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The Relationship of Learning Experience and Career Self-Efficacy Among Undergraduate Students from a Public University in Malaysia

(Hubungan Antara Pengalaman Pembelajaran dan Efikasi Kendiri Kerjaya Dalam Kalangan Pelajar Prasiswazah di Sebuah Universiti Awam di Malaysia)

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ABSTRACT

Career self-efficacy is the confidence individuals have in their ability to perform career-related tasks, while learning experiences include the activities and interactions that shape this belief. This study investigated the relationship between learning experiences and career self-efficacy among 1,344 university students, finding that students reported high levels of career self-efficacy, particularly in goal selection. Among learning experiences, verbal persuasion was the most positively rated, suggesting the importance of encouragement in shaping students' confidence. Statistical analysis revealed a strong positive correlation (r= .492, p< .001) between learning experiences and career self-efficacy, indicating that students who engage in richer learning experiences are more likely to feel capable in their career pursuits. These findings underscore the critical role of supportive learning environments in enhancing students' career self-efficacy. By integrating targeted interventions that foster positive learning experiences, educational institutions can effectively boost students' confidence and preparedness for their future careers, ultimately supporting their overall career development.

Key Words: *Career self-efficacy, Learning Experience, Undergraduate students, Malaysia*

ABSTRAK

Efikasi kendiri kerjaya merujuk kepada keyakinan individu terhadap keupayaan mereka untuk melaksanakan tugas berkaitan kerjaya, manakala pengalaman pembelajaran merangkumi aktiviti dan interaksi yang membentuk keyakinan ini. Kajian ini menyelidiki hubungan antara pengalaman pembelajaran dan efikasi kendiri kerjaya dalam kalangan 1,344 pelajar universiti, mendapati bahawa pelajar melaporkan tahap efikasi kendiri kerjaya yang tinggi, terutamanya dalam pemilihan matlamat. Dalam kalangan pengalaman pembelajaran, pujukan verbal dinilai paling positif, menunjukkan kepentingan galakan dalam membentuk keyakinan pelajar. Analisis statistik menunjukkan terdapat korelasi positif yang kuat (r= .492, p< .001) antara pengalaman pembelajaran dan efikasi kendiri kerjaya, yang menunjukkan bahawa pelajar yang terlibat dalam pengalaman pembelajaran yang lebih kaya berkemungkinan berasa lebih berkeupayaan dalam kerjaya mereka. Penemuan ini menekankan peranan penting persekitaran pembelajaran yang menyokong dalam meningkatkan efikasi kendiri kerjaya pelajar. Dengan mengintegrasikan intervensi yang disasarkan untuk memperkasa pengalaman pembelajaran, institusi pendidikan dapat meningkatkan keyakinan dan kesiapsiagaan pelajar untuk kerjaya masa depan mereka dengan berkesan.

Key Words: *Efikasi kendiri kerjaya, pengalaman pembelajaran, pelajar prasiswazah, Malaysia*

INTRODUCTION

Career self-efficacy is a critical construct that reflects an individual's belief in their capacity to successfully manage their career development. Defined by Mahmud et al(2019) career self-efficacy encompasses an individual's confidence in their ability to engage in self-awareness, access career information, set goals, plan strategically, and solve problems effectively. This construct is significant because it not only influences career decisions but also shapes overall career trajectories, impacting how individuals navigate professional challenges and opportunities. Chan (2020) emphasizes the importance of assessing career self-efficacy, highlighting its profound effect on career outcomes. Research has shown that higher levels of career self-efficacy are associated with more successful career decision-making and progression, particularly when targeted through intervention programs (Mahmud et al., 2022).This underscores the potential for educational institutions to play an active role in bolstering students' career self-efficacy.

The impact of career self-efficacy extends beyond personal belief systems, as it directly affects how individuals manage anxiety, engage in decision-making, and address career-related challenges (Brown & Lent, 2013; Chiesa et al., 2016). Career self-efficacy mitigates difficulties by enhancing resilience and promoting proactive career management strategies, thereby influencing aspirations and achievements (Lent et al., 1994). Research also highlights the relevance of this construct among university students, underscoring its universal importance in career preparation and its potential to level the playing field in terms of career opportunities (Westbrook et al., 2013).

Among undergraduates students, career self-efficacy plays a pivotal role in influencing confidence, decision-making, and engagement in career-related activities. It involves multiple domains essential to effective career management, including self-appraisal, occupational information, goal selection, planning, and problem-solving (Mahmud et al., 2020). For example, self-appraisal helps students critically evaluate their strengths, weaknesses, values, and interests, enabling them to align career choices with personal attributes and aspirations. Access to occupational information provides vital knowledge about various career paths, requirements, and opportunities, allowing students to make informed decisions. The processes of goal selection and strategic planning further enhance career self-efficacy by guiding students to set achievable career goals based on their self-assessment and understanding of career possibilities. Problem-solving skills empower students to navigate obstacles, adapt strategies, and maintain progress toward their career objectives, thereby reinforcing their self-efficacy beliefs.

Evidence from various studies demonstrates the impact of career self-efficacy on career decisions and outcomes. Students with high career self-efficacy are more likely to engage in positive career behaviors, such as making sound career choices, persisting through challenges, and actively participating in career development activities (Andrews et al., 2014; Sidiropoulou-Dimakakou et al., 2012). Conversely, those with lower self-efficacy often face decision-making difficulties, experience heightened anxiety, and may avoid career-related tasks, adversely affecting their career trajectories (Harlow & Bowman, 2016; Lam & Santos, 2018). In higher education setting, particularly among undergraduates, career self-efficacy is a strong predictor of academic and career success, influencing decisions from choosing a major to committing to career-related endeavors (Grier-Reed & Ganuza, 2012; Hackett & Betz, 1981). Consequently, universities play a crucial role in developing students' career self-efficacy by creating supportive environments and offering targeted programs that enhance students' confidence and career preparedness, including those from neurodiverse backgrounds (Mahmud et al., 2019).

The development of career self-efficacy is closely linked to learning experiences, which are foundational in shaping career beliefs within the framework of Social Cognitive Career Theory (SCCT). Bandura (1997) categorize these learning experiences into four primary sources: personal mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states. For undergraduates, these sources are instrumental in enhancing career self-efficacy and career preparedness. Personal mastery experiences, considered the most influential, involve direct engagement in tasks that provide feedback on one's competencies, allowing students to learn from their successes and failures (Bandura, 1997). These experiences foster a realistic and adaptive sense of self-efficacy, helping individuals build confidence in their abilities through authentic performance outcomes.

Vicarious experiences, which involve observing others successfully performing career-related tasks, are particularly impactful when individuals face uncertainty or lack personal experience (Ireland & Lent, 2018). Witnessing peers or role models overcome challenges can bolster one's belief in their potential to achieve similar success, reinforcing self-efficacy through social comparison. Verbal persuasion, often delivered through feedback and encouragement from mentors, peers, and educators, plays a supportive role in building self-efficacy, particularly when feedback is constructive and motivational (Bandura, 1997). Though less potent than direct experiences, verbal persuasion can still significantly enhance motivation and persistence, especially when individuals face difficult tasks.

The fourth source, physiological and emotional states, pertains to how individuals interpret their bodily and emotional reactions during career-related activities. Emotions like anxiety, stress, and mood fluctuations can heavily influence self-efficacy judgments, affecting performance and decision-making (Pajares, 2005). Positive emotional regulation is crucial, as managing stress and maintaining a positive outlook can enhance self-efficacy, encouraging continued effort and engagement in career-related tasks. Conversely, negative emotional states can lead to avoidance behaviors and decreased career outcomes, emphasizing the importance of fostering emotional well-being in career development programs.

Overall, career self-efficacy is not only a personal construct but also a dynamic interplay of learning experiences, socio-contextual factors, and institutional support systems. As universities strive to cultivate inclusive environments that support the diverse needs of students, enhancing career self-efficacy through targeted interventions and supportive practices becomes increasingly essential. By leveraging the foundational sources of career self-efficacy and integrating them into educational and career development programs, higher education institutions can empower students to navigate their career paths with confidence and resilience, ultimately improving their readiness for the workforce.

LITERATURE REVIEW

Career self-efficacy is a pivotal factor influencing students' career development, decision-making, and overall success. It refers to an individual's belief in their ability to successfully perform tasks related to career decision-making and development (Betz & Hackett, 1981). Unlike a static trait, career self-efficacy is shaped by a dynamic interplay of personal, environmental, and socio-cultural factors, each contributing uniquely to its development (Guan et al., 2016). For instance, family support plays a significant role in this process by providing emotional encouragement and practical guidance, which helps students feel more confident in their career choices. Research has shown that family support can significantly enhance career self-efficacy, with students receiving more support generally reporting higher levels of confidence in their career-related abilities (Keller & Whiston, 2008). Conversely, gender differences can lead to varying levels of self-efficacy, often resulting in higher self-efficacy among male students compared to their female counterparts (Yoo & Kim, 2012). This disparity may stem from societal expectations and gender norms that influence how male and female students perceive their capabilities in different career fields (Lent et al., 2000). These differences highlight the importance of tailored interventions that address the unique needs and challenges faced by different student groups.

University students often face complex challenges when it comes to career decision-making, including choosing majors, navigating post-graduation pathways, and aligning their career goals with personal values (Andrews et al., 2014; Lam & Santos, 2018). A lack of self-efficacy can hinder their ability to make informed career choices, resulting in uncertainty, indecision, and delayed career progress. This challenge is particularly acute during the transition from education to the workforce, where students are expected to make critical career decisions that will shape their professional lives (Brown & Lent, 2019). Educational institutions thus play a crucial role in supporting students by boosting their career self-efficacy, enhancing their confidence, and providing clear guidance toward successful career outcomes(Garcia et al., 2015). Research has demonstrated that when students feel supported by their institutions, their career self-efficacy increases, which in turn positively impacts their career decision-making and overall career satisfaction (Alias, 2019).

Educational interventions, such as career preparation courses, internships, and major-related activities, have been shown to positively influence students' career self-efficacy. In Malaysia, participation in structured learning experiences has been found to significantly enhance students' confidence in their career-related abilities, demonstrating the importance of such interventions in the local context (Mahmud et al., 2020). These programs provide students with hands-on experiences, real-world exposure, and the opportunity to engage with professionals in their fields of interest, thereby enhancing their self-efficacy and preparing them for the challenges of the job market (Gore et al., 2006). Structured learning environments that promote active participation, feedback, and reflection are crucial in shaping students' career-related beliefs and behaviors, helping them build resilience and adaptability (Savickas & Porfeli, 2011). The positive impact of these interventions underscores the need for educational institutions to invest in and prioritize career-related programming as a core component of student development.

Understanding the specific learning experiences that contribute to career self-efficacy is essential for developing effective interventions. According to Bandura (1997), the sources of career self-efficacy include personal mastery experiences, vicarious learning, verbal persuasion, and physiological and emotional states. Personal mastery experiences, such as successfully completing a challenging task, are the most influential source of self-efficacy, as they provide direct evidence of one's capabilities (Bandura, 1997). Vicarious learning, which involves observing others succeed, allows students to model successful behaviors and

gain confidence by seeing that others like them can achieve similar goals (Schunk, 2003). Verbal persuasion, including encouragement from mentors, peers, and family members, helps boost confidence and motivation (Bandura, 1997). Finally, emotional and physiological states, such as anxiety or excitement, can either enhance or undermine self-efficacy, depending on how these feelings are interpreted (Pajares, 2002). Despite the established importance of these sources, there is limited research examining them comprehensively, particularly among undergraduate populations. Most studies focus on specific demographics or contexts, such as adolescents or working adults, leaving gaps in our understanding of how these sources interact and influence career self-efficacy among diverse student groups (Lent & Brown, 2013).

Motivation and emotional states add further complexity to the concept of career self-efficacy. Motivation plays a critical role in shaping students' career choices, with factors such as job security, stability, and material benefits often driving career decisions among young individuals (Phan & Bae, 2021). High levels of intrinsic motivation, such as a passion for a particular field, are associated with greater career self-efficacy, as they enhance the willingness to persist in the face of challenges (Ryan & Deci, 2000). Conversely, a lack of motivation can lead to lower self-efficacy, reducing students' engagement with career planning activities and hindering their overall development (Bandura, 1997). Emotional states, such as anxiety, fear, and mood, also significantly impact self-efficacy judgments. Students who experience high levels of anxiety may doubt their ability to succeed in career-related tasks, leading to avoidance and decreased confidence (Pajares, 2002). Conversely, positive emotions, such as excitement and enthusiasm, can enhance self-efficacy by fostering a proactive approach to career challenges (Bandura, 1997). Addressing these emotional factors is vital for creating supportive learning environments that nurture career self-efficacy (Schunk & Pajares, 2009).

The complexity of career self-efficacy highlights the need for multifaceted approaches that consider the unique influences of personal, environmental, and socio-cultural factors. Universities can enhance career self-efficacy by providing diverse opportunities for mastery experiences, facilitating vicarious learning through mentorship programs, and offering emotional support through counseling and career services (Lent & Brown, 2006). Tailored interventions that address specific needs, such as gender-responsive programs and culturally relevant guidance, are essential for supporting all students effectively (Gore et al., 2006). By fostering a supportive and inclusive environment, educational institutions can empower students to navigate their career paths with confidence and resilience, ultimately leading to more informed and successful career decisions (Brown & Lent, 2019).

In conclusion, career self-efficacy is a dynamic construct influenced by various factors that interplay to shape students' career development. Understanding and addressing these factors through targeted interventions can significantly enhance students' career confidence, leading to better career outcomes. The role of educational institutions in this process is critical, as they are uniquely positioned to provide the resources, support, and guidance necessary for students to develop strong career self-efficacy and succeed in their chosen career paths (Garcia et al., 2015; Mahmud et al., 2020). In conclusion, understanding the levels of career self-efficacy among university students and the learning experiences that shape it is crucial. This study aims to answer two key research questions: a) What are the levels of career self-efficacy and learning experiences among university students? b) What is the relationship between learning experiences and career self-efficacy?

METHODOLOGY

RESEARCH DESIGN & SAMPLE OF STUDY

This study was conducted in accordance with the ethical standards of the institutional research committee and adhered to the principles outlined in the 1964 Helsinki Declaration and its subsequent amendments or comparable ethical standards. Ethical approval for the study was obtained from the Ethical Committee of Universiti Sains Malaysia (Approval code: 21030283). A total of 1,344 Malaysian undergraduate students participated in this study (refer Table 1), comprising 75.3% females, with participants' ages ranging from 19 to 26 years (M = 20.75, SD = 1.32 years). The sample included students from all four years of study, with the largest representation from the first two years: Year 1 (n = 490), Year 2 (n = 421), Year 3 (n = 252), and Year 4 (n = 171). Participants were recruited through stratified random sampling from the university's 14 faculties, grouped into science and social science streams. This method ensured balanced representation from each academic stream, enhancing the sample's representativeness (Creswell & Creswell, 2018).

TABLE 1. Demographic Information

Demographic Variables	Frequency (n= 1344)	%
Age		
19	224	16.7
20	441	32.8

21	325	24.2
22	208	15.5
23	106	7.9
24	27	2.0
25	11	0.8
26	2	0.1
Gender		
Male	332	24.7
Female	1012	75.3
Race		
Malay	1082	80.5
Chinese	128	9.5
Indian	54	4.0
Other	80	6.0

INSTRUMENTATION

Data collection included demographic questions (age, gender, ethnicity) and two main measures: the Malay version of the Career Decision Self-Efficacy-Short Form (CDSE-SF) and the Career Exploration and Decision-Making Learning Experiences (CEDLE) scale. The CDSE-SF (Mahmud et al., 2020), a 25-item instrument, evaluates career self-efficacy in five areas: self-appraisal, occupational information, goal selection, planning, and problem-solving, offering a comprehensive view of an individual's confidence in managing their career development. The 20-item CEDLE scale assesses learning experience across five dimensions: personal mastery, verbal persuasion, vicarious learning, positive emotion, and negative emotion (Lent et al., 2017).

DATA ANALYSIS

Data analysis included screening for missing values, with none identified. Descriptive statistics, including means and standard deviations, were calculated for both variables and dimensions. Skewness (−0.63) and kurtosis (1.071) values were within acceptable ranges (Kline, 2011), indicating normal distribution. The normality of the data was further confirmed through the examination of Predicted Probability (P-P) plots and histograms. Means and standard deviations were assessed for both variables and their dimensions. Pearson correlation analyses were conducted to explore the relationships between variables, providing insights into how different sources of learning experiences relate to career self-efficacy.

FINDINGS AND DISCUSSION

Here are the findings of this study:

TABLE 2. Research Findings

Descriptive Statistics		
Variables	**Mean**	**SD**
Learning experience	3.490	0.402
Personal experience	3.310	0.719
Vicarious experience	3.530	0.763
Verbal persuasion	3.776	0.652
Positive emotion	3.686	0.712
Negative emotion	3.1442	0.900
Career self-efficacy	3.72	0.479
Self-appraisal	3.666	0.480
Occupational information	3.743	0.597
Goal selection	3.812	0.557
Planning	3.622	0.652
Problem solving	3.761	0.518

Pearson Correlation Analysis			
Variables	N	*r*	*p*
Learning experience Career self-efficacy	1344	.492	< .001

Table 2 presents the findings of the study addressing the two research questions as below:

a) What are the levels of career self-efficacy and learning experiences among university students?

The mean for career self-efficacy was 3.72 (*SD*= 0.479), suggesting that participants generally viewed themselves as having moderate to high career self-efficacy, with responses showing a slightly wider range compared to learning experiences. Meanwhile, the mean score for learning experiences was 3.49 (*SD*= 0.402), indicating that participants generally reported moderately positive learning experiences. The lower standard deviation of 0.402 suggests that participants' responses were relatively consistent, clustering closely around the mean, indicating a stable perception of their learning experiences.

The overall mean for career self-efficacy was 3.72 (*SD*= 0.479), indicating a generally high level of confidence among participants regarding their career management abilities. Within this domain, goal selection scored the highest (*M*= 3.812, *SD*= 0.557), suggesting that participants felt particularly confident in setting and pursuing career

goals. This is supported by goal-setting theory, which posits that clear, specific goals enhance self-efficacy by providing a roadmap for achievement (Locke & Latham, 2002). Additionally, the high scores for self-appraisal (*M*= 3.666, *SD*= 0.480) and planning (*M*= 3.622, *SD*= 0.652) reflect participants' confidence in evaluating their career-related skills and effectively planning their career paths. These aspects are critical for successful career management, as they enable individuals to make informed decisions and take proactive steps toward achieving their career aspirations (Betz & Hackett, 2006).

The descriptive statistics provide valuable insights into participants' experiences and perceptions of career self-efficacy. The mean score for learning experience was 3.49 (*SD*= 0.402), reflecting a generally positive perception of career-related learning. Among the subdomains, verbal persuasion had the highest mean (*M*= 3.776, *SD*= 0.652), suggesting that participants felt significantly encouraged and supported through positive feedback. This is consistent with Bandura's (1997) self-efficacy theory, which emphasizes the crucial role of verbal persuasion in bolstering individuals' confidence. Positive feedback from mentors, peers, and family members can significantly enhance career self-efficacy by reinforcing one's belief in their capabilities (Schunk & Pajares, 2002).

The high mean for vicarious experience (*M*= 3.530, *SD*= 0.763) indicates that participants frequently observed others as role models, which aligns with the literature on the impact of observational learning on self-efficacy. Research has demonstrated that observing successful peers can provide a powerful source of motivation and self-efficacy by showcasing attainable success (Zimmerman, 2000). In contrast, the mean score for negative emotion was the lowest (*M*= 3.144, *SD*= 0.900), suggesting that while negative emotions like anxiety were less frequent, they still impacted participants' career self-efficacy. This finding supports previous research highlighting that negative emotional states can undermine confidence and hinder career decision-making (Pajares, 2002; Lent et al., 2000). Effective career interventions should thus include strategies for managing anxiety and other negative emotions to support overall self-efficacy.

Overall, the findings suggest that participants generally possess a positive outlook on their career experiences and self-efficacy, with significant confidence in goal-setting and self-appraisal. However, the presence of negative emotions highlights the need for targeted interventions to address emotional barriers. Providing supportive feedback, role models, and strategies for managing anxiety can enhance career self-efficacy and improve career decision-making (Brown & Lent, 2019; Schunk & Pajares, 2002). These insights underline the importance of creating a supportive educational environment that fosters positive career experiences and builds robust career self-efficacy, ultimately facilitating more effective career development and decision-making among students.

b) What is the relationship between learning experiences and career self-efficacy?

The Pearson correlation was conducted to assess the relationship between learning experience and career self-efficacy among the participants (*n*= 1344). The analysis revealed a significant positive correlation between learning experience and career self-efficacy, $r = .492$, $p < .001$. The study's findings highlighting the crucial impact that learning experiences have on enhancing students' confidence in their career capabilities. This result underscores the role of career self-efficacy as a pivotal determinant of career outcomes, as individuals with higher self-efficacy are more likely to engage in effective career decision-making and exhibit greater persistence in their career pursuits (Komarraju et al., 2014; Sidiropoulou-Dimakakou et al., 2012).

Career self-efficacy, defined as an individual's belief in their ability to successfully execute career-related tasks, is closely linked to employment outcomes and overall career satisfaction (Pearlman-Avnion & Aloni, 2016). The SCCT developed by Lent et al. (1994), provides a robust framework for understanding how learning experiences, personal attributes, and environmental factors interact to shape career self-efficacy. According to SCCT, the four primary sources of self-efficacy—personal experiences, vicarious learning, verbal persuasion, and emotional arousal—play a significant role in influencing career decisions and actions (Lent et al., 2017).

The study's finding of a moderate but significant correlation between learning experiences and career self-efficacy is consistent with SCCT. Bandura (1986) emphasizes that personal experiences, particularly those involving successful performance and constructive feedback, are fundamental to building self-efficacy. Experiential learning opportunities such as internships, apprenticeships, and project-based activities provide tangible evidence of one's abilities, thereby bolstering career self-efficacy (Brown & Lent, 2019; Mahmud et al., 2020). These opportunities validate students' skills and knowledge in real-world contexts, reinforcing their confidence in their career capabilities.

Moreover, the positive relationship between learning experiences and career self-efficacy aligns with SCCT's assertion that successful learning experiences enhance self-efficacy by providing proof of competence (Lent et al., 1994). Students who engage in hands-on learning often report increased confidence in their career abilities due to

the practical evidence of their skills. This highlights the importance of integrating experiential learning opportunities into educational programs to support students' career development effectively (Mahmud et al., 2020).

In addition to learning experiences, other sources of self-efficacy such as verbal persuasion and emotional arousal are also critical. Verbal encouragement from mentors, peers, and career advisors can positively influence students' beliefs in their career capabilities (Schunk & Meece, 2006). Emotional states, including both positive and negative emotions, also affect self-efficacy by shaping how individuals perceive their abilities (Bandura, 1986). Positive emotions and a supportive learning environment can enhance career self-efficacy, while negative experiences or stress may undermine it (Lent et al., 2017).

The study also underscores the need for tailored interventions to support students who may face unique challenges in career self-efficacy, particularly in areas like planning and decision-making (Chen et al., 2016; Demetriou et al., 2019). Providing targeted support, such as specialized career counseling and practical learning experiences, is essential for addressing these challenges and enhancing career self-efficacy among this group (Sarrett, 2018; Mahmud et al., 2022).

CONCLUSION

In conclusion, this study underscores the pivotal role of learning experiences in shaping career self-efficacy among undergraduate students. The positive relationship between learning experiences and career self-efficacy highlights the importance of integrating practical, hands-on opportunities into educational programs. Such experiences provide tangible evidence of competence, significantly enhancing students' confidence in their career abilities. The findings align with Social Cognitive Career Theory, which emphasizes the influence of personal experiences, verbal persuasion, and emotional arousal on career self-efficacy. Overall, universities play a critical role in fostering career self-efficacy by offering diverse learning experiences and personalized support. By focusing on these areas, institutions can better prepare students for successful career paths and contribute to more equitable employment outcomes across diverse populations.

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