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The Effectiveness of a Career Development Program on Career Self-Efficacy among Orang Asli Students in Sungai Siput, Perak

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Abstract

Education and career planning are vital to improving the quality of life for Malaysia's Orang Asli community, who face challenges rooted in socioeconomic disparities. Despite their resilience, Orang Asli students often lack motivation and guidance for planning their future, underscoring the need to address career self-efficacy. This study evaluated a career development program's impact on career self-efficacy among 48 upper secondary students from the Temiar and Semai subgroups. A quasi-experimental single-group design was used, employing the Career Self-Efficacy Test (UEKK) to measure self-awareness, job information, goal-setting, planning, and problem-solving. The intervention included sessions on selfawareness, career interest exploration using Holland's Self-Directed Search (SDS), and a SWOT-based self-potential analysis, supplemented with career-related games and simulations. Findings revealed significant improvement in career self-efficacy, with the mean score rising from 3.31 to 3.50, t(47) = 2.83, p < .05. The results suggest that structured, culturally sensitive programs can enhance Orang Asli students' confidence, goal-setting abilities, and decision-making skills. Regular initiatives tailored to their unique needs are crucial for fostering long-term benefits. Future research should adopt experimental designs comparing intervention and control groups to strengthen evidence and support broader implementation of such programs.

Keywords: Career Decision-Making, Self-Efficacy, Intervention Module, Indigenous Communities, Adolescents

Introduction

As the world strives to achieve the Sustainable Development Goals (SDG), progress in education remains slow. The United Nations (2024) reported that over eight years, the percentage of secondary school students completing their education increased by only 6% from 2015 to 2023. SDG Goal 4 aims to ensure inclusive and equitable quality education for all, regardless of background (Zickafoose et al., 2024). However, not all countries are capable

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of providing quality education. Barriers such as social status, geographical location, gender bias, and ethnic background significantly limit access to education (Langthaler & Malik, 2023). These barriers not only reduce educational opportunities but also indirectly affect the development of self-efficacy among young individuals. Without a strong educational foundation, it becomes challenging for them to systematically plan careers and improve socioeconomic conditions (Nota et al., 2020).

Indigenous communities face some of the most substantial educational challenges globally. For instance, 65% of indigenous students in the Chittagong Hill Tracts of Bangladesh drop out before completing primary school, while 19% do so after completing primary education (Sabates et al., 2013; Chakma, 2024). Similarly, in Chiapas, Mexico, only 43% of indigenous students complete primary school, 5% finish secondary school, and merely 0.7% advance to university (Earl, 2017; Sanchez, 2024). These statistics reflect the systemic obstacles indigenous communities face in accessing quality education and advancing their careers.

In Malaysia, the Orang Asli, an indigenous minority group constituting only 0.6% of the total population (Ministry of Economy, 2024; Department of Statistics Malaysia, 2024), demonstrate a similar struggle. Despite significant potential (Carey, 1976), Orang Asli students face alarming educational disparities. As of 2020, over half (58.62%) of Orang Asli students failed to complete secondary education up to Form Five, with a slight improvement to 42.29% in 2021 (Ministry of Education, 2021). Furthermore, in 2021, only 7% of Orang Asli students advanced to higher education (Ministry of Rural and Regional Development, 2022). Factors contributing to this include a lack of parental involvement, peer influence, exclusion, low self-esteem, and financial constraints (Mohd Mahzan et al., 2022).

Breaking this cycle of poverty and educational disparity requires targeted interventions, such as career development programs that focus on enhancing career self-efficacy. Education is a key enabler for creating opportunities and fostering self-belief among Orang Asli students (Payne, 2005). According to Bandura (1977), individuals with high self-efficacy are more likely to succeed, face challenges with resilience, and make informed decisions. Conversely, low self-efficacy hinders decision-making, leaving individuals indecisive and stagnant. Career self-efficacy, as defined by Taylor and Betz (1983), facilitates effective career planning and decision-making, empowering individuals to navigate career paths confidently.

Despite various programs and interventions, significant progress for Orang Asli students remains elusive without targeted support to enhance their career self-efficacy. Career development programs, especially those tailored to the cultural and socioeconomic realities of the Orang Asli, can provide a pathway for empowerment. These programs guide students in identifying their strengths, exploring career options, and building the skills needed to set and achieve career goals. Research supports the effectiveness of such programs in improving self-awareness, decision-making, and long-term career outcomes (Mohd Muizzuddin, 2018; Muhamad Sayuti, 2022).

Although this study focuses on the Orang Asli in Malaysia, the findings have broader implications for other indigenous communities worldwide who face similar barriers in accessing quality education. The findings of this study will provide insights that can inform

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policymakers, educators, and NGOs working with indigenous communities. This study aims to evaluate the effectiveness of a career development program on the career self-efficacy of Orang Asli students in Sungai Siput, Perak. By assessing changes in career self-efficacy levels before and after program participation, this research contributes valuable insights into the development of more targeted and culturally sensitive interventions especially for indigenous communities.

Materials and Methods

To evaluate the effectiveness of the career development program, a quantitative study was conducted using the Career Self-Efficacy Test (UEKK), which consists of 25 items. The UEKK is a Malay-language version adapted from the Career Decision-Making Self-Efficacy Scale - Short Form (CDSE-SF) (Taylor & Betz, 1983; Betz, Klein & Taylor, 1996; Mohd Izwan & Syafiqah, 2023). The UEKK test uses a Likert scale to measure five subscales, namely self-awareness, job information, goal selection, planning, and problem-solving. The Likert scale ranges from 1 = not confident; 2 = slightly confident; 3 = moderately confident; 4 = confident; 5 = very confident.

The study location was Kampung Kenang, situated in Sungai Siput, Perak. This village has a population of 749 Orang Asli. Of this population, 12 percent (89 individuals) are adolescents aged between 12 and 17 years (Department of Orang Asli Development, 2023). Sekolah Menengah Agama Rakyat Nurul Hidayah, located in Kampung Kenang, Sungai Siput, Perak, was selected as the study site due to the accessibility of data and participants.

The sampling method used was purposive sampling, as the participants were selected based on specific criteria, namely students in Form Four and Form Five who are of Orang Asli descent. The study participants consisted of 48 upper secondary school students, all of whom were from the Semai and Temiar Orang Asli ethnic groups, with 21 male and 27 female participants. The UEKK instrument was distributed in physical form to the participants on two occasions—before and after the program. The analysis method employed was the t-test, using the Statistical Package for Social Sciences (SPSS) version 27. Table 1 presents the interpretation of the UEKK mean scores.

Table 1
Demographic Interpretation of Mean Scores

Mean Score	Level
1.00 - 2.33	Low
2.34 – 3.66	Moderate
3.67 – 5.00	High
1.00 – 2.33	Low

Previous studies have assessed and reported the reliability of the Career Decision-Making Self-Efficacy Scale-Short Form (CDSE-SF). Luzzo (1996) demonstrated its high internal consistency, with a test-retest reliability coefficient of 0.83. Similarly, Chung (2002) shows strong internal consistency with a coefficient alpha of .93 and test-retest reliability of .83 for the original scale. These findings align with results from various studies, indicating the tool's reliability across diverse populations.

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The Career Decision Self-Efficacy—Short Form (CDSE-SF) instrument has been culturally adapted and validated in various countries, including Slovakia, France, and South Korea. These studies consistently support the high validity and reliability. For instance, in South Korea, Nam et al. (2011) found that the Korean version of the CDSE-SF demonstrated high reliability, with a Cronbach's alpha of 0.91 for the overall scale and a test-retest reliability of 0.91. Similarly, Jung and Yoo (2022), evaluated the instrument among 400 nursing students, reported a test-retest reliability of 0.86 and a Cronbach's alpha of 0.92. In Slovakia, Martončik et al. (2021) examined the reliability of the Slovak translation of the CDSE-SF among 400 primary education students and reporting a ω t value of 0.92, which indicates excellent reliability.

In France, Gaudron (2011) studied 650 university students and found the overall reliability of the CDSE-SF was high, with a Cronbach's alpha of 0.87. However, four out of five subscales showed lower reliability, with alpha coefficients ranging from 0.59 to 0.70. The author suggested that the items in these subscales might not sufficiently align with one another to form cohesive, reliable measures. Jin et al. (2012) similarly highlighted the lower reliability of the subscales, reporting alpha values between 0.62 and 0.75. Despite this, the overall reliability of the scale remained high, with a Cronbach's alpha of 0.91. The lower reliability of the subscales might be due to the limited number of items, making them less applicable for Chinese graduate students from collective cultural backgrounds (Jin et al., 2012).

Module Contents

The content of the module is based on activities designed to support individual career development. Below is the summary of the module content used in this study.

Table 2
Summary of Career Development Module Contents

No.	Session		Activities Contents
1.	First Session: Ice Breaking	-	The facilitator divides students into 12 groups based on a list provided by the teacher.
		-	Students are required to gather in their assigned groups according to the number given.
		-	Each group must choose a group name and create an official group cheer. A 10-minute timeframe is given for this task. The facilitator introduces themselves and builds rapport with the students.
2.	2. Second Session: Exploring Ideal Careers	-	The facilitator distributes the Holland Career Interest Test (SDS) to all students. The facilitator explains the procedures for answering the SDS test to ensure all students understand before starting. Each student is given 15 minutes to complete the test.
		-	The facilitator explains the six elements related to personality and career environment to the group. The facilitator gathers feedback from students on the results of their Career Interest Test.

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3. Third Session: Identifying Personal Potential

- The facilitator distributes SWOT Analysis forms to the students and explains that the purpose is to help them identify their potential through SWOT analysis.
- Students are required to identify and list their strengths, weaknesses, opportunities, and threats related to career planning.
- Students are guided to see the connection between the results of their career interest test from Activity 3: My Dream Career! and the SWOT analysis.
- The facilitator encourages each student to provide feedback and ask questions if needed.

4. Fourth Session: Treasure Hunt

 Each group must complete three stations and obtain a stamp and signature from the facilitator at each station as proof of task completion.

First Station: Amazing or Not?

- Each group is given several scenarios/situations with three paragraphs of dialogue.
- Group members are required to translate the dialogue into English.
- After the discussion, a representative from the group reads the translated dialogue aloud.

Second Station: Let's Guess

- The facilitator displays job-related picture cards, and students must correctly name each occupation shown on the cards.
- The group that answers all the cards quickly and correctly is considered finished.

Third Station: Career Role-Playing

- Each group is given a workplace-related problem by the facilitator.
- Group members must discuss how to solve the problem.
- After the discussion, the group performs a role-play to demonstrate the workplace problem and solution.

Results

Table 3 presents the demographics of Orang Asli students from Sungai Siput, Perak. Out of a total of 48 Orang Asli students, the number of students by gender and form level is relatively balanced. Males comprise 43.75% (21 students), while females make up 56.25% (27 students). Additionally, 47.92% (23 students) are in the fourth grade and 52.08% (25 students) are in the fifth grade.

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Table 3

Demographic breakdown of Orang Asli students by gender and grade level

	, ,	, 3	
		Frequency (N=48)	Percentage (%)
Gender	Male	21	43.75
	Female	27	56.25
Form	Form 4	23	47.92
	Form 5	25	52.08

Table 4 presents the overall results for career self-efficacy levels in the pre-test (M = 3.31, SD = 0.63) and post-test (M = 3.50, SD = 0.72).

Table 4
Career Self-Efficacy Levels in Pre-Test and Post-Test

Construct	Pre-Tes	t	Post-Test		
Construct	Mean	SD	SD Mean		
Career self-efficacy	3.31	0.63	3.50	0.72	
Interpretation*	Moderate	Moderate			

^{*}Level : Low = 1.00 – 2.33, Moderate = 2.34 - 3.66, High = 3.67 - 5.00

The results of the t-test analysis, as shown in Table 5, indicate a significant difference between the pre-test and post-test for students' career self-efficacy levels, t(47) = 2.83, p < .05.

Table 5
T-Test for Differences between Pre-Test and Post-Test Career Self-Efficacy

	Test	N	Mean	SD	t	dk	Sig. p
Career Self-Efficacy	Pre-Test	48	3.31	0.63	-2.83	47	.007*
	Post-Test	48	3.50	0.72			

^{*}p < .05

Table 6 presents the number of students and the percentage of career self-efficacy levels among Orang Asli students before and after the program. Prior to the program, out of 48 students, 8.3% (four students) had low self-efficacy levels, while 60.4% (29 students) had moderate self-efficacy levels. Additionally, 31.3% (15 students) demonstrated high self-efficacy levels. After the program, 4.2% (two students) had low self-efficacy, while 77.1% (37 students) had moderate self-efficacy levels. Lastly, 18.8% (nine students) displayed high self-efficacy levels.

Table 6
Self-Efficacy Levels Before and After the Program

Colf officery	Before p	rogram	After program		
Self-efficacy	Frequency	Frequency Percentage		Percentage	
Level (N=48	(N=48)	(%)	(N=48)	(%)	
Low	4	8.3	2	4.2	
Moderate	29	60.4	37	77.1	
High	15	31.3	9	18.8	
Total	48	100	48	100	

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Table 7 shows the paired sample t-test results for the five subscales: 'self-appraisal,' 'occupational information,' 'goal selection,' 'planning,' and 'problem-solving.' Significant differences were found in three subscales. The first significant difference was observed in the 'problem-solving' subscale, with a pre-program mean score (M = 3.24, SD = .65) and a post-program mean score (M = 3.53, SD = .74), yielding t(47) = 3.36, p < .05. The second significant difference was seen in the 'self-appraisal' subscale, with a pre-program mean score (M = 3.21, SD = .66) and a post-program mean score (M = 3.43, SD = .77), yielding t(47) = 2.43, p > .05. This indicates a significant improvement in the 'self-appraisal' subscale after the program. Lastly, the 'goal selection' subscale also showed a significant difference, with a pre-program mean score (M = 3.44, SD = .80) and a post-program mean score (M = 3.68, SD = .77), yielding t(47) = 1.28, p > .05. This demonstrates a notable improvement in the 'goal setting' subscale after the program.

For the remaining subscales, 'occupational information' and 'planning,' no significant differences were found between pre- and post-program scores. The analysis of the 'occupational information' subscale revealed no significant difference between the pre-program mean score (M = 3.37, SD = .81) and the post-program mean score (M = 3.50, SD = .85), with t(47) = 1.28, p > .05. This suggests no substantial change in the 'occupational information' subscale after participating in the program. Similarly, for the 'planning' subscale, there was no significant difference between the pre-program mean score (M = 3.29, SD = .89) and the post-program mean score (M = 3.38, SD = .86), with t(47) = .85, p > .05. This indicates no significant change in the 'planning' subscale following the program.

Table 7
Paired sample t-test results for the five subscales before and after the program

Subscale	Test	N	Mean	SD	t	dk	Sig. p
Self-appraisal	Pre-Test	48	3.2125	.66320	2.42	47	.019*
	Post-Test	48	3.4292	.77183	-2.43	47	.019
Occupational information	Pre-Test	48	3.3708	.80529	1 20	47	.209
	Post-Test	48	3.5000	.84652	-1.28	47	.209
Goal selection	Pre-Test	48	3.4375	.79963	2 42	47	.019*
	Post-Test	48	3.6792	.76713	-2.43	47	.019
Planning	Pre-Test	48	3.2917	.88578	85	47	.400
	Post-Test	48	3.3792	.85973	65	47	.400
Problem-solving	Pre-Test	48	3.2417	.64572	-3.36	47	.002*
	Post-Test	48	3.5333	.74301	-5.50	47	.002

^{*}p < .05

Discussion

Based on the findings presented in Tables 4 and 5, the overall value for the dependent variable, which is the level of career self-efficacy among Orang Asli students, indicates that the results of both tests are at a moderate level. The mean score for the pre-test is 3.31, and the mean score for the post-test is 3.50. The moderate level is identified because the mean scores fall between 2.34 and 3.66. This suggests that Orang Asli students may face difficulties in making firm career decisions, potentially due to lower levels of career self-efficacy in relation to the chosen career path. Four factors influencing self-efficacy—performance accomplishments, vicarious experience, verbal persuasion, and physiological states (Bandura,

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1977; Melati, 2017)—play a role in this. Career self-efficacy decreases when individuals lack confidence in their abilities within a particular career, leading to a reluctance to choose that career. Moreover, anxiety and poor performance can negatively affect an individual's self-efficacy. The lack of social support from family members, such as parents or siblings, or the absence of role models among friends can further reduce career self-efficacy in students (Betz, 1992). This phenomenon is similarly observed among Indigenous youth, specifically the Iñupiat population in the United States. They face limitations in career and educational opportunities, leading to uncertainty about their future direction. This results in financial crises and has a negative impact on their quality of life (Wexler, 2006; Anderson, 2022).

Significant differences are also observed in the overall scores related to the level of career self-efficacy. Despite the existence of significant differences, the mean scores from the pre-test and post-test remain at a moderate level. This finding indicates statistical significance but not practical significance, meaning that the changes observed are insufficient to elevate the results from a moderate to a high level (Cohen, 1988). This career development program has the potential to produce positive impacts; however, there is a need for further improvements. The program can be enhanced by improving job information, as indicated by the insignificant results in the 'occupational information' subscale within this study. Hutchings et al. (2023) emphasize the importance of introducing a variety of job opportunities to indigenous youth, as they may be unaware of the numerous career fields available to them. This situation is supported by Carney et al. (2019), which found a significant increase in interest among Red Indian youth in health sector jobs after attending health career seminars. This phenomenon suggests that career choices among indigenous youth are significantly influenced by family, limited professional information, financial and social factors (Hutchings et al., 2023). This aligns with Parsons' (1909/2009) assertion that choosing a vocation requires knowledge of the requirements and conditions across various career fields, alongside an understanding of the opportunities available in the job market.

The findings of this study confirm that career self-efficacy among the participants increased following the provided intervention. The highest improvement was observed in the subscales of 'problem-solving', 'goal selection', and 'self-appraisal'. These results indicate that the intervention was effective in helping participants strengthen their self-efficacy in making career choices. Previous studies by Mohd Izwan et al. (2022), have shown a significant increase in career decision self-efficacy from a moderate to a high level after following career interventions. The research by Damodar et al. (2024) demonstrates that career interventions successfully transformed participants from being indifferent and uninterested in career choices to being engaged and confident in making their selections. This finding is also consistent with the study by Shafqat et al. (2023), which revealed a significant difference in career decision-making before and after the intervention. In this study, although the participants were from the Orang Asli community, the career development module has the potential to enhance and improve the career decision self-efficacy of the students, in line with previous research. Career decision self-efficacy can be increased through effective interventions and can change how individuals confront challenges in career selection (Betz & Luzzo, 1996).

Table 6 illustrates the differences in the number of students and the percentage for the career self-efficacy levels of Orang Asli students before and after the career development

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program. The low level of career self-efficacy among Orang Asli students decreased from 8.3 percent to 4.2 percent after the program was implemented, indicating a positive change. A low level of self-efficacy reflects that Orang Asli students are hesitant to make decisions regarding career choices and tend to avoid career-related activities (Mohd Izwan et. al., 2019). Rojewski's (1994) research classified adolescents with career decision-making difficulties into three categories: tentatively decided-crystallizing preferences, transitional indecision, and chronic indecision. Students in the Tentatively Decided-Crystallizing Preferences category have identified several career options but have not yet made a final decision. Transitional Indecision refers to students who are in the process of exploring various career fields but feel overwhelmed and are unable to make a decision, despite being aware that they need to choose a suitable career path. Meanwhile, students in the Chronic Indecision category experience difficulties making decisions across different aspects of their lives, including career choices. Although the findings of this study indicate that the percentage of students with low career self-efficacy is only 4.2 percent, this small but significant group requires particular attention from teachers and counselors when providing career guidance.

The moderate level of career self-efficacy among Orang Asli students increased from 60.4% to 77.1% (refer to Table 6). While this indicates an improvement at the moderate level, the high level of career self-efficacy experienced a decrease from 31.3% to 18.8%, signifying a less satisfactory change. It is possible that the decrease in the percentage at the high level contributed to the increase at the moderate level. The 18.8% of Orang Asli students with high career self-efficacy suggest that these students are actively gathering career-related information, participating in training or programs to enhance their skills, and making decisions based on their career choices. Although the proportion at the high level has decreased, the existence of 18.8% is a positive and encouraging result. In other words, the high percentage is not unattainable for Orang Asli students, offering hope that more students have the potential to reach and maintain high efficacy levels. This can be achieved through continuous opportunities and support (Mohd Mahzan et al., 2022; Yew et al., 2021; Mohd Muizzuddin et. al., 2018; Badli et al., 2022). Rojewski (1994) refuted the notion that gender, race, and socioeconomic status are significant factors in determining a student's career indecision classification.

The implications of this study highlight the roles of several parties, including counselors, parents, and schools. To enhance the effectiveness of the counseling process, counselors must equip themselves with knowledge about the culture and worldview of the Orang Asli community. Mastery of cross-cultural counseling can assist counselors in ensuring that the career paths chosen by Orang Asli students align with their needs and realities. Additionally, counselors must be aware of and reflect on their own cultural beliefs to avoid bias during the counseling process (Kharkongor & Albert, 2014). Furthermore, counselors should acknowledge that Orang Asli students typically belong to lower socioeconomic backgrounds. Thus, beyond helping clients make accurate career choices, it is crucial to consider their access to certain employment opportunities. Counselors must also avoid imposing their own assumptions about specific social classes (Juntunen et al., 2015). Orang Asli parents must actively engage in their children's education, even though they themselves have limited formal education backgrounds. Practically, they can assist their children by providing stationery, reference materials, and monitoring their academic progress at home. By promoting the importance of valuing education, they can help build respect within the

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community and secure better opportunities to improve their quality of life. This active involvement is crucial for fostering academic success and ensuring a brighter future for their children (Badli et. al., 2022).

Final Considerations

Overall, the career development program has significantly benefited Orang Asli students, as evidenced by the differences in their career self-efficacy levels before and after the program. Importantly, this study highlights the novelty of adapting career development frameworks to suit the unique cultural and socioeconomic contexts of indigenous communities. The study also found that the majority of Orang Asli students from Sungai Siput face challenges in their career decision-making processes, as their career self-efficacy levels are generally moderate. Based on these findings, more appropriate interventions can be provided to Orang Asli students, particularly those with low career self-efficacy levels.

There are several limitations in this study that should be addressed in future research. First, the sample size is small and focused only on the Orang Asli Secondary School in Sungai Siput, Perak. The small sample size does not represent the entire Orang Asli student population in Perak or across Peninsular Malaysia (Walliman, 2022). Therefore, this study can serve as a pilot study before conducting larger-scale research. A pilot study can provide an initial understanding for future research. Moreover, the time interval between the pre- and post-tests was too short, with both tests administered on the same day. The short interval between tests could influence the findings, as students might recall the questions or answers from the pre-test (Cohen et al., 2022). Extending the interval between tests in future research could yield more reliable insights.

The implications of this study extend beyond its immediate context, aligning with the government's Bumiputera Economic Transformation Plan 2035 (PuTERA35), which focuses on the socioeconomic development of the Orang Asli (Ministry of Economy, 2024). Furthermore, this study can be beneficial for government agencies such as the Ministry of Education, Ministry of Rural and Regional Development, Department of Orang Asli Development, non-governmental organizations, and schools for Orang Asli across Peninsular Malaysia. By utilize these findings, they can design and implement more effective programs to empower Orang Asli youth.

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