designed feedback can assist students in building more adaptive forms of competitiveness. Through the provision of reflective space and the emphasis on a growth mind-set, educators can foster competitive characteristics that enable learning, motivation, and resilience.

4 Summary and reflection

The present study has discussed competitiveness as a multifaceted and multidimensional personality trait with a profound impact on students' learning engagement and performance. By defining its central dimensions, discussing measurement strategies, and reviewing the relevant theories and empirical studies, we have demonstrated that competitiveness should not be considered an invariant or unidimensional personality trait. Instead, it comes in various forms—some beneficial for learning, others perhaps not—that can transform depending on classroom interaction, feedback, and reflection.

It is important not to dismiss academic competitiveness as a purely positive or negative trait. Rather, it is a flexible attribute that must interact with pedagogy, social contexts, and individuals' beliefs. When backed by intentional instructional practice—like the development of growth mindsets (Dweck, 2006), the emphasis on personal growth, and the encouragement of peer-to-peer learning (Shute, 2008)—students are able to direct their competitive energies toward constructing motivation, persistence, and long-term achievement. This highlights the important role played by teachers in helping students navigate and control their emotions to compete.

Recognizing individual competitiveness is vital for academic success and inclusive classrooms. Clear comprehension of competitiveness enables educators to support all students—wherever they stand on the competitive continuum—while simultaneously encouraging achievement without the cost of emotional well-being.

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