

The Role of Mental Toughness and Self-Confidence in Reducing Career Anxiety among Eleventh-Grade Vocational High School Students: A Systematic Literature Review

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ABSTRACT

This article examines the role of mental toughness and self-confidence in reducing work-related anxiety among eleventh-grade vocational students. A Systematic Literature Review (SLR) was conducted using 20 journal articles published between 2021 and 2025. The articles addressed career anxiety, mental toughness, resilience, self-confidence, career self-efficacy, employability, and school-to-work transition. The synthesis indicates that mental toughness helps students maintain focus, regulate emotional responses, interpret pressure as a manageable challenge, and recover from failure. Self-confidence strengthens students' belief that they can learn occupational skills, communicate their strengths, make career decisions, and participate in recruitment processes. These psychological resources operate through more realistic threat appraisal, emotional regulation, career exploration, planning behavior, and willingness to seek support. Effective development strategies include structured career planning, gradual mastery experiences, recruitment simulations, internship reflection, social support, and systematic counseling. Vocational schools should integrate technical readiness with psychological readiness from the eleventh grade so that anxiety does not develop into career avoidance.

INTRODUCTION

Vocational high schools are designed to align educational processes with the needs of industry and the labor market. This orientation requires students to confront career-related issues earlier than most students in general education. By the eleventh grade, internships, competency certification, portfolios, job interviews, graduation, and post-school career options become integral parts of students' educational experiences. While these developments may generate enthusiasm, they may also evoke anxiety when students perceive themselves as lacking sufficient competence or remain uncertain about their future career direction.

Career anxiety may be defined as an emotional, cognitive, physiological, and behavioral response that arises when individuals anticipate entering the workforce. It is commonly manifested through fear of failure, concerns about being rejected by employers, difficulty concentrating, self-doubt, avoidance of job-related information, and postponement of career preparation. Previous literature indicates that career anxiety is influenced not only by occupational choices but also by uncertainty regarding the future, family expectations, labor market competition, employment conditions, and individuals' evaluations of their own capabilities (Atikah et al., 2023).

Vocational high school students experience distinctive vulnerabilities. They are expected to be employment-ready immediately after graduation despite having limited professional experience. Skills acquired during vocational education are not always perceived as equivalent to those required by employers. Information concerning unemployment, technological automation, industrial transformation, and increasingly competitive recruitment standards may widen the gap between students' aspirations and their confidence in their own abilities. Career anxiety among vocational students is also influenced by family support and the ways in which students perceive their future employment opportunities (Awalia et al., 2023).

Moderate levels of anxiety may encourage students to prepare more thoroughly for future employment. Problems arise when anxiety causes students to lose focus, overestimate obstacles, or avoid career development activities altogether. Such avoidance reduces opportunities to gain mastery experiences, which in turn reinforces the belief that entering the workforce is excessively difficult. This negative cycle may develop long before students actually participate in recruitment processes. Therefore, school-based interventions should address not only students' responses to pressure but also the ways in which they evaluate their own competencies.

Mental toughness represents one of the most relevant psychological resources in this context. It refers to an individual's ability to remain committed to personal goals, regulate responses under pressure, maintain self-control, and recover effectively following adversity. Mental toughness does not imply suppressing emotions or appearing emotionally invulnerable. Students with high mental toughness may still experience fear, disappointment, and uncertainty; however, they are able to regulate these emotional responses without allowing them to interfere with goal-directed behavior. Recent literature

positions mental toughness as an important mechanism supporting resilience and self-regulation within educational settings (Martono et al., 2025).

Self-confidence also plays a crucial role because the world of work requires individuals to demonstrate their competencies in front of others. Students must communicate during interviews, explain their skills, receive evaluations, and interact with unfamiliar individuals. Self-confidence enables students to utilize their competencies effectively without becoming overwhelmed by fear of negative evaluation. Previous research involving recent graduates found that self-confidence contributed to lower levels of employment-related anxiety, although it did not fully explain the variation in anxiety experienced by participants (Zahro et al., 2023).

Within the context of career development, self-confidence is closely related to career self-efficacy. Self-confidence reflects a general belief in one's abilities, whereas career self-efficacy refers specifically to confidence in performing career-related tasks, such as gathering occupational information, making career decisions, developing career plans, and participating in recruitment processes. Evidence from Indonesian graduates demonstrates a negative association between career self-efficacy and future career anxiety (Elfina & Andriany, 2024). These findings suggest that stronger confidence in one's career-related abilities contributes to lower perceptions of threat when facing future employment.

Mental toughness and self-confidence operate synergistically rather than independently. Mental toughness enables students to persist when outcomes fail to meet expectations, whereas self-confidence encourages them to initiate action despite uncertainty. Students who possess self-confidence but lack mental toughness may become discouraged following rejection. Conversely, students with mental toughness but low self-confidence may endure challenging situations while remaining reluctant to demonstrate their competencies or pursue career opportunities. Together, these two psychological resources form a more comprehensive foundation for career readiness.

Research on career anxiety has primarily focused on final-year university students and recent graduates. Studies involving vocational high school students have begun to emerge, particularly in relation to career self-efficacy, social support, psychological well-being, and career planning interventions. However, studies specifically examining the relationships among mental toughness, self-confidence, and career anxiety among eleventh-grade vocational students remain limited. This stage of education is particularly important because schools still have sufficient time to provide structured guidance, practical experiences, and psychological preparation before students encounter the greater pressures associated with graduation.

Accordingly, this article employs an integrative literature review to address three research questions. First, how does mental toughness contribute to reducing career anxiety? Second, how does self-confidence influence students' appraisal and responses to career-related demands? Third, what types of school-based programs are most effective in strengthening these psychological resources among eleventh-grade vocational students? The review focuses on the

psychological mechanisms involved and their practical implications for career guidance services.

The objective of this article is to develop a conceptual framework linking mental toughness, self-confidence, and career anxiety. This framework is expected to assist school counselors, homeroom teachers, vocational subject teachers, and industry partnership coordinators in designing career guidance activities that extend beyond merely providing employment information. Students require opportunities to develop confidence, test their competencies, learn from setbacks, and construct more realistic perspectives regarding their future careers.

THEORETICAL REVIEW

Career Anxiety among Vocational High School Students

Career anxiety encompasses affective components characterized by feelings of tension, fear, and discomfort. Its cognitive dimension is reflected in negative expectations, repetitive thoughts, and uncertainty regarding career-related decisions. Physiological manifestations include rapid heartbeat, sleep disturbances, headaches, and muscular tension, whereas behavioral manifestations are evident in procrastination, avoidance, and limited participation in career-related activities. These four dimensions reinforce one another when students perceive occupational demands as exceeding the personal resources available to them (Atikah et al., 2023).

Among eleventh-grade vocational students, sources of career anxiety may arise from internship experiences, comparisons with peers, competency assessment results, interactions with workplace supervisors, and perceptions of recruitment processes. Students may generalize from a single unfavorable experience. For example, criticism received during an internship may be interpreted as evidence that they are unfit for employment. Likewise, a poor score in one competency subject may be perceived as proof that all of their vocational abilities are inadequate. Such cognitive appraisals amplify perceived threats while overlooking opportunities for learning and improvement.

High career expectations may also become a source of psychological pressure when they are not accompanied by realistic planning and adequate psychological support. Research involving vocational arts students found that career expectations increased employment anxiety, whereas social support and psychological capital influenced this relationship (Zhao, 2023). These findings are highly relevant to vocational high school students because expectations regarding salary, employing organizations, occupational status, and family pride are often established long before students fully understand actual workplace conditions.

Career anxiety does not arise solely from labor market conditions. The manner in which individuals process information also plays a critical role. Two students may receive identical information about labor market competition yet respond in entirely different ways. One student may interpret competition as motivation to improve, whereas another may regard it as evidence that effort is futile. These differences are associated with personal psychological resources

such as mental toughness, self-efficacy, optimism, mastery experiences, and planning ability.

Limited work readiness may intensify career anxiety, while excessive anxiety may simultaneously hinder the development of work readiness. Students who fear failure are more likely to avoid interview simulations, hesitate to seek feedback, and become less proactive in searching for career information. Consequently, they lose valuable opportunities to improve their competencies. Therefore, career anxiety should be addressed as an integral component of career preparation rather than being regarded merely as an isolated emotional problem within vocational education.

Mental Toughness as the Capacity to Cope with Pressure

Mental toughness refers to a psychological capacity that enables individuals to remain goal-oriented when facing demanding situations. Its major components include emotional control, commitment to personal goals, willingness to embrace challenges, and confidence in taking action. Contemporary measurement approaches distinguish mental toughness from unrealistic optimism or emotional suppression, conceptualizing it instead as an adaptive pattern of responding to adversity (Greinert et al., 2024).

Although closely related to resilience, mental toughness is conceptually distinct. Resilience emphasizes the capacity to recover and adapt following adversity, whereas mental toughness focuses on maintaining performance, concentration, and effective functioning while pressure is ongoing. Within the educational context, resilience is reflected when students resume learning after experiencing failure. Mental toughness, in contrast, is demonstrated when students continue participating in training activities and accepting evaluation despite experiencing anxiety.

Research involving children and adolescents consistently demonstrates that higher levels of resilience are associated with fewer mental health problems. Its development is influenced by individual, familial, school, cultural, and social relationship factors (Mesman et al., 2021). Among university students, resilience has also been shown to reduce future anxiety through enhanced subjective well-being (Dalmış et al., 2025). Accordingly, mental toughness among vocational students should not be viewed solely as an individual responsibility. Schools should provide supportive environments in which students can safely attempt challenging tasks, experience failure, receive constructive feedback, and continue improving.

Mental toughness reduces anxiety by changing the way students appraise stressful situations. Mentally tough students do not automatically perceive interviews, competency assessments, or internships as risk-free experiences. Rather, they regard these situations as challenges that can be anticipated and prepared for. Their attention shifts from asking, "What if I fail?" to asking, "What should I do before attempting this task?" This cognitive shift decreases repetitive worry while encouraging problem-focused behavior.

Mental toughness also supports behavioral persistence. Students may experience internship rejection, disappointing competency assessment results, or

negative feedback from supervisors. Without sufficient psychological endurance, such experiences may easily become incorporated into negative self-identity. Mental toughness enables students to separate temporary outcomes from their sense of self-worth. Rejection is interpreted as information about strategies requiring improvement rather than as evidence that they lack future career potential.

Research involving Indonesian university students demonstrated that mental toughness and positive psychological capital fully mediated the relationship between perceived social support and student resilience (Martono et al., 2025). These findings suggest that social support alone is insufficient unless it is transformed into confidence, self-control, hope, and perseverance. Schools can facilitate this transformation by providing constructive feedback, establishing progressive learning goals, and encouraging reflective learning following challenging experiences.

Self-Confidence and Career Self-Efficacy

Self-confidence refers to a positive evaluation of one's ability to cope with various situations and to demonstrate personal capabilities appropriately. Self-confidence does not imply believing that one is capable of accomplishing everything. Rather, adaptive self-confidence is accompanied by a willingness to acknowledge personal limitations, continue learning, and seek assistance when necessary. Within the context of career development, self-confidence is reflected in students' willingness to ask questions, express ideas, demonstrate their skills, and participate in recruitment and selection processes.

Career self-efficacy provides a more specific explanation of confidence within the career domain. A student may possess high self-confidence in social interactions while still lacking confidence in preparing a curriculum vitae or selecting an appropriate career path. Consequently, career readiness interventions should focus on concrete career-related tasks. Students need opportunities to experience that they are capable of searching for occupational information, interpreting job requirements, evaluating person-job fit, preparing application documents, responding to interview questions, and improving their performance based on feedback.

Career decision-making self-efficacy has also been associated with perceived employability. A study involving 1,078 final-year vocational college students demonstrated that career decision-making self-efficacy positively influenced employability and emotional intelligence, while emotional intelligence mediated the relationship between self-efficacy and employability (Zhou et al., 2023). These findings indicate that career-related confidence influences not only cognitive processes but also the manner in which individuals regulate their emotions and respond behaviorally to career-related challenges. Adaptive emotion regulation and career adaptability are likewise associated with career decision-making self-efficacy. Students who are capable of cognitively reframing situations, regulating their attention, and adapting to change are better prepared to make career decisions. Career adaptability functions as a mediating mechanism linking cognitive emotion regulation to career decision-making self-

efficacy among individuals undergoing the transition from education to employment (Lee & Jung, 2022).

Self-confidence reduces career anxiety through two primary pathways. The first pathway involves competence appraisal. Career-related tasks are perceived as less threatening when students believe they are capable of learning how to perform them effectively. The second pathway involves behavioral engagement. Students with higher self-confidence are more likely to take action, thereby obtaining feedback and mastery experiences. These successful experiences subsequently reinforce their confidence. Consequently, the relationship between self-confidence and career anxiety is dynamic because the behaviors students display may either strengthen or weaken their initial beliefs.

Self-confidence that is not supported by genuine competence is often fragile. Schools should therefore avoid motivational approaches that merely encourage students to "believe in themselves" without providing opportunities to develop relevant competencies. Structured educational experiences strengthen career self-efficacy by enabling students to acquire new skills while monitoring their own progress (Arghode et al., 2021). Confidence becomes more stable when it is built upon skill mastery, deliberate practice, observation of relevant role models, honest feedback, and effective management of physiological responses. Career development programs should therefore provide students with tangible evidence that their competencies continue to improve over time.

METHODOLOGY

This study employed a Systematic Literature Review (SLR) approach. This method was selected to integrate empirical findings, systematic reviews, intervention studies, and conceptual developments related to career anxiety, mental toughness, resilience, self-confidence, career self-efficacy, and the school-to-work transition. The present SLR was not intended to estimate pooled effect sizes, as in a meta-analysis. Rather, its primary objective was to identify recurring mechanisms, facilitating conditions, and practical implications relevant to eleventh-grade vocational high school students.

The literature search was conducted using Google Scholar, Crossref, DOAJ, PubMed, Frontiers, SAGE Journals, university journal portals, and publishers' official websites. The Indonesian search terms included "kecemasan menghadapi dunia kerja" (career anxiety), "kecemasan karier siswa SMK" (career anxiety among vocational students), "ketangguhan mental siswa" (student mental toughness), "kepercayaan diri dan kecemasan kerja" (self-confidence and work-related anxiety), and "efikasi karier" (career self-efficacy). The English search terms included "career anxiety," "employment anxiety," "mental toughness," "psychological resilience," "self-confidence," "career self-efficacy," "vocational students," and "school-to-work transition."

The inclusion criteria comprised peer-reviewed journal articles published between 2021 and 2025, available in full text or accompanied by verifiable bibliographic information and abstracts, focusing on vocational high school students, university students, students approaching graduation, or recent graduates, and examining variables directly related to career anxiety or

psychological resources associated with career development. Sports-related studies were included selectively when they examined mechanisms of mental toughness and anxiety that could be conceptually applied to evaluative situations relevant to career development.

A total of 20 journal articles were selected as the primary corpus for this review. Data extracted from each study included the authors, publication year, participant characteristics, research design, variables examined, principal findings, and relevance to vocational high school students. The data were subsequently analyzed using thematic coding. Initial codes included threat appraisal, emotion regulation, perseverance, recovery, task self-efficacy, career planning, social support, mastery experiences, and avoidance behaviour. Conceptually related codes were then grouped into broader thematic categories.

The credibility of the synthesis was maintained by comparing findings across different research contexts while avoiding direct generalization from university students to eleventh-grade vocational high school students. Findings derived from studies involving university students and recent graduates were used to improve understanding of the school-to-work transition, whereas studies involving adolescents were considered to evaluate developmental relevance. Consequently, all recommendations proposed for vocational high schools should be interpreted as conceptual implications that require further empirical validation through field-based research involving eleventh-grade vocational students.

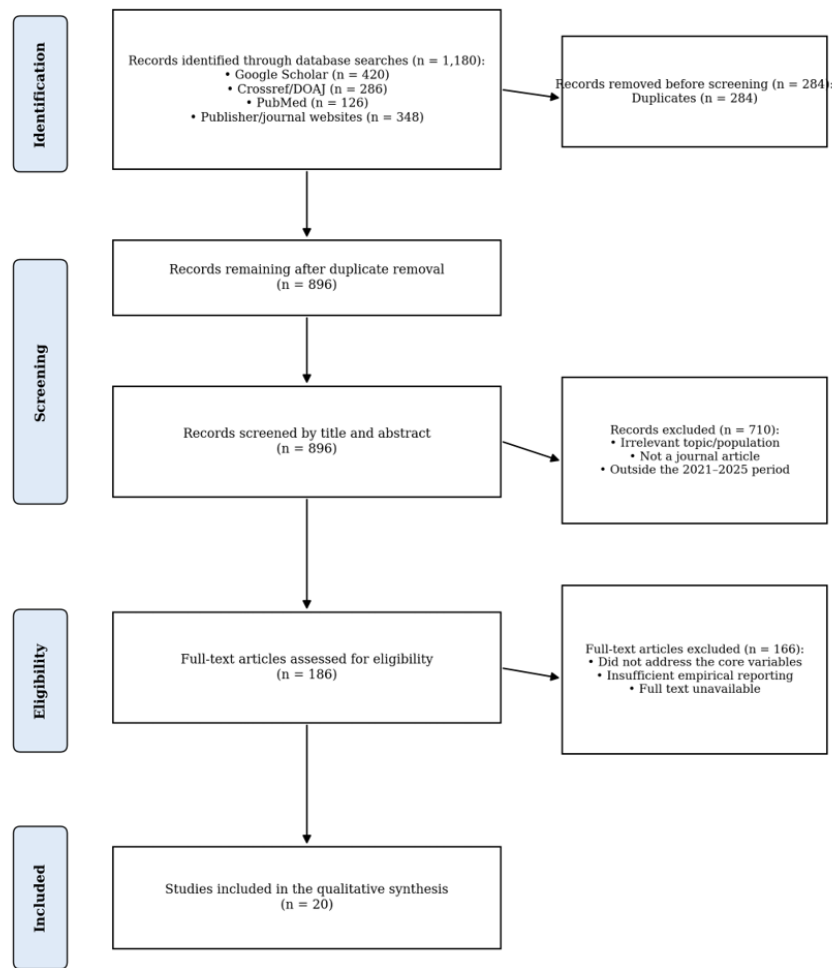


Figure 1. PRISMA 2020 Flow Diagram of the Study Selection Process

RESULTS AND DISCUSSION

Overview of the Findings from the Twenty Included Studies

The twenty reviewed studies revealed three major groups of evidence. The first group described the characteristics and determinants of career anxiety. The second group explained the roles of mental toughness, resilience, and psychological capital. The third group demonstrated the functions of self-confidence, career self-efficacy, career planning, and school-based interventions. A synthesis of the reviewed studies is presented in Table 1.

Table 1. Synthesis of the Twenty Reviewed Studies

No.	Authors	Participants	Research Design	Key Findings	Relevance to the Present Study
1	Afiffah & Wardani (2023)	Senior high school students	Correlational study	Lower academic resilience was associated with higher levels of stress, anxiety, and depression.	Confirms the protective role of psychological resilience during adolescence.
2	Arghode et al. (2021)	University students	Survey	Educational experiences and career competencies were positively associated with career self-efficacy.	Demonstrates that structured learning experiences can strengthen career confidence.
3	Atikah et al. (2023)	Secondary school and university students	Systematic Literature Review	Career anxiety comprises emotional, physical, and cognitive reactions and is influenced by both personal and environmental factors.	Provides the conceptual foundation and determinants of career anxiety.
4	Awalia et al. (2023)	Vocational high school students	Regression	Family social support was negatively associated with future career anxiety.	Highlights the importance of incorporating family context into vocational education programs.
5	Belle et al. (2022)	Final-year university students	Survey	Psychological capital and positive coping reduced employment anxiety, while internship experience strengthened this relationship.	Indicates that work experience and psychological capital complement one another.
6	Dalmış et al. (2025)	University students	Structural Equation Modeling (SEM)	Resilience reduced future anxiety through subjective well-being.	Suggests that resilience operates through positive psychological well-being.
7	Elfina & Andriany (2024)	Recent graduates	Correlational study	Career self-efficacy was negatively associated with future career anxiety.	Indicates that confidence in career-related tasks serves as a protective factor.
8	Elfina & Weißmann (2025)	Vocational high school students	Experimental study	Career planning training reduced career anxiety and enhanced career self-efficacy.	Demonstrates a practical intervention that can be implemented in

					vocational schools.
9	Feng et al. (2025)	Collegiate athletes	Structural Equation Modeling (SEM)	Career decision-making self-efficacy and career planning mediated the relationship between social support and career anxiety.	Suggests that social support should be transformed into confidence and concrete career planning.
10	Greinert et al. (2024)	Students and adults	Instrument validation study	Mental toughness can be measured as a multidimensional construct distinct from other positive psychological constructs.	Supports the identification of indicators for intervention programs.
11	Kleine et al. (2023)	Final-year university students	Longitudinal study	Career planning reduced career-related worry through career self-efficacy.	Demonstrates the sequential relationship between planning and self-efficacy.
12	Lee & Jung (2022)	University students in the school-to-work transition	Path analysis	Career adaptability mediated the relationship between emotion regulation and career decision-making self-efficacy.	Highlights the role of emotion regulation in facilitating confident career decisions.
13	Martono et al. (2025)	Indonesian university students	SEM-PLS	Mental toughness and psychological capital mediated the relationship between social support and resilience.	Indicates that mental toughness can be cultivated through supportive environments.
14	Mesman et al. (2021)	Children and adolescents	Literature review	Higher resilience was consistently associated with fewer mental health problems.	Provides developmental evidence regarding adolescent resilience.
15	Putra et al. (2025)	Vocational high school students	Quasi-experimental study	Psychoeducation on psychological well-being reduced career anxiety.	Suggests that emotional interventions can complement career preparation programs.
16	Sun et al. (2025)	Vocational college students	Survey	Depression, resilience, social support, and occupational self-efficacy were significantly interrelated.	Indicates that emotional problems should be identified during career readiness development.

17	Zahro et al. (2023)	Recent graduates	Regression	Self-confidence was negatively associated with employment competition anxiety.	Supports interventions aimed at strengthening confidence in demonstrating competencies.
18	Zhao (2023)	Vocational arts students	Structural Equation Modeling (SEM)	Career expectations influenced employment anxiety through social support and psychological capital.	Suggests that career expectations should remain realistic and be supported by adequate psychological resources.
19	Zhou et al. (2023)	Vocational college students	Structural Equation Modeling (SEM)	Career decision-making self-efficacy improved employability through emotional intelligence.	Indicates that confidence and emotion regulation should be developed simultaneously.
20	Azhenov et al. (2023)	University students	Career course intervention	Career education programs improved career decision-making readiness and career planning.	Suggests that structured career education can be introduced as early as Grade XI of vocational high school.

Mechanisms Through Which Mental Toughness Reduces Career Anxiety

The synthesis indicates that mental toughness reduces career anxiety through four primary mechanisms: attentional control, emotion regulation, behavioral persistence, and meaning reconstruction following failure. These mechanisms transform students' relationship with pressure. Although pressure does not disappear, it no longer fully determines their thoughts and behaviors.

Attentional control enables students to reduce excessive focus on uncertain future outcomes. Career anxiety is often characterized by negative anticipations, such as fears of being rejected, performing poorly during job interviews, disappointing one's family, or failing to compete successfully with other applicants. Mental toughness redirects students' attention toward present-oriented tasks, including improving their portfolios, practicing interview responses, and mastering occupational competency standards. Focusing on specific and manageable actions enhances students' sense of control while reducing uncertainty.

Emotion regulation prevents students from interpreting anxiety-related physiological responses as evidence of personal inadequacy. Sweaty hands or an accelerated heartbeat before a presentation, for example, can be understood as normal physiological responses to situations perceived as important. Once students recognize these reactions appropriately, they are better able to employ adaptive coping strategies such as controlled breathing, adequate preparation,

realistic self-talk, and brief recovery pauses. Previous research has demonstrated that resilience among adolescents is associated with lower levels of anxiety, although this relationship is influenced by both family and school systems (Mesman et al., 2021).

The relationship between mental toughness and career anxiety is also influenced by social support. Teachers, peers, family members, and workplace supervisors provide emotional security, relevant information, and practical models for effective coping. Social support that consists solely of emotional reassurance may produce only temporary benefits. However, support accompanied by opportunities for practice, constructive feedback, and guided learning enables students to develop greater self-control, commitment, and confidence in facing challenges. Mental toughness and psychological capital have been shown to mediate the relationship between perceived social support and resilience among university students (Martono et al., 2025).

For eleventh-grade vocational high school students, mental toughness training should be closely connected to authentic learning experiences. General motivational sessions are unlikely to produce lasting effects unless they are accompanied by structured practice. Schools may implement weekly performance goals, reflective practice journals, constructive failure reviews that avoid public humiliation, time-pressure simulations, and guided discussions concerning rejection experiences. Through these activities, students gradually learn that psychological discomfort can be tolerated and that unsatisfactory outcomes can be improved through appropriate strategies rather than avoided.

Mechanisms Through Which Self-Confidence Reduces Career Anxiety

Self-confidence reduces career anxiety by influencing both competence appraisal and the willingness to take action. Students who believe they are capable of learning and developing their abilities are more likely to perceive career-related demands as challenges with attainable solutions. In contrast, students who doubt their own abilities are more likely to interpret the same demands as threats to their self-worth. These differences subsequently influence the intensity of anxiety, attentional focus, and behavioral responses.

The form of self-confidence that is most relevant to career readiness is task-specific confidence. Students need to believe that they are capable of performing particular career-related tasks rather than merely considering themselves generally competent. Career self-efficacy has been shown to be negatively associated with future career anxiety among Indonesian graduates (Elfina & Andriany, 2024). Moreover, career self-efficacy contributes to employability through emotional intelligence among vocational college students (Zhou et al., 2023).

Mastery experiences constitute the primary source of self-confidence. Learning activities should therefore be organized progressively, beginning with tasks that are achievable before gradually introducing more complex challenges. Students may begin by introducing themselves for one minute, preparing a single section of a curriculum vitae, answering several interview questions, and eventually participating in comprehensive job interview simulations. Each

successful experience provides tangible evidence that career-related anxiety can be managed effectively. Feedback should emphasize both students' existing strengths and the specific aspects requiring further improvement.

Self-confidence also influences communication during recruitment processes. Employers evaluate not only technical competence but also candidates' ability to explain their experiences, respond to questions, and communicate effectively. Students with adequate self-confidence are better able to present themselves confidently without feeling compelled to appear perfect. A study involving recent graduates in Banten demonstrated that self-confidence explained a significant proportion of the variance in employment competition anxiety, indicating that confidence-building initiatives should be accompanied by opportunities to develop relevant competencies and practical experience (Zahro et al., 2023).

Stable self-confidence is grounded in realism. Students recognize both their strengths and their limitations while identifying practical strategies for continued improvement. This perspective differs fundamentally from optimism without preparation. Schools should therefore connect positive affirmations with objective evidence of competence. Statements such as "*I am capable of performing well in a job interview*" should be reinforced through interview practice, video-based feedback, rubric-based assessment, and repeated opportunities for improvement. Evidence of genuine skill mastery enables students' confidence to remain stable even when confronted with difficult or unexpected interview questions.

Interaction Between Mental Toughness and Self-Confidence

Mental toughness and self-confidence form a mutually reinforcing relationship. Self-confidence encourages students to initiate action, whereas mental toughness enables them to persist when confronted with obstacles. Persistence in the face of challenges leads to small but meaningful achievements, which subsequently strengthen students' confidence. A positive developmental cycle is established when students are continuously provided with opportunities to act, reflect upon their experiences, and learn from the outcomes.

Self-confidence without mental toughness may produce confidence that depends entirely on successful outcomes. Students may feel capable as long as they receive praise, yet quickly lose confidence when confronted with criticism or failure. Mental toughness teaches students that competence should not be judged solely on the basis of a single performance outcome. Individuals remain capable of learning and improving even when their current performance falls short of expectations. This perspective helps maintain self-confidence despite temporary setbacks.

Effective career planning should remain flexible. Students should be encouraged to establish primary career goals while simultaneously preparing alternative options and strategies for competency development. Mental toughness enables students to accept changes in career plans without interpreting them as failures of personal identity. Self-confidence helps students recognize that their competencies can be transferred across multiple career

pathways. Such flexibility reduces the pressure to identify a single "perfect" career choice and enables students to adapt more effectively to changing circumstances.

Social support further strengthens the interaction between mental toughness and self-confidence. Family members can provide opportunities for career exploration while maintaining realistic expectations. Vocational teachers can provide objective evidence of students' technical competencies. School counselors can assist students in managing anxious thoughts and emotional responses, whereas workplace supervisors can offer constructive feedback regarding professional standards and workplace expectations. Social support has been associated with lower levels of future career anxiety among vocational high school students and appears to be most effective when it enhances students' internal psychological resources rather than merely providing emotional reassurance (Awalia et al., 2023; Feng et al., 2025).

Factors That Strengthen or Weaken the Roles of Mental Toughness and Self-Confidence

The influence of mental toughness and self-confidence does not occur in isolation. Family circumstances, the quality of internship experiences, school culture, mental health, and access to career-related information may either strengthen or weaken their effects. Even students with high levels of self-confidence may experience severe career anxiety when they are exposed to rigid family expectations or unsafe and unsupportive workplace experiences during internships.

Family support plays a significant role in shaping students' sense of security and their perceptions of the future. Adaptive family support includes open communication, assistance in obtaining career-related information, appreciation of the learning process, and expectations that are aligned with students' abilities. In contrast, pressure to secure employment immediately after graduation, expectations regarding specific income levels, or frequent comparisons with siblings may intensify students' fear of failure. Research involving vocational high school students in Blitar demonstrated that family support significantly contributes to students' levels of future career anxiety (Awalia et al., 2023).

Students' mental health should receive particular attention because career anxiety frequently overlaps with stress, depression, and other psychological difficulties. Lower levels of academic resilience have been associated with higher levels of psychological distress among adolescents (Afiffah & Wardani, 2023). Similarly, research involving vocational college students identified significant relationships among depression, resilience, social support, and occupational self-efficacy (Sun et al., 2025). Consequently, career development programs should not assume that all forms of career anxiety can be resolved solely through motivational activities.

Labour market information may either reduce or increase students' anxiety depending on how it is presented. Information regarding employment opportunities, salary standards, and competency requirements should always be accompanied by practical guidance on how students can respond effectively to

these realities. Career information presented without appropriate guidance may be perceived as threatening rather than informative. Students should therefore be encouraged to distinguish factual information from predictions and opinions commonly encountered on social media. Teachers can facilitate this process by helping students compare multiple sources of information and relate labour market trends to concrete strategies for competency development.

Strengthening Program Model for Eleventh-Grade Vocational High School Students

The findings of this review support the implementation of a strengthening program before students enter the final stage of vocational education. The proposed program may be organized into eight interconnected sessions that are integrated with workplace internships and vocational learning activities. Its primary objective is not to eliminate career anxiety entirely, but rather to help students remain capable of taking constructive action when anxiety arises.

The first session focuses on career anxiety mapping. Students identify situations that trigger anxiety, automatic thoughts, physiological responses, and behavioral reactions. This mapping process helps students distinguish realistic concerns from predictions that are not supported by evidence. Counselors and teachers should employ non-clinical language to avoid stigmatizing students or creating the impression that they are being labeled as having psychological problems.

The second session focuses on identifying personal strengths and evidence of competence. Students review project outcomes, competency certificates, organizational experiences, practical assignments, and feedback received from supervisors. They then compile a list of competencies they have already developed as well as those requiring further improvement. This activity strengthens self-confidence by grounding it in objective evidence rather than general praise.

The third session emphasizes career planning. Students formulate primary career goals, identify alternative career pathways, specify entry requirements, evaluate competency gaps, and establish weekly action plans. Structured career education programs have been shown to improve career decision-making readiness and planning skills (Azhenov et al., 2023). Moreover, clearly defined career plans reduce career-related worry by strengthening career self-efficacy (Kleine et al., 2023).

The fourth session addresses emotion regulation skills. Students learn techniques such as controlled breathing, grounding exercises, emotion labeling, cognitive reappraisal, and realistic self-talk. These strategies are practiced within contexts that closely resemble real career situations, including job interviews, competency examinations, presentations, and communication with workplace supervisors. Career adaptability and emotion regulation have been identified as important contributors to career decision-making self-efficacy (Lee & Jung, 2022). The fifth session consists of job recruitment simulations. Students prepare curriculum vitae, analyze job advertisements, participate in mock interviews, and complete group selection exercises. These activities are recorded or observed using standardized assessment rubrics. Feedback focuses on behaviors that can

be improved rather than personal characteristics. Students subsequently repeat the simulations to evaluate their progress and strengthen their confidence through repeated mastery experiences.

The sixth session focuses on learning to cope with failure. Teachers present scenarios involving internship rejection, critical feedback, changes in career plans, and unsatisfactory competency assessment results. Students practice distinguishing factual information from personal interpretations, emotional reactions, and alternative behavioral responses. These activities foster mental toughness by preparing students not only for success but also for effective recovery following setbacks.

The seventh session emphasizes social support and communication. Students identify individuals who can provide different forms of assistance, including career information, emotional support, practical guidance, professional networking, and technical advice. They also practice requesting assistance effectively and appropriately. Previous studies indicate that social support reduces career anxiety most effectively when it enhances career self-efficacy and career planning (Feng et al., 2025).

The eighth session consists of career plan presentations and action commitments. Students present their three-month career goals, initial action steps, anticipated obstacles, coping strategies, and available support systems. Teachers evaluate both the quality of students' career plans and changes in their levels of confidence and career anxiety. Follow-up evaluations should be conducted after students complete their workplace internships or other industry-based learning experiences.

Students experiencing severe career anxiety should be provided with an appropriate referral pathway. Warning signs include persistent sleep disturbances, panic attacks, substantial declines in academic functioning, extreme avoidance behaviors, symptoms of depression, or thoughts of self-harm. Teachers are not expected to provide clinical diagnoses. Rather, their responsibility is to recognize these warning signs, provide initial support, ensure students' safety, and facilitate referrals to qualified mental health professionals when necessary.

CONCLUSIONS AND RECOMMENDATIONS

Mental toughness and self-confidence play complementary roles in reducing career anxiety among eleventh-grade vocational high school students. Mental toughness enables students to maintain focus, regulate their emotions, persist throughout the learning process, and recover effectively following setbacks. Self-confidence helps students evaluate their abilities more positively, engage confidently in career-related experiences, communicate their competencies effectively, and make informed career decisions. Together, these psychological resources reduce career anxiety not by eliminating uncertainty, but by strengthening students' capacity to cope with it.

FURTHER STUDY

Future studies are recommended to conduct empirical research using quantitative or mixed-method approaches to examine the direct and indirect

effects of mental toughness and self-confidence on career anxiety among vocational high school students. Additionally, future research may explore the role of mediating or moderating variables, such as social support, career adaptability, self-efficacy, and family environment, to gain a more comprehensive understanding of factors influencing career anxiety. Longitudinal studies across different educational settings and cultural contexts are also needed to strengthen the generalizability of the findings and to develop effective intervention programs for students in career preparation.

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REFERENCES

- Afiffah, N. P., & Wardani, I. Y. (2023). Hubungan Resiliensi Akademik dengan Stres, Kecemasan, dan Depresi Remaja SMA di Masa Pandemi COVID-19. *Jurnal Persatuan Perawat Nasional Indonesia (JPPNI)*, 8(1), 41–50. <https://doi.org/10.32419/jppni.v8i1.366>
- Arghode, V., Heminger, S., & McLean, G. N. (2021). Career Self-Efficacy and Education Abroad: Implications for Future Global Workforce. *European Journal of Training and Development*, 45(1), 1–13. <https://doi.org/10.1108/EJTD-02-2020-0034>
- Atikah, D. N., Kurniawati, F., & Rifameutia, T. (2023). Students' Career Anxiety: A Systematic Literature Review. *Jurnal Pendidikan Progresif*, 13(3), 1366–1381. <https://doi.org/10.23960/jpp.v13.i3.202335>
- Awalia, B. F., Mahmudah, S., & Khoirot, U. (2023). Kecemasan Menghadapi Dunia Kerja pada Masa Depan di Kalangan Siswa SMK Blitar Jawa Timur. *Jurnal Psikologi*, 19(2), 40–44. <https://ejournal.up45.ac.id/index.php/psikologi/article/view/1639>
- Azhenov, A., Kudysheva, A., Fominykh, N., & Tulekova, G. (2023). Career Decision-Making Readiness among Students in the System of Higher Education: Career Course Intervention. *Frontiers in Education*, 8, 1097993. <https://doi.org/10.3389/feduc.2023.1097993>
- Belle, M. A., Antwi, C. O., Ntim, S. Y., Affum-Osei, E., & Ren, J. (2022). Am I Gonna Get a Job? Graduating Students' Psychological Capital, Coping Styles, and Employment Anxiety. *Journal of Career Development*, 49(5), 1122–1136. <https://doi.org/10.1177/08948453211020124>
- Dalmış, A. B., Büyükatak, E., & Sürücü, L. (2025). Psychological Resilience and Future Anxiety among University Students: The Mediating Role of Subjective Well-Being. *Behavioral Sciences*, 15(3), 244. <https://doi.org/10.3390/bs15030244>

- Elfina, M. L., & Andriany, D. (2024). Career Self-Efficacy and Future Career Anxiety on Indonesian Fresh Graduates during Pandemic. *Jurnal Kajian Bimbingan Dan Konseling*, 8(1), 11. <https://doi.org/10.17977/um001v8i12023p24-32>
- Elfina, M. L., & Weißmann, R. (2025). The Effect of Career Plan Training on Career Anxiety and Career Self-Efficacy. *Journal An-Nafs: Kajian Penelitian Psikologi*, 10(1), 1-12. <https://doi.org/10.33367/psi.v10i1.6724>
- Feng, Y.-J., Zhang, Z.-Y., Wang, W., Zhang, W.-J., & Che, G.-W. (2025). Chain-Mediated Effects of Career Self-Efficacy and Career Planning between Social Support and Career Anxiety in College Soccer Players. *Frontiers in Psychology*, 16, 1685011. <https://doi.org/10.3389/fpsyg.2025.1685011>
- Greinert, A., Schöne, C., Wilhelms, M., & Stiensmeier-Pelster, J. (2024). The Mental Toughness Scales (MTS): Development and Validation of a New Instrument. *European Journal of Psychological Assessment*. <https://doi.org/10.1027/1015-5759/a000875>
- Kleine, A.-K., Schmitt, A., & Keller, A. C. (2023). Career Planning and Self-Efficacy as Predictors of Students' Career-Related Worry: Direct and Mediated Pathways. *Journal of Career Development*, 50(1), 185-199. <https://doi.org/10.1177/08948453221078950>
- Lee, A., & Jung, E. (2022). University Students' Career Adaptability as a Mediator between Cognitive Emotion Regulation and Career Decision-Making Self-Efficacy. *Frontiers in Psychology*, 13, 896492. <https://doi.org/10.3389/fpsyg.2022.896492>
- Martono, S., Prajanti, S. D. W., Purwanta, E., & Dwiningrum, S. I. A. (2025). The Role of Mental Toughness and Positive Psychological Capital in the Effect of Perceived Social Support on Student Resilience. *Educational Process: International Journal*, 16, e2025277. <https://doi.org/10.22521/edupij.2025.16.277>
- Mesman, E., Vreeker, A., & Hillegers, M. (2021). Resilience and Mental Health in Children and Adolescents: An Update of the Recent Literature and Future Directions. *Current Opinion in Psychiatry*, 34(6), 586-592. <https://doi.org/10.1097/YCO.0000000000000741>
- Putra, S. J. P., Suroso, S., & Farid, M. (2025). The Effectiveness of Psychological Well-Being Psychoeducation on Career Anxiety in Vocational High School Students Based on Gender. *International Journal of Research in Counseling*, 4(1), 61-66. <https://doi.org/10.70363/ijrc.v4i1.229>
- Sun, L., Zhang, Y., Xie, H., Li, Q., & Zhu, Z. (2025). The Effect of Depression on Occupational Efficacy of Higher Vocational College Students: The Mediating Role of Psychological Resilience and Social Support. *Frontiers in Psychiatry*, 16, 1470204. <https://doi.org/10.3389/fpsyg.2025.1470204>
- Zahro, S. S. H., Ratnaningtyas, A., & Prastyani, D. (2023). Peran Kepercayaan Diri untuk Mengatasi Kecemasan Para Fresh Graduate di Banten dalam Menghadapi Persaingan Kerja. *Jurnal Psikologi: Media Ilmiah Psikologi*, 21(2). <https://doi.org/10.47007/jpsi.v21i2.345>
- Zhao, A. (2023). The Impact of Career Expectation on Employment Anxiety of Art Students in Higher Vocational Colleges during the COVID-19: A Chain

Mediating Role of Social Support and Psychological Capital. *Frontiers in Psychology*, 14, 1141472. <https://doi.org/10.3389/fpsyg.2023.1141472>
Zhou, D., Peng, Z., & Zhou, H. (2023). The Influence of Career Decision-Making Self-Efficacy on Employability of Higher Vocational Students: Mediated by Emotional Intelligence. *Frontiers in Education*, 8, 1274430. <https://doi.org/10.3389/educ.2023.1274430>