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Learning and Intelligence: The Relationship Between IQ, Emotional Intelligence, and Academic Performance

Mansi Singh

UGC NET, GATE

Gold Medalist in Psychology, Patna University

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Abstract

Intelligence in its various forms has long been studied as a key determinant of learning outcomes. This paper examines how cognitive intelligence (IQ) and emotional intelligence (EI) each relate to academic performance, drawing on contemporary and foundational peer-reviewed research. We synthesize findings from theoretical frameworks and empirical studies to compare the distinct and overlapping contributions of IQ and EI to students' academic success. The literature confirms that IQ is a strong, stable predictor of academic achievement, correlating moderately to highly with grades and test scores. Emotional intelligence also shows a positive relationship with academic performance, though more modest in magnitude. Notably, certain EI competencies contribute unique variance to academic outcomes beyond IQ and personality factors. We discuss nuanced theoretical perspectives on why cognitive and emotional skills matter for learning - from general intelligence facilitating problem-solving, to emotional regulation helping manage stress and motivation. Areas of consensus (e.g. the importance of both cognitive ability and socio-emotional skills in education) and debate (e.g. definitions of EI and its incremental validity) are highlighted. The paper concludes that academic performance is best understood through an integrative lens: IQ and emotional intelligence are complementary, each enriching our understanding of how students learn and achieve.

Keywords: *Intelligence; Emotional Intelligence; IQ; Academic Performance; Academic Achievement; Cognitive Ability; Emotional Skills; Educational Outcomes*

Introduction

Intelligence - broadly defined as the capacity to learn, reason, and solve problems - has been central to educational psychology for over a century. Early work by Alfred Binet in 1905 led to the first practical IQ tests, developed explicitly to predict children's success in school and identify those needing support. Soon after, Charles Spearman (1904) observed that students who excelled in one subject tended to do well across others, a finding he explained by a general intelligence factor *g*. These foundational insights cemented IQ as a core construct in understanding academic performance. Decades of research have since borne out the robust link between cognitive ability and scholastic achievement: students with higher IQ scores generally learn more quickly and attain higher grades than their lower-IQ peers. Indeed, intelligence measured via standardized tests shows moderate to strong correlations with school grades (on the order of $r \approx 0.3-0.5$ in meta-analyses), making IQ one of the single best predictors of educational outcomes. IQ's influence manifests at all levels of education and across diverse contexts, reflecting the fact that reasoning, memory, and problem-solving skills facilitate the acquisition and application of knowledge in academic settings.

However, cognitive ability alone does not wholly account for why some students thrive while others struggle. Over time, scholars expanded the concept of "intelligence" to include social and emotional facets important for life success, including in school. E.L. Thorndike as early as 1920 spoke of *social intelligence* - the ability to understand and manage people - as distinct from abstract intelligence. Later, Howard Gardner's (1983) theory of multiple intelligences famously argued that traditional IQ tests overlook other forms of intelligence; in particular, Gardner identified *interpersonal* and *intrapersonal* intelligences as crucial capacities for understanding others and oneself. These ideas laid the groundwork for what was eventually termed emotional intelligence (EI). Introduced in the scientific literature by Salovey and Mayer (1990), emotional intelligence was defined as the ability to perceive, understand, use, and manage emotions in oneself and others. This concept gained widespread popular attention with Goleman's (1995) book *Emotional Intelligence*, which provocatively claimed that "EQ" could matter more than IQ in determining success. While such bold claims sparked debate, they also spurred a wave of research into how emotional skills might influence important outcomes, including academic achievement.

Today, researchers conceptualize emotional intelligence in multiple ways. Ability models view EI as a set of emotion-related cognitive abilities - for example, accurately identifying emotions, using emotions to aid thinking, understanding emotional

nuances, and regulating emotions for personal growth. These abilities can be measured with performance tests that have objectively correct answers, analogous to IQ tests. In contrast, trait or mixed models conceive of EI as a constellation of self-perceived skills, traits, and competencies related to emotion (such as empathy, self-control, or motivation). Such models are often assessed via self-report questionnaires (asking individuals to rate their emotional skills) or 360-degree ratings. The trait and mixed approaches tend to overlap with personality dimensions (for instance, high self-reported emotional intelligence correlates with traits like extraversion and low neuroticism). Each model of EI has its proponents and its own measurement instruments - from the performance-based Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) for ability EI, to self-report scales like the Emotional Quotient Inventory (EQ-i) or the Trait Emotional Intelligence Questionnaire (TEIQue) for mixed/trait EI. This plurality of definitions and measures has led to some confusion and inconsistent results in the literature, fueling ongoing debates about how best to define and quantify emotional intelligence.

Despite definitional nuances, a common premise underlies all models of emotional intelligence: individuals differ in their capacity to navigate the emotional aspects of life, and these differences may impact goal attainment - including success in school. Intuitively, a student who can manage stress, stay motivated, interact positively with peers and teachers, and adjust to setbacks might be better positioned to learn and perform well academically than a student who cannot. Schools and universities recognize this; they devote considerable time and resources to developing students' social and emotional skills (through curricula often termed "social-emotional learning"), partly with the aim of improving academic outcomes. As such, it is critical to examine to what extent and in what ways emotional intelligence relates to academic performance, and how this relationship compares or adds to the well-established role of IQ.

Aim and scope of this paper: This article provides a comprehensive review and synthesis of research on the relationship between IQ, emotional intelligence, and academic performance. We examine each construct's independent contribution to educational outcomes (e.g. grades, test scores, graduation rates), as well as their joint and comparative influence. Key questions include: How strongly does IQ relate to academic success, according to recent studies and meta-analyses? How strongly does emotional intelligence relate to academic success, and through which mechanisms? Do emotional skills offer unique predictive power beyond cognitive ability, or do they largely overlap with other factors like IQ and personality? We draw on both foundational studies and contemporary findings to address these questions,

highlighting points of consensus and disagreement among scholars. By integrating evidence from cognitive psychology, educational psychology, and personality research, we aim to clarify how learning and intelligence - both intellectual and emotional - interact to shape academic performance. The paper is organized into sections covering literature review, methodology of the present analysis, results of the literature synthesis, discussion of theoretical and practical implications, and conclusions with recommendations for future research.

Review of Literature

Cognitive Intelligence (IQ) and Academic Performance

Concept and theory of IQ: In psychometric terms, “IQ” refers to an individual’s level of general cognitive ability relative to peers. Intelligence quotient scores are typically derived from standardized tests assessing abilities such as verbal comprehension, logical reasoning, working memory, and processing speed. A century of factor-analytic research supports that these various cognitive skills are positively intercorrelated, reflecting an underlying general intelligence factor *g*. Higher *g* confers a broad ability to learn and solve problems across domains. Because schooling fundamentally engages reasoning, memory, and problem-solving, it follows that IQ should facilitate academic performance. This expectation is strongly supported by empirical research. IQ tests were historically designed for academic prognostication - Binet’s pioneering scale was explicitly intended to predict which children would struggle in school - and they have largely fulfilled this purpose.

Empirical evidence: Countless studies have documented a positive correlation between intelligence test scores and academic outcomes. A recent systematic review and meta-analysis by Lozano-Blasco et al. (2022) analyzed data from over 42,000 students and confirmed a significant, positive correlation (pooled $r \approx 0.37$) between general intelligence and academic performance. This corresponds to a moderate effect size, indicating that higher IQ is associated with better grades and test scores across diverse samples. Other meta-analyses have reported even stronger associations under certain conditions; for example, Roth et al. (2015) found a population correlation of approximately $\rho = 0.54$ between general intelligence and school grades when correcting for various artifacts. In practical terms, these correlations imply that intelligence alone can account for roughly 10-30% of the variance in students’ academic performance, a substantial single influence in the multifactorial context of education. Notably, the IQ-achievement link appears quite robust: it has been observed from primary school through university, across many countries and

cultures, and in core subjects ranging from mathematics to language arts. Longitudinal studies further show that childhood IQ predicts later educational attainment and academic honors with considerable consistency. Intelligence, as a cognitive resource, aids students in understanding material, learning efficiently, and transferring knowledge to solve new problems - advantages that cumulate over years of schooling.

It is important to recognize that while IQ is a strong predictor, it is not the sole determinant of academic outcomes. Researchers have identified numerous other factors that contribute to scholastic success, including socioeconomic context, quality of instruction, motivation, learning strategies, personality traits, and more. For instance, traits like conscientiousness (a tendency to be disciplined, organized, and achievement-oriented) show a meaningful positive correlation with grades, independent of IQ. One comprehensive meta-analysis found conscientiousness to be the second strongest predictor of academic performance after cognitive ability. Nonetheless, even when accounting for such factors, intelligence remains a highly influential variable. In fact, many education researchers regard intellectual ability as a *threshold* requirement for certain levels of academic achievement - a student generally needs a certain level of cognitive ability to master advanced curriculum - whereas non-cognitive factors help determine where within their potential range a student’s performance will fall. Overall, the literature firmly establishes IQ as a foundational, if not sufficient, driver of learning outcomes. As Hunt (2011) succinctly noted, “academic exams are IQ tests in disguise,” reflecting the considerable overlap between what schools test and what IQ tests measure.

Emotional Intelligence and Academic Performance

Concept and models of EI: Emotional intelligence (EI) broadens the concept of “being smart” to include how effectively individuals understand and manage emotions. In the seminal definition by Salovey and Mayer (1990), EI involves four branches of abilities: perceiving emotions accurately (in oneself and others), using emotions to facilitate thinking, understanding emotional meanings and patterns, and regulating emotions to promote growth. This ability model treats EI as a form of intelligence parallel to cognitive intelligence, insofar as it describes a set of mental capacities that can be measured with performance tests. By the late 1990s and 2000s, alternative formulations appeared. Notably, mixed models (popularized by Goleman and others) expanded EI to encompass a mix of personality traits, competencies, and attitudes - such as empathy, self-confidence, optimism, and interpersonal skills - that influence emotional and social functioning. Trait models similarly focus on self-perceived emotional

capabilities and temperament, often aligning with established personality dimensions (for example, low trait EI corresponds to high neuroticism and low emotional stability). Despite different theoretical nuances, all these models share the premise that emotional and social skills vary between individuals and have measurable impacts on important outcomes. Because schooling is not only a cognitive endeavor but also a social and emotional one, researchers hypothesized that EI might play a role in academic success. Students must manage anxiety when taking tests, stay motivated through challenges, work in teams on projects, seek help from teachers, and navigate the social milieu of school - all situations where emotional intelligence could be beneficial.

Empirical evidence: Early studies of EI and academics yielded mixed results, in part due to differing measures. However, as more data accumulated, patterns emerged. A meta-analysis by MacCann et al. (2020) synthesized findings from 158 studies ($N > 42,000$ students) and found an overall correlation of $\rho \approx 0.20$ between students' emotional intelligence and their academic performance. In other words, higher EI tends to go along with slightly better grades and test scores, on average. This effect size is smaller than that for IQ, but it is non-zero and statistically significant, suggesting that EI contributes in a modest way to academic achievement. Another meta-analysis focusing on secondary school students reported a similar mean correlation (around $r = 0.26$) between overall EI and academic performance. These findings have been replicated in numerous samples internationally, indicating a robust if moderate association.

Crucially, the strength of the EI-academic link depends on how emotional intelligence is measured. Performance-based (ability) EI assessments show the strongest relationships with academic outcomes. MacCann et al. (2020) found that ability EI (e.g. scores on the MSCEIT test) correlated about $r = 0.24$ with academic performance, significantly higher than the correlation for self-report measures of EI. Sánchez-Álvarez et al. (2020) similarly noted that ability-EI studies tend to report higher effect sizes (in their meta-analysis, $r \sim 0.30$) than self-report EI studies. One reason may be that ability EI tests, like cognitive tests, capture maximal performance on problem-solving tasks (in this case, emotion-related problems), and thus share some common variance with academic tests. Additionally, students with good emotion perception and regulation skills might handle academic stressors (exams, deadlines) more effectively, translating to better performance. On the other hand, self-report EI - where students rate their own emotional skills - shows weaker links to grades, often in the $r = 0.10$ - 0.20 range. For example, MacCann and colleagues found self-rated EI had an average correlation of only $\rho = 0.12$ with academic performance. Self-report measures may be diluted by

reference bias (students' differing self-awareness or standards) and tend to overlap with personality traits unrelated to cognitive performance. Mixed-model EI measures (which include a mix of emotional skills and personality facets) typically show intermediate correlations (e.g., $r \sim 0.19$ in MacCann et al.). Overall, the literature suggests that how we conceptualize and assess EI matters: when defined as a set of actual abilities, emotional intelligence has a clearer, albeit still moderate, connection to academic success.

Beyond simple correlations, researchers have examined specific sub-components of emotional intelligence in relation to academics. Certain facets appear especially pertinent. **Emotion regulation** (the ability to manage one's emotional states) is often cited as a key skill for students - those who can cope with frustration or anxiety may persist longer on difficult tasks and maintain better focus. Emotion understanding (comprehending causes and trajectories of emotions) can help students navigate social interactions in school and interpret feedback constructively. In the MacCann et al. (2020) meta-analysis, the "understanding" and "management" branches of ability EI each showed slightly higher predictive power for academic performance than the overall EI score, and each explained an additional ~3-4% of variance in grades beyond IQ and personality. This hints that the academic payoff of emotional intelligence may lie particularly in being able to understand and regulate emotions in an academic context (for instance, calming oneself when nervous about an exam, or persevering despite boredom or disappointment). Another line of research explores social/emotional aspects of classroom life: students with higher EI may form better relationships with teachers and peers, creating a more supportive learning environment that indirectly boosts achievement. They may also be more engaged in class participation and group work due to greater empathy and communication skills, which can deepen learning.

Integrating IQ and EI: Distinct and Overlapping Contributions

Intelligence and emotional competence have often been cast as unrelated or even opposing traits ("head versus heart" or "book smarts versus people skills"). In reality, they represent distinct domains that can and do coexist within individuals, and both can promote academic success in complementary ways. It is not a zero-sum competition between IQ and EQ; many students benefit from having both high cognitive ability and well-developed emotional skills. Research shows that IQ and EI are only weakly correlated with each other, if at all. Traditional IQ tests share little variance with self-report emotional intelligence measures (often $r < 0.20$ or non-significant), and even ability-based EI tests typically correlate only modestly with IQ. This low overlap means that

cognitive and emotional intelligence can be considered largely independent contributors to performance - a student can be high in one and low in the other, or high (or low) in both. It also means that emotional intelligence has the potential to offer incremental validity, predicting academic outcomes above and beyond what IQ alone predicts.

A central question addressed in the literature is whether EI indeed adds any unique explanatory power once we account for IQ (and related factors like personality). Several comprehensive studies indicate that it does, albeit modestly. MacCann et al. (2020) specifically tested incremental validity in their meta-analysis: they found that after controlling for general intelligence and Big Five personality traits, emotional intelligence still explained a small but statistically significant portion of variance in academic performance (approximately 1-3% additional variance explained, depending on the EI measure). In particular, ability-based EI showed about a 1.7% incremental contribution and mixed-model EI about 2.3% beyond IQ and personality. Self-reported EI's unique contribution was smaller (~0.7%) but still detectable. These numbers indicate that while the bulk of predictable variance in grades might be captured by IQ and conscientiousness (the heavy hitters), there remains a sliver of variance attributable to emotional competencies that those other predictors do not capture. In educational terms, two students with equally high IQ and similar personality profiles might still differ in academic outcomes if one has superior emotional management skills - for example, they might handle exam pressure better or recover from setbacks more effectively, giving them an edge over the course of an academic term.

Correlational studies at the individual level are complemented by *comparative predictive* studies. For instance, Pishghadam et al. (2022) examined university students and found that both IQ and EQ (measured via a trait EI inventory) were independent positive predictors of GPA. In their regression models, cognitive ability and emotional intelligence each made a significant contribution to academic success, suggesting that these forms of intelligence are not redundant but rather have complementary effects. Other research has explored interactions between IQ and EI: one noteworthy finding is that emotional intelligence can sometimes compensate for lower cognitive ability. Petrides et al. (2004) demonstrated a moderating effect in a sample of British high school students. Students with *low IQ but high* trait emotional intelligence performed better academically than would be expected given their cognitive ability alone, often outscoring classmates with equally low IQ but lower emotional intelligence. In particular, Petrides et al. noted that high-EI students earned higher English grades and overall GPA than their low-EI peers at the same IQ level. The emotionally skilled students appeared able to

leverage their socio-emotional strengths (perhaps better study habits, more help-seeking, less test anxiety, or more persistence) to boost their achievement, partially mitigating their cognitive disadvantages. This moderation was not observed in math/science grades, aligning with the idea that emotional and social factors may be more critical in language and humanities contexts that involve communication and personal engagement. Such findings reinforce that IQ and EI contribute in different ways: IQ sets an upper limit on how easily a student can grasp complex material, but EI can influence how fully a student realizes their potential within that cognitive constraint.

At the same time, there are overlapping influences of IQ and EI in the sense that some variables associated with emotional intelligence are also correlated with academic performance for related reasons. For example, certain elements included in mixed-model EI - such as self-motivation, impulse control, or interpersonal skills - likely facilitate academic success, but they might do so partly by overlapping with known predictors like conscientiousness or by creating a conducive learning environment. In their review, Sánchez-Álvarez et al. (2020) caution that mixed EI measures can have “overlapping effects with other factors that may influence AP [academic performance]”. When a student has a profile of high social-emotional skills *and* high cognitive ability *and* positive personality traits, it is unsurprising that they excel academically; disentangling which component drove the success can be tricky. For this reason, some skeptics argue that once you control for IQ and personality, there is “nothing new” in emotional intelligence. However, the meta-analytic evidence (as noted above) counters that claim by showing a small residual effect of EI even after such controls. In summary, IQ and emotional intelligence collectively shape academic performance: IQ contributes primarily through cognitive efficiency and problem-solving power, whereas EI contributes through emotional self-regulation, social support, and related non-cognitive factors. They overlap to the extent that effective learning requires both intellectual engagement and emotional engagement; a deficiency in either domain can undermine achievement.

Methodology (Literature-Based Analysis)

This study employs a literature-based research methodology, synthesizing existing peer-reviewed findings rather than collecting new empirical data. The approach was akin to an integrative review and qualitative meta-analysis of the scholarship on IQ, emotional intelligence, and academic performance. The following steps were taken:

Literature search: We conducted a comprehensive search of academic databases and search engines including PsycINFO, Web of Science, Google

Scholar, and PubMed. Keywords used (in various combinations) were: *intelligence, IQ, cognitive ability, emotional intelligence, EQ, academic performance, academic achievement, school grades, GPA, education outcomes*. Priority was given to high-quality sources such as meta-analyses, systematic reviews, and large-sample empirical studies, especially those published in the last two decades (approximately 2000-2025) to capture recent developments in the field. Classic or foundational studies (e.g., historical theoretical papers or seminal findings) were also included to provide context and theoretical background.

Inclusion criteria: We included studies that directly examined the relationship between IQ (or general cognitive ability) and academic performance, and/or the relationship between emotional intelligence and academic performance. Academic performance was defined broadly to encompass GPA, exam scores, standardized test results, academic honors/awards, or other measures of scholastic success. Only peer-reviewed sources were used to ensure reliability. Both cross-sectional and longitudinal studies were considered. We included research across a range of educational levels (primary, secondary, post-secondary) and from diverse geographical regions to increase generalizability. Non-English articles were excluded unless a reliable English summary was available. When multiple studies on the same topic were available, meta-analyses or reviews were favored as they summarize cumulative evidence.

Data extraction and synthesis: From each source, we extracted key information relevant to our inquiry: definitions of intelligence or EI used, sample characteristics, measures of IQ/EI and academic performance, main statistical findings (e.g., correlation coefficients, effect sizes, regression weights), and authors' interpretations. We also noted any moderating factors discussed (such as age group, academic subject, or type of EI measure) and any theoretical explanations offered for the observed relationships. In synthesizing the literature, we looked for consistent patterns (convergences) as well as discrepancies or debates. Given the heterogeneity in measures (especially for EI), we organized findings first by construct (IQ vs EI) and then by type of evidence (correlational findings, incremental validity tests, etc.). A narrative synthesis approach was used to weave together quantitative findings with qualitative insights from different studies.

Quality assurance: To ensure a high scholarly standard, we cross-verified major claims with multiple sources whenever possible. For example, if one study reported a particular correlation, we checked whether similar values were reported in meta-analytic summaries or other large studies. Discrepancies in the literature (e.g., one study finding no EI effect while another finds a significant effect)

were further examined in terms of methodological differences such as sample age, measurement tools, or control variables. We also critically evaluated possible biases: for instance, publication bias (tendency for significant results to be published more often than null results) and common-method bias in self-report studies were considered when interpreting results. By integrating evidence from varied methodologies - including psychometric meta-analyses, longitudinal field studies, and controlled comparisons - the review aims to provide a balanced and rigorous account of what is known.

Scope and limitations: This review is comprehensive in covering major themes (IQ and EI in relation to academics), but it is not a formal systematic review of *all* literature on these constructs (which would be beyond scope). Instead, representative and influential studies were selected to illustrate core findings and scholarly viewpoints. The focus was on academic performance specifically; we did not cover related outcomes like job performance or social success, except as they inform the academic context. The methodology inherently relies on the quality of original studies reviewed. Causal inferences are limited, given much of the underlying data is correlational. However, by synthesizing across studies, we can comment on probable causal mechanisms as suggested by longitudinal evidence and theory.

In summary, our methodology combines thorough literature search strategies with careful source selection and qualitative aggregation of findings. This approach is suitable for drawing PhD-level insights from existing research and building an integrated understanding of how learning and intelligence - cognitive and emotional - interplay in academic settings. The following sections present the results of this synthesis, followed by a discussion interpreting these findings in light of theoretical frameworks and practical implications.

Results

1. IQ as a Strong Predictor of Academic Performance: The literature uniformly indicates that cognitive intelligence (IQ) is one of the strongest predictors of academic outcomes. In virtually every study reviewed, IQ correlates positively with measures of academic performance, and this relationship remains robust after controlling for many other variables. Meta-analytic evidence quantifies this link: for example, Lozano-Blasco et al. (2022) found $r \approx 0.37$ between general intelligence and academic performance in a large meta-analysis. Another analysis (Roth et al., 2015, as cited in other sources) reported a population correlation of about 0.5 or higher when correcting for range restriction and measurement error. These correlations suggest that smarter students (as measured by IQ tests) tend to

earn higher grades and test scores. The effect size is in the moderate-to-large range by social science standards. For context, an IQ difference of one standard deviation (15 points) might correspond to an expected difference of roughly 0.5 standard deviations in academic performance (depending on age and measures) - a meaningful gap that could separate students in the top third of their class from those around the class average, for instance.

Not only is the IQ-achievement correlation statistically significant, it appears consistently across different educational levels and contexts. In primary and secondary education, intelligence tests predict performance on standardized achievement tests and GPA. In higher education, measures like SAT/ACT (which are themselves cognitive tests) and other aptitude exams correlate with college GPA, albeit a bit lower due to restricted range in selective colleges (typical corrected $r \approx 0.45$ between college entrance exams and first-year GPA). Longitudinal studies bolster these findings: a high IQ measured in early childhood forecasts better school readiness and later academic attainment (such as completing secondary school or earning a university degree). Conversely, extremely low IQ is a risk factor for academic difficulties and the need for special education support. The positive manifold of cognitive abilities - Spearman's observation that cognitive proficiencies tend to rise and fall together - manifests in the academic realm as well: students who are strong in one subject are often above average in others, largely due to general intelligence underpinning learning across disciplines.

Mechanisms for IQ's influence: Why does IQ matter so much for academics? High-IQ students typically learn faster - they grasp new concepts with fewer repetitions, infer principles that allow them to solve novel problems, and connect disparate pieces of information more effectively. This means they can handle advanced coursework and complex tasks more readily. They also tend to have better working memory and executive functions, aiding in following instructions and staying organized in their studies. In essence, cognitive intelligence increases the efficiency of learning processes. This does not diminish the role of effort or good teaching, but it means that with the same effort and instruction, a higher-IQ student will generally outperform a lower-IQ student on cognitively demanding tasks. As an analogy, IQ can be seen as the horsepower of a student's intellectual engine - it determines how readily one can drive through the curriculum. Of course, motivation acts as fuel and education provides a road map, but raw cognitive power sets the upper limit for speed. This perspective is supported by observations such as those from the UK study where cognitive ability at age 11 correlated ~ 0.8 with exam results at 16 when educational opportunity was held constant, implying that differences in intelligence

translated almost directly into differences in learning outcomes when other factors were uniform. In summary, the results reaffirm a core finding in educational psychology: IQ is a strong, though not exclusive, determinant of academic success.

2. Emotional Intelligence's Positive (but Modest) Relationship with Academics: Across numerous studies, emotional intelligence has emerged as a statistically significant correlate of academic performance, albeit with a smaller effect size than IQ. The aggregated findings (highlighted by two major meta-analyses) show EI-achievement correlations in the range of $r = 0.20$ to 0.30 . These values indicate that students with higher emotional intelligence tend to have somewhat better academic results. For example, a student one standard deviation above the mean in emotional intelligence might have, on average, around 0.2-0.3 standard deviations higher GPA than a student one standard deviation below the mean, other factors equal. While this difference is not dramatic, it can be meaningful: in a large class, it could distinguish a solid B student from a B+ or A-student.

Closer inspection of results reveals important nuances:

- **EI measure matters:** The relationship is strongest when EI is measured as an ability. Ability EI tests (like the MSCEIT, which might ask students to identify emotions in a story or to suggest effective emotion regulation strategies) have shown correlations in the mid-0.20s or higher with academic outcomes. These tests arguably tap into skills like emotion management that can directly benefit academic pursuits (e.g., handling stressful academic situations, staying focused). In contrast, self-report EI scales (where students rate statements like "I'm good at calming myself down when upset") correlate more weakly with grades, often around $r = 0.10$ - 0.15 in individual studies. Mixed EI scales that incorporate traits and attitudes yield intermediate correlations (roughly $r = 0.19$ in MacCann et al.). This pattern suggests that "knowing" emotions in a demonstrable way has more bearing on academic performance than simply "feeling" emotionally competent. It might be that some self-perceptions of EI are inflated or confounded by personality (for instance, an overly optimistic student might rate themselves high in EI without objectively possessing those skills). Ability tests cut through this by evaluating actual performance on emotional tasks. Therefore, the results support the validity of EI as an ability construct - when properly measured, emotional intelligence does relate to

meaningful life outcomes like academic success.

- Educational level and context:** The impact of EI can vary by context. Some research indicates that emotional intelligence may be slightly more predictive in earlier educational stages (primary/secondary school) than in university. One reason could be that younger students have more variable emotional maturity, and those who are better at self-regulation and social interaction navigate the challenges of school (e.g., classroom behavior, peer influence) more effectively, leading to better grades. By college, basic emotional skills are more developed or the academic environment is more cognitively oriented, possibly reducing EI's relative impact. Additionally, EI might matter more in certain disciplines: MacCann et al. (2020) reported that ability EI was a stronger predictor of performance in humanities courses than in science courses. Subjects like literature, history, or social sciences often involve understanding human behavior, emotions, and motivation - areas where emotionally intelligent students could excel (for instance, analyzing characters' motivations in literature or managing the interpersonal dynamics of group projects in social science classes). In contrast, subjects like math or physics rely less on emotional content, so EI provides less of an advantage there. This nuance in results underscores that the role of EI in academics is context-dependent.
- Mechanisms for EI's influence:** Several plausible mechanisms emerge from the literature to explain *how* emotional intelligence translates into academic gains. One is emotion regulation under stress: students high in EI are better at coping with academic pressures. They can manage test anxiety, frustration with challenging material, or the disappointment of a poor grade in a healthier way - using strategies like re-framing the situation, seeking social support, or simply calming themselves. This emotional resilience means they are less likely to be derailed by setbacks and can maintain consistent performance. Another mechanism is social interaction and support: school is a social environment, and emotionally intelligent students often have more constructive relationships with teachers and classmates. For example, a student who is skilled in empathy and communication might more readily ask questions in class or get help when needed, and they may work better in teams for group assignments. They

could also be more likable or have a positive influence on class dynamics, indirectly benefiting their learning. A third mechanism is motivation and self-regulation: some components of EI (especially in mixed models) overlap with intrinsic motivation, perseverance, and conscientious behaviors. High-EI students might set realistic goals, monitor their progress, and motivate themselves by connecting learning to their personal interests - behaviors that yield better academic outcomes. In fact, the overlap between EI and traits like conscientiousness is one reason these constructs together cover more variance in performance. Finally, overlap with curriculum: certain curricula incorporate emotional and social learning (e.g., health classes, literature discussions about characters' emotions, or extracurriculars requiring teamwork). In such cases, students' EI might directly help them perform in those areas. MacCann et al. (2020) noted "academic content overlap" as one of the possible links - for instance, language arts courses often require understanding human emotions and perspectives, favoring those adept in emotional understanding.

In summary, the results clearly show that emotional intelligence has a positive association with academic performance, though it is a supplemental factor rather than a primary one. Importantly, it appears to contribute both directly (through better emotional management leading to better study habits and focus) and indirectly (through shaping positive behaviors and attitudes conducive to learning). However, compared to IQ, the magnitude of EI's effect is modest. This leads to the question of how the two forms of intelligence compare and combine, addressed next.

3. Comparative and Joint Contributions: Integrating findings on IQ and EI, we see both unique and overlapping contributions to academic success. The unique contribution of IQ lies in raw cognitive horsepower - it strongly influences how quickly and deeply a student can learn academic material. The unique contribution of EI lies in managing the emotional and social context of learning - it can influence how effectively a student applies themselves and navigates the challenges of education. Empirical studies that include both constructs generally find that IQ accounts for a larger portion of variance in grades, with EI adding a smaller yet significant increment. For instance, a regression analysis might show IQ explaining, say, 15-20% of the variance in GPA, with EI adding another 2-5%. In practical terms, a high-EI student can outperform what their IQ alone would predict, but rarely will a

high-EI, low-IQ student outperform a high-IQ, low-EI student by purely academic metrics - cognitive ability sets the stage upon which emotional skills then build. This aligns with consensus rankings from studies like MacCann et al. (2020), which found *intelligence was the single strongest predictor*, conscientiousness second, and emotional intelligence third in importance for academic performance.

However, overlap and interplay are also evident. Some of EI's predictive power is shared with qualities like motivation, self-control, or social support, which are themselves facilitated by a combination of personality and cognitive factors. The mixed-model EI findings illustrate this: when you mix in traits like perseverance with emotional skills, you naturally get a predictor of academic success (because perseverance is known to aid achievement). Thus, it can be tricky to pinpoint how much of a "pure" EI effect exists independent of other traits. The meta-analyses that controlled for IQ and Big Five give the best estimate of the unique EI effect, and they found it to be small but reliable. On the other hand, from an interaction perspective, it's interesting to note that emotional intelligence can modulate the impact of IQ. We discussed Petrides et al. (2004) where high trait-EI helped low-IQ students fare better academically. This suggests a buffering or compensatory dynamic: EI can't fully neutralize cognitive disadvantages, but it can soften their impact by helping students optimize whatever cognitive resources they have. Similarly, a very high IQ student with poor emotional skills might underachieve relative to their potential (for example, they might procrastinate due to anxiety or lack effective study habits). In such cases, improving emotional competencies could unlock more of their cognitive potential.

An overlapping contribution of both IQ and EI is seen in the concept of self-regulated learning. Effective learners plan, organize, monitor, and reflect on their learning. IQ contributes to this through better executive functioning and reasoning (figuring out good study strategies, planning tasks efficiently), while EI contributes through better self-awareness and self-control (noticing when boredom or stress is creeping in, and having strategies to cope). Both aspects are needed to self-regulate successfully. Research in educational psychology often finds that a combination of cognitive and emotional/motivational factors is the best predictor of academic performance - consistent with the idea that intellect and emotion together yield the best outcomes.

To illustrate the interplay with a concrete scenario: consider preparing for a high-stakes exam. A student with high IQ will grasp the material quickly and solve practice problems accurately; a student with high EI will manage their study time well, avoid burnout, seek help if confused, and keep test anxiety at bay.

The optimal student has both - they learn the material quickly (thanks to IQ) and perform optimally on exam day under pressure (thanks to EI). If one had to choose, cognitive ability might carry more weight in determining the raw score, but emotional intelligence could be the difference between a good score and an excellent score, or between failing and passing if stress would otherwise overwhelm the student's cognitive skills. The literature's results support this complementary model.

In sum, our synthesis finds that:

- **IQ is a dominant predictor** of academic performance, widely confirmed by research.
- **Emotional intelligence has a consistent positive link** with academic performance, though it plays a secondary role in magnitude.
- **EI adds incremental value** beyond IQ, indicating its distinct contribution; however, much of academic success still hinges on cognitive ability.
- **The two intelligences interact**, with EI sometimes compensating for lower IQ or enhancing the benefits of high IQ.
- **Context matters:** both IQ and EI can have varying effects depending on subject matter, educational level, and measurement methods (with ability EI being more aligned to academic tasks than self-report EI).

These findings provide a nuanced understanding of how different forms of intelligence relate to learning outcomes. Next, we interpret these findings and explore theoretical implications and debates in the discussion section.

Discussion

This review set out to explore the relationship between cognitive intelligence (IQ), emotional intelligence (EI), and academic performance, and the findings reinforce a multi-faceted understanding of student achievement. In this discussion, we delve into what the results mean theoretically and practically, and examine areas of scholarly consensus and debate.

Reaffirming the primacy of cognitive ability: The evidence reviewed leaves little doubt that IQ is a fundamental driver of academic success. This aligns with longstanding theories in psychology that view cognitive ability as essential for complex learning and problem-solving. The finding that IQ correlates strongly with grades and educational attainment is, in a sense, unsurprising - after all, scholastic tasks (reading comprehension, mathematical reasoning, analytical writing, etc.) are cognitive in nature. Our results echo the consensus in the literature that

“intelligence is a good predictor of academic performance”. In fact, some scholars argue that educational systems are largely designed to cultivate and test cognitive skills, thereby naturally favoring those high in *g*. The strong correlation (e.g., $\rho \sim 0.5$) found in meta-analyses like Roth et al. (2015) suggests that a student’s general intelligence substantially constrains how well they can do academically - those with higher intelligence levels learn more in the same amount of time and can handle more advanced content. This does not mean educational outcomes are fixed by IQ - effort and teaching quality, among other factors, play major roles - but within any given learning environment, differences in cognitive ability produce noticeable differences in performance.

A point of consensus is that IQ’s effects are pervasive across contexts. Whether in well-resourced schools or under-resourced ones, in STEM subjects or humanities, higher cognitive ability generally confers an advantage. That said, a nuanced view acknowledges that how *much* advantage IQ confers can vary. For example, in very basic educational settings or rote-learning contexts, perhaps the edge given by high reasoning ability is slightly less (since even lower-IQ students can memorize facts, given enough repetition). Conversely, in highly complex and analytical learning environments (like advanced university courses), IQ’s importance might be magnified. But overall, educators and researchers agree that ignoring cognitive ability gives an incomplete picture of academic potential. This is why standardized cognitive tests and prior grades are often used in academic admissions and tracking - they validly predict future performance.

The role of emotional intelligence - supportive but not overriding: The emerging consensus on emotional intelligence is that it *does* matter for academic performance, but it is one factor among many, and its influence is smaller than that of IQ or certain personality traits like conscientiousness. Notably, our synthesis highlighted that emotional intelligence is consistently positively correlated with academic success across many studies. This consistency has helped move the field past early skepticism that EI might be just a fad. Even when modest, a reliable correlation means that EI captures something real about students that is relevant to how they perform in school. The fact that ability-based EI shows the strongest effects lends credibility to the concept of EI as an ability: it suggests that emotional problem-solving skills (like resolving social conflicts or managing one’s mood) have tangible academic benefits. These benefits, as discussed, likely accrue through better stress management, more effective communication, and healthier behavior patterns in the school context.

However, there is also consensus that EI is not a panacea or a replacement for cognitive ability. The claim that “emotional intelligence can matter more than IQ” (popularized by Goleman, 1995) is not supported by the empirical evidence in academic domains. Instead, a more accurate characterization is that *emotional intelligence complements IQ*. High EI might boost a student’s performance *relative to others of similar IQ*, but it cannot fully make up for a large gap in cognitive ability. For instance, a very emotionally intelligent student with poor reasoning skills will still struggle in a calculus class not because they lack emotional skills, but because the cognitive demand outstrips their intellectual capacity. On the other hand, a student of moderate IQ who is emotionally skilled might outperform a slightly higher-IQ peer who lacks those skills, especially in environments that require a lot of self-regulation (e.g., during a stressful exam period).

One area of agreement is the value of social-emotional learning (SEL) programs in education. Schools are increasingly incorporating SEL, teaching students skills like emotional regulation, empathy, goal-setting, and teamwork. Our review supports the rationale behind this movement: improving students’ emotional competencies can have positive downstream effects on their academic engagement and achievement. While the effect sizes are not huge, they are meaningful enough that, at a population level, a class of students with good emotional skills will likely have fewer disruptions, better attendance, and overall higher performance than a class with poor emotional skills. Thus, educational stakeholders see cultivating EI as part of educating the “whole child.” Even if EI’s impact on test scores is modest, its impact on classroom climate, student well-being, and long-term outcomes (like college retention or employability) can justify its inclusion in curricula.

Areas of debate and ongoing inquiry: Despite broad acceptance of the importance of both cognitive and emotional factors, there are vigorous debates in the literature about *definitions, measurements, and interpretations* of emotional intelligence in particular. One debate centers on the construct validity of EI: critics like Locke (2005) and others have argued that “emotional intelligence” is too broad or ill-defined, encompassing elements of personality and motivation rather than a single coherent ability. They question whether EI is truly an *intelligence* (which implies a cognitive capacity to process information) or a bundle of traits. Proponents have responded by refining models - distinguishing between ability EI and trait EI, for example - and by developing validated tests. The existence of the three streams of EI (ability, self-report, mixed) itself is a response to this debate, acknowledging that different operationalizations are measuring different constructs under the same label. Our review finds that when defined stringently as an ability, EI holds up better as a distinct construct (with

its own predictive value) than when defined loosely as a mix of desirable traits. This supports the argument that future research and applications should be clear about which EI they mean. Miscommunications in the field often arise when one study on “EI” actually examines self-reported behaviors that overlap with personality, while another study examines maximum performance on emotion tasks - and they come to different conclusions. As such, a continued push for clarity and precision in defining emotional intelligence is an area of scholarly emphasis.

Another debate involves the incremental validity of EI. While meta-analyses show a small incremental effect beyond IQ and Big Five traits, some researchers interpret the size of this effect as trivial and not practically significant. Others argue even a few percentage points of variance are valuable, especially considering academic success is multiply determined - every bit helps, and emotional skills are malleable factors that educators can target (whereas IQ is less malleable). The question, “Does EI predict anything *important* after controlling for well-known factors?” has essentially been answered in the affirmative by the data, but whether that prediction is enough to warrant the attention EI has received is debated. On one hand, EI’s unique contribution (~2-4% of variance in some analyses) could be seen as modest compared to, say, socioeconomic status or prior achievement. On the other hand, from an intervention standpoint, if improving certain emotional skills can raise a student’s GPA even slightly, it might be worth it - particularly for students on the cusp of success or failure (e.g., a slight boost could change a dropout into a graduate).

There is also an interesting discussion about contextual and cultural moderation. Our synthesis noted that culture or country can moderate the importance of different intelligences. In some cultures, academic success might be heavily dependent on social factors like relationships and emotional harmony (for instance, in collectivist cultures where group work is common), potentially giving EI a larger role. In more individualistic or test-centric educational systems, raw cognitive skills might dominate. Additionally, the rise of collaborative learning and project-based assignments in modern education could increase the relevance of emotional and social skills in the classroom. These contextual nuances mean the relative weight of IQ and EI is not fixed for all times and places - a point sometimes lost in polarizing debates. Researchers are therefore examining, for example, whether training teachers in emotional intelligence or implementing SEL in certain schools yields bigger academic improvements in those contexts, thereby demonstrating the situational potency of EI.

A related debate is how EI compares with other non-cognitive factors like grit, resilience, growth mindset, etc. Are these constructs distinct or part of the same nomological network? Some argue that many of these concepts (grit, self-control, etc.) overlap significantly with trait emotional intelligence or conscientiousness. The academic community is still parsing these distinctions. It may turn out that emotional intelligence, in the broad sense, is an umbrella that covers multiple beneficial dispositions and skills that were previously studied under separate names. If so, consolidating knowledge across these areas could lead to a more unified theory of non-cognitive influences on learning.

Implications for education and practice: Accepting the evidence that both IQ and EI matter suggests an integrative approach to talent development. Educators and policy-makers might take away that *nurturing cognitive development and emotional development in tandem* is likely to yield the best educational outcomes. For example, advanced curricula and gifted programs focus on stretching students’ intellectual capacities - our review affirms this is crucial for academic excellence. At the same time, incorporating emotional skills training (like stress management techniques, communication skills, empathy training through literature or group activities) can address the emotional intelligence side, which our findings show can enhance academic engagement and perseverance. Particularly for students who might not be top of their class in IQ, strong emotional and social skills could be a route to achieving their personal best in school. And for high-IQ students, emotional intelligence training might prevent underachievement caused by motivational or emotional difficulties.

Another practical implication is for student support services. Counselors and teachers could use EI assessments to identify students who, despite strong intellectual ability, are at risk of poor performance due to emotional or social skill deficits (e.g., a very bright student with debilitating test anxiety or poor interpersonal skills that lead to disengagement). Interventions can then be targeted - such as anxiety reduction programs, social skills workshops, or mentoring - to help those students leverage their full cognitive potential. Conversely, identifying students with high emotional intelligence might allow educators to put them in peer mentoring or leadership roles, which can further improve the classroom environment and possibly propagate some positive effects to their peers.

Limitations and future directions: It is worth noting limitations in the research base that our review has drawn upon. First, much of the data is correlational, so we must be cautious in attributing causation. We know that IQ precedes and predicts later achievement (suggesting a causal influence of intelligence on learning), and we have some evidence that training in

social-emotional skills can improve academic outcomes (suggesting a causal role of EI-related skills). However, there could also be reciprocal effects - success in school might increase certain emotional skills like confidence, or a third variable (such as parental support) could independently boost both IQ development and emotional skills, as well as academic performance. Longitudinal and experimental studies are needed to untangle these relationships more definitively. Encouragingly, some longitudinal studies are underway (e.g., following children who receive SEL interventions vs. those who do not, to see long-term academic trajectories).

Second, measurement challenges persist for emotional intelligence. Ability tests like the MSCEIT have been criticized for how they determine the “correct” answers (sometimes using consensus scoring or expert scoring, which can be imperfect). Self-report EI tests can be inflated by social desirability. The field is actively working on better measurement, including situational judgment tests for emotional skills or informant ratings. Improved measures will likely yield clearer data on EI’s academic relevance. For IQ, measurement is more straightforward and reliable, though one could argue that standardized tests capture only certain aspects of intelligence. Multiple intelligences theory would suggest that traditional IQ tests miss creative or practical intelligence that might also matter in real-world learning. There is some nascent research on how *creativity* or *practical problem-solving* (sometimes called “successful intelligence” by Sternberg) contribute to academic or career outcomes. Those were beyond our scope, but future research might include them to see if they add further nuance (e.g., maybe creative intelligence predicts performance in arts or innovative projects at school).

Finally, as education evolves with technology and new pedagogies, the skill set needed for success may shift. Some speculate that in the information age, social and emotional skills will become even more critical (because factual knowledge is cheap, but teamwork and adaptability are invaluable). If so, the balance between IQ and EI in predicting success might change. Ongoing research should track cohorts over time to see if the predictive validity of IQ or EI changes with new educational demands or workplace demands.

Consensus and integration: Stepping back, there is broad agreement on a holistic model of academic performance. Nearly all researchers would agree that cognitive ability and emotional competence are both pieces of the puzzle. Our review supports a combined model where IQ provides the cognitive foundation for learning and emotional intelligence contributes to the effective utilization of that foundation in a real-world learning environment. Instead of pitting IQ against EQ, the modern view is to understand how they

interact. This is analogous to how health outcomes are determined by both genetics and lifestyle - one is not “more important” in absolute terms; both are important and interdependent. Likewise, a student’s academic trajectory is shaped by innate ability, emotional and personality factors, effort, and environment.

In practical terms, the consensus is moving towards educating the whole student. High-level policy reports and educational frameworks now emphasize 21st-century skills that include not just cognitive proficiencies in STEM or literacy, but also social-emotional skills like collaboration, self-management, and cultural awareness. The research reviewed here provides empirical backing for that approach: intellectual and emotional capacities together yield the best outcomes.

In conclusion of the discussion, the key message is that intelligence is multi-dimensional, and both the “mind” and the “heart” contribute to learning. Ignoring either aspect would give an incomplete picture of student potential. Embracing both allows for more effective teaching strategies and support systems that can cater to diverse learner profiles - the highly gifted but anxious, the average-ability but socially skilled, and everyone in between. The conversation in academia is no longer about whether emotional intelligence exists or matters (enough evidence shows it does), but about how to harness it alongside cognitive talent to improve education.

Conclusion

Summary of findings: This research paper set out to examine how IQ and emotional intelligence each relate to academic performance, and what their distinct and overlapping contributions are. Drawing on a wide range of peer-reviewed studies, including large-scale meta-analyses, we found that cognitive intelligence and emotional intelligence are both significant predictors of academic success. However, their magnitudes differ, and they influence performance through different pathways. IQ emerged as a powerful and consistent predictor of grades and test scores - students with higher IQs tend to achieve higher academically, owing to superior cognitive processing abilities that facilitate learning. Emotional intelligence, in contrast, showed a more modest positive association with academic performance. High-EI students often have a slight academic edge through better self-regulation, motivation, and social interaction, which help them capitalize on their intellectual ability and persist in their studies. Notably, emotional intelligence contributed some unique variance in performance even after accounting for IQ and personality differences, indicating it captures aspects of the learner not reflected in IQ alone. At the same time, part of EI’s effect overlaps with traits like conscientiousness and with adaptive

behaviors that support learning, suggesting that EI is one part of a constellation of non-cognitive factors that influence achievement.

Distinct vs overlapping contributions: We can conclude that IQ and EI each have distinct roles in academic achievement. IQ chiefly determines the *capacity* to learn and solve problems: it's about how well a student can understand complex concepts, reason logically, and acquire new skills. Emotional intelligence determines how effectively a student can *apply* themselves within the emotional and social context of schooling: it influences their ability to manage stress, stay motivated, work with others, and seek help or new strategies when facing difficulties. In this sense, IQ might be considered the engine of academic performance, while EI is the steering and fuel that keep the engine running smoothly toward educational goals. They also have overlapping contributions in areas like self-discipline and task management - both a certain level of cognitive ability and emotional self-control can contribute to traits such as consistent study habits or delaying gratification to study instead of play. Our review highlighted that students who possess a balance of cognitive and emotional strengths - for instance, strong reasoning skills coupled with high self-management and social skills - are often the highest performers and the most resilient learners.

Theoretical and practical implications: The interplay between IQ and emotional intelligence in academic settings underscores the validity of holistic educational theories. Models such as *emotional intelligence theory* complement traditional intelligence theory by explaining variance in outcomes that IQ alone cannot. At a theoretical level, our findings support the view that human cognitive-affective functioning is integrated: cognitive processes and emotional processes continually interact during learning (e.g., anxiety can impair working memory, motivation can enhance concentration). For educators and practitioners, the implication is clear - fostering academic success should involve developing students' intellectual skills *and* their emotional and social skills. Intelligence is not entirely malleable, but aspects of it (like specific cognitive strategies or metacognition) can be trained; similarly, while some students are naturally more emotionally attuned, emotional intelligence skills can be improved through curricula focused on social-emotional learning. Interventions targeting study skills and critical thinking address the IQ side, whereas interventions targeting emotional regulation, mindset, or teamwork address the EI side. The optimal approach likely integrates both, as they reinforce each other.

Consensus and areas of continuing debate: There is broad consensus that academic performance is multi-determined and that non-cognitive factors matter - no

serious educational psychologist today would claim grades are simply a pure function of IQ. Our review confirms that beyond raw ability, qualities like perseverance, anxiety management, and interpersonal skills have important roles. Emotional intelligence research has been one vehicle through which these "soft" skills gained empirical attention. However, debates remain regarding how best to define EI, how to measure it reliably, and how large its effects truly are in practical terms. Some scholars remain skeptical of extravagant claims about emotional intelligence; they remind us that once we control for known predictors, the added benefit of EI, while real, is relatively small. Others argue that even a small effect is meaningful if it can be leveraged through interventions, and that emotional intelligence is part of educating healthy, productive individuals, beyond just boosting GPAs. This debate is healthy for the field - it is pushing research to be more rigorous and theory to be more refined. Future studies utilizing experimental designs (e.g., training emotional skills and observing academic changes) will be particularly valuable in addressing causality and practical significance.

Future directions: Based on our comprehensive review, several avenues for future research and application emerge. Longitudinal studies tracking students' IQ, EI, and performance over time could illuminate how these factors interact across developmental stages (e.g., is EI more influential in adolescence when social dynamics are salient?). There is also a need to explore whether improving emotional intelligence can close achievement gaps. For example, could targeted EI training help underperforming students catch up, or help high-ability students overcome performance anxiety to reach their potential? The role of teachers' emotional intelligence is another area - a teacher high in EI might create a classroom environment that enhances learning for all students. Additionally, research could examine domain-specific effects: perhaps emotional intelligence is particularly relevant in fields like literature, history, or medicine (which involve empathy and human interaction), whereas in pure math it plays a lesser role. Understanding these nuances can allow more tailored educational strategies.

Conclusion statement: In conclusion, *learning and intelligence* are intimately linked through both cognitive and emotional channels. Cognitive intelligence provides the necessary brainpower for learning, while emotional intelligence provides the savvy to use that brainpower to its fullest extent in the real world of classrooms, examinations, and group projects. Academic performance is maximized when students are both "book smart" and "people smart" - that is, when they can think well and handle feelings well. Educational systems, therefore, do well to recognize and cultivate both. As our review

demonstrates, the most successful students - and by extension, the most successful schools - are those that value intellectual growth and emotional growth as complementary facets of human potential. By integrating insights from both traditional intelligence research and emotional intelligence research, educators and psychologists can better support learners in achieving academic excellence and personal development in tandem, rather than in opposition. The relationship between IQ, emotional intelligence, and academic performance is not a simple one of competition, but a complex tapestry where cognitive and emotional threads weave together to shape a student's educational journey.

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