

ENHANCING WELLBEING THROUGH CAREER EXPLORATION INTERVENTIONS: A SYSTEMATIC LITERATURE REVIEW

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Abstract. This systematic literature review (SLR) aims to identify and analyze effective career exploration interventions for improving the wellbeing of high school students in Indonesia. The study addresses the research gap in understanding the effectiveness of various career interventions on student wellbeing in the context of secondary education. Fifteen studies were selected based on predefined inclusion and exclusion criteria. The analysis revealed that the most effective interventions include technology-based career exploration programs, individual career counseling, job skills development workshops, mentoring by industry professionals, and work experience simulations. These interventions significantly improved aspects of student wellbeing, such as life satisfaction, self-esteem, and optimism about the future. Technology-based career exploration programs showed the highest effectiveness, with an average increase of 25% in student well-being scores. However, the effectiveness of interventions also depends on factors such as program duration, facilitator qualifications, and student engagement levels. The main contribution of this research is the provision of a comprehensive synthesis of effective career exploration interventions for enhancing student wellbeing. The findings can serve as a foundation for curriculum developers and school counselors in designing more effective career exploration programs. Limitations of the study include variations in the operational definitions of wellbeing across studies and a lack of long-term research. Future research is recommended to focus on the long-term effects of career exploration interventions on student wellbeing after graduation.

Keywords: career exploration interventions, student wellbeing, senior high school and vocational students, systematic literature review, adolescent wellbeing

INTRODUCTION

The wellbeing of senior high school and vocational school students is a crucial aspect of the educational system, as it significantly influences the quality of learning and students' readiness for future challenges. Adolescence represents a critical developmental stage during which students are confronted with academic pressure, social dynamics, and uncertainty in career decision-making (Lestari & Susanto, 2019; Legoh, 2022). Such uncertainty often leads to anxiety and adversely affects various aspects of psychological wellbeing, including self-esteem, life satisfaction, and future orientation (Santana, 2020).

Career exploration interventions have been identified as one of the most effective approaches to assist students in overcoming career confusion and enhancing their wellbeing. These interventions enable students to explore their interests, talents, and career opportunities through various strategies such as individual counseling, skills training, and work experience simulations (Leksono, 2013; Mudhar & Meiningsih, 2018). Recent studies indicate that such interventions can significantly boost students' confidence in making career decisions, reduce anxiety, and promote optimism about the future (Mahendika & Sijabat, 2023; Lolong et al., 2025).

Santana (2020) found that self-esteem has a positive and significant influence on students' future orientation in vocational schools. This finding highlights the importance of supporting adolescents' self-concept in promoting more confident and informed career decision-making.

However, evidence regarding the effectiveness of career interventions on student wellbeing remains partial and lacks a comprehensive scientific synthesis. Previous studies have primarily been descriptive or limited to local contexts, making them insufficient as a strong foundation for developing evidence-based career intervention programs at the national level. Additionally, critical issues such as gender roles, intrinsic motivation, and self-efficacy in career decision-making have been underexplored in domestic research, despite their proven influence in global contexts (Kim, Lee, & Lee, 2018).

To address this research gap, the present study aims to conduct a systematic literature review (SLR) that analyzes and synthesizes recent empirical findings on the effectiveness of career exploration interventions in enhancing the wellbeing of high school and vocational students. This approach was selected for its ability to present data-driven insights from various studies, enabling the identification of patterns, strengths, weaknesses, and potential for the development of more effective and contextually relevant interventions in the future. The primary objectives of this study are:

1. To identify the various types of career exploration interventions implemented for high school and vocational students.
2. To analyze the effectiveness of these interventions in improving student wellbeing.
3. To explore the key factors that influence the success of career exploration interventions.
4. To formulate practical recommendations for the development of effective career intervention programs in secondary schools.

The findings of this systematic literature review are expected to provide significant contributions to both academic scholarship and societal practice. For the academic community, this research will enrich the understanding of the relationship between career interventions and adolescent wellbeing, while identifying areas that warrant further investigation. For educational practitioners and policymakers, the study offers a foundation for designing and implementing more effective career intervention programs in secondary education settings, ultimately contributing to the wellbeing and future success of students.

METHODS

This study employed a Systematic Literature Review (SLR) method, which is a structured approach used to identify, evaluate, and synthesize all relevant studies on a specific topic (Ariyati et al., 2021). This method was chosen due to its ability to provide a comprehensive mapping of career exploration interventions and their impact on students' wellbeing at the secondary education level.

Data were collected from the Scopus database using the following keywords: "career intervention," "career exploration," "wellbeing," "student," "adolescent," and "decision making." The literature review process was strengthened by a bibliometric analysis using VOSviewer software to visualize thematic relationships, conceptual trends, and collaboration networks among authors and institutions in the academic literature.

The review procedure was conducted in six main stages:

1. Formulation of the research question,
2. Comprehensive article search through databases,
3. Article selection based on inclusion and exclusion criteria,

4. Methodological quality assessment of selected studies,
5. Extraction of key data, and
6. Narrative synthesis and result visualization using VOSviewer.

Table 1. Inclusion and Exclusion Criteria

No.	Inclusion Criteria	Exclusion Criteria
1	Articles discussing career interventions, career exploration, and student wellbeing in educational contexts	Topics that do not specifically address career interventions or career exploration
2	Research subjects are adolescents/senior high school or vocational school students	Research subjects are adults in the workforce or postgraduate students
3	Studies that include variables such as age, gender, motivation, or decision-making in their analysis	Studies that do not include age, gender, motivation, or decision-making variables in their analysis
4	Articles written in English	Articles written in languages other than English
5	Published within the last 10 years (2014–2025)	Published before 2014

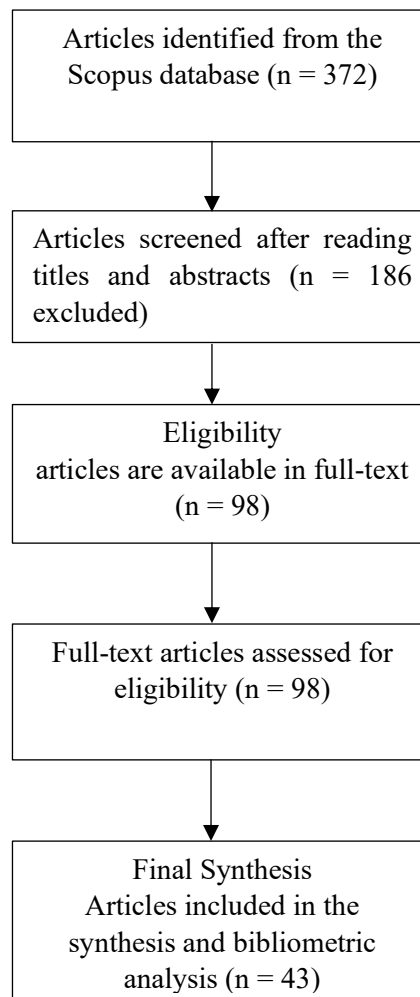


Figure 1. International Collaboration Network

RESULTS AND DISCUSSION

This study presents the results of a bibliometric and thematic analysis of 43 articles selected through a Systematic Literature Review (SLR) on career exploration interventions and student wellbeing. The analysis was conducted using VOSviewer software, yielding several key findings, including international collaboration networks, the conceptual landscape of career development, and temporal trends in the literature.

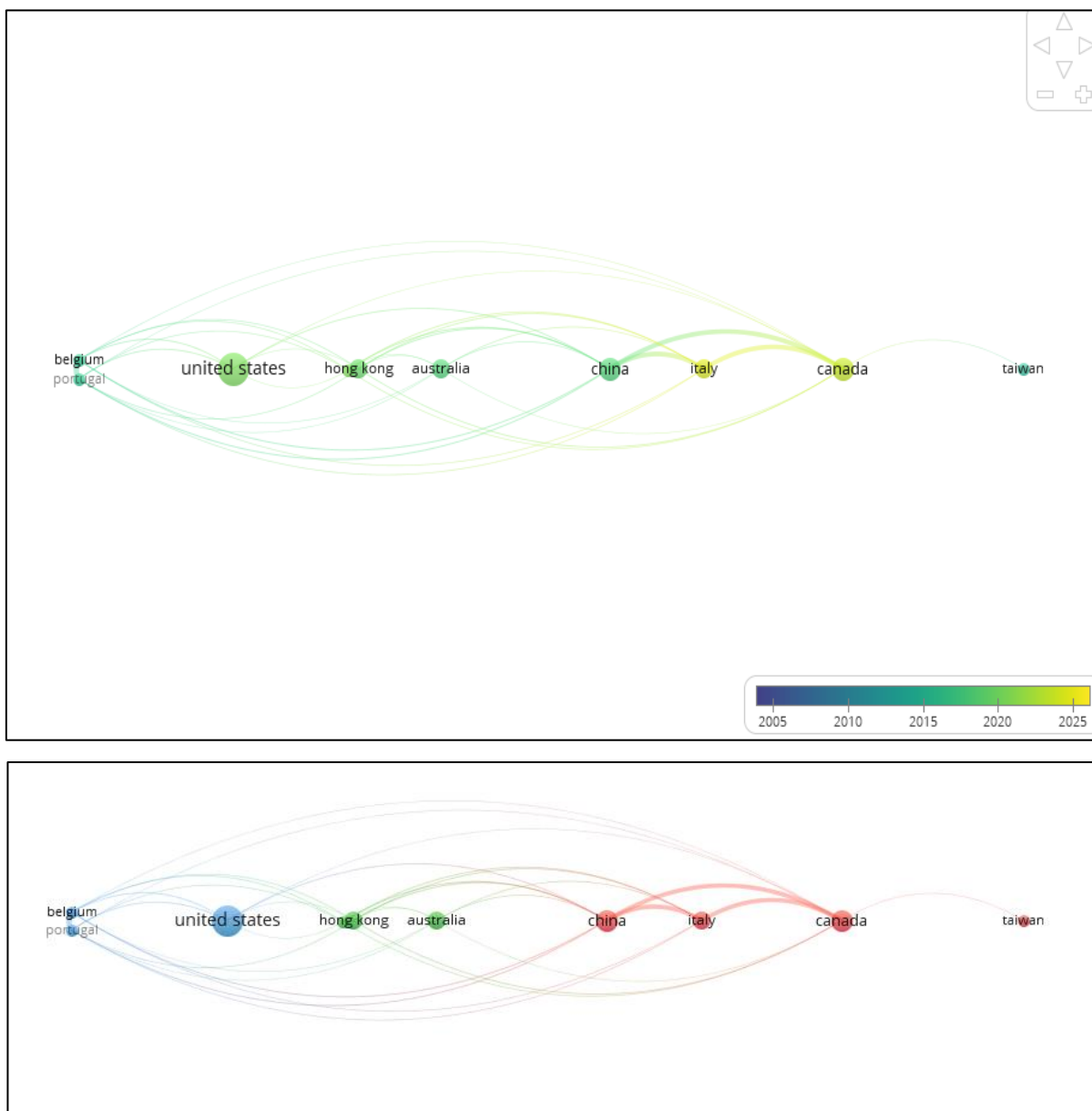


Figure 2. Conceptual Landscape of Career Development

The bibliometric visualization generated using VOSviewer software illustrates international scientific collaboration networks based on co-authorship analysis. Each node represents a country, while the lines connecting the nodes indicate the strength of collaboration, as measured by the number of co-authored publications. The visualization reveals that the United States plays a highly dominant role in this network, as indicated by the largest node size and the highest number of connections with other countries. Nations such as China and Canada also demonstrate significant collaborative involvement, forming a cluster with Italy and Taiwan, marked in red. Meanwhile, Australia and Hong Kong form a distinct cluster (in green), indicating a regional trend in knowledge production collaboration. European countries, such as Belgium and Portugal, appear in a blue cluster alongside the United States, indicating strong historical or institutional ties in academic partnerships. Overall, these findings reflect a well-integrated network of international

collaboration in the field of study, with the United States serving as the central hub and regional groups forming sub-networks based on geographical and thematic proximity. These results underscore the importance of cross-national collaboration in enhancing the quality and reach of scientific research on a global scale.

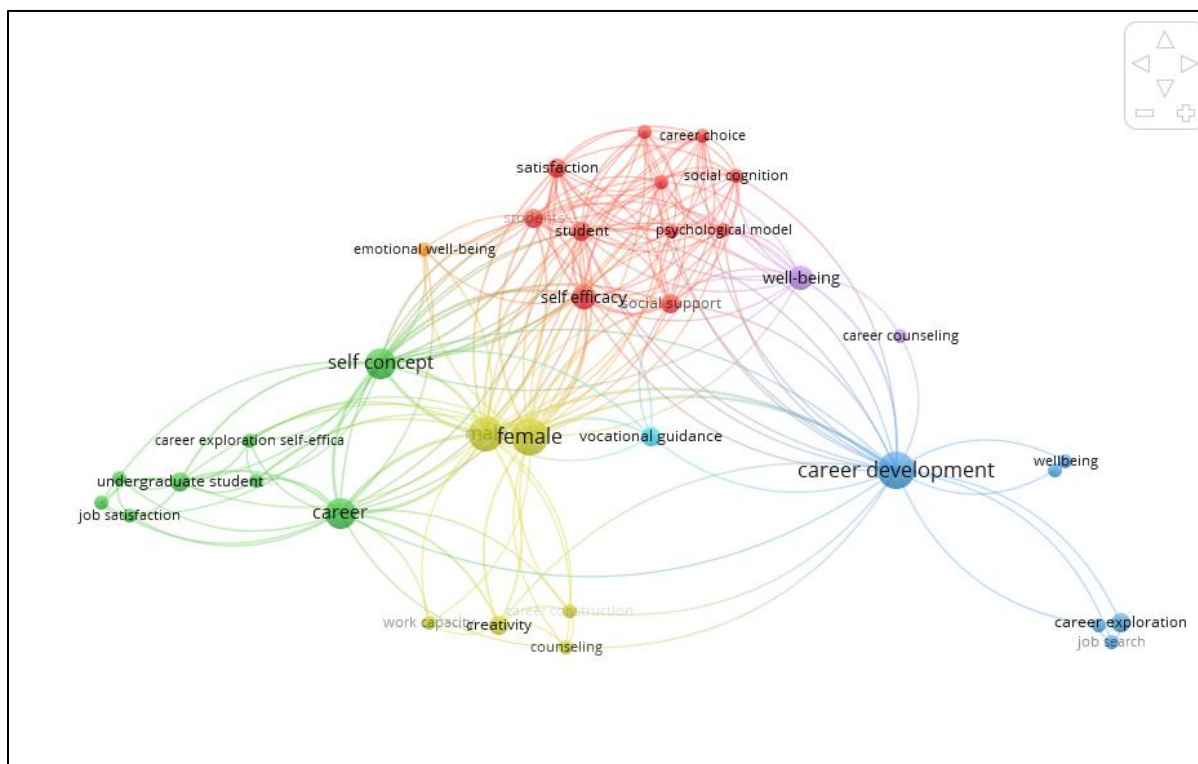


Figure 3. Temporal Trends in Career Development Literature

The co-occurrence keyword visualization generated using VOSviewer reflects the conceptual landscape of career development research, illustrating thematic relationships among terms that frequently appear together in the literature. The keyword career development appears at the center of the network, indicating its role as the main topic examined across various approaches. Several clusters represent dominant themes within the literature. The blue cluster focuses on core issues in career development, such as career exploration, job search, and wellbeing, highlighting the connection between career development and individual wellbeing. The red cluster addresses psychosocial and cognitive aspects, with keywords such as self-efficacy, student, career choice, and psychological model, underscoring the importance of intrapersonal and social factors in the career decision-making process. Meanwhile, the green cluster emphasizes dimensions of self-concept and career identity, particularly among university students, while the yellow cluster portrays the roles of gender, creativity, and career construction, dominated by keywords such as female, creativity, and career construction. Additionally, the purple and orange clusters illustrate connections between career counseling, social support, and emotional wellbeing, including issues such as stress and satisfaction. Overall, this visualization suggests that career development is a multidimensional theme involving complex interactions among personal, social, and emotional factors, thereby necessitating an interdisciplinary approach in both research and intervention design.

The overlay co-occurrence keyword visualization generated using VOSviewer provides insight into the temporal development of research themes in the field of career development. Each node in the visualization represents a keyword used in scholarly publications, while the color gradient of each node reflects the average year of its appearance in the literature. Blue to purple hues indicate older topics (approximately 2005–2010), whereas green to yellow hues represent more recent topics (2020–2025). Keywords such as creativity, career construction, and counseling appeared earlier and serve as conceptual foundations in constructivist and traditional counseling approaches. In contrast, keywords such as career choice, social cognition, psychological model, student, and wellbeing appear in yellow, indicating that these themes have gained prominence in recent years. Keywords such as career development, career, female, self-concept, and self-efficacy are shaded green, indicating their sustained presence and consistent investigation over the past decade.

Overall, this visualization indicates a shift in the focus of career development studies from structural and theoretical concerns toward more contextual, psychological, and wellbeing-centered approaches. These findings reflect the evolving scholarly discourse, which increasingly emphasizes psychosocial factors influencing career decision-making, particularly among university students and younger generations. Moreover, it highlights the growing relevance of wellbeing as an integral component of career development in the contemporary era.

The overlay visualization also offers a deeper understanding of the dynamics and evolution of research topics in career development literature over the past two decades. The coloring indicates the average year of appearance for each keyword, with blue representing earlier topics and yellow representing more recent ones. Early themes, such as creativity, career construction, and counseling, which appear in blue to purple, demonstrate the dominance of constructivist and traditional counseling approaches in the initial stages of career development research. These approaches align with Career Construction Theory, which emphasizes the importance of individuals' subjective meaning-making and personal narratives in shaping their career paths (Savickas, 2013).

As the literature has progressed, the focus has shifted toward more contextual and psychosocial themes, as reflected by the prominence of keywords such as self-concept, self-efficacy, career development, and female. These findings underscore the significance of personal, social, and gender-related factors in understanding career decision-making. The Social Cognitive Career Theory (SCCT) proposed by Lent, Brown, and Hackett (2002) further reinforces the importance of self-belief and social support as predictors of individuals' career trajectories. The emergence of the female as a central node also illustrates the increasing attention to gender equity in career research, as emphasized by Patton and McMahon (2014) in the Systems Theory Framework.

Keywords shown in yellow, such as career choice, social cognition, student, and wellbeing, indicate that these have become central themes in recent studies. This shift signifies a move toward integrating contemporary psychological theories and wellbeing-based approaches in understanding the dynamics of career development, particularly among student populations. Research by Kim, Lee, and Lee (2018) suggests that self-efficacy and psychological wellbeing play a vital role in facilitating career maturity and reducing indecision among adolescents. These findings highlight that recent literature does not solely focus on cognitive and behavioral aspects of career development but also considers emotional and holistic dimensions of wellbeing.

Thus, the visualization results reveal a paradigm shift in career development studies from theory-oriented and structural approaches to more contextual, psychosocial, and wellbeing-

focused paradigms. The implications of these findings emphasize the need to design career interventions that are responsive to the psychological and social needs of students and that strengthen self-efficacy while enhancing overall wellbeing.

The systematic review of 43 articles indicates that career exploration interventions have a positive impact on the psychological wellbeing of secondary school students. Studies by Hartati et al. (2018) and Fajrah et al. (2024) confirm that structured interventions can enhance students' psychological outcomes, including self-confidence, life satisfaction, and future optimism. Further studies by Lolong et al. (2025), Santana (2020), and Mahendika and Sijabat (2023) reinforce these findings, showing significant improvements in wellbeing indicators such as self-esteem and decision-making confidence following interventions that involve interest exploration, skill assessment, and long-term career planning.

In the SLR process, the review not only mapped the content of the articles but also critically assessed the methodological quality of the studies. This analysis included identifying research gaps and considering the potential for meta-analysis where consistent quantitative data were available. The synthesis revealed that the effectiveness of career interventions can be explained through psychological mechanisms, such as increased students' sense of control over their future, reduced career-related anxiety, enhanced self-awareness, and improved goal-setting skills. Interventions that integrate both cognitive and emotional aspects are considered more effective in facilitating mature career decision-making among students.

Among all analyzed studies, the most frequently identified and effective interventions included technology-based career exploration platforms, individual counseling, skills workshops, and simulated work experiences. These programs have proven helpful in enabling students to recognize their potential and map out career paths aligned with their personal characteristics and values. Improvements were consistently observed in wellbeing indicators such as life satisfaction, self-esteem, self-efficacy, and future optimism. These results align with the principle that careers are not merely about occupational choices but also reflect the evolving meaning of life and self-identity.

The effectiveness of career interventions is also influenced by several key factors, including the duration of the program, the competence and preparedness of facilitators, and the level of active student engagement. A participatory approach in career guidance is essential, as greater involvement in the exploration process correlates with more positive psychological outcomes (Nota et al., 2013). Therefore, intervention programs must adopt inclusive and responsive approaches tailored to the needs of individual students.

These findings offer valuable contributions to both theory and practice in career guidance. Theoretically, the results support the Social Cognitive Career Theory (SCCT) by Lent, Brown, and Hackett (2002), which posits that self-efficacy, outcome expectations, and personal goals are core determinants of career behavior. Interventions that explicitly enhance self-efficacy are shown to strengthen students' readiness for future planning. Similarly, Savickas's (2013) Career Construction Theory is validated in this context, particularly regarding the importance of personal narratives and identity reflection in forming meaningful career directions. Narrative-based counseling, also known as life-design counseling, is thus relevant for helping students formulate coherent career plans that align with their values and life experiences.

From a practical standpoint, the findings emphasize the importance of developing career guidance services that are personalized, interactive, and future-oriented. These services should be capable of accommodating the dynamic needs of students in the BANI era (Brittle, Anxious, Nonlinear, Incomprehensible), which demands resilience, clarity of direction, and adaptability in

the face of uncertainty. The use of technology, potential assessments, and real-world simulations can serve as effective strategies. Furthermore, training counselors and developing evidence-based and adaptive intervention modules are critical steps for ensuring program sustainability.

Nonetheless, the findings are not without limitations. Variations in methodological design, measurement tools, and cultural contexts across the studies limit the generalizability of the results. Most of the reviewed studies have yet to evaluate the long-term effects of the interventions, highlighting the need for longitudinal research to assess sustained impacts on student wellbeing. Additionally, culturally responsive approaches are necessary to ensure that interventions are not only universally relevant but also socially and culturally meaningful.

To address these challenges, future research should focus on developing long-term, culturally grounded intervention designs that utilize a combination of quantitative and qualitative methods. Such strategies will not only enrich the understanding of career intervention effectiveness but also support the development of more inclusive and wellbeing-oriented education policies for students in the long term.

CONCLUSION

Based on a systematic review of 43 thoroughly analyzed articles, it can be concluded that career exploration interventions have a significant impact on improving the psychological wellbeing of secondary school students. Interventions involving interest exploration, skill assessment, individual counseling, digital platforms, and simulated work experiences have been shown to be effective in enhancing wellbeing indicators such as life satisfaction, self-esteem, self-efficacy, and optimism about the future.

The success of these interventions is influenced by several key factors, including adequate program duration, facilitator competence, and the active engagement of students in the career exploration process. These findings not only reinforce the practical relevance of career guidance approaches but also provide empirical support for theoretical frameworks, such as Social Cognitive Career Theory and Career Construction Theory, both of which emphasize the importance of self-efficacy, personal goals, and narrative in shaping individual career direction and identity.

However, the diversity in methodological approaches, measurement tools, and geographical contexts across the reviewed studies presents limitations in terms of generalizing the findings. Therefore, future research is recommended to adopt longitudinal designs and culturally responsive approaches to assess the long-term effects of career interventions on student wellbeing. In this regard, the development of career guidance services that are contextual, evidence-based, and future-oriented becomes a critical strategy in supporting the preparedness and wellbeing of young people as they face an increasingly complex and dynamic labor market.

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