

CAREER READINESS IN ADOLESCENTS: A SYSTEMATIC LITERATURE REVIEW (SLR) APPROACH

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Abstract

This study aims to conduct a systematic review of the literature discussing career readiness in adolescents, focusing on nine primary articles published between 2020 and 2024. This study uses the PRISMA approach to select and analyze articles from scientific databases, namely Google Scholar and Semantic Scholar. Inclusion criteria include articles that are peer-reviewed, relevant to the context of career readiness in adolescents, and present significant empirical and conceptual findings. The nine articles analyzed address various approaches to improving readiness, such as school-based career guidance interventions, entrepreneurship education that develops students' mindsets and growth mindsets, and the use of technology in synchronous online learning. Furthermore, the study includes a conceptual review and the development of a multidimensional assessment instrument. The findings indicate that career readiness is a complex construct influenced by internal factors such as self-efficacy, metacognition, and goal orientation, as well as by contextual learning approaches and systemic support from schools. This study provides important insights into the design of evidence-based career guidance programs, the development of more accurate and holistic readiness assessment instruments, and highlights the urgency of synergy between pedagogical approaches and future-oriented career readiness.

Keywords: Career Readiness, Adolescents, Systematic Literature Review.

Abstrak

Penelitian ini bertujuan untuk melakukan kajian sistematis terhadap literatur yang membahas kesiapan karier (career readiness) pada remaja, dengan fokus pada sembilan artikel utama yang diterbitkan antara tahun 2020 hingga 2024. Kajian ini menggunakan pendekatan PRISMA untuk menyeleksi dan menganalisis artikel dari database ilmiah yaitu Google Scholar dan Semantic Scholar. Kriteria inklusi mencakup artikel yang peer-reviewed, relevan dengan konteks kesiapan karier pada remaja serta menyajikan temuan empiris maupun konseptual yang signifikan. Sembilan artikel yang dianalisis mengangkat berbagai pendekatan dalam meningkatkan readiness, seperti intervensi bimbingan karier berbasis sekolah, pendidikan kewirausahaan yang mengembangkan mindset dan growth mindset siswa, serta penggunaan teknologi dalam pembelajaran daring sinkron. Selain itu, kajian juga mencakup tinjauan konseptual dan pengembangan instrumen asesmen berbasis pendekatan multidimensi. Temuan menunjukkan bahwa kesiapan karier merupakan konstruk kompleks yang dipengaruhi oleh faktor internal seperti efikasi diri, metakognisi, dan orientasi tujuan, serta dipengaruhi oleh pendekatan pembelajaran kontekstual dan dukungan sistemik dari sekolah. Kajian ini memberikan wawasan penting terhadap desain program bimbingan karier berbasis bukti, pengembangan instrumen asesmen readiness yang lebih akurat dan holistik, serta menyoroti urgensi sinergi antara pendekatan pedagogis dan kesiapan karier yang berorientasi masa depan.

Kata Kunci: Kesiapan Karir, Remaja, Systematic Literature Review.



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INTRODUCTION

Career readiness is also an important indicator in shaping the identity and future orientation of adolescents, where unpreparedness can have an impact on increased anxiety, low motivation to learn, and making wrong decisions in choosing a major or job.¹ In the context of Indonesian education, many students still lack a clear understanding of their interests, talents, and career options. This is due to the lack of guidance services based on valid and contextual career readiness data.²

Despite the growing attention to career readiness, significant gaps exist in its measurement. In Indonesia, there is no nationally standardized instrument with proven validity and reliability to comprehensively measure career readiness. Previous studies have focused largely on intervention programs without prioritizing measurable career readiness mapping.³ Furthermore, systematic studies on the dimensions of career readiness in Indonesian adolescents are still limited, both in terms of conceptual approaches, intervention program design, and evaluation using career readiness measurement instruments. This results in implemented career guidance programs often being general in nature and not based on student needs data.

This study aims to examine various studies related to career readiness in adolescents, both from intervention, conceptual, and instrument development approaches. Using a Systematic Literature Review (SLR) approach, this study will identify dimensions and factors influencing career readiness, instruments for measuring career readiness, and directions for effective career readiness development. The expected impact is the availability of a conceptual basis and strong empirical evidence for the development of valid, adaptive, and applicable career readiness instruments in guidance and counseling services at the high school level. Thus, the results of this study are expected to encourage educational policies and practices that are more responsive to the career readiness needs of students in Indonesia.

RESEARCH METHODS

This study uses a systematic literature review (SLR) with the PRISMA 2020 approach.⁴ The purpose of this method is to collect, filter, and synthesize findings from relevant studies on career readiness in high school students. Literature was collected through the Publish or Perish

¹Shannon J. Horrillo et al., "A Positive Youth Development Approach to College and Career Readiness," *Journal of Youth Development* 16, no. 1 (2021): 74–99, <https://doi.org/10.5195/JYD.2021.966>.

²Yulianti et al., "Peran Layanan Informasi Dalam Pengembangan Karier Pada Siswa SMA," *Jurnal Pendidikan Tambusai*, 2024.

³Yulianti et al.

⁴Matthew J. Page et al., "The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews," *The BMJ* (BMJ Publishing Group, March 29, 2021), <https://doi.org/10.1136/bmj.n71>.

application with a search in the databases Semantic Scholar and Google Scholar, with the search time being April 2025.

Based on search results, which included articles published between 2020 and 2025, 268 articles were found in Google Scholar and 1,000 articles in Semantic Scholar. These articles were input into the Mendeley application to detect duplication.

The inclusion criteria for this study are as follows: (1) articles published between 2020 and 2025; (2) articles that have undergone peer-review and been published in reputable scientific journals; (3) studies that explicitly discuss career readiness in high school students, vocational school students, or university students; (4) articles that contain empirical findings or systematic conceptual reviews relevant to strengthening career readiness.

The exclusion criteria include: (1) non-peer-reviewed articles such as editorials, opinion pieces, proceedings, or institutional reports that cannot be methodologically verified; (2) articles that do not directly address the topic of career readiness (e.g., only touching on career interests without any link to readiness); (3) research subjects that are not adolescents or students, such as studies that focus on teachers, professionals, or working adults; (4) articles that are not available in full text or are not in English.

Of the total articles collected through the initial search, a systematic screening process was conducted using the PRISMA process, which included identification, selection, eligibility checks, and inclusion. The final result of this process yielded nine articles that met all criteria and served as the basis for the content analysis. These articles were then analyzed thematically to identify approaches, key findings, and scientific contributions to the study of career readiness in adolescents. This process is visualized in Figure 1 (Diagram PRISM).

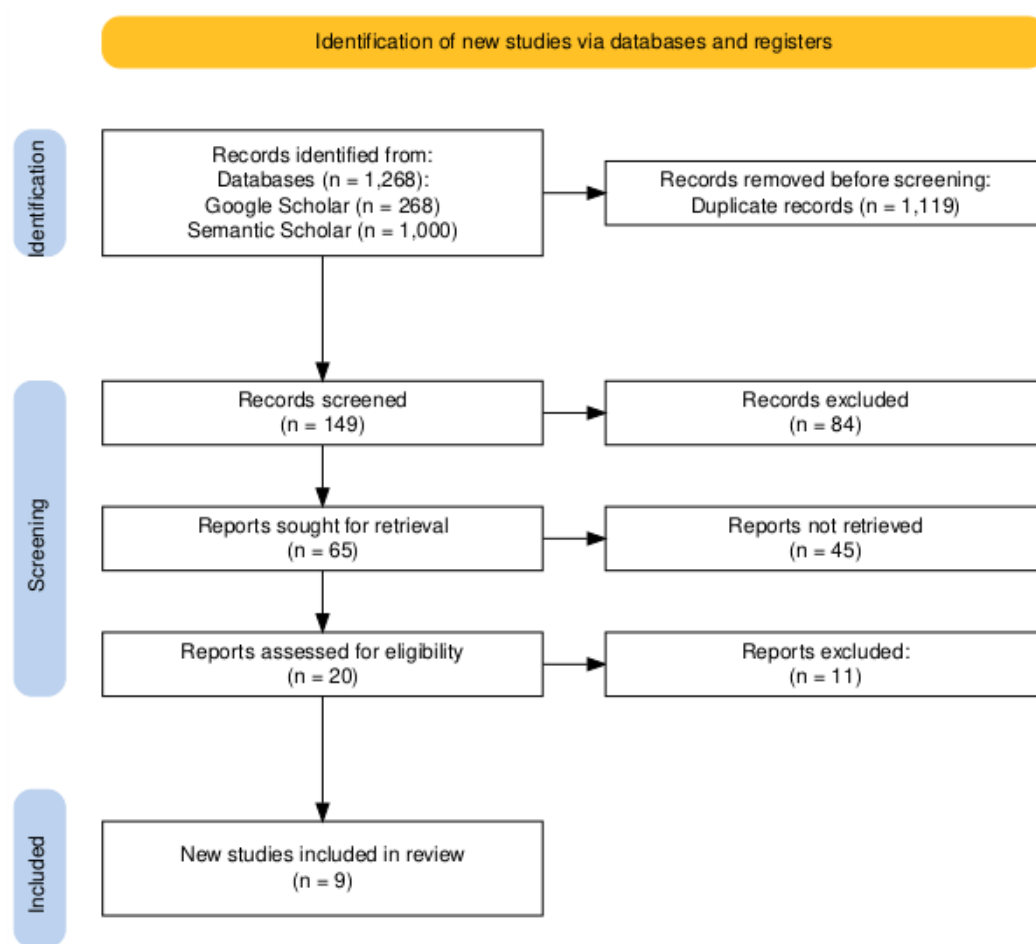


Figure 1 PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) diagram

RESULTS AND DISCUSSION

The nine articles analyzed in this study reveal a diversity of approaches, methods, and contexts in enhancing career readiness in adolescents.

A study conducted by Dodd on 5,242 students in the UK showed that school-based career guidance had a significant impact on students' career readiness.⁵ The use of validated instruments provides strong quantitative data showing that students who participate in a guidance program have higher career readiness scores than those who do not. These results provide an empirical basis for supporting the systematic and sustainable implementation of career guidance programs.

Career guidance programs or interventions can also influence career readiness. This is supported by a study by Bhat & Steven in early high school students and demonstrated that counseling-based career group interventions improved students' understanding of career goals and

⁵Vanessa Dodd, Jill Hanson, and Tristram Hooley, "Increasing Students' Career Readiness through Career Guidance: Measuring the Impact with a Validated Measure," *British Journal of Guidance and Counseling* 50, no. 2 (2022): 260–72, <https://doi.org/10.1080/03069885.2021.1937515>.

strengthened their self-efficacy in future planning.⁶ The program, based on group discussions and structured reflection, helps students develop concrete career steps early on.

Rodriguez & Lieber also through their studiess evaluated an entrepreneurship education program for students from underprivileged communities. The results showed that project-based entrepreneurship learning was able to improve entrepreneurial mindset, which was positively correlated with career readiness.⁷ This experiential education encourages students to develop a sense of responsibility, initiative, and self-confidence in planning their future.

Similar findings are reinforced by Brausch-Böger & Förster through an experimental study on high school students in Germany, which showed that involvement in entrepreneurial projects improves metacognitive abilities, goal orientation, and growth mindset.⁸ These three aspects are important cognitive components in career readiness, particularly in the aspects of career planning and flexibility.

Rachmawati et al., Through a two-decade systematic review, it was identified that internal factors of career readiness such as self-efficacy, calling, and locus of control were the main predictors, while external factors such as job training, social support, and the learning environment were also very important.⁹ This study provides a comprehensive conceptual framework that can be used to design culturally context-based career readiness assessments.

Green et al., In a literature synthesis study, various definitions of career readiness from various education systems were reviewed and it was highlighted that career readiness indicators should consider multicultural, non-cognitive aspects, as well as the dynamics of educational levels.¹⁰ This study emphasizes the importance of a cross-disciplinary approach and synergy between the education and industry sectors.

Wang et al., contributed to the field of career readiness measurement by developing the Career Readiness Questionnaire for Adolescents (CRQ-A) using the multidimensional item

⁶Christine Suniti Bhat and Madeleine M. Stevens, "College and Career Readiness Group Interventions for Early High School Students," *Journal for Specialists in Group Work* 46, no. 1 (2021): 20–31, <https://doi.org/10.1080/01933922.2020.1856250>.

⁷ S Rodriguez and H Lieber, "Relationship between Entrepreneurship Education, Entrepreneurial Mindset, and Career Readiness in Secondary Students," *Journal of Experiential Education*, 2020, <https://doi.org/10.1177/1053825920919462>.

⁸ Maxi Eileen Brausch-Böger and Manuel Förster, "The Effects of an Entrepreneurial Project on the Career-Choice Readiness, Metacognition, and Growth Mindset of Secondary Students," *Education Sciences* 14, no. 5 (May 1, 2024), <https://doi.org/10.3390/educsci14050485>.

⁹ Dian Rachmawati et al., "Enhancing Student Career Readiness: A Two-Decade Systematic Literature Review," *International Journal of Evaluation and Research in Education* 13, no. 3 (June 1, 2024): 1301–10, <https://doi.org/10.11591/ijere.v13i3.26485>.

¹⁰ Susan Green et al., "College and Career Readiness: A Literature Synthesis," *Journal of Education* 203, no. 1 (January 1, 2023): 222–29, <https://doi.org/10.1177/00220574211002209>.

response theory (MIRT) and text mining approaches.¹¹ This instrument is designed to more accurately measure career readiness across multiple domains including motivation, career information, and exploration behavior.

Lukashe et al., This qualitative study highlights a new dimension in career readiness: synchronous online learning. This qualitative study revealed that synchronous online learning improves students' digital skills but weakens interpersonal skills and soft skills.¹² Therefore, a hybrid model is needed that combines practical experience and online learning for more comprehensive career readiness. This can be seen more clearly in Table 1.

Table 1. Findings Related to Career Readiness

NO.	RESEARCHER AND YEAR	TYPES OF RESEARCH	FINDINGS
1.	Brausch-Böger & Forster, (2024) The Effects of an Entrepreneurial Project on the Career-Choice Readiness, Metacognition, and Growth Mindset of Secondary Students	Quasi-Experimental, Pre-post test, t-test, Pearson correlation	Entrepreneurship interventions had a significant impact on increasing metacognition, but not significantly on growth mindset and career-choice readiness. <i>Growth mindset</i> mediating the relationship between metacognition and career choice readiness: Students who improve their metacognition also show an increase in growth mindset, which supports career readiness.
2.	Rachmawati et al. (2024) Enhancing student career readiness: a two-decade systematic literature review	Systematic review using the PRISMA method	Career readiness factors are classified into two categories: 1. Internal (such as self-efficacy, locus of control, calling)

¹¹Peng Wang et al., “Methods for Measuring Career Readiness of High School Students: Based on Multidimensional Item Response Theory and Text Mining,” Humanities and Social Sciences Communications 11, no. 1 (December 1, 2024), <https://doi.org/10.1057/s41599-024-03436-0>.

¹² Muhlali Lukashe, Bianca Ifeoma Chigbu, and Ikechukwu Umejesi, “Synchronous Online Learning and Career Readiness in Higher Education: Student Perceptions, Challenges, and Solutions,” Frontiers in Education 9 (2024), <https://doi.org/10.3389/educ.2024.1449363>.

			2. External (such as job training, social support, and work motivation) <i>Self-efficacy</i> and job training were found to be dominant factors in career readiness. This study suggests a comprehensive approach to building a career readiness strategy that includes strengthening internal factors and providing relevant external support.
3.	Lukashe et al. (2024) Synchronous online learning and career readiness in higher education: student perceptions, challenges, and solutions	Thematic-qualitative analysis	<i>Synchronous Online Learning (SOL)</i> Strengthening students' digital skills and technology adaptability, which are essential for career readiness in the digital age, is crucial. However, a significant weakness of SOL is the lack of soft skills development such as interpersonal skills, teamwork, and practical experience. This study suggests the need for integration of hands-on experiences (virtual internships, soft skills training) to bridge this gap in career readiness.

4.	Wang et al. (2024) Methods for measuring career readiness of high school students: based on multidimensional item response theory and text mining	<i>multidimensional item response theory (MIRT)</i> Construct Validation, Text Mining & NLP (Natural Language Processing)	The revision of the “Career Readiness Questionnaire-Adolescent Version” scale resulted in a condensed version with 30 psychometrically valid items. <i>Text mining</i> able to accurately predict career readiness based on student essays.
5.	Dodd et al. (2022) Increasing students' career readiness through career guidance: measuring the impact with a validated measure	Regression analysis	There was a statistically significant increase in Career Readiness Index scores after students participated in career guidance. This was true for students from diverse backgrounds, including gender and socioeconomic status. This study supports the effectiveness of career guidance policies in improving students' readiness for the workforce. The Student Career Readiness Index (SCRI) was developed through policy mapping, expert review, cognitive testing, and factor analysis, making it a valid instrument for assessing career readiness.
6.	Bhat & Stevens, (2021) College and Career Readiness Group Interventions for Early High School Students	Experimental study	A college and career readiness group intervention adopting a NOSCA (National Office for School Counselor Advocacy)-based approach has been shown to improve early high school students' readiness for the

			transition to the workforce and college.
7.	Green et al. (2023) College and Career Readiness: A Literature Synthesis	Literature review study	College and career readiness involves a combination of academic and non-academic skills, including social-emotional skills, motivation, persistence, learning strategies, and an academic mindset. The importance of a multilevel and collaborative approach to supporting student readiness, as well as the need for comprehensive indicators beyond just academic outcomes, were also emphasized.
8.	Rodriguez & Lieber (2020) Relationship Between Entrepreneurship Education, Entrepreneurial Mindset, and Career Readiness in Secondary Students	Quasi-experimental design	Project-based entrepreneurship education significantly improves entrepreneurial mindset, particularly in communication, opportunity recognition, and problem-solving. This improvement is also positively correlated with optimism about future career success.
9.	Marciniak et al. (2022) Career Preparedness among Adolescents: A Review of Key Components and Directions for Future Research	Literature Review	This study synthesizes the literature on career readiness and proposes a comprehensive conceptual framework encompassing three key components: attitudes, knowledge and competencies, and behaviors. The research also details predictors and outcomes

			of career readiness and highlights conceptual confusion in the field. Consistency in terminology and measurement is recommended to foster theoretical and practical advancements in career development.
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Overall, the correlations between the articles indicate a strong relationship between the experience-based approach, the effectiveness of systematic interventions, and the accuracy of career readiness assessments. Project-based and counseling approaches were found to complement each other in promoting career readiness from both cognitive and emotional aspects. Conceptual review and instrument development *career readiness* also supports the need for measurement *career readiness* relevant and standardized. Furthermore, online learning presents a new context that tests the flexibility of career readiness in the digital age. The combination of these three thematic groups confirms that efforts to improve career readiness require an integrated and contextual strategy.

An analysis of the nine articles reviewed in this study shows that career readiness in adolescents is a multidimensional construct encompassing not only cognitive and affective aspects, but also social, contextual, and digital environments. Career readiness does not arise naturally but is shaped through educational interventions, contextual experiences, and systemic support from schools and families.

School-Based Interventions and Their Effectiveness

Study by Dodd et al., highlighted the significant impact of a school-based career guidance program on improving scores on the Student Career Readiness Index (SCRI). A total of 5,242 students in the UK demonstrated statistically significant improvements in indicators of career efficacy, decision-making, and understanding of career paths after participating in the guidance program.¹³ This emphasizes that structured and measurable career counseling services can be an important tool in preparing students for the world of work and higher education.

¹³Dodd, Hanson, and Hooley, “Increasing Students' Career Readiness through Career Guidance: Measuring the Impact with a Validated Measure.”

Similar results were also obtained from Bhat & Stevenst through career group interventions that refer to the NOSCA model.¹⁴ The reflective discussion approach and social experience-based activities have been shown to increase self-efficacy and clarity of career goals, especially for early-year high school students who are in the career identity exploration phase.

Study by Novakovic et al. This study highlights school counselors' perceptions of student readiness. Many counselors feel they lack the appropriate measurement tools to accurately identify career readiness needs.¹⁵ This is a significant challenge in implementing data-driven mentoring programs.

Experience-Based Education and Entrepreneurship

Three articles analyzed highlighted the importance of entrepreneurship-based education as a means of strengthening career readiness. Rodriguez & Lieber, students who participated in the project-based program showed an increase in entrepreneurial mindset, especially in the aspects of initiative, communication, and problem solving.¹⁶ Entrepreneurship education is considered to help students develop self-confidence and an active future orientation.

Furthermore, Brausch-Böger & Förster examined the relationship between metacognition, growth mindset, and career readiness in German students through an entrepreneurship project experiment. The results showed that although the direct increase in career readiness was not significant, growth mindset played a significant role as a mediator between metacognition and career readiness.¹⁷ This indicates that career readiness can be influenced by students' internal reflective factors.

The study conducted by Fletcher & Tan and Alfaiz et al. emphasized that career readiness is also closely related to the extent to which students are exposed to work experience or industry-based training. Fletcher & Tan through its comparative study showed that students of career academies with high implementation had better levels of engagement in career exploration activities compared to public schools.¹⁸ This indicates that contextual and real-world learning can strengthen students' career orientation.

¹⁴Bhat and Stevens, "College and Career Readiness Group Interventions for Early High School Students."

¹⁵Alexandra Novakovic, Eva N Patrikakou, and Melissa S Ockerman, "School Counselor Perceptions of Preparation and Importance of College and Career Readiness Counseling" 25, no. 1 (2021): 1–11, <https://doi.org/10.2307/27141320>.

¹⁶Rodriguez and Lieber, "Relationship between Entrepreneurship Education, Entrepreneurial Mindset, and Career Readiness in Secondary Students."

¹⁷Brausch-Böger and Förster, "The Effects of an Entrepreneurial Project on the Career-Choice Readiness, Metacognition, and Growth Mindset of Secondary Students."

¹⁸Edward C. Fletcher and Tony

Readiness Challenges in the Digital Era

Lukashe et al., Expanding the scope of career readiness into the context of synchronous online learning, this research highlights that, while students' digital skills improve, interpersonal experiences and soft skills development are hindered.¹⁹ This suggests that approaches to career readiness in the digital age need to combine online learning with experiential learning, such as virtual internships or project-based learning, that enable students to develop social and professional competencies.

Contribution of Conceptual Studies to the Understanding of Career Readiness

Several career readiness factors were found, which were divided into two main categories: internal (self-efficacy, locus of control, calling) and external (social support, job training, and learning environment).²⁰ This demonstrates the importance of an eclectic approach that combines intrapersonal and contextual interventions in developing career readiness.

As well as, Green et al. in his literature synthesis emphasized the importance of an interdisciplinary and cross-level approach in understanding career readiness.²¹ Career readiness encompasses not only academic aspects but also social-emotional skills, learning strategies, and motivation. This serves as the basis for developing more comprehensive career readiness indicators.

In addition, Horrillo highlighted a strength-based positive youth development perspective is more effective in facilitating career planning, especially for socially or economically marginalized youth groups.²²

Programs for developing career readiness are also important. Do with a relationship-based approach, especially through mentors who come from the student community,²³ This study found that mentor involvement not only increased students' openness to career information but also built their courage in making career decisions.

Challenger et al., highlights the importance of a reflective and existential approach in counseling regarding career readiness,²⁴ He showed that students who are guided to understand the

¹⁹Lukashe, Chigbu, and Umejesi, "Synchronous Online Learning and Career Readiness in Higher Education: Student Perceptions, Challenges, and Solutions."

²⁰Rachmawati et al., "Enhancing Student Career Readiness: A Two-Decade Systematic Literature Review."

²¹Green et al., "College and Career Readiness: A Literature Synthesis."

²² Horrillo et al., "A Positive Youth Development Approach to College and Career Readiness."

²³ Lauren Lindstrom et al., "Career and College Readiness for Underserved Youth: Educator and Youth Perspectives," *Youth and Society* 54, no. 2 (March 1, 2022): 221–39, <https://doi.org/10.1177/0044118X20977004>.

²⁴ Clewiston D. Challenger, Kevin Duquette, and Ikone T. Mason, "School Counseling for College and Career Readiness Using Existential Theory Model: A Humanistic Approach to Counseling Students of Color in Urban School Settings," *Journal of Humanistic Counseling* 61, no. 3 (October 1, 2022): 198–210, <https://doi.org/10.1002/johc.12184>.

meaning, values, and purpose of life have a greater tendency to consciously and responsibly plan their future.

Innovations in Career Readiness Measurement

Career readiness instruments are an important point in supporting education program policies and evaluations. Wang et al., Through the development of the Career Readiness Questionnaire-Adolescent Version (CRQ-A) using the multidimensional item response theory (MIRT) approach, we have succeeded in developing a valid and concise scale to measure career readiness in high school students.²⁵ This article also introduces a text mining technique that can accurately predict students' readiness from their essays.

Besides that, Marciniak et al., propose a conceptual framework of career readiness that includes attitudes, competencies, and exploratory behaviors,²⁶ This framework provides a strong theoretical basis for designing adaptive and dynamic career readiness assessments.

Wang et al., In his study, he showed that more and more countries are starting to design career readiness assessments that integrate technology, for example through online platforms, data mining, and AI-based assessments.²⁷ This demonstrates a global trend that is important to consider in developing career readiness in Indonesia going forward.

On the other hand, Dodd et al. has developed the Student Career Readiness Index (SCRI), an instrument based on four main aspects of career readiness: career planning, transition skills, information and help-seeking skills, and work readiness.²⁸ The SCRI has been empirically validated through large-scale research and used to evaluate the effectiveness of school guidance programs. The instrument is designed to be easily used by school counselors and flexible for adaptation to various cultural contexts, including Indonesia.

Study by Rohma and Yulianti et al., strengthens the finding that many high school students are still confused in making career plans, indicating low exposure to relevant career information.²⁹ Both also emphasized that the role of guidance counselors is crucial, but requires systemic support and adequate assessment tools.

²⁵Wang et al., "Methods for Measuring Career Readiness of High School Students: Based on Multidimensional Item Response Theory and Text Mining."

²⁶ Julian Marciniak et al., "Career Preparedness Among Adolescents: A Review of Key Components and Directions for Future Research," *Journal of Career Development* 49, no. 1 (February 1, 2022): 18–40, <https://doi.org/10.1177/0894845320943951>.

²⁷ Danqi Wang, Yanling Li, and Gang Wang, "A Systematic Review on Career Interventions for High School Students," *Frontiers in Psychology* (Frontiers Media SA, 2024), <https://doi.org/10.3389/fpsyg.2024.1461503>.

²⁸Dodd, Hanson, and Hooley, "Increasing Students' Career Readiness through Career Guidance: Measuring the Impact with a Validated Measure."

²⁹ Ratna Nimatul Rohma, "Perencanaan Karir Siswa SMA: Tinjauan Literatur Yang Sistematis," *Conseils : Jurnal Bimbingan Dan Konseling Islam*, 2023.

Integrative Findings and Thematic Relationships

Integratively, these articles can be classified into three thematic groups:

1. **School-Based Career Interventions:** such as studies Dodd et al. (2022), Bhat & Stevens (2021), Challenger (2022), Paolini (2020), and Novakovic et al. (2021), which shows the impact of counseling services on improving aspects of career readiness such as self-confidence, career plans, and future orientation.
2. **Experience and Project Based Education:** such as Rodriguez & Lieber (2020), Brausch-Böger & Forster (2024), Fletcher & Tan (2024), Alfaiz et al. (2021), and Lukashe et al. (2024), which proves that active participation in projects or hands-on experiences enhances reflective ability, motivation, and 21st-century skills.
3. **Conceptual Study and Instrument Validation:** such as Marciniak et al. (2021), Rachmawati et al. (2024), Green et al. (2023), Wang et al. (2024), Lindstrom et al. (2022), Dodd et al. (2022), and Horrillo et al. (2021), which enriches the understanding of career readiness theoretically and contributes to the development of career readiness measurement tools that are valid and responsive to changing times.

These three approaches complement each other and form a unity that reinforces the importance of multidimensional interventions in building sustainable career readiness in adolescents.

An analysis of the nine articles in this study shows that career readiness in adolescents cannot be understood in a fragmented manner, but rather as a multidimensional construct encompassing cognitive, affective, and contextual aspects. Structured and ongoing career guidance interventions, as proposed by Dodd et al. and Bhat & Stevens, has been shown to increase students' self-efficacy and clarity of career goals. This reinforces the importance of career counseling services in schools as an integral part of the curriculum.

On the other hand, experiential approaches, such as entrepreneurship education and collaborative projects, have been shown to be effective in fostering the reflective mindset and skills necessary for career decision-making. A study by Rodriguez & Lieber as well as Brausch-Böger & Förster studies have shown that student involvement in real-life projects can foster initiative, responsibility, and a clear future orientation. These aspects are relevant in the context of student character and leadership development.

Literature review by Rachmawati et al., and Green et al. emphasizes the need to understand career readiness as a result of the interaction between internal and external factors. This opens up space for a holistic approach to assessment and intervention, one that takes into account social and cultural backgrounds, as well as access to educational resources. Meanwhile, studies Lukashe et al.

underscores the new challenge in career readiness, namely the gap between digital skills and soft skills due to online learning.

Development of assessment instruments such as the CRQ-A by Wang et al. and SCRI by Dodd et al. offers the potential to assess career readiness more accurately and contextually. This is crucial for mapping student readiness and designing targeted interventions.

Practical implications of these findings include the need for collaboration between counselors, educators, and policymakers in building career support systems that are responsive to students' needs. Future research is recommended to explore the long-term effectiveness of various career readiness interventions, as well as adapt career readiness instruments to local cultural contexts.

CONCLUSION

This study concludes that career readiness in adolescents is a multidimensional concept encompassing cognitive, affective, social, and contextual aspects. Efforts to improve career readiness require an integrated approach through career guidance services in schools, experiential education such as entrepreneurship and real-world projects, and interpersonal support through mentoring and reflective counseling. The challenge of career readiness in the digital age is also a significant concern, given that soft skills are often overlooked in online learning.

Beyond interventions, innovation in career readiness measurement is a crucial component. The development of various instruments, such as the CRQ-A and the SCRI, demonstrates the importance of valid and contextual career readiness assessments. The SCRI, in particular, stands out as a practical, empirically tested measurement tool capable of providing concrete data for data-driven interventions at the school level.

The findings from the analyzed articles indicate that successfully building career readiness depends on the synergy between an individual-based approach, environmental support, and a measurement system that is responsive to the dynamics of adolescent development. Therefore, educational stakeholders, particularly guidance and counseling teachers and secondary education policymakers, need to make career readiness a primary focus in developing educational programs and services in schools.

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