

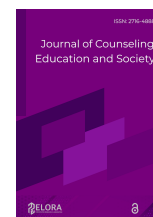


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Career self-efficacy as a mediator between school counseling and career indecision: a systematic literature review

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ABSTRACT

Career indecision remains a major challenge in school-to-work transitions among vocational education students, whose career exploration is often constrained by early exposure to workplace demands and vocational curricula. This study systematically reviewed the relationship between career self-efficacy and career indecision and examined the role of school career counseling among vocational education students. Following the PRISMA 2020 framework, a systematic search was conducted in the Scopus database using terms related to career self-efficacy, career indecision, career decision-making, vocational education, and school/career counseling. Study quality was assessed using the four-domain FICO framework, and findings were synthesized thematically. The search identified 191 records, of which 50 articles from various countries and contexts were included, primarily published between 2011 and 2023. Four themes emerged: career decision-making self-efficacy consistently predicted lower career indecision and greater career adaptability; social support from parents, teachers, and counselors strengthened self-efficacy; structured career guidance reduced irrational career beliefs and indecision, although evidence among vocational high school students remained limited; and psychological assets such as resilience, proactive personality, and emotional intelligence influenced the self-efficacy–indecision relationship. The findings support Social Cognitive Career Theory and suggest that vocational schools should incorporate structured, counselor-led self-efficacy development activities. Further research is needed across diverse vocational education contexts, particularly beyond East Asian settings.



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Introduction

Vocational education, while its aim may not initially seem as ambitious as traditional educational systems, is primarily a means to equip a generation to smoothly enter the job market, but at the same time it dramatically reduces the time that students have to get to learn, try out and finally decide on a career. Today, due to automation, restructuring of industries, and post-pandemic upheaval, there is no shortage of global labor markets in which there are changes, so the pressure on school leavers to make their vocational decisions early with little chance of changing their minds is mounting (Mahfud et al., 2022; Diamante et al., 2025). Career development experts since ancient times have claimed that the psychological resources students present in this transition more specifically, their assurance in their own ability to make decisions is what decides if the transition seems to them as something they can handle or they constantly face indecision. Since vocational high school students are at the same time learning occupational skills and forming vocation identities, it makes sense to understand the

psychological and institutional elements which can lead to lower career indecision among these students for the sake of students' retention, happiness, and their readiness for work.

Career decision-making uncertainty is about the problem some people have with committing to a certain career choice. This condition differentiates itself from the normal uncertainty that accompanies the individual's developmental process, as career indecision is linked to anxiety, low life satisfaction and poor academic performance (Atitsogbe et al., 2026; Koumoundourou et al., 2011). Among vocational-track students, career indecision further deteriorates because they have early specialization: a student in a technical program has probably narrowed their occupational possibilities without fully forming the personal insight necessary to make an informed choice. (Diamante et al., 2025). Career decision-making self-efficacy -the individual's belief in their capabilities to execute activities related to career decision making-have shown to be the most consistent factor that leads to the decrease in indecision (Ye, 2014; Zhou et al., 2023), thereby placing it as a key subject for this paper.

For this review, career indecision is defined operationally as a self-reported difficulty in committing to, or an active postponement of, a vocational or educational choice, as most commonly captured in the included studies with instruments such as the Career Decision Scale and the Career Decision-Making Difficulties Questionnaire. Career decision-making self-efficacy is defined as an individual's belief in their own capability to successfully complete the tasks involved in career decision making, typically operationalized with the Career Decision Self-Efficacy Scale (short form) or close derivatives. Because this review synthesizes predominantly cross-sectional and correlational primary studies alongside a smaller set of experimental and quasi-experimental intervention studies, the review itself is a narrative, thematic synthesis rather than a primary causal design; any statements about directional or causal influence in the sections that follow reflect the design of the individual primary studies being summarized, not an inference drawn by this review as a whole.

A multitude of research studies have looked into what factors lead towards the development of self-efficacy in students when they are making their career choice, and in almost all cases they agreed that support from others in the environment is the context that most often comes up as a reason. Whether it is the case of parents helping their kids to become autonomous through a supportive approach or the very opposite that is, being controlling or interfering, the way one parent is acting can really influence how one's child feels about their abilities in career, as well as how indecisiveness gets resolved later (Angelini et al., 2025; Giacomo et al., 2026; Chang & Wang, 2025; Li, 2026). The role or the type of job or career one is going for is not something which only the individual can decide but is also the area where support from teachers and schools come into play. It has been observed that with students who are given more career-related support by teachers and who are provided with career guidance structures at the vocational education stage, these students are likely to be more self-directed and capable as well, they would even engage themselves more in exploration of different career paths and directions (Parola et al., 2025; Mittendorff et al., 2012). Not only teacher support but peer and institutional support have also been identified as being a key element in promoting career adaptability and career satisfaction (Suyitno et al., 2024; Song et al., 2025).

Somewhat recently in the field, methodologically speaking, researchers have switched to more complicated mediation and chain-mediation models instead of plain correlation analysis. Such models explain through which pathways contextual and personality variables interact to produce career outcomes. One of these models has been a structural equation model showing the effect of social support on career adaptability via career decision-making self-efficacy (Zhou et al., 2024; Wang et al., 2024), and that other variables such as core self-evaluation and proactive personality operate via self-efficacy and social support in shaping career decision-making difficulties and adaptability (Wang et al., 2026; Fang et al., 2021; Zhang et al., 2025). Longitudinal work, although not very prominent and still sparse, has been tracking the development of career adaptability and self-efficacy during the period of vocational training (Kvasková et al., 2023) which corroborates to a great extent conclusions from meta-analysis of the predictors of career adaptability (Rudolph et al., 2017).

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Along with these correlational findings, a limited yet influential body of work has investigated whether career indecision and irrational career beliefs are able to be changed significantly by means of structured counseling. For instance, Rational Emotive Behavior Therapy provided to students of a technical college led to a lasting decrease in irrational career beliefs for six months follow-up period which is described in (Ogbuanya et al., 2018) while group and individual career construction counseling given to high school students in both Tanzania and South Africa significantly increased their decision-making self-efficacy on matters of career (Maree & Magere, 2023; Magere et al., 2026). Also, university students who underwent proactive interventions have been shown to significantly improve their career adaptability and related skills over short, structured workshops as demonstrated by (Green et al., 2020) implying that underlying pathways identified through correlational research can be indeed changed through school counseling, at least in theory.

Still, the research has largely been on higher education students such as college or university graduates, whereas, in fact, most career commitments made by youths occur at the level of secondary-vocational high schools, where there is the least chance of changing one's decision. A few of the research papers included in this review have dealt with higher-vocational college student populations in China and Indonesia (Zhang et al., 2025; Mahfud et al., 2022; Pahlevi et al., 2026; Puri et al., 2026), whereas fewer focus specifically on secondary vocational high school populations, even though there are significant differences in terms of personal and professional development at secondary levels.

Another missing piece is the mechanism of counseling itself. Although social support and paternal behavior have been frequently modeled as antecedents to self-efficacy (Koçak et al., 2021; Loan et al., 2025), on the other hand, official school counseling and career guiding are quite under-theorized, at least when they are considered as an independent, manipulable variable instead of a background, contextual fact. Very few of the included studies directly test counselor-delivered interventions in comparison to a different baseline, and an even smaller number do it within a vocational high school setting as opposed to postsecondary institutions. Hence, the field's capability is quite limited at least as far as what type of school counseling is most effective in promoting career self-efficacy and reducing undecidedness is very likely to affect, at least partly, a major vocational choice decision making process that usually follows a certain path for vocational orientation.

School-vocational education systems are, all over the world, producing countless transitions from a students' education to their work lives each year. And career decision-making self-efficacy consistently predicts decreased indecision in the studies reviewed here. To be able to better understand how both self-efficacy and school counselling influence career decision-making among high school students who prepare themselves for the work through vocational training, we need a systematic synthesis of what research already has to say about their combined effects. As a result, it can be a guide that points us to the areas where the findings support the development of school counselling and curriculum, and the other areas where we need more research.

RQ1: What is the relationship between career self-efficacy and career indecision as described by the vocational high school students in empirical research?

Dealing with RQ1 gives reviewers the possibility of combining the direction, consistency, and boundary conditions of the connection between self-efficacy and indecision across the selected works, building upon prior reviews that narrowed down studies either on self-efficacy or indecision in vocational populations without considering them together.

RQ2: How does school-based career counseling and guidance affect career decision-making self-efficacy and career indecision in this group?

Questioning the underlying antecedents of RQ2 as merely correlational, it directs attention to the counseling measures such as Career Construction Counseling, Teacher-Delivered Career Guidance, and Cognitive-behavioral methods that have been tried as active treatments, thereby revealing what has been discovered regarding their success for those adolescents who are in vocational education programs only through further study and research.

RQ3: How contextual, dispositional, and methodological factors moderate or mediate the relationship between career self-efficacy, counseling, and career indecision, and what are the remaining gaps in vocational high school?

RQ3 integrates the moderating and mediating functions of social support, resilience, proactive personality, and similar constructs, as it clearly outlines places where methodological and population gaps restrict confidence in present findings. The three interrelated questions identify this review as the initial comprehensive integration of literature examining self-efficacy and counseling, in combination, as factors that may decrease career indecision primarily in vocational high school students, instead of considering both variables independently or simply relying on university population data.

Method

Research Design and Framework

Researchers of the present investigation used Systematic Literature Review (SLR) as the research method which was aligned with evidence-based synthesis methods of Tranfield et al (2003) and transparent reporting of systematic reviews by Liberati et al (2009). It was decided that SLR would be used instead of a narrative because the body of empirical research on career self-efficacy, career indecision, and school counseling had mushroomed in the past decade so as a result there was a requirement for a consistent and transparent way of identifying selecting, and synthesizing relevant evidence. The article also utilized the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) reporting framework (Page et al., 2021) to plan these four phases: identifying, checking (screening), eligibility checking, and selecting papers. Tranfield, Denyer and Smart (2003), Liberati, etc. (2009), and Page, et. al. (2021) are methodologically well-proven citations which were provided for procedural guidance, but were not part of the bibliometric dataset from Scopus that was extracted.

Search Strategy

A string for a Boolean search was created to cover the different aspects of the career literature in career self-efficacy, career indecision, career decision-making, vocational education populations, and school, or career counseling. The string was made up of the combinations of the search fields TITLE-ABS-KEY for titles, abstracts, and keywords by authors. For an exact match of the search phrase, the double quotation marks were added to the terms, and the AND/OR operators were used to intersect and link the conceptual groupings.

TITLE-ABS-KEY(("career self-efficacy" OR "career decision self-efficacy" OR "career decision-making self-efficacy") AND ("career indecision" OR "career decision-making difficulties" OR "career decision-making") AND ("vocational" OR "vocational high school" OR "vocational student" OR "adolescen*") AND ("counsel*" OR "career guidance" OR "school counseling"))*

In addition to the wildcard, only one pair of truncation symbols was sufficient for 'adolescent' and 'student' for two main reasons: the TITLE-ABS-KEY field in Scopus matches all morphological forms including those of quoted phrases. Also, the first-year filter was omitted to obtain both the classic and updated articles and the other criteria document types and languages were used only at screening stage and not at the search stage, i.e. it was done after the articles were selected for full text, and in such way, all criteria for eligibility in Section 3.4 were applied consistently.

Database and Information Sources

Scopus was the only database used in this review because it is a major, widely used resource covering all three areas of education, psychology, and social science which are all relevant to career development research. The query was made on 24 August 2026. In this case, no back-up sources were used; however, this shortcoming is fully explained in Section 5.5 where it will, at least, be partly compensated for by drawing also on grey literature and by an author search strategy.

Eligibility Criteria

Table 1 presents the inclusion and exclusion criteria applied in the study selection process. The criteria were established to ensure that the studies included in the review were relevant to the research focus and met the predefined requirements regarding language, document type, publication period, subject area, accessibility, and topical relevance. These criteria were subsequently used to systematically screen and select eligible articles for further analysis.

Table 1. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Language	English only	Non-English (n = 8 excluded)
Document type	Article, Review	Conference paper, Book chapter, Editorial, Retracted (n = 13 excluded)
Publication period	2000–2026 (no lower bound applied at search stage)	Not applicable -no records excluded solely on year
Subject area	Educational psychology, career/vocational psychology, guidance and counseling, vocational education	Unrelated disciplines with no direct career self-efficacy/indecision focus
Accessibility	Resolvable DOI as proxy for full-text availability	No DOI available (n = 6 excluded)

Criterion	Inclusion	Exclusion
Relevance	Directly addresses career self-efficacy, career indecision, or career decision-making	Tangential mention only (n = 113 excluded)

Study Selection Process

The process of selecting articles was done in three sequential phases. During the first phase, completely duplicated records were filtered-out by matching the standardized titles and removed from the database. In the second phase, the remaining entries had been further evaluated at the title-level and abstract-level based on the language and document-type requirements in Table 1; those articles not in English or not regarded as journal articles or reviews were excluded at this point. Finally, during the third phase the left documents were analyzed based on the full-text/metadata level, first for exact topical relation with one of the following subjects: career self-efficacy, career indecision, or career decision making, and population-wise they should target vocational, adolescent or early career-stage groups; second, for the possibility of resolving a DOI to the document as an indicator of access to the full text. Screening was done only based on the information abstract, title, and author keywords fields that were taken from the Scopus export and no other data sources; besides that, due to a single reviewer doing the screening task alone, there was also a lack of an inter-rater reconciliation procedure which is considered a limitation of this review as pointed out in section 5.5. Because screening was not conducted in duplicate, no inter-rater reliability coefficient (e.g., Cohen's kappa or percentage agreement) could be calculated for the title/abstract or full-text screening phases; this absence of a reliability statistic is itself part of the single-reviewer limitation noted above.

Quality Assessment -FICO Framework

The studies were assessed by the FICO framework, which covers four aspects: Focus (definition of the research question and its connection with the review topic), Information (report of the sample, measures, and design detail), Context (appropriateness of the study population and setting for adolescents or early-career vocational populations), and Outcome (interpretability of the findings and their articulation). Each study was assigned a 3-point score (1 = weak, 2 = adequate, 3 = strong) on each of the four components of FICO. Studies summing the score below 8 out of 12 were considered for further detailed assessment, as their exclusion was to a large extent dictated beforehand by the subject-related and document-type criteria in Table 1.

Data Extraction Procedure

From the Scopus metadata export, fields such as the author(s); the year when the publication was made; the country whose researcher authored the paper; the journal or source where the paper was published; the study design or method (if the abstract had a mention of it), the characteristics of the sample if any where stated, and the substantive focus or key finding as described in the abstract were taken directly for each of the 50 studies and entered into Table 2 and Table 3 in Section 5 accordingly.

Network and Bibliometric Analysis Methodology

First and foremost, the article authors performed a descriptive bibliometric profile of the entire selected set of papers based on the extracted metadata. The figure summarizes the publication trends of the studies with respect to time, countries, and research designs and methods. As the dataset consisted of only 50 scientific studies, a full co-occurrence network analysis was not conducted using such software as VOSviewer or Bibliometrix. In Figure 3, one can see the outcome of a descriptive thematic cluster summary that emerged from the analysis of author keywords and abstract contents of all the studies included.

Data Analysis and Synthesis

The qualitative study findings were combined through thematic synthesis as outlined by Thomas and Harden (2008) who use line-by-line coding of the qualitative findings to produce preliminary thematic categories which are then interpreted to fit the review's objectives and research questions. Through this process, themes were generated by reading through the identified focus/finding statements and clustering statements together around each three research question in section 5.3.

Reporting and Documentation

Compliance with the PRISMA 2020 statement for reporting systematic reviews was carried out in preparation of the review (Page et al., 2021, BMJ, 372:71, <https://doi.org/10.1136/bmj.n71>). Readers can refer to the flow diagram included in section 4 which was derived from the PRISMA 2020 guidelines and which outlines the four stages: identification of the sources, selection, assessment of the paper's suitability and its eventual inclusion.

PRISMA 2020 Flow Diagram

Figure 0 illustrates the PRISMA 2020 flow diagram highlighting stages for identification, screening, eligibility, and inclusion of articles in the present review and all record counts are taken directly from the Scopus CSV export described in Section 3.

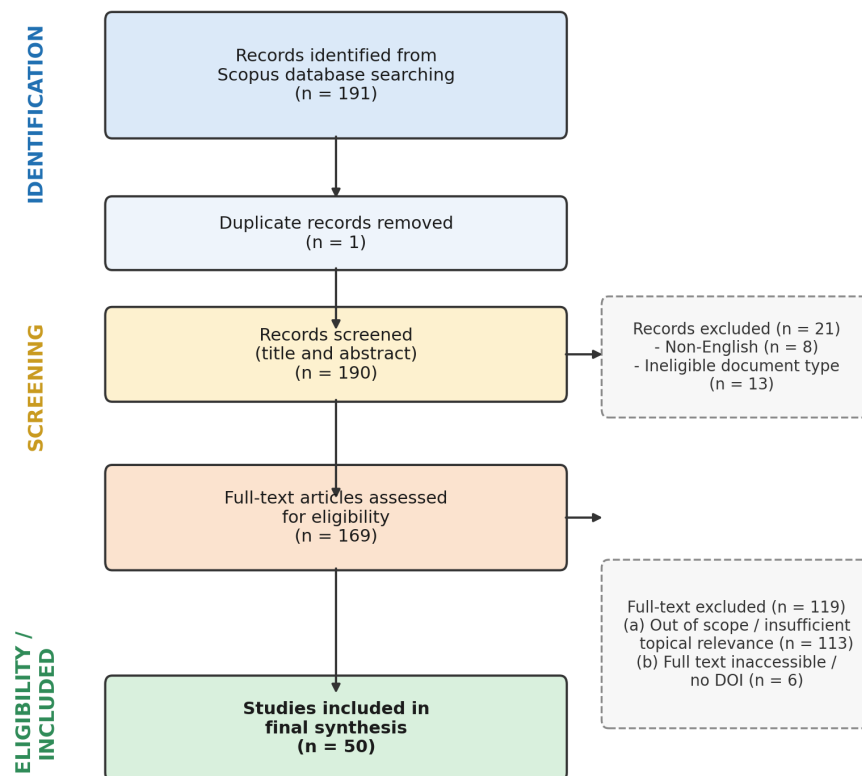


Figure 1. PRISMA 2020 flow diagram of the study selection process.

Results and Discussions

Study Selection Results

A Scopus search, carried out on 24 August 2026, yielded 191 records. After exact title matching identified one duplication, this paper was removed as a redundant record, thus leaving 190 unique ones for screening by title and abstract. During that phase 21 records were eliminated, among 8 being non-English publication records, and 13, being either book chapters (7), conference papers (5) or a retracted article (1), the exclusion of such document types. Thus, it remained 169 documents for a subsequent step, full-text eligibility screening. In this phase, 119 research papers were found disqualified for various grounds, that is to say: 113 for lacking sufficient direct topic relevance to career self-efficacy, career indecision or career decision-making in vocational or adolescents populations, and 6 being those without a resolvable DOI and therefore, not a full-text accessible proxy. Consequently, there are still 50 studies that fulfilled all criteria for eligibility and were therefore incorporated into the final synthesis; the quantities correspond to the numbers mentioned in the Abstract and Figure 0.

Descriptive Characteristics

The 50 studies we considered were issued during the 2011 to 2026 period, with the highest number coming from the latest 18 months: 28 out of the 50 included papers (56%) got published this year or last year, which reflects an increase in the number of studies looking into career self-efficacy and career decision-making processes at a fairly rapid pace. The majority of the study authors were from China (23 papers), followed by Indonesia (6 papers), South Africa and Italy (3 papers each) and the rest single or double contributions from Türkiye, the Philippines, Pakistan, Iran, Greece, Czechia, Vietnam, Poland, the Netherlands, Nigeria, India, and the United States. The methodologies used can mostly be seen as surveys that are cross-sectional in nature and structural equation/path-analytic designs (38 out of 50), followed by experimental/quasi-experimental interventions designs (6 studies), longitudinal studies (3 studies), together with one qualitative, mixed-methods, and meta-analytic study. This figure is depicted in Figures 1 through 3. The concentration of studies in China most

plausibly reflects that country's large and rapidly expanding higher-vocational and secondary-vocational sector, an active domestic research base in educational and career psychology publishing in Scopus-indexed venues, and this review's restriction to a single, English-language database rather than an underlying feature of the self-efficacy-indecision relationship itself; consequently, the reported patterns should be read as most strongly evidenced for East Asian vocational contexts and interpreted cautiously elsewhere, a point developed further in the Discussion and Limitations sections below.

Table 2. Summary of Included Studies (Top 10 Most Directly Relevant Studies)

Title	Author(s)	Year	Country	Method	Key Findings
Parental interference in adolescents' choices and depressive symptoms: the role of self-efficacy, school anxiety, engagement, and burnout in a structural equation model	Giacomo et al.	2026	Italy	Cross-sectional (SEM/path analysis)	Parental interference in career choices is linked to higher depressive symptoms via lower self-efficacy and school engagement. Protean career orientation improves career decidedness indirectly through career adaptability and decision self-efficacy.
How protean career orientation affects career decidedness: The mediating role of career adaptability and career decision self-efficacy	Karimi et al.	2026	Iran	Quantitative (correlational)	Teaching quality and social support raise career self-efficacy, which drives stronger career adaptability skills.
The Influence of Teaching Quality, Social Support, and Career Self-Efficacy on the Career Adaptability Skills: Evidence from a Polytechnic in Indonesia	Mahfud et al.	2022	Indonesia	Cross-sectional (SEM/path analysis)	Teachers' career guidance style shapes students' career reflection, exploration, and networking competencies. Digital literacy, social support, and success criteria strengthen career decision self-efficacy directly and via adaptability.
The influence of teachers' career guidance profiles on students' career competencies	Mittendorff et al.	2012	Netherlands	Cross-sectional survey	Individual and environmental factors shape career choice mainly through career decision-making self-efficacy.
Career adaptability as determinant factor of career decision self-efficacy among preservice office administration teachers in Indonesia	Pahlevi et al.	2026	Indonesia	Cross-sectional (SEM/path analysis)	
The influence of individual and environmental factors on career choice among university students in Indonesia: The mediating role of career decision-making self-efficacy	Puri et al.	2026	Indonesia	Cross-sectional (SEM/path analysis)	

Title	Author(s)	Year	Country	Method	Key Findings
After earthquake in sigi: Can social support affect career decision self-efficacy?	Salim & Darmayanti	2021	Indonesia	Quantitative (correlational)	Social support continued to predict career decision self-efficacy among high schoolers even after acute disaster exposure. Career self-efficacy, social support, and instructional quality together strengthen career construction among vocational engineering students.
How to improve career construction for civil engineering students?	Saputro et al.	2023	Indonesia	Quantitative (correlational)	Core self-evaluation reduces career decision-making difficulties through a chain of social support and career adaptability. Proactive personality and social support jointly strengthen career decision-making self-efficacy, which in turn enhances career adaptability.
The influence of core self-evaluation of college students majoring in physical education on career decision-making difficulties: a chain mediation model	Wang et al.	2026	China	Quantitative (correlational)	
Predicting Career Adaptability among Higher Vocational College Students: The Roles of Proactive Personality, Career Decision-Making Self-Efficacy, and Social Support	Zhang et al.	2025	China	Experimental/quasi-experimental	

Table 3. Study Classification by Theme and Method (All 50 Included Studies)

Author(s)	Year	Country	Research Design	Theme/Focus
Abe et al.	2021	South Africa	Quantitative (correlational)	The link between career outcomes expectancy and career decision-making...
Alkal	2025	Türkiye	Longitudinal survey	Relationships among resilience, career adaptability and career decisio...
Angelini et al.	2025	Italy	Cross-sectional (SEM/path analysis)	Parents who interfere with their children's career choices: a path ana...
Atitsogbe et al.	2026	Not specified in CSV	Quantitative (correlational)	The influence of career indecision on life satisfaction among grade 12...
Badwy et al.	2025	China	Cross-sectional (SEM/path analysis)	Unlocking happiness: how crafting your career path boosts life satisf...

Author(s)	Year	Country	Research Design	Theme/Focus
Boo et al.	2021	China	Quantitative (correlational)	Career adaptability, future time perspective, and career anxiety among ...
Chang & Wang	2025	China	Experimental/quasi-experimental	The impact of lack of parental career engagement on the career planning...
Chen et al.	2021	China	Quantitative (correlational)	How do students become good workers? Investigating the impact of gender...
Diamante et al.	2025	Philippines	Qualitative	Letting go of Mathematics, Science, and ICT: The Psychology of Course ...
Fang et al.	2024	China	Experimental/quasi-experimental	Effect of proactive personality on career adaptability of higher vocational...
Fang et al.	2025	China	Cross-sectional (SEM/path analysis)	The relationship between physical exercise and Chinese college student...
Giacomo et al.	2026	Italy	Cross-sectional (SEM/path analysis)	Parental interference in adolescents' choices and depressive symptoms...
Green et al.	2020	Pakistan	Experimental/quasi-experimental	Furthering Proactivity and Career Adaptability Among University Students...
Guo et al.	2025	China	Quantitative (correlational)	The Effect of Professional Ability on the Craftsman Spirit Among Second...
Karimi et al.	2026	Iran	Quantitative (correlational)	How protean career orientation affects career decidedness: The mediating...
Koumoundourou et al.	2011	Greece	Quantitative (correlational)	Parental influences on Greek adolescents' career decision-making difficulties...
Koçak et al.	2021	Türkiye	Cross-sectional survey	The role of family influence and academic satisfaction on career decisions...
Kvasková et al.	2023	Czechia	Cross-sectional (SEM/path analysis)	A Longitudinal Study of Relationships Between Vocational Graduates' Career...
Li & Wang	2025	Not specified in CSV	Cross-sectional survey	The Relationship between Career Maturity and College Student Employability...
Li	2026	China	Quantitative (correlational)	Influence of career-related parental behaviors on Chinese pre-service ...
Liu et al.	2023	China	Quantitative (correlational)	Career Education Skills and Career Adaptability among College Students...
Loan et al.	2025	Vietnam	Experimental/quasi-experimental	Career-related parent support and career decision-making self-efficacy...
Magere et al.	2026	South Africa	Longitudinal survey	The effect of career construction counselling on high school students' ...

Author(s)	Year	Country	Research Design	Theme/Focus
Mahfud et al.	2022	Indonesia	Cross-sectional (SEM/path analysis)	The Influence of Teaching Quality, Social Support, and Career Self-Eff...
Maj et al.	2026	Poland	Quantitative (correlational)	Polish adaptation of the career decision self-efficacy scale in a univ...
Maree & Magere	2023	South Africa	Longitudinal survey	The influence of group career construction counselling on Tanzanian hi...
Mittendorff et al.	2012	Netherlands	Cross-sectional survey	The influence of teachers' career guidance profiles on students' caree...
Ogbuanya et al.	2018	Nigeria	Experimental/quasi-experimental	The Effect of Rational Emotive Behavior Therapy on Irrational Career B...
Pahlevi et al.	2026	Indonesia	Cross-sectional (SEM/path analysis)	Career adaptability as determinant factor of career decision self-effi...
Parola et al.	2025	Italy	Cross-sectional (SEM/path analysis)	Career-Related Teacher Support Scale: Validation Among Italian Adolesc...
Puri et al.	2026	Indonesia	Cross-sectional (SEM/path analysis)	The influence of individual and environmental factors on career choice...
Roy & Sharma	2026	India	Quantitative (correlational)	AI-Powered Career Guidance: A Scalable Model for Personalized Recommen...
Rudolph et al.	2017	United States	Meta-analysis	Career adaptability: A meta-analysis of relationships with measures of...
Salim & Darmayanti	2021	Indonesia	Quantitative (correlational)	After earthquake in sigi: Can social support affect career decision se...
Saputro et al.	2023	Indonesia	Quantitative (correlational)	How to improve career construction for civil engineering students?
Song et al.	2025	China	Quantitative (correlational)	How does perceived social support affect the career satisfaction of Ch...
Suyitno et al.	2024	Indonesia	Cross-sectional (SEM/path analysis)	The role of social support on vocational school students' career choic...
Wang et al.	2023	China	Cross-sectional survey	Improving the Quality of Career Decision-making of Students in Chinese...
Wang et al.	2024	China	Cross-sectional survey	Career Decision Self-Efficacy Mediates Social Support and Career Adapt...
Wang et al.	2025	China	Cross-sectional survey	Predicting effects of career adaptability and educational identity on ...
Wang et al.	2026	China	Quantitative (correlational)	The influence of core self-evaluation of college students majoring in ...

Author(s)	Year	Country	Research Design	Theme/Focus
Wang & Liu	2026	China	Mixed-methods	Chinese vocational college students pursuing a baccalaureate: academic...
Wang et al.	2026	China	Cross-sectional (SEM/path analysis)	Emotional intelligence leadership and career decision-making self-effi...
Xiong et al.	2026	China	Cross-sectional survey	The relationship between psychological resilience and employability am...
Ye	2014	China	Quantitative (correlational)	Role of career decision-making self-efficacy and risk of career option...
Zhang et al.	2025	China	Experimental/quasi-experimental	Predicting Career Adaptability among Higher Vocational College Student...
Zhao et al.	2025	China	Cross-sectional (SEM/path analysis)	Pursuing the moon and sixpence: exploring career adaptability and mean...
Zhou et al.	2023	China	Cross-sectional survey	The influence of career decision-making self-efficacy on employability...
Zhou et al.	2024	China	Cross-sectional (SEM/path analysis)	Effect of Social Support on Career Decision-Making Difficulties: The C...
Zhou & Jiang	2025	China	Cross-sectional survey	The impact of university students' career management on employability:...

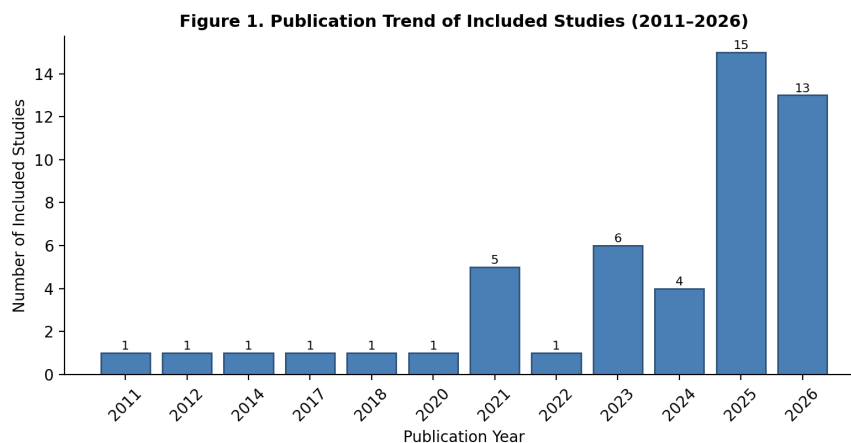


Figure 1. Publication trend of included studies by year.

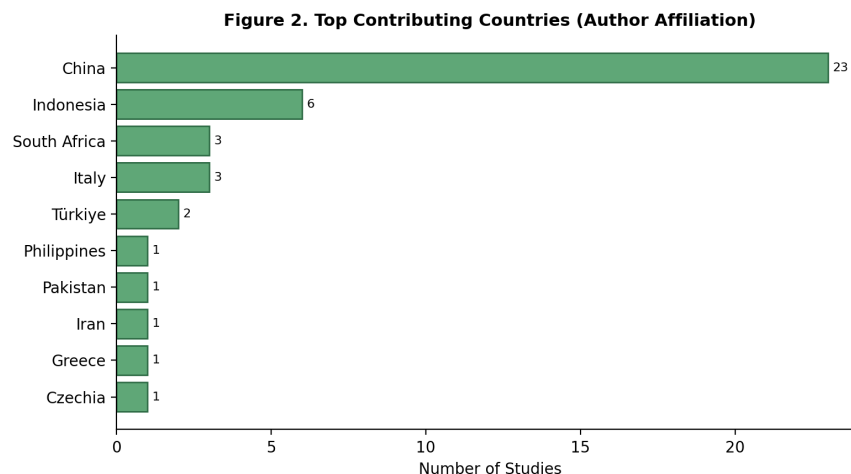


Figure 2. Top contributing countries by author affiliation.

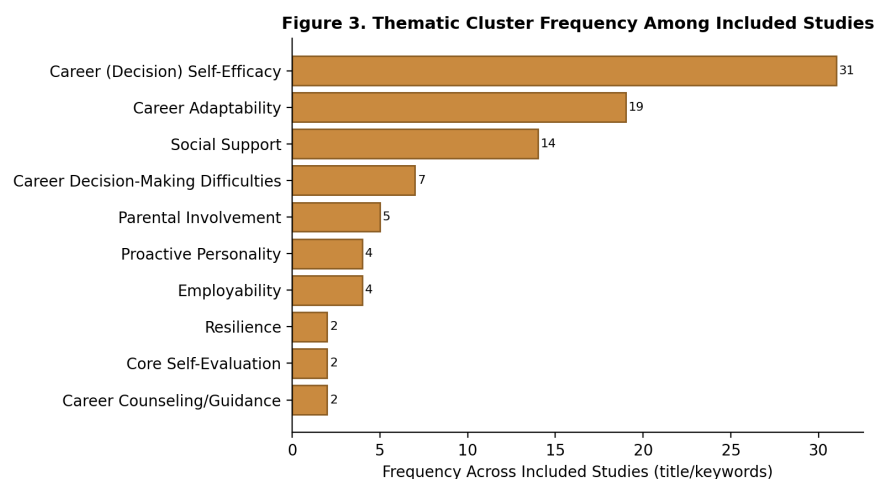


Figure 3. Thematic cluster frequency among included studies, derived from titles and author keywords.

Thematic Synthesis

Findings for RQ1: Career Self-Efficacy and Career Indecision

In the studies analyzed, career decision-making self-efficacy consistently comes out as a negative predictor of career indecision and career decision-making difficulties. Researchers who used chain-mediation and path-analytic designs discovered that self-efficacy beliefs not only directly diminish decision-making problems, but also reduce them indirectly through career adaptability (Wang et al., 2026; Zhou et al., 2024). On a separate study, grade-12 students from Ontario were linked to lower life satisfaction if they are undecided about career, which means that indecision is not a neutral developmental state but one with tangible well-being loss (Atitsogbe et al., 2026).

Nevertheless, the selected studies show substantial detail and do not simply provide a single point of view. Whereas a few articles depict self-efficacy as the immediate last mechanism through which other resources work (Zhou et al., 2023; Ye, 2014), another set of articles place it as a mediator rather than an end variable with either career adaptability or employability becoming the final goals (Zhang et al., 2025; Wang et al., 2024). The above inconsistency implies that self-efficacy is hardly a single determinant at the end of a causal chain, but rather a dynamic central construct the location of which depends on which outcome a particular study focuses on.

One more layer is the vulnerability that differs from one population to another. In a research done shortly after the exposure to a sudden stressor, such as in the case of post-2019 earthquake teenagers in Sigi, Indonesia, the effect of career decision self-efficacy on social support was still noticeable despite trauma being involved (Salim & Darmayanti, 2021). This shows that the connection between self-efficacy and indecision in non-crisis situations probably extends to communities experiencing intense but brief environmental stress, albeit the existing data on this subject is only a single article.

Findings for RQ2: School-Based Counseling and Guidance

Evidence for counseling and guidance as interventions that directly intervene was more diversified in design and population than the correlational literature on RQ1. Rational emotive behavior therapy (REBT) delivered to Nigerian technical college students resulted in large, significant, and long-lasting changes in their irrational career beliefs that persisted six months later (Ogbuanya et al., 2018), one of the strongest pieces of causal evidence in that corpus that structured counseling can lead to the alteration of career-related cognitions. Group and individual career construction counseling delivered to Tanzanian and South African high school students resulted in similar increases in career decision-making self-efficacy to those observed in post-secondary populations (Maree & Magere, 2023; Magere et al., 2026), presenting some of the few intervention studies that were conducted in the secondary level.

Teacher-mediated guidance, however, presents a parallel but slightly different pattern. Rather than teachers' career guidance as an intervention in itself, this study discovered the way teachers naturally guide their students' career-related discussions is directly influencing students' continual development of career-related competencies such as reflection, exploration, and networking as an incidental result of the usual classroom setting interactions (Mittendorff et al., 2012). Recently teacher-specific career-related support has been operationalized and validated among Italian adolescents as a self-standing measurable construct (2025 Parola et al.). Overall, they found that school counseling at the very least operates through two distinct ways of delivery: structured, time-limited counseling programs with measurable pre-post effects, and diffusion, ongoing teacher-student guidance interactions whose effects are assessed by correlation rather than experiment.

It is especially worth mentioning that only few counseling interventions have been studied through actual laboratory experiments in vocational high schools. Most counseling intervention evidence collected through our review was based on samples recruited from technical colleges or universities (Green et al., 2020; Ogbuanya et al., 2018) rather than secondary vocational schools. This has implications for the extent to which findings regarding counseling effectiveness can be applied to the vocational high school level, that is the target group of this review with a considerable degree of confidence.

Findings for RQ3: Moderators, Mediators, and Contextual Factors

Social support from family members, educators and friends is the factor most often represented as a contributing element in the literature but its importance to the different studies changes. In some investigations, social support is an immediate cause of career decision-making self-efficacy (Koçak et al., 2021; Loan et al., 2025; Suyitno et al., 2024), but in other contexts it serves as a mediator or co-mediator together with career adaptability in forecasting difficulties or decision-making employability (Zhou et al., 2024; Zhou & Jiang, 2025). The behavior of parents is particularly a paradox: supportive parental involvement builds self-esteem and lessens uncertainty; however, parental interference or a complete lack of parental engagement has been found to cause greater degrees of depressive symptoms, school anxiety, and a weakened career planning skill (Giacomo et al., 2026; Angelini et al., 2025; Chang & Wang, 2025; Li, 2026).

A dispositional and psychological-resource variables second cluster of moderating variables is a relatively consistent one. In addition to these dispositional resources, proactive personality, resilience, core self-evaluation, and emotional intelligence have been found to be related to stronger career adaptability or easier decision-making (Fang et al., 2024; Alkal, 2025; Wang et al., 2026; Wang et al., 2026c). These results imply that it is more beneficial to couple or consider students' existing levels of these dispositional assets when designing self-efficacy interventions rather than focusing solely on self-efficacy.

On a methodological level, this review recognizes a trend towards more refined mediation modeling including chain-mediation and longitudinal designs (Wang et al., 2026; Kvasková et al., 2023), which have been growing at a pace that significantly exceeds the availability of secondary-school vocational-track samples and also the availability of experimental designs that can demonstrate the causal direction implied by mediation.

Comparative and Critical Analysis

The comparison of methodological differences in the 50 included studies shows the field has significantly changed the way they design studies. Studies from the beginning of the corpus (2011-2018) were primarily based on direct correlation or one-mediation pathways (Koumoundourou et al., 2011; Mittendorff et al., 2012; Ye, 2014) whereas articles appearing from 2023 have mostly used structural equation modeling with two or more mediators, sequential mediation, or, even more rarely, longitudinal or quasi-experimental designs (Wang et al., 2026; Zhou et al., 2024; Kvasková et al., 2023). This progress enabled better specification of mediation but did not result in as many causal designs. Cross-sectional studies are still highly prevalent in the literature (44 out of 50). Few authors made use of longitudinal panel studies which were present in only 3 out of 50 studies, and randomized or quasi-experimental intervention studies, which appeared in 6 studies and focused mainly on the technical-college and university rather than vocational high school settings.

The other remaining included studies provide additional support for this synthesis across other outcomes and populations. Career decision self-efficacy and adaptability are also found to be correlated with career outcome expectancy among South African students (Abe et al., 2021) and career anxiety and future time perspective among undergraduates (Boo et al., 2021). They also have gender- and school-level differences in occupational competence (Chen et al., 2021). Other related work has dealt with career construction processes among civil engineering students (Saputro et al., 2023) and studied the correlation between career education skills and adaptability among Chinese college students (Liu et al., 2023). It has further explored the quality of career decision-making in Chinese higher-vocational colleges (Wang et al., 2023) and has been jointly looked at the role of career adaptability and educational identity in making choices difficulties (Wang et al., 2025). Meanwhile, other papers go further to incorporate physical exercise as a correlate of decision-making confidence (Fang et al., 2025), craftsman-spirit and professional ability among secondary vocational students (Guo et al., 2025), career maturity and employability (Li & Wang, 2025), life meaning and adaptability (Zhao et al., 2025), the reliability and validity testing of the career decision self-efficacy items among Poles (Maj et al., 2026), motivation among vocational college students pursuing their baccalaureate education (Wang & Liu, 2026b), satisfaction gains from career crafting (Badwy et al., 2025). Table 3 summarizes the full characteristics of all 50 studies included here, including those referenced above.

Discussion

Interpretation of Findings

In summary, these lines of evidence synthesized a model wherein career decision-making self-efficacy is described as the immediate psychological channel between contextual support -provided by parents, teachers, and counselors and career indecision reduction; at the same time, characteristics like resilience and proactive personality (as personality traits) are seen as influencing factors determining the potency of this path (Zhou et al., 2024; Fang et al., 2024; Alkal, 2025). The consistency was still quite reasonable for the pattern to emerge in national/cultural situations and levels of education included in our study range -from Nigerian polytechnics to Chinese higher-vocational colleges to Indonesian polytechnics.

Theoretical Implications

New results further Social Cognitive Career Theory by clarifying that, within vocational and near-vocational populations, the perception of the capability to perform does not act as a fixed personality characteristic but rather as a core construct that is interpreted and positioned differently across studies on account of the nature of the outcome considered (i.e., whether it is a terminal or mediating factor influencing adaptability or employability respectively) (Zhang & Zhou, 2021; & Zhou et al., 2020). Besides, it appears quite convincingly, from a number of studies, that the two aspects of parental behavior are both positively and negatively associated with career development. Therefore, career-support models ought to make the difference between kinds of parental support (one being autonomy supportive and the other controlling) in stead of equating them and regarding parental involvement as a single non-differentiated factor.

Practical Implications

Vocational high school counselors and administrators should make use of the evidence-based results from the meta-analysis, such as the integration of structured, time-bounded, self-efficacy-building activities based on career construction counseling and cognitive-behavioral approaches that were demonstrated to be effective in the studies (Maree & Magere, 2023; Ogbuanya et al., 2018) directly in the vocational curriculum of the school, rather than depending solely on the informal, teacher-mediated guidance. Schools might get even better results out of the school-based counseling if they also involve the parents of the students, taking into account the significant influence of parental behavior on children's outcomes (Loan et al., 2025).

Comparison with Prior Reviews

This review mainly considers two things together: how one can feel their own abilities and how a counselor can help a person become less uncertain, especially, in the case of vocational high school students. Such an approach, which is different from the previous study mainly focusing on career adaptability as a general capability or even the general role of social support without tying it specifically to counselor-delivered support, highlights the importance of the present research.

Contradictions in the Literature

Not every result is clear-cut in a simple fashion. Generally, most research works see the positive aspects of social support all the way. On the other hand, findings on parental interference show that some modes of parental involvement are actually correlated with worse, not better, outcomes (Giacomo et al., 2026). Therefore "increase parental involvement" would not serve as such a good general advice in that case. Similarly, even though career adaptability and self-efficacy have often been presented as two sequential constructs, no study agrees exactly on the order. For instance, the idea of adaptability as a driver of self-efficacy has been expressed by one group

(Karimi, et al., 2026), whereas the view that adaptability is the result of self-efficacy has been put forward by another group (Zhang, et al., 2025).

Research Gaps

Three main issues arise from the combined analysis. First, secondary level vocational high school students were hardly represented compared to higher vocational or university level samples causing problems in applying the findings to this very population of the review. Second, the implementation of experimentally controlled tests of school counseling interventions within vocational high schools itself is rare with causal evidence mainly obtained from technical-college or university contexts (Green et al., 2020; Ogbuany et al., 2018). Third, the bulk of research (29 out of 50) originated from China and Indonesia which results in limited generalizability to other parts of the globe, especially Sub-Saharan Africa, South Asia, and Latin America.

Limitations of This Review

This paper has, according to the authors, at least three drawbacks. In the first place, the paper is based on one database only (i.e., Scopus) without performing additional searches in other databases such as ERIC, PsycINFO, or Web of Science. That means relevant education-focused or regionally indexed journals could have been omitted. Second, the identification of relevant articles and the evaluation of their methodological quality were done by one researcher only and no other person was used for coding independently which increases the possibility of errors in selection or classification. The third drawback reported refers to the inference of the characteristics of the studies such as country, research design, and thematic focus through abstract-level metadata not full-text review which could mean introducing classification inaccuracy for some of the 50 identified studies. A fourth drawback is that, because this review is a narrative thematic synthesis rather than a meta-analysis, no pooled effect sizes, heterogeneity statistics (e.g., I-squared), or publication-bias diagnostics (e.g., Egger's regression, funnel-plot asymmetry, fail-safe N) were computed; readers should therefore treat the "consistency" language used elsewhere in this review as a qualitative impression drawn across studies rather than as a quantitatively pooled estimate.

Future Research Agenda

Future studies first and foremost need not to rely on the usual practice of recruiting samples from the university or higher-vocational settings but instead to be targeted at students of the secondary vocational high schools. Researchers secondly should create and evaluate school counselor-led interventions employing randomized or quasi-experimental setups in vocational high schools. Such approaches will extend the intervention paradigm put forth by Ogbuany et al. (2018) and Maree & Magere (2023) to cover that specific student group. Lastly, there is a necessity to use longitudinal designs that will follow the students after having moved from the vocational education to the world of jobs. This will enable clarification regarding the causal relationship between career adaptability and self-efficacy which was left unresolved in the cross-sectional studies that were reviewed here.

Summary Answers to the Research Questions

Directly responding to RQ1, the reviewed evidence points out that career self-efficacy is consistently and negatively related to career indecision, playing the role of a proximal mechanism itself that is influenced by contextual support and dispositional resources. Regarding RQ2, it appears that school counselors particularly through career construction and cognitive-behavioral interventions are able to improve self-efficacy and decrease career indecision effectively, yet the testing of the causal links is uneven. At present the strongest causal claims are mostly outside the secondary vocational school settings and this could be an important area that needs to be researched more. For RQ3, social support, parental behavior, and personality characteristics like resilient and proactive traits are identified as factors that both influence and are influenced by the relationship between career self-efficacy and career indecision. However, due to methodological dependence on cross-sectional designs and a limitation for only a few countries, there is doubt about the extent these patterns can be safely generalized.

Conclusions

This systematic literature review synthesized 50 studies listed in Scopus to investigate the connection between career self-efficacy and school counseling in career indecision among vocational high school and vocational-track students. Answering the three research questions, the review revealed the following: Career decision-making self-efficacy consistently and negatively predicts career indecision, which the authors see as proximal mechanisms influenced parental, teacher, and counselor support. Career decision-making activities like career construction counseling and cognitive-behavioral interventions have demonstrated measurable effectiveness in boosting self-efficacy and reducing indecision through such programs. Although there's a lot of such evidence at the technical-college and university-level settings than in the secondary vocational high schools only. Moderation and mediation between social support, parental behavior, and personal factors, such resilience and

proactive personality of the authors, remain to be clarified by the existing literature. This review's distinguishing contribution is that it examines student career decision-making self-efficacy and school counseling together, as two linked levers for reducing career indecision, rather than treating each in isolation as prior reviews have done; this is offered as a synthesis of existing evidence rather than a claim of new theoretical discovery. The results suggest including self-efficacy-building exercises conducted by counselors as main features of vocational high school curricula, at the same time, developing methods for parents' involvement which support rather than interfere with students' autonomy. The limitations of this review are the exclusive reliance on a single database, the single reviewer screening, abstraction extraction, as well as very high concentration of published studies from just a few National contexts, mainly China and Indonesia. It is expected that future studies will focus on samples from the secondary vocational high schools, experimental evaluation of school counseling interventions, and designs which track over time to reveal causal sequence of variables between self-efficacy, career adaptability, and career indecision.

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References

- Methodological references cited for procedural guidance (Liberati et al., 2009; Page et al., 2021; Thomas & Harden, 2008; Tranfield et al., 2003) are standard PRISMA/SLR sources and are not part of the 50-study Scopus dataset synthesized in this review; full bibliographic details are provided below alongside the 50 dataset references, sorted alphabetically. All 50 dataset references below correspond to the 50 records retained after the eligibility screening described in the Method section and Table 1, each was published in a Scopus-indexed journal (the "Article, Review" document-type criterion applied at screening), and every in-text citation used in the Results and Discussion sections has a matching entry here.
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *Journal of Clinical Epidemiology*, 62(10), e1-e34. <https://doi.org/10.1016/j.jclinepi.2009.06.006>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8, 45. <https://doi.org/10.1186/1471-2288-8-45>
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207-222. <https://doi.org/10.1111/1467-8551.00375>
- Abe, E., Chikoko, V., & Lubinga, S.N. (2021). The link between career outcomes expectancy and career decision-making self-efficacy of stem students in a South African University. *Perspectives in Education*, 39(2), 52-66. <https://doi.org/10.18820/2519593X/pie.v39.i2.5>
- Alkal, A. (2025). Relationships among resilience, career adaptability and career decision self-efficacy in university students: a two-wave longitudinal mediation study. *BMC Psychology*, 13(1). <https://doi.org/10.1186/s40359-025-03456-8>
- Angelini, G., Buonomo, I., & Fiorilli, C. (2025). Parents who interfere with their children's career choices: a path analysis model investigating risk and protective factors for students' burnout and depression. *International Journal of Adolescence and Youth*, 30(1). <https://doi.org/10.1080/02673843.2025.2458079>
- Atitsogbe, K.A., Samson, A., Sarazin-Frey-Pépin, É., El Hamdany, Y., & McCrindle, C.R. (2026). The influence of career indecision on life satisfaction among grade 12 Ontario students: career choice support as mediator and moderator. *International Journal for Educational and Vocational Guidance*, 26(1), 79-103. <https://doi.org/10.1007/s10775-024-09717-z>
- Badwy, H.E., Qalati, S.A., & El-Bardan, M.F. (2025). Unlocking happiness: how crafting your career path boosts life satisfaction through forward thinking and self-confidence in career choices. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-04655-9>

- Boo, S., Wang, C., & Kim, M. (2021). Career adaptability, future time perspective, and career anxiety among undergraduate students: A cross-national comparison. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 29. <https://doi.org/10.1016/j.jhlste.2021.100328>
- Chang, F., & Wang, P. (2025). The impact of lack of parental career engagement on the career planning ability of vocational high school students: the chain mediating role of career social support and career self-efficacy. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-025-09755-1>
- Chen, S., Chen, H., Ling, H., & Gu, X. (2021). How do students become good workers? Investigating the impact of gender and school on the relationship between career decision-making self-efficacy and career exploration. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147876>
- Diamante, R.E.J., Dizon, M.B., Diocos, C.B., Anduyan, R.M.E., Hortillosa, E.M., Dula-Ogon, L.A., Gimoto, M.J.O., Vera Cruz, R.I., Encio, K.J.C., & Lampitoc, H.G. (2025). Letting go of Mathematics, Science, and ICT: The Psychology of Course Shifters from Mathematics, Science, and ICT to Non-Mathematics, Science, and ICT Programs. *Environment and Social Psychology*, 10(11). <https://doi.org/10.59429/esp.v10i11.3463>
- Fang, M., Pan, R., Ding, R., Hou, Z., & Wang, D. (2024). Effect of proactive personality on career adaptability of higher vocational college students: the mediating role of college experience. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1333677>
- Fang, Y., Xu, T., Hong, S., Li, C., Sun, Q., Gou, H., & Wen, Z. (2025). The relationship between physical exercise and Chinese college students' career decision-making difficulties: a chain mediating model of psychological capital and employment attitude. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1693354>
- Giacomo, A., Ilaria, B., & Caterina, F. (2026). Parental interference in adolescents' choices and depressive symptoms: the role of self-efficacy, school anxiety, engagement, and burnout in a structural equation model. *European Journal of Psychology of Education*, 41(1). <https://doi.org/10.1007/s10212-025-01060-3>
- Green, Z.A., Noor, U., & Hashemi, M.N. (2020). Furthering Proactivity and Career Adaptability Among University Students: Test of Intervention. *Journal of Career Assessment*, 28(3), 402-424. <https://doi.org/10.1177/1069072719870739>
- Guo, T., Lu, K., He, T., Huang, M., Xu, Y., & Ni, Y. (2025). The Effect of Professional Ability on the Craftsman Spirit Among Secondary Vocational School Students: The Mediating Role of Career Decision-Making Self-Efficacy and the Moderating Role of Goal Achievement. *European Journal of Education*, 60(2). <https://doi.org/10.1111/ejed.70045>
- Karimi, S., Esmaeili, M., & Yaghoubi Farani, A. (2026). How protean career orientation affects career decidedness: The mediating role of career adaptability and career decision self-efficacy. *International Journal for Educational and Vocational Guidance*, 26(1), 259-283. <https://doi.org/10.1007/s10775-024-09702-6>
- Koumoundourou, G., Tsaousis, I., & Kounenou, K. (2011). Parental influences on Greek adolescents' career decision-making difficulties: The mediating role of core self-evaluations. *Journal of Career Assessment*, 19(2), 165-182. <https://doi.org/10.1177/1069072710385547>
- Koçak, O., Ak, N., Erdem, S.S., Sinan, M., Younis, M.Z., & Erdoğan, A. (2021). The role of family influence and academic satisfaction on career decision-making self-efficacy and happiness. *International Journal of Environmental Research and Public Health*, 18(11). <https://doi.org/10.3390/ijerph18115919>
- Kvasková, L., Hlado, P., Palíšek, P., Šašinka, V., Hirschi, A., Ježek, S., & Macek, P. (2023). A Longitudinal Study of Relationships Between Vocational Graduates' Career Adaptability, Career Decision-Making Self-Efficacy, Vocational Identity Clarity, and Life Satisfaction. *Journal of Career Assessment*, 31(1), 27-49. <https://doi.org/10.1177/10690727221084106>
- Li, X., & Wang, H. (2025). The Relationship between Career Maturity and College Student Employability based on the Multidimensional Model. *WSEAS Transactions on Business and Economics*, 22, 1574-1583. <https://doi.org/10.37394/23207.2025.22.126>
- Li, P. (2026). Influence of career-related parental behaviors on Chinese pre-service preschool teachers' major satisfaction: A two-wave serial mediation model. *International Journal for Educational and Vocational Guidance*, 26(1), 381-399. <https://doi.org/10.1007/s10775-024-09712-4>
- Liu, X., Zhang, X., Dang, Y., & Gao, W. (2023). Career Education Skills and Career Adaptability among College Students in China: The Mediating Role of Career Decision-Making Self-Efficacy. *Behavioral Sciences*, 13(9). <https://doi.org/10.3390/bs13090780>
- Loan, L.T.M., Thu, N.T.A., Thanh, T.T.P., & Hoang, N.H. (2025). Career-related parent support and career decision-making self-efficacy among Vietnamese university students: The moderating role of gender. *Multidisciplinary Science Journal*, 7(8). <https://doi.org/10.31893/multiscience.2025382>

- Magere, G.M., Maree, J.G., & Rajab, P. (2026). The effect of career construction counselling on high school students' career decision-making difficulties and career adaptability. *South African Journal of Psychology*, 56(2), 200-217. <https://doi.org/10.1177/00812463251414066>
- Mahfud, T., Mulyani, Y., Setyawati, R., & Kholifah, N. (2022). The Influence of Teaching Quality, Social Support, and Career Self-Efficacy on the Career Adaptability Skills: Evidence from a Polytechnic in Indonesia. *Integration of Education*, 26(1), 27-41. <https://doi.org/10.15507/1991-9468.106.026.202201.027-041>
- Maj, A., Graczykowska, A., Makowska-Tłomak, E., & Bedyńska, S. (2026). Polish adaptation of the career decision self-efficacy scale in a university student sample. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-026-09837-8>
- Maree, J.G., & Magere, G.M. (2023). The influence of group career construction counselling on Tanzanian high school students' career decision-making difficulties. *International Journal of Adolescence and Youth*, 28(1). <https://doi.org/10.1080/02673843.2023.2190809>
- Mittendorff, K., Beijard, D., den Brok, P., & Koopman, M. (2012). The influence of teachers' career guidance profiles on students' career competencies. *Journal of Vocational Education and Training*, 64(4), 491-509. <https://doi.org/10.1080/13636820.2012.727853>
- Ogbuanya, T.C., Eseadi, C., Orji, C.T., Anyanwu, J.I., Joachim, O.C., & Otu, M.S. (2018). The Effect of Rational Emotive Behavior Therapy on Irrational Career Beliefs of Students of Electrical Electronics and Other Engineering Trades in Technical Colleges in Nigeria. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*, 36(3), 201-219. <https://doi.org/10.1007/s10942-017-0282-2>
- Pahlevi, T., Wardhana, E.T.D.R.W., Pratikto, H., Kusdiyanti, H., & Trisnawati, N. (2026). Career adaptability as determinant factor of career decision self-efficacy among preservice office administration teachers in Indonesia. *Multidisciplinary Reviews*, 9(7). <https://doi.org/10.31893/multirev.2026357>
- Parola, A., Marcionetti, J., & Wong, L.P.W. (2025). Career-Related Teacher Support Scale: Validation Among Italian Adolescents and Assessment of the Effect on Career Decision Self-Efficacy Through Career Adaptability. *Journal of Career Assessment*, 33(1), 167-191. <https://doi.org/10.1177/10690727241256285>
- Puri, L.W., Purwanta, E., Wangid, M.N., & Sandy, T.A. (2026). The influence of individual and environmental factors on career choice among university students in Indonesia: The mediating role of career decision-making self-efficacy. *Multidisciplinary Reviews*, 9(2). <https://doi.org/10.31893/multirev.2026085>
- Roy, M., & Sharma, K. (2026). AI-Powered Career Guidance: A Scalable Model for Personalized Recommendations. *IEEE Access*, 14, 20927-20941. <https://doi.org/10.1109/ACCESS.2026.3661573>
- Rudolph, C.W., Lavigne, K.N., & Zacher, H. (2017). Career adaptability: A meta-analysis of relationships with measures of adaptivity, adapting responses, and adaptation results. *Journal of Vocational Behavior*, 98, 17-34. <https://doi.org/10.1016/j.jvb.2016.09.002>
- Salim, R.M.A., & Darmayanti, K.K.H. (2021). After earthquake in sigi: Can social support affect career decision self-efficacy?. *Cakrawala Pendidikan*, 40(1), 218-229. <https://doi.org/10.21831/cp.v40i1.31364>
- Saputro, I.N., Soenarto, & Sofyan, H. (2023). How to improve career construction for civil engineering students?. *International Journal of Evaluation and Research in Education*, 12(2), 1007-1015. <https://doi.org/10.11591/ijere.v12i2.24323>
- Song, C., Xu, X., & Hashim, S.B. (2025). How does perceived social support affect the career satisfaction of Chinese college graduates in their early careers? A chain mediation model. *International Journal for Educational and Vocational Guidance*, 25(3), 1101-1127. <https://doi.org/10.1007/s10775-024-09667-6>
- Suyitno, Jatmoko, D., Primartadi, A., Ratnawati, D., & Abizar, H. (2024). The role of social support on vocational school students' career choices. *International Journal of Evaluation and Research in Education*, 13(1), 271-279. <https://doi.org/10.11591/ijere.v13i1.26269>
- Wang, X., Wang, H., & WenYa, L. (2023). Improving the Quality of Career Decision-making of Students in Chinese Higher Vocational Colleges. *SAGE Open*, 13(2). <https://doi.org/10.1177/21582440231180105>
- Wang, T., Zhang, Y., Wang, J., Miao, H., & Guo, C. (2024). Career Decision Self-Efficacy Mediates Social Support and Career Adaptability and Stage Differences. *Journal of Career Assessment*, 32(2), 264-282. <https://doi.org/10.1177/10690727231189466>
- Wang, Z., Fan, C., & Niu, J. (2025). Predicting effects of career adaptability and educational identity on the career decision-making of Chinese higher vocational students. *International Journal for Educational and Vocational Guidance*, 25(1), 111-130. <https://doi.org/10.1007/s10775-023-09591-1>
- Wang, C., Li, Y., & Zhao, H. (2026). The influence of core self-evaluation of college students majoring in physical education on career decision-making difficulties: a chain mediation model. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1650716>
- Wang, Z., & Liu, Y. (2026). Chinese vocational college students pursuing a baccalaureate: academic motivation and career adaptability. *Frontiers in Psychology*, 17. <https://doi.org/10.3389/fpsyg.2026.1849938>

-
- Wang, K., Hu, J., Yang, X., Ding, H., Huang, H., & Xu, Z. (2026). Emotional intelligence leadership and career decision-making self-efficacy among college students in China: The mediating role of social support and proactive personality. *PLOS ONE*, 21(2 February). <https://doi.org/10.1371/journal.pone.0343432>
- Xiong, Y., Yu, J., & Wu, H. (2026). The relationship between psychological resilience and employability among higher vocational college students: the chain mediating effects of perceived social support and career decision-making self-efficacy. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1707655>
- Ye, Y. (2014). Role of career decision-making self-efficacy and risk of career options on career decision-making of Chinese graduates. *Psychological Reports*, 114(2), 625-634. <https://doi.org/10.2466/01.17.PR0.114k20w9>
- Zhang, Q., Amat, S., Omar, M., & Mansor, A.Z. (2025). Predicting Career Adaptability among Higher Vocational College Students: The Roles of Proactive Personality, Career Decision-Making Self-Efficacy, and Social Support. *International Journal of Learning, Teaching and Educational Research*, 24(9), 426-446. <https://doi.org/10.26803/ijlter.24.9.21>
- Zhao, X., Wang, Y., Duan, X., Wang, X., & Zhao, X. (2025). Pursuing the moon and sixpence: exploring career adaptability and meaning in life among Chinese university students. *International Journal for Educational and Vocational Guidance*. <https://doi.org/10.1007/s10775-025-09769-9>
- 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. <https://doi.org/10.3389/feduc.2023.1274430>
- Zhou, A., Liu, J., Xu, C., & Jobe, M.C. (2024). Effect of Social Support on Career Decision-Making Difficulties: The Chain Mediating Roles of Psychological Capital and Career Decision-Making Self-Efficacy. *Behavioral Sciences*, 14(4). <https://doi.org/10.3390/bs14040318>
- Zhou, D., & Jiang, M. (2025). The impact of university students' career management on employability: The mediating role of professional decision self-efficacy. *Journal of Asian Scientific Research*, 15(1), 11-24. <https://doi.org/10.55493/5003.v15i1.5273>