



## Holland-Based Career Guidance and Career Maturity among Vocational Students: A Local Cultural Perspective on Future Career Direction

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**Abstract:** Career maturity is an important competence for vocational high school students in preparing for future career decisions. In many contexts, students' career orientations are influenced not only by their interests and abilities but also by local cultural values that shape expectations about future work and life directions. This study examines the effect of Holland-based career guidance (RIASEC) on improving the career maturity of vocational students while considering local cultural perspectives on future career direction. This study used a quantitative experimental approach with a One-Group Pre-test–Post-test design involving 68 vocational high school students in Medan, Indonesia. Holland-based career guidance sessions were implemented to help students identify personality types, interests, and suitable career pathways. Data were collected using a career maturity scale and analyzed using the Wilcoxon Signed Rank Test with SPSS, followed by effect size analysis. The descriptive results showed an increase in students' career maturity scores from the pre-test to the post-test. The statistical analysis revealed a significant difference between pre-test and post-test scores after the intervention. The calculated effect size indicates a large effect, demonstrating that Holland-based career guidance effectively improves students' career maturity, particularly in understanding personal potential, aligning interests with career choices, and planning future career directions. Integrating local cultural perspectives also helps students connect their career aspirations with family and community expectations. In conclusion, Holland-based career guidance integrated with local cultural perspectives can be implemented as a practical counseling strategy in Indonesian vocational schools by assisting guidance counselors in developing culturally responsive career services and supporting vocational curricula that strengthen students' career planning, self-understanding, and readiness for future employment decisions.

**Keywords:** career guidance; cultural perspective on career development; career maturity; Holland's RIASEC theory; vocational education

**Recommended citation:** Lesmana, G., Ismayani., Setiana., Hasibuan, S. H. (2026). Holland-Based Career Guidance and Career Maturity among Vocational Students: A Local Cultural Perspective on Future Career Direction. *Journal of Innovation in Educational and Cultural Research*, 7(4), 863-872.

## INTRODUCTION

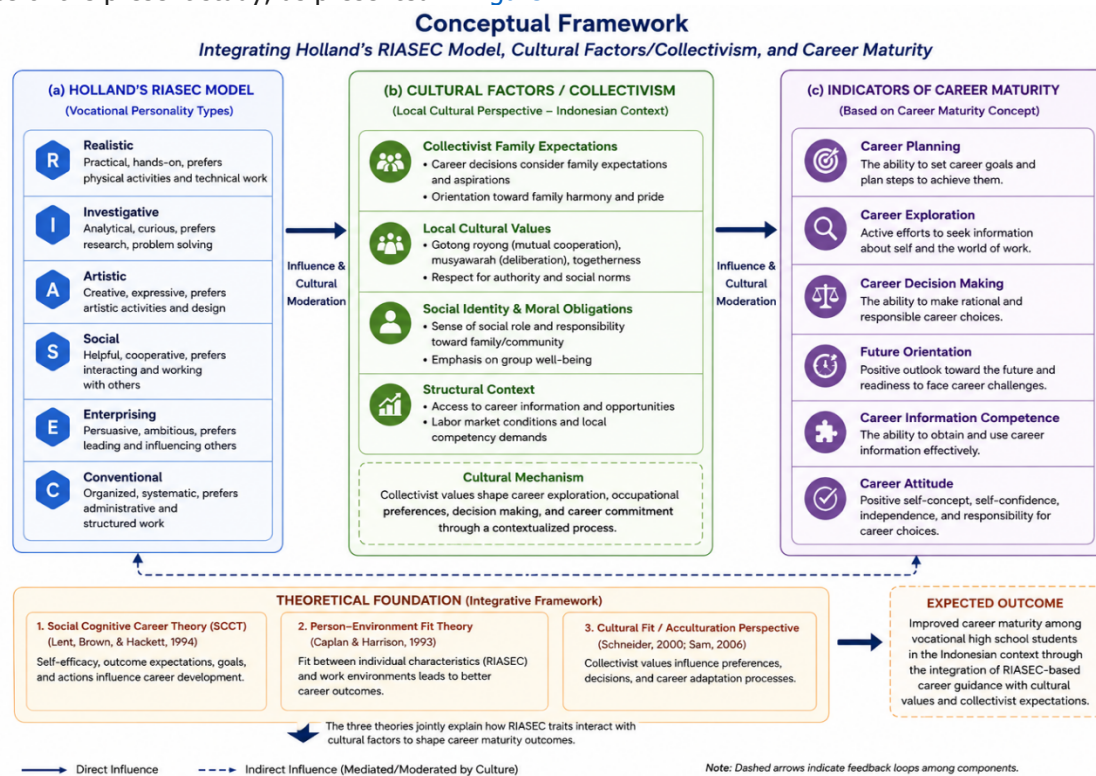
Education in Indonesia plays a strategic role in preparing students to face the challenges of global development and labor market competition (Triani et al., 2025). Law Number 20 of 2003 concerning the National Education System emphasizes that education aims to develop students' potential to become knowledgeable, skilled, and capable individuals who can contribute to society. In this context, vocational education, particularly in vocational high schools (SMK), is designed to produce graduates ready to enter the workforce in their fields of expertise (Sudana et al., 2019; Tanjung et al., 2025). Supporting this objective, the Regulation of the Minister of Education and Culture No. 111 of 2014 concerning Guidance and Counseling highlights the importance of guidance services in facilitating students' personal, social, academic, and career development (Cohen-Scali et al., 2017; Eberts & Graham, 2022). In vocational education, career maturity therefore serves as an important indicator of students' readiness to plan and pursue their future careers (Yani et al., 2023).

Career maturity refers to an individual's readiness to make appropriate career decisions through self-understanding, exploration of career opportunities, and rational decision-making (Sitanggang et al., 2026). This concept is particularly relevant during adolescence, a developmental stage characterized by active career exploration and identity formation (Thasfa & Daulay, 2024). Students who possess high levels of career maturity are better able to recognize their interests and abilities, evaluate available career options, and formulate realistic career plans (Černja et al., 2017; Odak et al., 2025). However, empirical evidence indicates that many vocational students still face difficulties in determining their career direction. These challenges are reflected in students' uncertainty about future occupations, limited understanding of their personal potential, and mismatches between their interests and the chosen vocational specialization (Rashid et al., 2025).

This issue is also reflected in national employment data. Reports from the Indonesian Central Bureau of Statistics show that vocational high school graduates continue to contribute significantly to the national unemployment rate. For example, the unemployment rate among SMK graduates increased from 10.36% in 2019 to 13.55% in 2020, indicating that many graduates are not yet fully prepared to enter the workforce

(Virginia & Lindawati, 2025). Such conditions highlight a gap between the objectives of vocational education and students' actual career readiness. Therefore, effective and structured career guidance services are required to help students develop clearer career orientations and make more informed decisions about their future (Acheson & Rybarczyk, 2016; Farao & du Plessis, 2024; Jemini Gashi et al., 2023; Watts, 2013).

One approach widely used in career guidance is Holland's theory of vocational personality, commonly known as the RIASEC model. This model categorizes individuals' interests and personalities into six types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional, and emphasizes the importance of compatibility between personal characteristics and work environments (Muck, 2005; Nistal et al., 2019). Career guidance based on the Holland model helps students identify their personality types, explore suitable occupational environments, and align their interests with potential career paths. Previous studies indicate that Holland-based career guidance can effectively enhance students' career awareness, decision-making skills, and overall career maturity (Vinh, 2008). However, existing RIASEC-related studies have predominantly focused on general career exploration, career decision-making, or vocational interest profiling in Western and several East Asian educational contexts. Research specifically examining the integration of Holland-based career guidance with vocational school students' career maturity in the Indonesian context remains limited. In addition, prior studies in Asia and East Asia have rarely emphasized the contextual challenges faced by vocational students in developing countries, particularly those associated with school-to-work transition readiness and labor market uncertainty. This indicates a research gap regarding the contextual adaptation and practical implementation of the RIASEC approach within Indonesian vocational education settings, thereby highlighting the novelty and relevance of the present study, as presented in Figure 1.



**Figure 1.** Conceptual Framework

Career decision-making among students is not determined solely by psychological factors. In many societies, including Indonesia, career choices are deeply embedded within a complex interplay of cultural norms, family expectations, socioeconomic conditions, and community-defined standards of success (Akosah-Twumasi et al., 2018). In collectivist cultures such as Indonesia, decisions about future careers are often influenced not only by individual interests and abilities but also by the expectations of parents, extended family, and even the broader community. Certain professions, such as government service, healthcare, or engineering, may be perceived as more prestigious or stable, thereby shaping students' aspirations regardless of their personal inclinations.

Cultural perspectives also play a significant role in shaping how students perceive the meaning and value of work. For instance, some students may prioritize careers that contribute to family welfare or social harmony over those that emphasize personal achievement or financial gain (Hofstede, 2011). Additionally, local wisdom, traditions, and religious values can influence students' attitudes toward specific occupations, including what is considered appropriate, respectable, or desirable (Leong, 2013; Savickas, 2013). These perspectives highlight that career decision-making is not solely an individual cognitive process but is deeply embedded within

sociocultural contexts that guide individuals' aspirations and choices (Pratiwi et al., 2022). These cultural dimensions affect not only career aspirations but also students' confidence in pursuing particular career paths and their willingness to explore non-traditional options (Murdoch et al., 2010).

In this context, integrating local cultural perspectives into career guidance becomes essential. Culturally responsive career guidance can help students interpret their career choices not merely as individual decisions but as part of a broader sociocultural framework (Akinlolu et al., 2023). Such an approach enables students to critically reflect on external expectations while still honoring their personal interests, talents, and long-term goals. By acknowledging cultural influences, counselors and educators can facilitate a more holistic decision-making process, helping students negotiate potential conflicts between personal aspirations and societal expectations (Lesmana & Nur, 2025). Culturally integrated career guidance can enhance students' sense of identity and belonging. When students see their cultural values reflected in guidance practices, they are more likely to engage actively in the process and develop a stronger sense of purpose in their career planning (Dik et al., 2015).

This approach also encourages inclusivity by recognizing students' diverse backgrounds and experiences, particularly in vocational education settings where students come from varied social and cultural contexts. Vocational education, therefore, should play a strategic role in supporting students to achieve optimal career maturity. This involves not only fostering self-understanding, such as awareness of interests, abilities, and personality traits, but also encouraging active career exploration and providing guidance processes relevant to students' cultural realities (Sa'idah, 2024). Career maturity in this sense includes the ability to make informed, realistic, and context-sensitive career decisions, as well as the readiness to adapt to changing labor market demands.

One promising framework for supporting career development is Holland's theory of vocational personalities and work environments, which emphasizes the alignment between individual characteristics and occupational environments (Spokane & Cruza-Guet, 2005). However, while this framework has been widely applied, its implementation often focuses solely on psychological compatibility. Without incorporating cultural considerations, such approaches may overlook important contextual factors that influence students' decision-making processes, particularly in non-Western settings.

Despite the recognized importance of both psychological and cultural dimensions, studies that integrate Holland-based career guidance with local cultural perspectives in vocational education contexts remain limited (Spokane & Cruza-Guet, 2005). Much of the existing research tends to prioritize individual traits, interests, and competencies, while underestimating the role of cultural norms and social expectations in shaping career trajectories. This gap suggests a need for more comprehensive approaches that combine psychological theories with culturally grounded practices. Therefore, developing an integrated career guidance model that combines Holland's theoretical framework with local cultural perspectives is crucial. Such a model would not only enhance students' self-awareness and career alignment but also ensure that their decisions are socially meaningful and contextually appropriate (Lukman et al., 2020). Ultimately, this integration can contribute to more effective career guidance practices, better career outcomes for students, and a stronger alignment between vocational education and the sociocultural realities in which students live.

Based on these considerations, this study aims to empirically examine the effect of Holland-based career guidance services on the career maturity of vocational high school students at SMKS Budisatrya Medan while considering the role of local cultural perspectives in shaping students' future career direction. The novelty of this study lies in integrating Holland's career guidance model with cultural perspectives in the context of vocational education, a relatively underexplored area in previous research. The findings are expected to contribute both theoretically and practically to the development of more culturally responsive career guidance services in vocational schools (Susanto et al., 2024).

## METHODS

This study employed a quantitative, pre-experimental, One-Group Pre-test–Post-test design to examine the effectiveness of Holland-based career guidance services in improving students' career maturity. The design enabled the researchers to compare students' levels of career maturity before and after the intervention, thereby identifying changes attributable to the guidance program (Arrieta-Cohen et al., 2024). The pre-test–post-test approach was considered appropriate because it provides an empirical framework for measuring the impact of educational and counseling interventions on students' developmental outcomes over a specific period. Through this design, the study sought not only to determine whether the intervention produced statistically significant improvements, but also to understand how career guidance grounded in personality–career congruence may contribute to vocational students' readiness for future career planning.

Conceptually, this study was grounded in Holland's RIASEC Theory and enriched by cultural perspectives emphasizing collectivist values commonly found in Asian educational contexts. Holland's theory posits that individuals tend to seek educational and occupational environments that correspond to their dominant personality orientations, categorized into six dimensions: Realistic, Investigative, Artistic, Social, Enterprising,

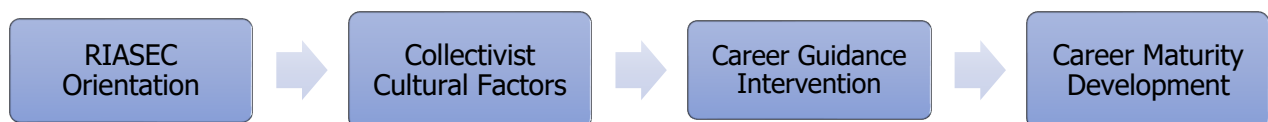
and Conventional (RIASEC). The compatibility between personality orientation and career environment is assumed to foster career satisfaction, decision-making confidence, and vocational adjustment. However, within collectivist societies such as Indonesia, career decision-making is not solely determined by individual interests and personality congruence. Students' career aspirations are also shaped by family expectations, social relationships, peer influence, community values, and sociocultural obligations that emphasize collective harmony over individual autonomy.

Accordingly, this study integrated Holland's RIASEC framework with perspectives derived from Social Cognitive Career Theory and Cultural Congruence Theory to strengthen its theoretical contribution and contextual relevance. Social Cognitive Career Theory emphasizes the roles of self-efficacy, outcome expectations, and contextual supports and barriers in shaping career behavior and development. Meanwhile, Cultural Congruence Theory emphasizes aligning career interventions with learners' sociocultural backgrounds to enhance their engagement and developmental outcomes. By integrating these perspectives, the present study positioned collectivist cultural values as contextual variables that influence how students interpret career interests, construct career goals, and make educational or occupational decisions.

The study was conducted at SMKS Budisatrya Medan, a vocational high school in Indonesia. The population consisted of 216 students enrolled in vocational education programs, while the research sample included 68 students selected through purposive random sampling. The sample size was determined using the Slovin formula (Sugiyono, 2020), which is widely used in educational research to estimate a representative sample from a finite population. The selection process focused on students who demonstrated a need for career guidance, experienced uncertainty in career planning or vocational decision-making, and expressed a willingness to participate throughout the intervention. These criteria were considered important to ensure that participants possessed relevant developmental needs aligned with the objectives of the career guidance program.

The intervention consisted of Holland-based career guidance services designed to help students identify their personality orientations, explore career alternatives, and align vocational interests with educational and occupational opportunities. During the intervention sessions, students were guided through self-exploration activities, personality assessments, career information services, group discussions, and reflective exercises intended to strengthen their self-understanding and career decision-making abilities. In addition, the guidance process included discussions of cultural expectations and family influences, recognizing that many vocational students in collectivist contexts negotiate career decisions within broader social and familial contexts. This integration was intended to make the intervention more culturally responsive and contextually meaningful for Indonesian vocational students.

Career maturity in this study was conceptualized as students' readiness to make appropriate, realistic, and responsible career decisions. The construct included six dimensions: career planning, career exploration, self-understanding, decision-making readiness, career confidence, and career responsibility. These indicators reflect both psychological readiness and practical preparedness in managing future educational and occupational pathways. The researchers assumed that students who receive career guidance aligned with both personality orientation and cultural context would demonstrate stronger career maturity development than before participating in the intervention. The conceptual relationship underlying this study can be explained through three interconnected components. First, Holland's RIASEC personality orientation influences students' vocational interests, career preferences, and perceived compatibility with certain occupational environments. Second, cultural and collectivist factors, including family expectations, peer influence, social norms, and community-oriented values, shape students' career self-efficacy and decision-making processes. Third, integrating RIASEC-based career guidance with a collectivist cultural understanding enhances career maturity indicators, particularly career planning ability, career exploration behavior, decision-making confidence, and responsibility toward future career choices. Conceptually, the framework of this study is summarized in Figure 2.



**Figure 2.** Framework of Study

This integrated framework highlights the study's novelty by positioning career maturity not merely as an outcome of personality–career congruence, as emphasized in many previous RIASEC studies, but also as a culturally situated developmental process shaped by collectivist expectations and sociocultural influences within the Indonesian vocational education context. Unlike prior studies in Asian or East Asian settings that predominantly focused on personality matching and vocational preference identification, the present study emphasizes the interaction between individual career orientation and collective cultural expectations in shaping students' career readiness. Therefore, this research contributes both theoretically and practically to the development of culturally responsive career guidance models for vocational education in collectivist societies.

The objective of this study was to examine the effectiveness of Holland-based career guidance services, grounded in the RIASEC model (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional), in improving the career maturity of vocational high school students. The intervention was delivered through a series of structured guidance sessions designed to help students identify their personality types, explore career interests, and align their personal characteristics with relevant occupational environments. Through this process, students were expected to develop a clearer understanding of their strengths, interests, and future career directions.

Data were collected using a career maturity questionnaire developed based on key indicators, including career planning, self-understanding, career exploration, and career decision-making. The instrument employed a four-point Likert scale ranging from strongly disagree to strongly agree. Before use, the instrument underwent validity and reliability testing to ensure measurement accuracy. Item validity was assessed using the Pearson Product-Moment correlation (Prasetia, 2022), and reliability was evaluated using Cronbach's Alpha to assess the scale's internal consistency. The collected data were analyzed using the Wilcoxon Signed Rank Test to compare pre-test and post-test scores, given the non-parametric nature of the data. In addition, effect size analysis was conducted to measure the magnitude of the intervention's impact. This combination of analyses allowed for a comprehensive evaluation of both the statistical significance and practical effectiveness of the Holland-based career guidance program (Azwar, 2001; Arikunto, 2010).

Data analysis was conducted in two sequential stages to ensure both a descriptive and inferential understanding of the findings. First, descriptive statistical analysis was employed to summarize the distributions of students' career maturity scores at the pre-test and post-test. This included using mean scores and percentages to illustrate general trends and changes following the intervention. These descriptive results provided an initial overview of the extent to which students' career maturity levels improved after participating in the Holland-based career guidance program. Data analysis was conducted in two stages. First, descriptive statistical analysis was used to present the distribution of students' career maturity scores in the pre-test and post-test using percentages and mean scores. Second, inferential statistical analysis was performed using the Wilcoxon Signed Rank Test, a non-parametric test suitable for paired data when the assumption of normality is not fully met. This test was applied to determine whether there were significant differences between students' career maturity scores before and after the implementation of Holland-based career guidance services. All statistical analyses were performed using SPSS software (Sugiyono, 2018).

## RESULT AND DISCUSSION

The term "purposive random sampling" in this study refers to a two-stage participant selection procedure that combines purposive and simple random sampling. In the first stage, purposive sampling was used to identify students who met specific inclusion criteria aligned with the study's objectives. The inclusion criteria included: (a) students who demonstrated low to moderate levels of career maturity, (b) students who experienced uncertainty in career planning and vocational decision-making, and (c) students who were willing to participate throughout the intervention process. After the eligible participants were identified, simple random sampling was conducted within this subgroup to ensure that each eligible student had an equal opportunity to be selected as a research participant. Therefore, the sampling procedure was not convenience sampling, but rather a purposive selection followed by randomization among eligible participants.

The local cultural perspective was operationalized by integrating collectivist and sociocultural values commonly found in the Indonesian vocational school context into the career guidance intervention process. Specifically, the intervention incorporated discussions related to family expectations, parental influence, peer relationships, community values, and social responsibility in career decision-making. During counseling and group guidance sessions, students were encouraged to reflect not only on their personal interests and Holland personality orientations, but also on how cultural expectations and family aspirations influenced their career choices. Career exploration activities also included contextual examples of occupations that are socially valued within the students' local environment. In this way, the intervention positioned career decision-making as both an individual and sociocultural process, aligning Holland's RIASEC framework with collectivist cultural considerations derived from Social Cognitive Career Theory and Cultural Congruence perspectives.

A normality test was conducted as a prerequisite for determining the appropriate statistical analysis technique in this study. Two approaches were used: the Kolmogorov-Smirnov and the Shapiro-Wilk tests, which are commonly used to examine data distribution in research samples. The results of the normality test indicate differences in distribution characteristics between the pre-test and post-test data. For the pre-test data, the significance values obtained were 0.200 (Kolmogorov-Smirnov) and 0.674 (Shapiro-Wilk) (Lilliefors, 1967). Both values are greater than the 0.05 significance level (Sig. > 0.05), indicating that the pre-test data were normally distributed. This indicates that students' initial abilities before the treatment were relatively homogeneous and followed a normal distribution pattern. In contrast, the post-test data obtained significance values of 0.044 (Kolmogorov-Smirnov) and 0.010 (Shapiro-Wilk), both of which were less than 0.05 (Sig. < 0.05). The results of the normality test are presented in Table 1.

**Table 1.** Tests of Normality

|           | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |       |
|-----------|---------------------------------|----|-------|--------------|----|-------|
|           | Statistic                       | Df | Sig.  | Statistic    | df | Sig.  |
| Pre Test  | 0,065                           | 68 | .200* | 0,986        | 68 | 0,674 |
| Post Test | 0,109                           | 68 | 0,044 | 0,951        | 68 | 0,010 |

\*. This is a lower bound of the true significance.

|                                  |                | Pre-test            | Post-test         |
|----------------------------------|----------------|---------------------|-------------------|
| N                                |                | 68                  | 68                |
| Normal Parameters <sup>a,b</sup> | Mean           | 88,56               | 99,53             |
|                                  | Std. Deviation | 9,420               | 8,655             |
| Most Extreme Differences         | Absolute       | 0,065               | 0,109             |
|                                  | Positive       | 0,065               | 0,109             |
|                                  | Negative       | -0,048              | -0,095            |
| Test Statistic                   |                | 0,065               | 0,109             |
| Asymp Sig. (2-tailed)            |                | .200 <sup>c,d</sup> | .044 <sup>c</sup> |

These results indicate that the post-test data were not normally distributed. This non-normality indicates uneven variation in student learning outcomes after the treatment, likely due to differences in students' responses to the learning intervention. Substantively, this difference in distribution between the pre-test and post-test may reflect that the treatment provided in the study not only improved learning outcomes but also increased diversity in student achievement. This could be due to individual factors such as initial ability, learning motivation, and student engagement during the learning process. Because the assumption of normality was not met in one of the data groups, this study used a non-parametric approach, which does not require normality. The relevant test in this context is the Wilcoxon Signed Rank Test for paired samples (pre-test and post-test). The selection of this test is expected to yield more accurate and valid analysis results given the characteristics of the research data (Woolson, 2007).

Hypothesis testing in this study was conducted using the Wilcoxon Signed Rank Test, a non-parametric statistical test used to analyze differences between two paired samples, in this case, pre-test and post-test scores for the same group of subjects. This test was chosen based on the results of previous normality tests, which indicated that the post-test data were not normally distributed and thus failed to meet the assumptions of a parametric test (paired-samples t-test). The analysis results in Table 2 show that all study subjects experienced an increase in their scores after receiving Holland's theory-based career guidance services. This is indicated by the positive ranks of 68 students, with a mean rank of 34.50 and a sum of ranks of 2346.00. Meanwhile, there were no negative ranks (0 students) or ties (0 students), indicating that no students decreased or remained at the same score between the pre-test and post-test. These findings descriptively indicate a consistent improvement in all respondents after the intervention. Inferentially, the Wilcoxon test results showed a Z value of -7.170 with a significance level of Asymp. Sig. (2-tailed) of 0.000 ( $p < 0.05$ ). Thus,  $H_a$  was accepted, and  $H_o$  was rejected, indicating a significant difference between the pre-test and post-test scores. These results confirm that career guidance services based on Holland's theory have a significant impact on improving students' ability to achieve career maturity. The results of the Wilcoxon signed ranks test are presented in Table 2.

**Table 2.** Wilcoxon Signed Ranks Test

|                             |                | N                   | Mean Rank | Sum of Ranks |
|-----------------------------|----------------|---------------------|-----------|--------------|
| Post Test - Pre Test        | Negative Ranks | 0 <sup>a</sup>      | 0,00      | 0,00         |
|                             | Positive Ranks | 68 <sup>b</sup>     | 34,50     | 2346,00      |
|                             | Ties           | 0 <sup>c</sup>      |           |              |
|                             | Total          | 68                  |           |              |
| <b>Post Test - Pre Test</b> |                |                     |           |              |
| Z                           |                | -7.170 <sup>b</sup> |           |              |
| Asymp. Sig. (2-tailed)      |                | 0,000               |           |              |

The calculation yielded an  $r$  value of 0.87, which falls into the large effect size category according to Cohen's (2013) criteria. This value indicates that the intervention was not only statistically significant but also had a strong practical impact on improving students' career maturity. Overall, this study's results indicate that implementing career guidance services grounded in Holland's theory is effective in improving students' ability to achieve career maturity. The improvements, which were uniform across all subjects and supported by a large effect size, indicate that the services provided produced substantial changes in students' career planning and readiness. The descriptive statistics of students' career maturity scores before and after the intervention are presented in Table 3.

**Table 3.** Coefficient Correlation

| Variable                  | N  | Mean  | SD   | Median | Min | Max |
|---------------------------|----|-------|------|--------|-----|-----|
| Pre-test Career Maturity  | 68 | 61.42 | 7.85 | 61.00  | 45  | 76  |
| Post-test Career Maturity | 68 | 78.96 | 6.94 | 79.00  | 63  | 92  |

The results of this study indicate that career guidance services based on Holland's theory have a significant impact on improving students' career maturity. This is evidenced by the Wilcoxon Signed Rank Test, which yielded a p-value of  $< 0.05$  and a large effect size (0.87), demonstrating that the intervention was effective both statistically and practically in enhancing students' career readiness. Descriptively, the absence of negative ranks or ties indicates that all participants improved from pre-test to post-test, suggesting that the intervention was consistently beneficial across the sample. This finding reinforces previous research highlighting the relevance of Holland-based approaches in helping individuals understand their interests, potentials, and career tendencies in alignment with personality types (Çikan, 2026; McClanahan, 2019). From a theoretical standpoint, these results support the core premise of Holland's RIASEC model, which posits that congruence between personality and work environment plays a central role in effective career decision-making. Beyond confirming theoretical assumptions, this study also demonstrates that structured career guidance interventions can foster deeper self-exploration among students. Participants were not only exposed to career information but were also guided to reflect on their personal characteristics, thereby strengthening key dimensions of career maturity such as planning, exploration, and decision-making. In line with career development theory, career maturity reflects an individual's readiness to accomplish developmental career tasks, and the intervention served as a critical stimulus to enhance self-awareness and career insight (Jemini Gashi et al., 2023).

Culture in this study functioned as a contextual moderating factor influencing the relationship between Holland-based career guidance and career maturity development. In the Indonesian collectivist context, students' career decisions are shaped not only by personal interests and personality congruence, but also by family expectations, peer influence, social responsibility, and community values. These cultural factors were integrated into the intervention through discussions on parental expectations, socially valued occupations, and collective decision-making processes. Thus, culture strengthened and contextualized the effectiveness of the career guidance intervention. The authors acknowledge that claims of strong causality should be interpreted cautiously, as the One-Group Pre-test–Post-test design is vulnerable to several internal validity threats, including maturation, history effects, and testing effects (Campbell & Stanley, 1963; Shadish et al., 2002). Although significant improvements in career maturity were identified following the intervention, the absence of a control group limits the ability to establish definitive causal conclusions. Therefore, the findings should be interpreted as indicating an associative and contributive effect rather than absolute causality.

Compared with international literature, this study offers a culturally responsive perspective on Holland's RIASEC Theory within the Indonesian vocational education context. Many Western studies on career development emphasize individual autonomy, self-directed career choice, and person–environment congruence (Holland, 1997; Lent & Brown, 2019). However, this study demonstrates that career maturity in collectivist societies is also shaped by relational and sociocultural expectations, including family influence, community values, and social responsibility (Fouad & Byars-Winston, 2005; Leong & Pearce, 2011). Accordingly, career maturity is positioned not merely as an individual psychological achievement, but as a socio-culturally negotiated developmental process. Importantly, the findings also reveal variability in the degree of improvement among students, as indicated by the non-normal distribution of post-test scores. Although all students demonstrated progress, the magnitude of change differed, suggesting that the effectiveness of the intervention was influenced by both internal factors, such as motivation, vocational interests, and individual readiness, and external factors, including learning environment, family expectations, and social support systems (Blustein, 2011; Lent & Brown, 2019). These findings highlight the importance of adaptive, differentiated career guidance strategies that accommodate diverse student characteristics and developmental needs.

In terms of scientific contribution, this study extends the application of Holland's theory by providing empirical evidence of its relevance within a non-Western vocational education setting, specifically Indonesia. The study contributes to the growing body of literature emphasizing that career development interventions should not be understood solely through psychological and individualistic perspectives, but also through broader cultural and contextual frameworks (Arthur & McMahon 2005; Blustein 2011). Furthermore, the findings offer practical implications for developing more inclusive, culturally responsive, and context-sensitive career guidance models, particularly in vocational education settings where students face complex transitions from school to work. From a practical perspective, the results of this study imply that career guidance services based on Holland's theory can be an effective strategy in guidance and counseling programs in schools, particularly for assisting vocational high school students at a crucial stage in determining their career direction. Guidance and counseling teachers are expected to integrate this approach systematically and sustainably to achieve students' career maturity development optimally (Prideaux & Creed, 2001). However, this study has limitations, including the use of a single-group design without a control group, which limits the generalizability of the results.

Therefore, future research is recommended to use a more robust experimental design and to include additional variables, such as career self-efficacy or social support, to obtain a more comprehensive picture. The results of this study confirm that career guidance interventions based on Holland's theory are not only statistically effective but also highly relevant to improving students' career maturity, warranting further development in the context of vocational education.

## CONCLUSION

Based on the research results and data analysis, it can be concluded that Holland's career guidance services have a significant and strong influence on improving students' career maturity at SMKS Budisatrya Medan. This is evidenced by the results of the Wilcoxon Signed Rank Test, which show a significant difference between the pre-test and post-test results ( $p < 0.05$ ) and an effect size of 0.87, which is categorized as large. Thus, Holland's career guidance services are effective interventions that help students understand their interests, potential, and career direction more maturely. These findings provide practical implications for guidance and counseling teachers to systematically implement Holland's career guidance services in vocational high schools. It is expected that the findings of this study will contribute significantly to the development of innovative and effective career guidance services, particularly by enhancing students' career maturity and readiness to make informed career decisions.

## ACKNOWLEDGEMENT

The author would like to express sincere gratitude to the leadership and the entire academic community of the Guidance and Counseling Study Program at Muhammadiyah University of North Sumatra for their administrative and academic support throughout the research process. The author is deeply grateful to the experts in guidance and counseling, career development, and educational assessment who have contributed valuable insights, validation, and constructive feedback to improve the quality of the developed career guidance service based on Holland's theory. Special thanks are also due to the students who served as research subjects and actively contributed to data collection, providing meaningful responses that supported the evaluation of the intervention.

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