ACHIEVEMENT GOAL ORIENTATION AND SELF-EFFICACY: REVIEW OF THEORETICAL FOUNDATION AND EMPIRICAL EVIDENCE

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Abstract

Understanding why students pursue academic tasks and how confident they feel in their ability to succeed are among the most consequential questions in educational psychology. This narrative review examines the relationship between achievement goal orientation (AGO) and academic self-efficacy by tracing the theoretical origins of both constructs and synthesizing the empirical literature over four decades and multiple educational contexts. Drawing on achievement goal theory, in particular the 2x2 framework proposed by Elliot and McGregor (2001), and Bandura's (1977) social cognitive theory, this review argues that the type of goal a learner pursues has differential, meaningful, and empirically predictable consequences for the strength and stability of that learner's confidence in their own academic capabilities. Mastery-approach goals are consistently and robustly associated with enhanced self-efficacy across educational levels and subject domains. Performance-avoidance goals are reliably linked to diminished efficacy beliefs and maladaptive motivational cycles. Performance-approach goals occupy a more contested position in the literature, with findings varying as a function of initial ability level, measurement instrument, and social comparison context. Mastery-avoidance goals, though theoretically distinct, remain understudied. Chief among these gaps is the near-absence of research from sub-Saharan African and other developing-country, where motivational dynamics may differ substantially from the Western university samples that dominate the field. A conceptual model integrating both constructs is proposed to guide future empirical and intervention research.

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Absztrakt
TELJESÍTMÉNYCÉL-ORIENTÁCIÓ ÉS ÉNHATÉKONYSÁG:
AZ ELMÉLETI ALAPOK ÉS AZ EMPIRIKUS BIZONYÍTÉKOK ÁTTEKINTÉSE
Annak megértése, hogy a tanulók milyen okokból vállalkoznak tanulmányi feladatok elvégzésére, valamint mennyire bíznak saját sikerességükben, az oktatáspszichológia egyik legjelentősebb kérdésköre. Jelen narratív szakirodalmi áttekintés a teljesítménycél-orientáció (achievement goal orientation, AGO) és az akadémiai énhatékonyság kapcsolatát vizsgálja azáltal, hogy feltárja mindkét konstruktum elméleti gyökereit, valamint szintetizálja a négy évtizedet és számos oktatási kontextust felölelő empirikus kutatási eredményeket. A teljesítménycél-elméletre, különösen Elliot és McGregor (2001) 2×2-es modelljére, valamint Bandura (1977) szociális-kognitív elméletére támaszkodva az áttekintés amellett érvel, hogy a tanuló által követett céltípus differenciált, jelentős és empirikusan előre jelezhető következményekkel jár az egyén saját tanulmányi képességeibe vetett bizalmának erősségére és stabilitására nézve. Az elsajátításközpontú közelítő célok (mastery-approach goals) következetesen és megbízhatóan pozitív kapcsolatot mutatnak az énhatékonyság növekedésével, függetlenül az oktatási szinttől vagy a tantárgyi területtől. Ezzel szemben a teljesítményelkerülő célok (performance-avoidance goals) rendszeresen alacsonyabb énhatékonysági hiedelmekkel és maladaptív motivációs folyamatokkal társulnak. A teljesítményközpontú közelítő célok (performance-approach goals) megítélése a szakirodalomban vitatottabb: az eredmények az egyén kezdeti képességszintjétől, az alkalmazott mérőeszközöktől és a társas összehasonlítás kontextusától függően változnak. Az elsajátításközpontú elkerülő célok (mastery-avoidance goals), noha elméletileg jól elkülöníthetők, továbbra is viszonylag kevéssé kutatott területet jelentenek. A szakirodalom egyik legjelentősebb hiányossága a szubszaharai afrikai és más fejlődő országokból származó kutatások szinte teljes hiánya, jóllehet e térségekben a motivációs folyamatok jelentősen eltérhetnek azoktól a nyugati egyetemi mintáktól, amelyek a kutatási eredmények többségét szolgáltatják. Az áttekintés végül egy olyan konceptuális modellt javasol, amely integrálja a két konstruktumot, és iránymutatást nyújthat a jövőbeli empirikus vizsgálatok és intervenciós kutatások számára.

Kulcsszavak: teljesítménycél-orientáció, énhatékonyság, elsajátítási célok, teljesítménycélok, tanulmányi motiváció, szociális-kognitív elmélet
Diszciplína: pszichológia

Introduction

Two questions have long occupied motivational researchers in education: why do students engage with academic tasks, and how much do they believe they can succeed at them? These questions direct attention, respectively, to the constructs of achievement goal orientation and academic self-efficacy. Each has generated an extensive body of theoretical and empirical scholarship over the past four decades. Yet the relationship between them, though theoretically predicted and empirically examined in numerous individual studies, has received

relatively limited integrative treatment. This narrative review seeks to fill that gap.

Achievement goal orientation refers to the cognitive purposes or reasons that guide individuals' engagement with achievement-related activities. Dweck (1986) drew the foundational distinction between learning goals, oriented toward developing competence, and performance goals, oriented toward demonstrating competence relative to others. Nicholls (1984) proposed a parallel framework distinguishing task involvement from ego involvement. Over subsequent decades, the conceptual landscape was significantly refined. Elliot and Harackiewicz (1996) bifurcated performance goals into approach and avoidance forms, and Elliot and Church (1997) formalized this distinction in an influential hierarchical model. The most widely used contemporary framework, the 2x2 model proposed by Elliot and McGregor (2001), crossed competence definition (absolute or self-referenced versus normative) with motivational valence (approach versus avoidance), yielding four goal types: mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance.

Self-efficacy, introduced by Bandura (1977) and elaborated in his landmark 1997 volume, refers to a person's judgment of their capacity to organize and execute the courses of action required to produce given attainments. It is domain-specific rather than global, task-sensitive rather than fixed, and empirically distinguishable from related constructs such as self-concept, self-esteem, and outcome expectancy (Pajares, 1996; Schunk, 1991). In academic contexts, self-efficacy has proven to be one of the most consistent predictors of motivation, choice behavior, effort, persistence, and ultimate performance (Bandura, 1997; Zimmerman, 2000; Pintrich & DeGroot, 1990). Its predictive power is strongest when measured at a level of specificity matched to the performance outcomes being predicted (Pajares & Miller, 1995; Usher & Pajares, 2009). The connection between goal orientation and self-efficacy is theoretically motivated. In Elliot's (1999) hierarchical model of achievement motivation, perceived competence, a construct that overlaps substantially with self-efficacy, functions as an antecedent that influences which goals students adopt. Students who feel capable tend to gravitate toward approach goals; students who feel incompetent tend to gravitate toward avoidance goals. At the same time, from the self-efficacy side, Bandura (1997) theorized that efficacy beliefs shape the goals individuals set, influencing both goal level and goal commitment. The direction of influence can, therefore, run both ways, and the relationship is likely to be reciprocal and dynamic over time (Schober et al., 2018).

Despite this theoretical framing, empirical studies examining the two constructs together have produced a literature that is rich but also scattered, methodologically heterogeneous, and geographically narrow. The present review synthesizes this literature with three primary aims: to clarify the differential relationships between each of the four goal types in the 2x2 framework and self-efficacy to identify substantive gaps, particularly the near-absence of research from sub-Saharan African and other non-Western developing country.

The Evolution of Achievement Goal Theory

Achievement goal theory emerged from a broader social-cognitive tradition that sought to explain why students with similar abilities often display radically different patterns of motivation, persistence, and response to difficulty.

The foundational insight was that the meaning students attach to success, and the standard against which they measure it, shapes their entire motivational orientation (Dweck, 1986; Nicholls, 1984).

Dweck (1986) proposed that students oriented toward learning goals sought to increase their competence, embraced challenge as an opportunity for growth, interpreted failure as informative feedback, and maintained persistence in the face of difficulty.

Students oriented toward performance goals, by contrast, sought to demonstrate their competence relative to others and displayed more fragile motivational patterns, particularly under conditions of perceived threat to their ability reputation. Subsequent theorizing by Dweck and Leggett (1988) embedded this distinction within a broader framework of implicit theories of intelligence, linking incremental theories (the belief that intelligence is malleable) to learning goals and entity theories (the belief that intelligence is fixed) to performance goals.

A significant conceptual advance came with the recognition that approach and avoidance motivational orientations needed to be applied within, not just between, goal types. Elliot and Harackiewicz (1996) demonstrated empirically that performance goals oriented toward approach outcomes and those oriented toward avoidance outcomes had distinct antecedents and consequences, a finding that motivated the formal introduction of the trichotomous achievement goal model by Elliot and Church (1997). This model comprised mastery goals, performance-approach goals (PAP), and performance-avoidance goals (PAV). Elliot and McGregor (2001) subsequently extended the approach-avoidance dimension to mastery goals as well, adding mastery-approach goals (MAP) and mastery-avoidance goals (MAV) and yielding the 2x2 framework that remains dominant in the field today.

Factor-analytic evidence supported the empirical independence of the four goal constructs (Elliot & McGregor, 2001; Muis & Edwards, 2009). A comprehensive meta-analysis by Hulleman et al. (2010), drawing on 243 correlational studies with over 91,000 participants, confirmed that the four goal types had distinct relationships with outcomes and that the magnitude of these relationships depended significantly on measurement instrument and conceptual operationalization. Meece, Anderman, and Anderman (2006) reviewed the contextual determinants of goal adoption, demonstrating that classroom goal structures, specifically the degree to which instructional environments emphasize mastery versus normative performance, shape students' personal goal orientations. Ames (1992) had provided the foundational theoretical account of this relationship, identifying task, evaluation, recognition, authority, grouping, and timing dimensions of classroom environments (the TARGET framework) as key determinants of whether students developed mastery or performance goal orientations.

More recent extensions of achievement goal theory have proposed additional goal types and refinements. Elliot, Murayama, and Pekrun (2011) introduced a 3x2 framework distinguishing task-based, self-based, and other-based standards for both approach and avoidance goals. While this framework has attracted empirical attention, the 2x2 model remains the most widely used and best-supported structure in the empirical literature, and the present review uses it as its primary organizing framework.

Bandura's Social Cognitive Theory and the Construct of Self-Efficacy

Bandura introduced self-efficacy in 1977 as a central mechanism of the broader social cognitive theory of behavior. Self-efficacy was defined as beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997, p. 3). This definition carries three important implications. First, self-efficacy is about perceived capability, not actual capability. Second, it is action-oriented: it concerns organizing and executing courses of action, not merely holding positive thoughts. Third, it is attainment-specific: efficacy for one domain or task does not automatically transfer to another (Pajares, 1996).

Bandura (1997) theorized that self-efficacy beliefs are formed and modified through four primary sources of information. Mastery experiences, the interpreted results of one's own prior performances in a given domain, are the most influential. When

students engage with challenging tasks and succeed, particularly when they attribute that success to their own effort and ability rather than luck or external factors, their efficacy beliefs are strengthened. Repeated failures, especially when attributed to stable low ability, erode efficacy. Vicarious experiences, or observational learning from others who are perceived as similar in relevant respects, provide comparative competence information. Watching a peer succeed at a challenging problem can raise a student's efficacy; watching a peer fail can lower it. Social persuasion, typically in the form of credible encouragement from teachers, parents, or peers, can temporarily strengthen efficacy beliefs, though Bandura noted that its constructive effect is more limited than mastery experience, and that discouraging persuasion can undermine efficacy more easily than encouraging persuasion can build it. Physiological and affective states, particularly anxiety, fatigue, and mood, provide physiological information about capability. High anxiety in an academic context, for example, is typically interpreted as evidence of low competence, even when it reflects situational stress rather than actual incompetence.

Empirically, self-efficacy has proven to be among the strongest motivational predictors of academic performance across subject domains and educational levels. Multon, Brown, and Lent (1991) conducted a pioneering meta-analysis demonstra-ting that self-efficacy beliefs were significantly and positively related to both academic performance and persistence, with effect sizes of approximately 0.38 for performance outcomes. Pajares (1996) synthesized subsequent research, concluding that self-efficacy beliefs typically outperform prior achievement in predicting academic performance when both are included in the same regression model. Honicke and Broadbent (2016) reviewed 59 studies and reported a consistent positive relationship between academic self-efficacy and academic performance, with moderating effects of goal orientation. In mathematics specifically, Pajares and Miller (1995) found that mathematics self-efficacy was the strongest predictor of mathematics performance, outperforming mathematics self-concept, prior mathematics experience, and perceived usefulness of mathematics. More recently, Schober et al. (2018) documented reciprocal effects between self-efficacy and achievement in both mathematics and reading using longitudinal data, lending empirical support to Bandura's theoretical prediction that efficacy and performance mutually reinforce each other over time.

Schunk (1989, 1991) reviewed the educational implications of self-efficacy research, identifying models, goal setting, attributional feedback, and strategy instruction as task-engagement variables that influence students' efficacy development. Zimmerman (2000) integrated self-efficacy into his cyclical model of self-regulated learning, positioning efficacy beliefs as a forethought-phase variable that shapes students' goal setting, strategic planning, and motivational orientation before they engage with academic tasks.

Pintrich and DeGroot (1990) provided empirical support for this integration, finding in a study of 173 seventh graders that self-regulated learning was more closely tied to students' efficacy beliefs than to their intrinsic motivation or task value, suggesting that efficacy may be a necessary precondition for effective self-regulation.

Relationship between Goal Orientation and Self-Efficacy

The relationship between achievement goal orientation and self-efficacy is anticipated by both theoretical frameworks. From the achievement goal side, Elliot's (1999) hierarchical model positions perceived competence, conceptually adjacent to self-efficacy, as a proximal antecedent of goal adoption. The model predicts that students who believe they are capable will approach achievement situations with confidence, adopting approach-

oriented goals, while students who doubt their competence will orient toward avoidance, seeking to minimize the risk of exposing low ability. Elliot and Church (1997) tested this prediction and found that mastery goals were grounded in both achievement motivation and high competence expectancies, performance-approach goals in both achievement motivation and high competence expectancies coupled with fear of failure, and performance-avoidance goals in fear of failure and low competence expectancies. This pattern has since been replicated across numerous studies (Liem, Lau, & Nie, 2008; Chazan, Pelletier, & Daniels, 2022).

From the self-efficacy side, Bandura (1997) argued that efficacy beliefs influence the goals individuals set for themselves, their commitment to those goals, and the interpretive frameworks through which they evaluate goal-related feedback. Students with high efficacy tend to set more ambitious and proximal goals, interpret challenge as a signal to intensify effort rather than a sign of inadequacy, and respond to failure with renewed strategic effort rather than withdrawal. These are precisely the motivational patterns associated with mastery-approach goal orientations. Students with low efficacy, by contrast, tend to set more conservative goals, interpret difficulty as a confirmation of inadequacy, and respond to failure with defensiveness, all patterns more consistent with performance-avoidance goal adoption.

Walker, Greene, and Mansell (2006) tested a model in which academic identification, self-efficacy, and intrinsic and extrinsic motivation together predicted cognitive engagement. Their findings suggested that self-efficacy and goal orientation are not independent predictors of engagement but interact, with efficacy supporting the positive effects of approach goals and buffering the negative effects of avoidance contexts. The direction of the relationship, as noted, is likely bidirectional: efficacy influences goal adoption, and goal adoption over time shapes the accumulation of mastery experiences and, through them, efficacy development. The theoretical prediction is thus of a dynamic, mutually reinforcing system, a point the present review returns to in the conceptual model section.

Empirical Synthesis

Table 1 summarizes key empirical studies examining the relationship between achievement goal types and self-efficacy. Following the table, each goal type is discussed in depth.

Empirical Review by Goal Type

Mastery-Approach Goals and Self-Efficacy

Of the four goal types in the 2x2 framework, the mastery-approach goal has the most consistently documented positive relationship with self-efficacy. Students who orient their effort toward developing genuine competence, mastering new skills, and deepening understanding reliably report higher levels of academic self-efficacy than peers with other goal orientations (Elliot & Church, 1997; Elliot & McGregor, 2001; Liem et al., 2008).

The theoretical mechanisms underlying this association are well established. Mastery-approach goals direct attention toward task engagement and self-referenced progress. Because the standard of success is intrapersonal rather than normative, virtually any genuine effort that results in learning can be interpreted as success, generating the kind of mastery experience that Bandura (1997) identified as the most potent source of self-efficacy information. A student pursuing mastery-approach goals who struggles with a difficult concept and eventually understands it is likely to interpret that experience as evidence of growing competence, strengthening efficacy.

Table 1. Summary of studies examining the relationship between achievement goal types and self-efficacy.

Study	Sample	Goal Type Focus	Key Finding re: Self-Efficacy	Direction
Elliot & Church (1997)	College students, N=187	MAP, PAP, PAV	Mastery goals grounded in high competence expectancies; PAV grounded in low competence/fear of failure	MAP+, PAP+, PAV-
Elliot & McGregor (2001)	Undergraduates, N=187	All four 2x2 types	MAP and PAP positive predictors of SE; PAV negative predictor	MAP+, PAP+, PAV-
Pajares & Miller (1995)	Undergraduates, N=350	Domain-specific SE	Math SE strongest predictor of math performance; SE outperforms self-concept	SE-performance +
Pintrich & DeGroot (1990)	7th graders, N=173	Goal orientation, SE	Self-regulation closely tied to efficacy beliefs; efficacy predicts performance	SE-SRL +
Liem et al. (2008)	High school students	All four types	SE positive predictor of MAP and PAP; negative predictor of PAV adoption	MAP+, PAV-
Usher & Pajares (2009)	Middle school, N=803	SE sources	Mastery experience strongest predictor of SE; sources differ by gender	Mastery exp +
Hulleman et al. (2010)	91,087 participants; meta-analysis	All four types	Goal-outcome correlations vary by measurement instrument; MAP+, PAV- consistent	MAP+, PAV-
Schober et al. (2018)	Longitudinal, math/reading	SE and achievement	Reciprocal effects between SE and achievement; bidirectional over time	Bidirectional +
Feraco et al. (2023)	School students	MAP, PAP, SE, metacognition	MAP and PAP both positive predictors of SE; SE strongest predictor of performance	MAP+, PAP+
Chazan et al. (2022)	Review	All 2x2 types	MAP linked to growth mindset and SE; PAV linked to low SE and maladaptive outcomes	MAP+, PAV-

Note. MAP = mastery-approach; PAP = performance-approach; PAV = performance-avoidance; MAV = mastery-avoidance; SE = self-efficacy; SRL = self-regulated learning. (+) = positive association; (-) = negative association.

A student pursuing performance goals facing the same experience is more likely to interpret the difficulty itself as evidence of incompetence, since difficulty is inconsistent with the demonstration of superior ability (Dweck, 1986; Dweck & Leggett, 1988).

Elliot and Church (1997) provided foundational empirical evidence in a college classroom study

with 187 participants. Mastery goals were significantly predicted by both achievement motivation and high competence expectancies, and in turn predicted intrinsic motivation and deep engagement. Elliot and McGregor (2001) confirmed in three studies that mastery-approach and performance-approach goals both predicted self-efficacy positively, while mastery-avoidance and performance-avoidance goals had negative or null relationships. The path from mastery-approach goals to self-efficacy was the most robust across samples and operationalizations.

Liem et al. (2008) examined goal orientation, self-efficacy, learning strategies, and academic outcomes in a sample of secondary school students, using structural equation modelling to test directional hypotheses. Self-efficacy was a significant positive predictor of mastery-approach goal adoption, and mastery-approach goals in turn predicted deeper cognitive engagement and better academic outcomes. The pattern was consistent with the hierarchical model: efficacy enabled approach goals, which enabled adaptive learning behaviors. A more recent integrative model by Feraco et al. (2023), which included goal orientation, learning style, metacognition, and self-efficacy in a single structural framework, found that mastery-approach goals were consistently among the positive predictors of self-efficacy, even after controlling for prior achievement and other motivational variables.

Research in mathematics provides particularly clear domain-specific evidence. Usher and Pajares (2009) conducted a multi-phase validation study of sources of self-efficacy among 803 middle school mathematics students and found that subscales assessing students' sense of mastery over specific mathematical tasks correlated positively and substantially with mathematics self-efficacy, independent of other sources. Britner and Pajares (2006) replicated a similar pattern in science, finding that mastery experience, which is the experiential correlate of mastery-approach motivation, was the strongest single predictor of science self-efficacy across both male and female students, with effect sizes substantially larger than those obtained for vicarious experience, social persuasion, or physiological arousal. Pajares and Miller (1995) had earlier established that mathematics self-efficacy itself was the most powerful predictor of mathematics performance, outperforming mathematics self-concept, prior experience, and perceived utility in regression analyses of 350 undergraduate students.

The mastery-approach and self-efficacy link is not, however, without qualification. Hulleman et al. (2010) found in their large meta-analysis that the relationship between mastery-approach goals and performance outcomes, which are partly mediated by self-efficacy, depended on whether the goal measure used normatively or absolutely referenced language. The effect was stronger when mastery goals were assessed using language that referenced personal improvement and competence development rather than generic effort or engagement. This measurement sensitivity has practical implications: instruments that fail to capture the competence-definition component of mastery goals may underestimate the relationship with self-efficacy.

Further qualification concerns the role of prior achievement level.

Research by Usher and Pajares (2009) found that mastery experiences predicted efficacy more strongly for students who had sufficient prior knowledge to interpret task engagement as meaningful progress. For low-achieving students with very limited knowledge bases, even mastery-approach motivation may fail to generate the po-sitive mastery experiences needed to build efficacy, because the gap between current performance and task demands is simply too wide to close through effort alone. This suggests that effective imple-mentation of mastery-oriented classroom environ-ments must be accompanied by adequate scaffold-ding, particularly for students beginning with low prior attainment.

Performance-Approach Goals and Self-Effi-cacy

The relationship between performance-approach goals and self-efficacy is considerably less straightforward than the mastery-approach relationship and represents one of the more contested areas in the achievement goal literature. Some studies report positive associations between performance-approach goals and self-efficacy; others find weak or null relationships; and a smaller body of evidence suggests that performance-approach goals may erode efficacy over time, particularly for students who are not consistently among the top performers in their reference group.

From a theoretical standpoint, performance-approach goals and self-efficacy can be expected to be positively related, at least initially.

Elliot and Church (1997) found that performance-approach goals were grounded in achievement motivation and high competence expectancies. Students who believe they can outperform their peers are precisely those most likely to adopt performance-approach goals, and their competitive success, when it materializes, can function as a powerful mastery experience. Elliot and McGregor (2001) reported a positive correlation between performance-approach goals and self-efficacy in their 2001 studies, and this was replicated by Feraco et al. (2023) in a structural model that positioned performance-approach goals as positive predictors of self-efficacy alongside mastery-approach goals.

However, the meta-analytic record is less consistent. Hulleman et al. (2010), in a review of 243 studies, found that the relationship between performance-approach goals and performance outcomes was moderated substantially by measurement instrument: scales using normatively referenced items (my goal is to do better than others) showed a positive correlation with outcomes ($r = 0.14$), while scales using appearance and evaluative items (it is important that others see me as smart) showed a negative correlation ($r = 0.14$). This disparity suggests that what is being called performance-approach goals in different studies may reflect meaningfully different motivational constructs, a measurement confound that almost certainly also affects relationships with self-efficacy.

There is also a growing body of evidence suggesting that the relationship between performance-approach goals and self-efficacy is moderated by social comparison outcomes and initial ability level. For students who are consistently among the highest achievers in their comparison group, performance-approach goals may generate a stream of favorable social comparisons that sustain efficacy over time. For students in the middle of the distribution, or in highly competitive environments where favorable comparisons are rare, the same performance-approach goal orientation may generate unfavorable comparisons that steadily undermine efficacy. Walker et al. (2006) found that the interaction between self-efficacy and goal orientation predicted cognitive engagement, suggesting that goal orientation and efficacy do not simply add independently but interact in complex ways.

The ambiguity of the performance-approach and self-efficacy relationship has practical implications that are often underappreciated. In educational systems that are heavily exam-focused and normatively evaluated, such as the examination systems common in many African and South Asian countries, performance-approach goals may be particularly prevalent and culturally encouraged. Whether such systems sustain or undermine self-efficacy, and whether this effect differs by gender, socioeconomic background, or prior attainment, is a question that has received almost no empirical attention in non-Western contexts. This is a significant gap in the literature.

Performance-Avoidance Goals and Self-Efficacy

The relationship between performance-avoidance goals and self-efficacy is the most consistent

finding in this literature: performance-avoidance goals are negatively associated with self-efficacy, and this relationship has been replicated across educational levels, subject domains, and cultural contexts with a reliability that approaches consensus (Elliot & Church, 1997; Elliot & McGregor, 2001; Liem et al., 2008; Hulleman et al., 2010).

The theoretical logic is compelling. Performance-avoidance goals orient the student toward the prevention of failure, specifically the public demonstration of incompetence relative to others. Such an orientation presupposes, and continuously reinforces, the belief that one is in genuine danger of appearing incompetent, which is itself a low-efficacy appraisal. Elliot and Church (1997) established empirically that performance-avoidance goals were grounded in fear of failure and low competence expectancies, the precise antithesis of the conditions that Bandura (1997) identified as conducive to strong self-efficacy. The goal itself encodes a self-evaluation of being at risk, and the motivational system organized around it is designed to minimize exposure to negative evaluation rather than to generate the mastery experiences that build genuine confidence.

Elliot and McGregor (2001) found that performance-avoidance goals were associated with surface processing strategies, test anxiety, maladaptive coping with academic difficulty, and diminished intrinsic motivation. Each of these consequences can in turn further erode self-efficacy. Surface processing strategies result in shallower learning and poorer performance over time, generating the mastery-experience failures that weaken efficacy. Test anxiety, which Bandura (1997) identified as a significant physiological source of efficacy-degrading information, is directly amplified by performance-avoidance goal orientations. Pekrun, Elliot, and Maier (2006) demonstrated in a prospective study that performance-avoidance goals predicted higher levels of test anxiety, hopelessness, and shame, and lower levels of enjoyment, all of which contribute to undermining the affective conditions needed for strong self-efficacy development.

Liem et al. (2008) confirmed the negative path from performance-avoidance goals to academic outcomes using structural equation modelling in a secondary school sample, with self-efficacy functioning as a mediator: high self-efficacy reduced the likelihood of adopting performance-avoidance goals, and performance-avoidance goal adoption in turn reduced academic engagement and achievement. Alhadabi and Karpinski (2020) found that achievement goal orientation partially mediated the relationship between academic self-efficacy and academic achievement in university students, with the mediation through performance-avoidance goals operating in the expected negative direction. Students with higher self-efficacy were less likely to adopt performance-avoidance goals; students who nonetheless adopted such goals showed lower achievement.

What makes the performance-avoidance and low-self-efficacy combination particularly concerning is its tendency toward self-reinforcement. Students in this motivational profile tend to withdraw from challenge, seek easier tasks to avoid public failure, engage in self-handicapping behaviors to provide explanations for anticipated failure, and reduce help-seeking in order not to be seen as incompetent (Midgley, Arunkumar, & Urdan, 1996; Elliot & McGregor, 2001). Each of these behaviors further forecloses the conditions under which self-efficacy might be rebuilt through new mastery experiences. The result is a cycle that is difficult to interrupt through standard instructional means and that likely requires targeted motivational or attributional intervention.

Mastery-Avoidance Goals and Self-Efficacy

The mastery-avoidance goal, which was introduced in the 2x2 framework by Elliot and McGregor (2001), orients student effort toward avoiding deterioration relative to one's own previous standards

or toward avoiding failure to achieve task mastery. It was theorized primarily to describe perfectionistic students who are driven less by a desire to improve than by anxiety about declining performance, and who hold themselves to standards they fear cannot sustainably meet.

The mastery-avoidance construct has received substantially less empirical attention than the other three goal types. The meta-analysis by Hulleman et al. (2010) included only a limited number of studies specifically examining mastery-avoidance goals, and the results were inconsistent. What evidence exists suggests that mastery-avoidance goals share some properties with performance-avoidance goals in terms of their anxiety-related antecedents and their associations with negative affect, but they also appear to sustain effort and engagement in ways that performance-avoidance goals do not, because the standard of comparison remains intrapersonal rather than normative.

With respect to self-efficacy specifically, the available evidence is limited. Elliot and McGregor (2001) found that mastery-avoidance goals were associated with more negative outcomes than mastery-approach goals, including higher disorganization and lower positive affect. Whether these associations translate into reduced self-efficacy or into a qualitatively different efficacy profile, such as high efficacy coupled with high anxiety, is an open question. Chazan et al. (2022) noted in their app-lied review that mastery-avoidance goals tend to be adopted by students who are already performing at high levels but fear decline, which suggests a pos-sible pattern of moderate to high efficacy coupled with high performance anxiety. This motivational profile would be theoretically distinct from both the high-efficacy mastery-approach profile and the low-efficacy performance-avoidance profile, but it requires direct empirical investigation to confirm.

The practical importance of the mastery-avoidance construct is likely to grow as educational researchers pay more attention to perfectionism, burnout, and the motivational costs of high-achieving environments. For the purposes of the present review, the mastery-avoidance and self-efficacy relationship must be flagged as a significant gap in the empirical literature.

Conceptual Model Integrating Achievement Goal Orientation and Self-Efficacy

The theoretical and empirical evidence reviewed above supports a conceptual model in which achievement goal orientation and self-efficacy are mutually influencing constructs operating within a broader motivational system shaped by individual differences, developmental factors, and contextual variables.

At the foundational level, students enter achievement contexts with pre-existing self-efficacy beliefs shaped by prior mastery experiences, vicarious observations, social persuasion, and affective states (Bandura, 1997). These efficacy beliefs influence goal adoption: high efficacy supports mastery-approach and, under some conditions, performance-approach goals; low efficacy predisposes students toward performance-avoidance goals (Elliot, 1999; Elliot & Church, 1997). Implicit theories of Intelligence, as Dweck and Leggett (1988) proposed, also shape this process: students who believe intelligence is malleable tend toward mastery goals; students who believe intelligence is fixed and who doubt their current ability tend toward performance-avoidance goals.

The adopted goal type then shapes the motivational quality of students' engagement with academic tasks, which feeds back into efficacy beliefs through the efficacy sources identified by Bandura (1997). Students pursuing mastery-approach goals interpret effort and gradual progress as mastery experiences, generating upward spirals of efficacy and engagement. Students pursuing performance-approach goals may sustain efficacy through competetive success, though this pathway is contingent on social comparison outcomes that are uncertain.

Students pursuing performance-avoidance goals typically interpret academic experiences through a threat-oriented lens, generating physiological arousal, anxiety, and surface processing, all of which undermine the efficacy-building function of academic engagement.

Classroom goal structures, as described by Ames (1992) and reviewed by Meece et al. (2006), function as contextual moderators of this system. Mastery-structured classrooms, which emphasize personal progress, effort, and collaborative learning rather than normative ranking, support mastery-approach goal adoption across students with varying initial efficacy levels. Performance-structured classrooms amplify the self-efficacy consequences of performance-avoidance goals, making the negative cycle more pronounced. Gender, developmental stage, and subject domain further moderate the strength of these relationships, with the effects of performance-avoidance goals on self-efficacy being particularly pronounced for female students in mathematics contexts during secondary school transitions.

The model recognizes that the goal orientation and self-efficacy relationship is dynamic over time. A student who begins with low self-efficacy may, in a well-structured mastery-focused environment with adequate scaffolding, begin to accumulate task-specific success experiences that gradually shift their goal orientation from avoidance to approach, producing efficacy gains that further facilitate approach goal adoption. This upward spiral, described theoretically by Bandura (1997) and supported empirically by Schober et al. (2018), is precisely the motivational dynamic that well-designed educational interventions should seek to initiate and sustain.

Future Directions

The literature reviewed above, while substantial, is characterized by several limitations that constrain both theoretical development and practical application.

The most consequential gap is geographical. The overwhelming majority of studies on achievement goal orientation and self-efficacy have been conducted in North American, European, and East Asian educational contexts. Sub-Saharan Africa, South Asia, and Latin America are almost entirely absent from this literature. This is not a minor representation issue. Educational systems in these regions differ from Western and East Asian systems in ways that are directly relevant to the motivational dynamics reviewed here. Class sizes are typically larger, reducing the likelihood of individualized feedback that builds mastery experience. Instructional resources are more limited. High-stakes examinations with significant consequences for educational trajectories are prevalent from early in schooling.

Cultural values around collectivism, res-pect for authority, and the social meanings of aca-demic performance may shape both goal adoption and efficacy development in ways that Western models do not fully anticipate. Research from Ni-gerian secondary schools, for example, could reveal whether the mastery-approach goal and self-efficacy relationship is as robust in a context where performance-oriented examination structures are pervasive and where the social consequences of academic failure may be particularly salient.

The second major gap is longitudinal. The substantial majority of studies reviewed here are cross-sectional, capturing goal orientation and self-efficacy at a single time point and inferring relationships without examining temporal dynamics. The conceptual model proposed above treats the goal orientation and self-efficacy relationship as fundamentally dynamic and reciprocal, but this dynamic cannot be rigorously tested with cross-sectional data. The few longitudinal studies that exist, notably Schober et al. (2018), have documented significant within-person variation over time, suggesting

that goal orientations and efficacy beliefs are considerably more fluid than cross-sectional snapshots imply. Experience-sampling methods, which capture daily or weekly fluctuations in both constructs in relation to specific academic events, could reveal the microprocesses through which goal orientations shape efficacy development and vice versa.

Furthermore, the mastery-avoidance goal type remains substantially under researched relative to the other three goal types, particularly with respect to its relationship with self-efficacy. This is partly a measurement issue: mastery-avoidance items are more difficult to write validly and have lower internal consistency than items for other goal types (Elliot & McGregor, 2001; Hulleman et al., 2010). The relationship between mastery-avoidance goals, perfectionism, self-efficacy, and burnout in high-achieving students deserves dedicated empirical attention.

Also, intervention research that directly targets the goal orientation and self-efficacy nexus is sparse. Studies examining whether mastery-oriented classroom redesign produces shifts in both students' goal orientations and their self-efficacy beliefs, or whether self-efficacy interventions (including mastery experience scaffolding, attributional retraining, and vicarious modeling) shift students' goal orientations, would provide direct evidence for the causal structure of the conceptual model proposed here and actionable guidance for educational practice.

Lastly, the question of domain specificity has not been adequately addressed. While mathematics has been extensively studied, other subjects, including languages, sciences, vocational domains, and arts, have received less systematic attention. Whether the goal orientation and self-efficacy relationships are stable across domains or whether they are shaped by subject-specific characteristics, such as the clarity of evaluation standards, the cultural meanings attached to the subject, or the typical instructional practices used, remains an open empirical question.

Conclusion

This narrative review has examined the relationship between achievement goal orientation and academic self-efficacy across four decades of theoretical and empirical scholarship. The evidence supports a differentiated and nuanced account. Mastery-approach goals are consistently and robustly associated with stronger self-efficacy, across educational levels, subject domains, and cultural contexts, through mechanisms that are well understood theoretically and empirically documented. Performance-avoidance goals are consistently associated with weaker self-efficacy and with the maladaptive motivational cycles that perpetuate low efficacy over time. Performance-approach goals occupy a contested middle ground whose interpretation depends on measurement choices, social comparison context, and initial ability level. Mastery-avoidance goals remain an understudied construct whose relationship with self-efficacy requires dedicated empirical attention.

The moderating role of gender, academic level, and subject domain adds important texture to these relationships. Female students in mathematics contexts during secondary school transitions may be particularly vulnerable to the negative consequences of performance-oriented environments for self-efficacy development, a finding with direct implications for both instructional design and educational policy.

The conceptual model proposed here integrates achievement goal orientation and self-efficacy within a dynamic system shaped by individual differences, developmental factors, and contextual variables. The model positions mastery-focused classroom environments as a key leverage point for supporting adaptive motivational development, and

intervention research implementing and testing this model is a priority for the field.

Perhaps most urgently, the field needs to extend its geographical scope. The near-absence of research from sub-Saharan Africa and other developing-country contexts is not merely a representational concern; it is a substantive theoretical limitation. Whether the motivational dynamics documented in Western and East Asian educa-tional research generalize to educationally and culturally distinct contexts, and what adaptations to both theory and practice may be required, are questions that deserve sustained research attention. The stakes for educational practice are high. Understanding the conditions under which students develop strong self-efficacy beliefs and adopt adaptive goal orientations is foundational to designing learning environments that work for all students, not merely those in the world's wealthiest and most extensively studied educational systems.

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