



## EARLY VIEW

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# THE IMPACT OF YOUTH LEADERSHIP PROGRAM ON PERCEIVED EMPLOYABILITY SKILLS: EVIDENCE FROM BRUNEI DARUSSALAM

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## ABSTRACT

*Youth leadership programs foster skills development in youth which are pivotal for gaining successful careers and being more employable throughout their career. Given the concerning youth unemployment issues in Brunei, the study aims to highlight the importance of youth leadership programs and examine their influence on perceived employability skills. By utilising structural equation modeling to analyse the survey data gathered from 229 samples of participants from youth leadership programs, it was revealed that the impact of learning involving skills-based and attitudinal outcomes has significant positive relationships with perceived employability skills. The results further confirmed the role of behavioral outcomes as a mediating variable in the relationship between learning and perceived employability skills. Findings from this study can be valuable for program designers, practitioners, and stakeholders in contributing to the process of structuring and making ongoing improvements to these programs to align with the essential employability skills. It also offers youth the foundation to be employable in the 21st-century job market, by highlighting the importance of youth leadership programs as a channel through which youth acquire desirable capabilities necessary for attaining a set of attributes that reflect the employability skills sought by employees in the current competitive job market. Therefore, the study can be a starting point in moving forward to mitigate the unemployment issues in Brunei through improving programs to meet the demand of employers concerning employability skills. The study provides notable contributions to the existing body of literature on youth leadership development in Brunei as well as contributing to a few other studies in the Asian region to demonstrate the impact of youth leadership programs on employability skills perceptions.*

**Keywords:** youth leadership program, skills development, employability skills, Brunei Darussalam

## INTRODUCTION

With a dynamically intriguing workforce, employers of today demand candidates who possess a wide range of skills and have the ability to apply these skills to their work environment (Bisschoff & Massyn, 2023). These candidates serve to facilitate the organisation in maximising its performance and gaining competitive advantage over their rivals (Salman et al., 2020). In addition to academic skills and personal qualities, the possessions of employability skills among the candidates ultimately spike the interest of many employers (Martínez-Argüelles et al., 2023) Employability skills refers to a mixture of skills, knowledge, and attitudes that can be transferred and applied to the workplace settings that are essential for meeting the requirement of an occupation, enhancing a candidate's potential to be hired and contributing to the success of one's career (Martínez-Argüelles et al., 2023; Alam et al., 2022; Cui et al., 2022).

Such employability skills include the ability to cope with uncertainty and changes, as well as, make timely decisions, solve problems, and work collaboratively with others (Martínez-Argüelles et al., 2023). These skills are believed to be prominent in bolstering organisation's productivity, efficiency, and innovation (Smaldone et al., 2022). In fact, a competent and knowledgeable workforce is the key to surviving in a *cut-throat* competition (Sisodia & Agarwal, 2017). However, the problem lies among the youth who display a lack of skills, where they are unable to meet the level of requirements needed for a job (Ahmad Tajuddin et al., 2022).

Being involved in leadership development programs facilitates the refinement of skills, knowledge, attitudes, and behavior, paramount for youths to gain better competencies for employability (Adriaensen et al., 2019; Cui et al., 2022; Reyes et al., 2019). The participation of youth in leadership programs not only strengthens their probability to perform well and be more employable in job markets, but also better prepares them for the workforce (Priyadarshini et al., 2019; Cui et al., 2022). However, there is still a lack of empirical work to explore the influence of such youth leadership training programs on the competence of youth (Kuranchie & Affum, 2021); and there is an overlook in the investigation of the impacts on the ability of youth participants to apply skills into real life settings gained by attending such programs (Jacobs & Wright, 2017; Sasson & Miedijensky, 2023). While several attempts have been pursued to examine the impact of training programs in the form of learning, most of these studies put heavy emphasis on reporting skills and/or knowledge outcomes rather than attitudinal outcomes (Crow & Whiteman, 2016), even though the three outcomes strongly complement each other in the evaluation of training effectiveness (Hughes et al., 2016).

Given the uncertain workplace environment and the concerning unemployment issues, Musa and Idris (2020) further argued that, even if there are a considerable number of vacancies available in the job market, youths are deficient about the crucial employability skills needed of them to enter the market, and this includes Brunei Darussalam. In the context of Brunei, youth unemployment issues continue to become a concern. While the overall national unemployment rate remains relatively high compared to other members of the ASEAN countries (IMF, 2022), Brunei's youth unemployment rate persists at an elevated state from 16.3% in 2021 to 18.0% in 2022 (Department of Economic Planning and Statistics, 2023). Approximately 4,584 youths within the age group of 15 to 24 years old are unable to secure jobs in 2022 out of 11,445 of the total unemployed population. Among these populations, a staggering 94.4% were unemployed locals of the age 18 years old and above (Department of Economic Planning and Statistics, 2023). The presence of skills and qualifications mismatch, according to CSPS (2021), is one of the key aspects affecting Bruneian's employability, especially in the private sectors. Therefore, investigating the role of youth leadership programs in the acquisition of employability skills would be meaningful, particularly for the youth generation to better prepare them for the workforce.

Accordingly, the study focuses on examining the learning impact of youth leadership programs with respect to knowledge-based outcomes, skill-based outcomes, and attitudinal outcomes on perceived employability skills in the context of Brunei Darussalam. It also explores the potential mediating role of behavioral outcomes on the learning-perceived employability skills relationship and the moderating role of self-esteem on the behavioral-

perceived employability skills relationship. Thus, this study builds upon the existing literature on employability by recognising the role of youth leadership programs as the driver of employability skills development among youths.

Given that leadership development acts as the key enabler of the essential skills needed in the workforce, investing in youth leadership programs could be an elemental focus for youths to excel in their career. Practically, the empirical evidence on how these programs are positively influencing employability skills would be valuable for training providers and educators in the leadership development domain to refine the existing practices embedded in their programs. The study provides useful information to human resources regarding the merits of these programs in terms of employability skills development since such development is known to affect the employees and organisational aspects positively (Garst et al., 2019).

## **LITERATURE REVIEW**

### **Outcomes of the Youth Leadership Program**

Developing leadership skills produces positive impacts on youth in terms of skills enhancement related to problem-solving, communication, confidence, and goal setting (Lawrence et al., 2018; Garst et al., 2019), which are critical for securing and retaining employment (Nägele & Stalder, 2017). Past literature suggests that a leadership training program is an effective platform that can stimulate cognitive, affective, and skill-based outcomes (Lacerenza et al., 2017) as well as employment prospects and work-related attributes (Reyes et al., 2019; Garst et al., 2019). The learning experience that individuals acquire from such programs enriches their understanding of leadership concepts, improves their aptitude to communicate with others, and promotes other attitudinal outcomes such as enhanced self-esteem and confidence (Garst et al., 2019; Roberts et al., 2019).

Furthermore, leadership programs drive the attainment of promising behavioral outcomes among youth. It strengthens youth's ability to transfer the knowledge, skills, and attitudes gained into everyday life, bringing light to their professional lives, their organisations, and their communities (Reyes et al., 2019; Garst et al., 2019). Behavioral outcomes are the ensuing impact of learning acquired from a program. When the learning is gained and applied on the job, the program is said to be effective in nurturing participants' ability to manage job demands and their work performance (Hughes et al., 2016). As such, they are sometimes being used interchangeably with the process of training transfer, whereby it accounts for the application of the new knowledge and abilities obtained from the program into work settings (Day et al., 2021).

### **Self-Esteem**

In Maslow's (1943) Hierarchy of Needs model, it is presumed that one can realise their own personal potential provided that their esteem needs are attained. Akoul et al. (2020) recognised self-esteem as the judgment of an individual based on his or her personal competence as well as their possession of personal characteristics in relation to positive or negative values depending on the culture. Individuals with high self-esteem tend to believe that they are more competent and capable of achieving better performance on their tasks, compared to those with low self-esteem (Rebellow & Patra, 2017; Liu et al., 2019). While youth typically enhance their self-esteem levels when they engage in leadership programs

(Roberts et al., 2019), these individuals with high self-esteem are apt to go after the challenges that serve to improve their personal development and work activities (Liu et al., 2019). This, in turn, influences their academic performance, leadership qualities, life skills, and employability attributes (Jacob & Ravindranadan, 2018).

## **Employability Skills**

Employability skills represent a mixture of skills, knowledge, and attitudes that can be transferred and applied to the workplace settings. Furthermore, those skills are fundamental for meeting the occupational requirement (Suleman, 2018) and are conducive to the success of one's career (Garst et al., 2019). The possession of these employability skills is seen highly valuable by employers as it assists in enhancing one's job performance and improves the ability of their organisations to cope with the changes in a workplace environment (Chan et al., 2018; Brewer, 2013). Such skills, including problem-solving, decision-making, communication, and interpersonal skills are crucial in nurturing organisation's earnings, mobility, and team success (Abas & Imam, 2016; Sisodia & Agarwal., 2017). In Brunei, the employment report indicated that employers greatly valued individuals who have good communication skills and good personality traits including being positive and demonstrating a good attitude (JobsBrunei, n.d.). These employers are interested in candidates who are able to display traits associated with high levels of honesty, ambition, confidence, full of curiosity, eagerness to learn, and responsible for their own tasks. In addition, the empirical study of Hoh et al. (2020) corroborated that employers in Brunei tend to recruit youth candidates based on the competencies that they value the most. Such competencies include abilities in communication, problem-solving, commitment, self-confidence, leadership skills, and time management. These employers place high importance on skills associated with listening, oral communication, learning, interpersonal ability, and personal strengths (Hisa & Mohiddin, 2020). On the other hand, a recent study (Musa & Idris, 2020) finds that Brunei employers asserted youth seemed to be lacking drive and awareness of the significance of leadership that is considered prevalent in their employability; they demand youth who have high self-awareness and are passionate about improving their leadership capacity. This implies that a greater focus on developing true leaders among prospective youth employees is, therefore, important.

## **Skills Development**

### **Theoretical foundation**

The foundation of this study proposes linkages among learning outcomes (Figure 1), where behavioral outcomes of youth leadership programs and perceived employability skills can be explicated by drawing on Dekeyser's (2007) skills acquisition theory. Literature on skill acquisition often projects toward the fact that one can acquire and develop skills through learning, particularly when they obtain the necessary knowledge resources needed to perform the skills and use that information to proceed with the application through practice (Romiszowski, 2009). Dekeyser's (2007) Skills Acquisition Theory addresses how acquiring skills can be considered as part of a learning process. He claimed that skills acquisition is similar to development, where knowledge of the skills is essential to be acquired first for observing changes in behavior towards highly skilled behavior and this corresponds similarly to the youth leadership program context, where youth goes through the learning process throughout their participation in the leadership program. This enables them to apply the

learning into practice, leading to the acquisition and development of a number of skills. These skills are perceived to have a major value to employability.

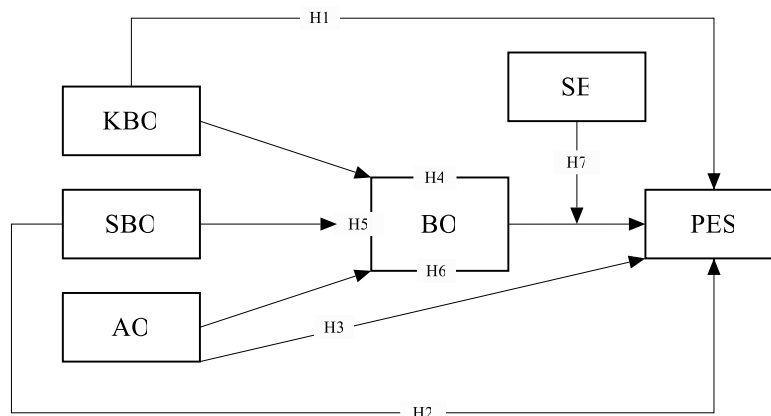


Figure 1. The research framework

Note: KBO represents knowledge-based outcomes, SBO represents skills-based outcomes, AO represents attitudinal outcomes, BO represents behavioral outcomes, SE represents self-esteem, and PES represents perceived employability skills.

## Learning Outcomes and Perceived Employability Skills

Youths who participate in leadership programs experience an intensification of their knowledge, skills, and abilities that are prominent to prepare them for their entrance to adulthood and workplace settings (Reyes et al., 2019; Karagianni & Montgomery, 2018). Scholars argued that exposure to such skills development contributes to individuals' self-growth and progress, ultimately benefiting their employability, including their acquisition of key employability skills (Jackson & Bridgstock, 2021; Priyadarshini et al., 2019). Capabilities developed may include but are not limited to, communication skills, confidence, ability to lead, self-esteem, goal setting, and teamwork (Garst et al., 2019; Roberts et al., 2019) which are critical for securing and retaining employment in the job market (Teng et al., 2020; Chow et al., 2019).

Few researchers have discussed how the learning process of development programs is essential for attaining better employability competencies (Adriaensen et al., 2019; Jackson & Bridgstock, 2021). Supporting this notion, knowledge acquisition was claimed to be positively associated with youths' competence development crucial for real-world settings (Hernandez-Lopez et al., 2016). Individuals who engage in the learning process embedded in the development, training, and curriculum activities are likely to facilitate employability skills acquisition (Salape & Cuevas, 2020; Teng et al., 2019). Recent studies highlighted the significant predictive role of skills and attitudinal elements in determining workplace competence and outcomes (Calero López & Rodríguez-López, 2020; Omar et al., 2020; Tang et al., 2020; Chow et al., 2019; Al Mamun et al., 2019; Teng et al., 2019). Collectively, the study considers learning outcomes of youth leadership programs in the form of knowledge-based outcomes (KBO), skill-based outcomes (SBO), and attitudinal outcomes (AO) that can potentially affect youths' perceptions of employability skills (PES).

- H1: KBO is positively associated with PES.
- H2: SBO is positively associated with PES.
- H3: AO is positively associated with PES.

## **The Role of Behavioral Outcomes**

Behavioral outcomes (BO) call for changes in job-related behavior or performance resulting from learning activities. In prior training evaluation studies, learning outcomes have been identified as the precursor of behavioral (transfer) outcomes. For example, Hughes et al. (2016) revealed that affective, cognitive, and skill-based outcomes of learning, positively influence training transfer. While Benziane and Houcine (2021) revealed that trainee learning of skills and knowledge positively influences behavioral outcomes, the recent work of Tafvelin et al. (2021) suggested a significant relationship between trainee learning in terms of changed attitude, and training transfer.

The individuals' involvement in learning activities that provided them the space to experiment with what had been learned, brings about behavioral changes toward their work (Ibrahim et al., 2017). Consequently, they tend to get motivated and strive to do better in their jobs. This, in turn, enhances their competencies (Misbah et al., 2022), leading to their acquisition of skills necessary for employability (Nägele & Stalder, 2017). Indeed, training that entails changing skills, knowledge, attitudes, or behavior of individuals has been found to influence work performance in terms of their adaptability, proficiency, and proactivity (Ibrahim et al., 2017), which are pertinent to employability. Such programs that embed active and experiential learning techniques, as in youth leadership program (Pierce et al., 2018) deepens the sense of belief among participants that their changes in job-related behaviors can foster their employability skills competencies (Adriaensen et al., 2019).

Aligned with this, studies on the impact of training transfer show a significant influence on favorable work outcomes, including enhancement in work-related attributes (Hughes et al., 2016). Interventions that enable the application of knowledge and skills into work settings have been found to benefit youth employability skills acquisition (Kamaliah et al., 2018). Several researchers further confirmed the significant association between behavior and perceived employability (Chow et al., 2019; Stoffers et al., 2020). Borrowing the work of Ibrahim et al. (2017), the learning outcomes from similar programs help youth develop positive behavioral changes toward their job that will likely increase their proficiency at work. In reference to these empirical findings and Dekeyser's Skills Acquisition Theory, learning outcomes are expected to promote behavioral changes; and behavioral changes are expected to increase perceived employability skills. Thus, it is hypothesised that BO would mediate the effect of learning outcomes in terms of KBO, SBO, and AO, on PES.

H4: BO mediates the relationship between KBO and PES.

H5: BO mediates the relationship between SBO and PES.

H6: BO mediates the relationship between AO and PES.

## **The Role of Self-Esteem**

In the youth leadership development context, self-esteem (SE) is viewed as one of the gains of leadership programs (Karagianni & Montgomery, 2018). Youth who are exposed to leadership training opportunities, with sustained involvement in leading activities, are likely to attain greater confidence and self-esteem (Garst et al., 2019; Roberts et al., 2019). A supportive learning environment, such as a youth leadership program, can be a foundation for the development of SE (Zhao et al., 2021).

The study argues that SE may exert a moderating effect on the relationship between BO and PES. As in the previous discussion, BO is expected to increase PES and several attempts have been made to relate behavioral (transfer) outcomes with employability (Chow et al., 2019; Stoffers et al., 2020) and work-related skills (Hughes et al., 2016). Given this idea, the study suggests that the presence of SE would improve the strength of this relationship. This is because according to Maslow's Hierarchy of Needs model, SE fosters the feeling of desire to fulfill own potential, resulting in positive perceptions. It expands the drive for individuals to do better as they develop a greater sense of their own ability, feeling more confident and competent (Hyseni Duraku & Hoxha, 2018; Hamzah et al., 2021). Thus, it is likely that they have higher employability-related perceptions than the low self-esteem individuals.

Accordingly, Khampirat (2021) discussed how SE is strongly related to competencies. While recent studies on the concept of SE have further suggested that SE positively relates to perceived employability (Kertechian et al., 2023) and employability attributes (Hamzah et al., 2021), some empirical works have dictated how it significantly affects students' career outcomes and desirable organisational aspects (Liao, 2019; Hamzah et al., 2021). To date, no previous studies have directly examined the moderating role of SE on the relationship between BO and PES. In practice, however, the two constructs: SE and BO are expected to have the same predictions with regard to PES, hence the following hypothesis is raised:

H7: SE moderates the relationship between BO and PES.

## **METHODOLOGY**

### **Research Design**

The research methodology sought to determine the impact of the youth leadership program on perceived employability skills in Brunei, from which data were gathered after the subjects had been exposed to the program. The study fits the ex-post facto experimental design which aims to investigate the cause-and-effect relationships by performing the study after the occurrence of the changes in the dependent variable, with the absence of manipulative control on the independent variable (Thomas, 2021). The study followed a quantitative survey research strategy to confirm and deduce the hypotheses to explain how a change in the independent variable; the learning outcomes of youth leadership program affects the dependent variable; PES, directly or indirectly through BO as the mediating variable, and SE as the moderating variable. Such a strategy involves collecting and evaluating numerical data to test hypotheses concerning the characteristics of human behavior (Thomas, 2021). In order to meet the requirement of data analysis for hypothesis testing, a cross-sectional design was applied as it enables the collection of data, involving different variables, from large samples at one point in time (Thomas, 2021).

### **Research Instrument**

A survey questionnaire acts as the main research instrument of the study. The questionnaire was developed based on the available literature to examine the studied variables with the application of Likert scale measurements. It intends to collect information on youths' personal information and background; as well as assess the outcomes of youth leadership programs, in terms of self-esteem, and their employability skills perceptions following their involvement in the program. The measurement scales were adapted from existing literature



and were well-established for reliability and validity. Specifically, after an in-depth literature review, a panel of experts who were authorities in the area of study was set up to account for content validity. Slight refinements to the survey were made based on the feedback received. A reliability test was also conducted using Cronbach's coefficient, indicating adequate internal consistency among the constructs (Taber, 2018). The complete research instrument is included in the Appendix.

## Measures

### Learning and behavioral outcomes

The outcomes of the youth leadership program were assessed by a five-point Likert scale ranging from 1 to 5 indicating 1 as strongly disagree and 5 as strongly agree. The measures were extracted from Xiao (1996), Kirkpatrick and Kirkpatrick (2006); Narayan and Steele-Johnson (2007); Velada et al. (2007); Young et al. (2008); Chen et al. (2009) and; Leach and Liu (2003).

*Knowledge-based outcomes (KBO)* refers to the knowledge gained from the youth participating in the youth leadership program. Five items were used to measure KBO and a sample item includes "I remember most of the knowledge learned in this program." The reliability of the scale computed using Cronbach's alpha was 0.87.

*Skills-based outcomes (SBO)* refer to the enhancement of skills from the youth following their participation in the youth leadership program. SBO was examined using six items and an example of the item: "I learned how to exert my skills throughout the program activity." The alpha coefficient of the scale was 0.86.

*Attitudinal outcomes (AO)* refer to the change in attitude of the youth after participating in the youth leadership program. Five items were used to measure AO and a sample item includes: "I was motivated to use the information obtained from the program to my work and tasks." Cronbach's alpha was 0.90.

*Behavioral outcomes (BO)* refer to the degree to which youths exhibit a change in behavior throughout their experience in the youth leadership program, in the sense that the learning gained is being applied to the work environment. Six items were used to assess BO and a sample item includes: "I can accomplish my work/tasks faster than before participating in the program." The reliability of the scale was 0.87 in terms of Cronbach's alpha.

### Self-esteem

Self-esteem (SE) refers to the beliefs and perceptions that youth hold regarding the values, expectations, and qualities that they possess. Ten items were used to measure SE, adopted from Rosenberg (1965). The measures have been extensively utilised in various studies (Serafin et al., 2022; Ratanasiripong et al., 2022). An example of the item: "On the whole, I am satisfied with myself", and similarly, a five-point Likert scale was applied (1 = strongly disagree to 5 = strongly agree). Cronbach's alpha was found to be 0.88.

## **Perceived employability skills**

Perceived employability skills (PES) refer to the perceptions of youth on their competence level in performing a number of key employability skills. A four-point Likert scale was selected to assess PES (0=not competent, 1=least competent, 2=average competent, and 3=most competent). The measures encompass a total of 24 skills, adapted and adopted from Singh and Singh, (2008); Robinson (2006), and Brewer (2013) which are aligned with the recent studies in Brunei contexts (Hisa & Mohiddin, 2019; Hoh et al., 2020; JobsBrunei, n.d.). These skills are represented by four dimensions as a result of factor analysis and parceling, consistent with the study of Berdrow and Evers (2011). Specifically, PES1 denotes Communicating, PES2 denotes Managing Self, PES3 denotes Managing People and Tasks, and PES4 denotes Mobilizing, Innovation, and Change. Sample items include: “conveying information one-to-one”, “identifying problems,” and “making decisions in a short time period.” The scale was tested for reliability, where Cronbach’s alpha score was equivalent to 0.78.

## **Sampling Technique**

Convenience sampling is used as the main sampling technique of the study. This is because acquiring the complete list of youths who took part in youth leadership programs in Brunei is highly challenging. This is due to the personal details of participants being kept confidential by program organisers, and there were also instances where track records of the participants were missing. Hence, convenience sampling is favored as the data is more accessible to the researcher and the willingness to participate in the study can be achieved at ease, increasing the chance of obtaining a good response rate.

## **Population and Sample Size**

The study targeted samples from Bruneian youth, which have been defined as young men and women aged between 15 and 40 years old (Ministry of Culture, Youth, and Sports, 2002). The study population comprises of youths who participated in among the nine youth leadership programs in Brunei organised by local organisations between 2018 and 2019. The participants voluntarily express their interest in taking part in such programs, requiring them to personally register and pay the fees. These fees cover the program expenses including accommodation, refreshments, and transportation.

These programs are consistent with their objectives to develop leadership skills and knowledge among the youth participants by exposing them to experiential learning activities and highlighting their important roles as leaders in their community. All of the programs were designed to actively involve the youth in an array of experiences and facilitate them in learning from those experiences, providing them with platforms to acquire and actively practice new skills. The programs were all carried out in a hall and in an open natural environment, ranging from three to five consecutive days, allowing them to absorb leadership-related knowledge and simultaneously engage in various hands-on activities. The knowledge taught enriches youths’ understanding of the leadership concept and what it needs to be a leader. Additionally, the activities and challenges, both physical and mental, replicate real-life settings, assisting youths in developing the skills needed for effective leadership which includes, but not limited to, teamwork, time management, goal setting, public speaking, and decision-making. Throughout the program, youth are provided with opportunities to interact with mentors where they share their years of experience and

expertise, boosting confidence and motivation among youths to be better leaders. Furthermore, youth are expected to generate a better understanding of themselves since they are given the time to reflect on their own abilities, talents and values across the program activities. Although the duration, activities, and objectives are consistent, some of the surveyed leadership programs have integrated spiritual components within their content to emphasise the value of hope and faith in leadership, whereas other programs have focused on environmental and sustainable responsibilities as well as entrepreneurship aspects of leadership practices.

While there is no uniformity in consensus on the sample size needed for factor analysis and structural modeling, Rezaei et al. (2022) argue that it remains critical to ascertain the minimum required sample size for the study. Several researchers suggested that a minimum sample size of 200 is appropriate (Kline, 2023). However, a sample size of at least 100 is necessary for assessing models with three predictor variables (Ismail et al., 2022). Following Ismail et al. (2022), a priori power analysis was conducted through a sample size calculator in G\*power version 3.1.9.2. Consequently, the minimum sample size required for the study was estimated to be 138.

Given these guidelines, the study sought to go beyond these sample size thresholds to enhance the strength and reliability of the findings. Subsequent to this, a targeted set of 580 participants of youth leadership programs were designated as the potential respondents; 229 usable responses were received, producing a 39.5% response rate. This has met the sample size adequacy in order to pursue multiple regression analysis and test the hypotheses.

### **Data Collection Procedure**

As the present study involved data collection among human participants, ethical guidelines by Universiti Teknologi Brunei (UTB) Research Ethics Policy and Procedures were obeyed throughout the execution of the research. Consequently, a consent cover letter was appended to the research instrument to account for the ethical treatment of the participants.

Prior to administrating the questionnaire, a pilot test was conducted to ensure the practicability of the instrument for the main study. In this case, the ambiguities in the questions are identified and removed to enhance the instrument, maximising its likelihood of succeeding in accomplishing the study (Memon et al., 2017). While there were no changes made to the constructs' measures, minor alterations were applied to the original instrument, particularly in the instructions of the questionnaire, as well as some grammatical mistakes.

The main data collection took place between July and September 2020. Based on the 229 collected data, 33.2% of the participants were male and 66.8% were female. The majority of the respondents (79.0%) were between 15 and 25 years of age; 38.9% were university students whereas 60.3% of the respondents had participated in youth leadership programs between 1 and 3 years ago. The demographic information of the respondents is displayed in Table 1.

Table 1  
Demographic information of the respondents

Demographic profile		Frequency	Percentage
Gender	Female	153	66.8
	Male	76	33.2
Age	35 – 40 years old	4	1.7
	25 – 35 years old	44	19.2
	15 – 25 years old	181	79.0
Nationality	Bruneian	228	99.6
	Other	1	0.4
Profession	Work in government sector	2	0.9
	Work in private sector	16	7.0
	University student	89	38.9
	Unemployed	3	1.3
	Other	119	52.0
Time of participation	Less than 6 months ago	6	2.6
	6 months – 1 year ago	85	37.1
	1 – 3 years ago	138	60.3

## Data Analysis

The collected data were analysed using SPSS v25 and AMOS v23. Firstly, the reliability, construct validity, and model fit of the measurement model were evaluated to ensure its adequacy through CFA. Once these criteria have been satisfied, structural equation modeling is pursued to verify the proposed hypotheses. In this essence, the analysis involved the application of multiple linear regressions and PROCESS macro to assess direct, mediation, and moderation effects.

Before the main analysis, the study ensures the assumptions of multivariate normality and multicollinearity are met. The study detects normality violations using skewness and kurtosis; whereby all of the variables included in SEM attained skewness values within  $\pm 2$  and kurtosis values within  $\pm 3$ . This is indicative of acceptable normality (Rezaei et al., 2023; Kline, 2023). Additionally, the violation of multicollinearity was assessed using the variance inflation factor (VIF). All the predictor variables achieved VIF scores ranging from 1.14 to 1.94, which met the acceptable threshold of 10. Hence, there is no violation of multicollinearity (Kline, 2023), establishing the appropriateness of regression in the study.

## RESULTS

### Common Method Bias

Since the study adopted a cross-sectional, single-source survey to examine predictor and criterion variables, the presence of common method bias in the dataset may threaten the accuracy of the estimates (Kock et al., 2021). For this reason, Harman's single-factor test was performed to detect such potential bias through exploratory factor analysis. When all six variables were loaded into an unrotated exploratory factor analysis with the principal component approach, it was discovered that this factor explained 31% of the variance. Additionally, the one-factor model exhibited insufficient model-data-fit indices (RMSEA = 0.147, GFI = 0.481, CFI = 0.437, NFI = 0.396, TLI = 0.396). This provides evidence that

common method bias is not likely to influence or distort the findings since the factor captured less than 50% of the variance in the data with poor model fit (Kock et al., 2021).

### Measurement Model Results

CFA was performed on the measurement model of the study to ensure all scales were validated prior to hypothesis testing (Kline, 2023). As a result, the goodness of fit was found to be adequate:  $\chi^2(n = 229) = 566.82$ ,  $p < 0.001$ ,  $\chi^2/df = 2.00$ , GFI = 0.84, AGFI = 0.80, RMSEA = 0.07, SRMR = 0.07, CFI = 0.92, NFI = 0.86, TLI = 0.91. All scales have met the acceptable Cronbach's alpha threshold of 0.7 (Taber, 2018) and satisfactory composite reliabilities (CR) ranging from 0.63 to 0.86, meeting the threshold of 0.6 (Hair et al. 2019). In Table 2, the convergent validity (AVE) of all constructs exceeds the minimum cut-off of 0.5, except PES. However, Fornell and Larcker (1981) suggested that the convergent validity of a construct can still meet the criteria of adequacy even if its AVE is below 0.5, provided that its CR goes beyond 0.6. Since the CR value of PES (0.63) met the acceptable limit, the lower-than-acceptable AVE can be disregarded (Fornell & Larcker, 1981; Heidari et al., 2021). In Table 3, the discriminant validity was also evident as the square root of AVE is larger than the correlation for every construct, meeting the acceptable criteria suggested by Fornell & Larcker (1981).

Table 2  
*Measurement model results*

Construct	Items	Factor loadings range	Cronbach's alpha	CR	AVE
KBO	K2, K3, K4, K5_r	0.644 – 0.886	0.85	0.79	0.61
SBO	S2, S3, S4, S5	0.769 – 0.834	0.88	0.82	0.64
AO	A1, A2, A3, A4, A5	0.639 – 0.929	0.90	0.84	0.63
BO	B1, B2, B5, B6	0.637 – 0.862	0.87	0.82	0.64
SE	SE1_r, SE3_r, SE5_r, SE8_r, SE9_r,	0.710 – 0.916	0.90	0.86	0.65
PES	PES1, PES2, PES3, PES4	0.647 – 0.728	0.78	0.63	0.47

Note: KBO = Knowledge-based Outcomes; SBO = Skills-based Outcomes; AO = Attitudinal Outcomes; BO = Behavioral Outcomes; SE = Self-esteem; PES = Perceived Employability Skills.

Table 3  
*Measurement model's discriminant validity results*

Construct	KBO	SBO	AO	BO	SE	PES
KBO	<b>0.779</b>					
SBO	0.401	<b>0.801</b>				
AO	0.411	0.625	<b>0.793</b>			
BO	0.394	0.556	0.637	<b>0.799</b>		
SE	0.296	0.267	0.134	0.266	<b>0.807</b>	
PES	0.350	0.555	0.475	0.501	0.404	<b>0.688</b>

Note: The topmost diagonal values represent the square root of AVE (in bold). Off-diagonal values are the correlation coefficients of the constructs.

KBO = Knowledge-based Outcomes; SBO = Skills-based Outcomes; AO = Attitudinal Outcomes; BO = Behavioral Outcomes; SE = Self-esteem; PES = Perceived Employability Skills.

## Structural Model Results

After the CFA on the measurement model is completed, the next procedure is to evaluate the structural model for hypotheses testing. In this case, the squared multiple correlations ( $R^2$ ) which account for the amount of variance in the outcome variable as explained by the predictor variables, were evaluated. According to Falk and Miller (1992), an  $R^2$  value of 0.10 is considered statistically viable. When assessing  $R^2$  values, Hair et al. (2019) pointed out that an  $R^2$  of 0.75 can be regarded as substantial, while 0.50 and 0.25 indicate moderate and weak levels of association respectively.

## Direct Effect Results

In determining how learning has impacted PES, three relationships (H1, H2, H3) were examined through multiple linear regressions. The analysis showed that the independent variables exhibited an  $R^2$  of 0.25 in predicting PES, implying that  $R^2$  met the cut-off value (0.10), Hence, the predictive accuracy of the model is deemed acceptable and is therefore established (Hair et al., 2019). As in Table 4, the path between KBO and PES was not significant ( $\beta = 0.088$ ,  $p > 0.05$ , [-0.023, 0.129]), thereby rejecting H1. The second hypothesis about the positive direct relationship between SBO and PES was significant ( $\beta = 0.304$ ,  $p < 0.001$ , [0.087, 0.246]). It is also noted that AO is statistically related to PES ( $\beta = 0.199$ ,  $p < 0.05$ , [0.030, 0.200]), which supports H3.

Table 4  
Direct effect results

Effects	Unstd $\beta$	Std $\beta$	S.E	t-value	P	Confidence Interval		Conclusion
						Lower	Upper	
H1 KBO→PES	0.053	0.088	0.039	1.363	NS	-0.023	0.129	Not supported
H2 SBO→PES	0.166	0.304	0.040	4.117	***	0.087	0.246	Supported
H3 AO→PES	0.115	0.199	0.043	2.656	0.008	0.030	0.200	Supported

Note: KBO = Knowledge-based Outcomes; SBO = Skills-based Outcomes; AO = Attitudinal Outcomes; PES = Perceived Employability Skills.

Unstd = unstandardized; Std = Standardised;  $\beta$  = Path Estimates; S.E.= Standard Error; P = p-value;

\*\*\*= $p < 0.001$ ; NS = not significant.

## Mediating Role of Behavioral Outcomes

Table 4 provides the resulting statistics involving the total, direct, and indirect effects of the mediation analysis of BO on learning and PES. The assessment of mediation was performed using SPSS PROCESS macro (Hayes, 2022). In this case, bootstrapping techniques of 2000 samples and 95% bias-corrected confidence intervals were used; a significant path is confirmed when the confidence intervals do not cut the zero value (Hair et al., 2019).

Upon analysis, the  $R^2$  values for the hypothesised models were 0.21, 0.27, and 0.23 for H4, H5, and H6 respectively, suggesting satisfactory predictive accuracy (Hair et al., 2019). The analysis showed that all the indirect effects of BO in the relationship between KBO and PES ( $\beta = 0.089$ , [0.053, 0.130]), and SBO and PES ( $\beta = 0.077$ , [0.037, 0.122]) were significant. The indirect effect of BO in the AO-PES linkage was also significant and positive ( $\beta = 0.090$ ,  $p < 0.05$ ). Since the lower and upper bounds for the confidence intervals ruled out zero, these results confirmed the intervening role of BO, providing support for H4, H5, and H6.

Table 5  
Mediation Analysis Results

Effects	Total effect	Direct effect	Indirect effect	Confidence Interval		t value	Conclusion
				Lower	Upper		
H4 KBO→BO→PES	0.171***	0.083*	0.089	0.053	0.130	4.428	Supported
H5 SBO→BO→PES	0.250***	0.173***	0.077	0.037	0.122	3.532	Supported
H6 AO→BO→PES	0.242***	0.142***	0.099	0.048	0.153	3.694	Supported

Note: KBO = Knowledge-based Outcomes; SBO = Skills-based Outcomes; AO = Attitudinal Outcomes; BO = Behavioral Outcomes; PES = Perceived Employability Skills.

\*\*\*=p<0.001; \*=p<0.05

## Moderating Role of Self-Esteem

The moderation analysis to examine the moderating role of SE on BO-PES relationship is presented in Table 6. With R<sup>2</sup> of 0.25, the results indicate that the two paths: SE and PES ( $\beta = 0.091$ ,  $p < 0.001$ , [0.047, 0.135]); and BO and PES ( $\beta = 0.220$ ,  $p < 0.001$ , [0.151, 0.289]) were significant. However, the interaction effect between SE and BO on PES was not significant when SE entered the model ( $\beta = -0.011$ ,  $p > 0.05$ , [-0.085, 0.062]), implying that there is a lack of moderating effect. Hence, the hypothesis (H7) that SE moderates the BO-PES relationship is not supported.

Table 6  
Moderation Analysis Results

Effects	$\beta$	S.E	t value	P	Confidence Interval		Conclusion
					Lower	Upper	
BO→ PES	0.22	0.035	6.27	***	0.151	0.289	Not supported
H7 SE → PES	0.091	0.023	4.041	***	0.047	0.135	
BO_X_SE→ PES	-0.011	0.037	-0.305	NS	-0.085	0.062	

Note: BO = Behavioral Outcomes; SE = Self-esteem; PES = Perceived Employability Skills.

$\beta$  = Path Estimates; S.E.= Standard Error; P = p-value; \*\*\*=p<0.001; NS = Not Significant.

## Robustness Test

To enhance the robustness of the findings, a cross-validation analysis was performed in SPSS to examine the generalisability and stability across the data. In this vein, the sample was randomly split into two subsets: Sample 1 (n = 119) and Sample 2 (n = 110).

Firstly, we ran a multiple regression analysis using the standardised score of the variables for Sample 1 and extracted the predicted and deleted residual values for this validation set. In this case, the resulting standard error of the estimate was equivalent to 0.884. Accordingly, we established the condition to exclusively select Sample 2 for further analysis. By taking the square root of the average value of the squared deleted residuals identified by Sample 1 (0.777), the calculated prediction error associated with the model was found to be 0.881. Given the consistency in these values across the two subsamples, the ability of the model to make stable predictions and estimate standard errors is therefore established.

Furthermore, when the models of the two subsets are re-regressed independently, both models yielded R<sup>2</sup> values of 0.24 for Sample 1 and 0.27 for Sample 2, which is closely congruent with the R<sup>2</sup> of the all-inclusive main sample model (0.25). Collectively, most of the hypotheses tested using both subsets, including the mediation and moderation analyses, have generated similar patterns of the findings consistent with those of the main sample, giving evidence for the robustness of our findings.

## DISCUSSION AND IMPLICATIONS

The study contributes to the literature on youth leadership development by addressing the importance of youth leadership programs and their influence on employability skills perception in an integrated framework. Studies have shown how leadership programs are effective in nurturing cognitive, affective, and skill-based outcomes (Lacerenza et al., 2017), which is beneficial for their work-related outcomes (Reyes et al., 2019). By investigating the KBO, SBO, and AO of youth leadership programs on PES, the study helps to address much-needed gaps in the youth leadership program literature (Kuranchie & Affum, 2021) and incorporate employability skills that are imperative to youths' economic value and organisational competitiveness (Salman et al., 2020; Alam et al., 2022).

Firstly, the hypothesis that KBO is positively related to PES is not supported. This is an unanticipated, yet intriguing result since knowledge outcomes are linked with promoting youths' competence development crucial for real-world applications (Hernandez-Lopez et al., 2016). While surprising, it may be that solely absorbing KBO from the program is inadequate to observe significant changes in youths' skills development (i.e., PES). Said differently, knowledge acquisition might be more effective in improving perceived employability competence when coupled with practical experience, enabling youth to apply the knowledge learned into practice (Martínez-Argüelles et al., 2023). Nevertheless, it is essential to note that the program contents of youth leadership programs in this study may not be sufficiently aligned with employability skills development. Hence, training providers can review the contents of such programs and coordinate their focus on employability skills. Consequently, they would be able to not only produce prospective leaders for the workforce but also equip them with the skills they need to meet the job requirements (Suleman, 2018; Musa & Idris, 2020). Despite the non-significant findings of the KBO-PES association, the study challenges the extant literature and necessitates further investigation on the topic and targeted learning outcomes within the program content that may be lacking relevance to employability skills development.

Secondly, the study provides support for the second hypothesis, establishing that SBO has a positive impact on PES. This aligns with prior research (Al Mamun et al., 2019; Teng et al., 2019), which highlights the role of skills outcomes gained from training and curriculum activities in strengthening the level of competencies and employability outcomes. As our study has shown, youth who engage in leadership programs develop a broad range of skills, including management, interpersonal skills, analytical skills, and communication skills through practical exercise (Hisa & Mohiddin, 2020). In addition to their paramount role in shaping young leaders effectively, these skills are also highly valued by employers in the contemporary world of work (Ahmad Tajuddin et al., 2022; Hisa & Mohiddin, 2020). Therefore, our findings not only strengthen the literature by linking SBO and PES empirically but also provide insights for training providers of youth leadership programs. Essentially, training providers can complement their programs with activities that emphasise



learning and utilisation of skills (Garst et al., 2019). Accordingly, implementing such measures can encourage employability skills progression.

Thirdly, the hypothesis that AO is positively related to PES is supported. Consistent with earlier studies (Calero López & Rodríguez-López, 2020; Omar et al., 2020), our findings confirm the significant role of AO in determining youths' employability skills outcomes. Scholars have shown that AO such as increased motivation and self-efficacy are closely related to employability outcomes (Tang et al., 2020; Chow et al., 2019). Notably, the self-reflection and mentoring sessions within youth leadership programs (Lawrence et al., 2018) help to shape youth attitudes, which consequently build their beliefs and confidence in their capabilities leading to enhanced PES. Given these findings, training providers and educators can focus on stimulating the capacity for self-reflection, mentorship, and interaction with role models (Lawrence et al., 2018; Abbasianchavari & Moritz, 2021). In such an instance, youth would be able to exhibit AO necessary for improving their PES.

Fourthly, the study finds that BO mediates the relationship between KBO and PES. When youths are exposed to leadership-related knowledge, they gain an understanding of leadership concepts and what makes a leader. This increases their motivation and effort to translate and apply their learning to the workplace (Day et al., 2019; Pierce et al., 2018). With such knowledge, positive behavioral change and enhanced competencies can be expected (Ibrahim et al., 2017), leading to the acquisition of skills necessary for their employability (Nägele & Stalder, 2017). This is supported by previous literature that elucidates the role of knowledge acquired from training in influencing behavior outcomes (Pham et al., 2022; Farrukh et al., 2022; Jacob & Wright, 2017), and that it predicts employability attributes (Hughes et al., 2016). Therefore, leadership program practitioners can focus on targeting KBO that emphasises the application of learned materials to effectively observe BO among youths for greater PES.

Fifthly, the study also provides support for the mediation of BO in the SBO-PES relationship. When youth gain SBO through leadership programs, they tend to develop positive behavioral changes toward their work and experience progression in skills including teamwork, communication, and improved capacity for self-awareness and self-efficacy (Ibrahim et al., 2017). According to Nägele and Stalder (2017), these developments are crucial for their employability. This is consistent with the theory of Dekeyser's Skills Acquisition Theory and extant literature that suggests how learning outcomes, including SBO, affect behavior and consequently lead to improved perceived employability outcomes (Hughes et al., 2016; Benziane & Houcine, 2021; Chow et al., 2019; Stoffers et al., 2020). Hence, the findings may provide valuable insights for practitioners to embed SBO into the goals of youth leadership programs in order to nurture BO for enhanced PES among the participants.

Accordingly, the sixth hypothesis that BO mediates the relationship between AO and PES is supported. As youth leadership programs enable the participants to engage in the learning process, it facilitates the development of attitudinal outcomes among the latter (Karagianni & Montgomery, 2019). The shifts in values and attitudes give rise to changes in behavior (Velasco & Harder, 2014), which improve their competencies at work (Ibrahim et al., 2017; Nägele & Stalder, 2017). This is congruent with the literature that highlights how attitudinal factors are significant in determining behavior (transfer) outcomes (Reyes et al., 2019) and such outcomes are vital to employability skills (Adriaensen et al., 2019; Nägele & Stalder, 2017). Given that the study suggests the significance of BO as an intervening mechanism,

practitioners may wish to activate the channel for participants to improve, not only their AO but also BO to further enhance their employability skills.

Finally, the study does not support the seventh hypothesis regarding the moderating role of SE in the BO-PES linkage. Specifically, the result shows that SE does not interact with BO, instead it directly influences PES. Though unexpected, it may be that the strong psychological nature of self-esteem promotes a favorable self-image among youth, leading to an increased PES and it is not affected by the interaction with BO. Moreover, SE is asserted to be the key motive in driving human behavior (Kőszegi et al., 2022). Given that SE fosters the feeling of desire to fulfill own potential, resulting in positive perceptions, it accelerates the drive for individuals to do better as they develop a greater sense of their own ability, feeling more confident and competent. As a result, they are apt to have higher employability attributes than those with low SE. While the current findings are consistent with prior literature that SE positively relates to competence (Barros & Duarte, 2016), and employability attributes (Hamzah et al., 2021). Serafin et al. (2022) revealed that SE can be detrimental to individual competencies in workplace settings. Clearly, further research is warranted to ascertain whether this pertains to the effect of BO on PES, or if it is linked to the specific components of SE (i.e., global self-esteem and specific self-esteem). Although SE is not a significant moderator, the study alerts training providers to harness their focus on enhancing SE among the youth participants. Along this channel, such focus can stimulate not only self-esteem but also positive perceptions of themselves, beneficial to their employability skills acquisition.

With the above findings, youth leadership programs bring about positive BO to youth participants that are found to be influencing perceived employability skills. With prior studies continue to report that graduates do not have the skills needed for the modern workplace (Ahmad Tajuddin et al., 2022), including in Brunei (CSPS, 2021; Musa & Idris, 2020), the current findings of this study provided empirical evidence to importantly highlight the route (i.e., youth leadership programs) through which youth can gain KBO, SBO, and AO, directly or indirectly through BO which further improve their employability skills. Given this evidence, youth's awareness of the importance of such programs may increase with the help of educational institutions; they would become more actively involved and accountable for investing in their social capital through youth leadership programs. Essentially, these programs should be connected to students' job readiness and employability to facilitate their transition into the workforce (Cui et al., 2022). As past studies have noted (Cui et al., 2022; Garst et al., 2019), with such developed skills, the youth's capacity to be employable is likely to be greater. Academic institutions in Brunei should make a rewarding impact in the youth leadership programs and be more explicit in and integrate more deliberately into the strategic objectives of the institution. They should further embed in activities that enable capabilities development among students to obtain graduate outcomes toward better transition into the job market, for instance, incorporating academic projects that can enrich leadership-related skills. By doing so, the nation would become closer to meeting the needs of youth in a more productive way. Given that KBO has no direct relationship with PES, this necessitates the need for the relevant authorities and stakeholders to look into the quality of schools or educational institutions in Brunei, especially in providing informed understanding about the importance of leadership and associated skills in meeting employer's needs.

## **SUGGESTIONS AND LIMITATIONS**

Despite its prominent contributions, the study poses several limitations. Firstly, considering the lack of moderating effect of self-esteem, the study did not examine the immediate impact of participants out of the program, which may give rise to other external factors to influence their self-esteem perceptions at the time the study was conducted. Secondly, the extent to which the current findings can be generalised to other cultural and institutional contexts remains open to question. The present study was based on Brunei's context and the youth population size of Brunei is approximately 195,700 out of 441,800 total population (Department of Economic Planning and Statistics, 2022), thus the study findings may vary among countries that have much bigger populations. It is viewed that different population size may focus on different contents and may affect the generalisability of the current findings when the framework is used in a different context with different population size than Brunei (Donald & Klassen, 2018). Therefore, it is suggested that for future studies and for other contexts, the current framework should be investigated first, and perhaps to incorporate other external and cultural factors to strengthen the generalisability of this research.

Thirdly, the demographic background of the sample respondents did not account for disparities in the economic variables such as income as well as vulnerable households. The transferability of findings is under scrutiny since individuals from low-income family backgrounds may not afford to participate in youth leadership programs and vulnerable youth may not be offered such skills development opportunities in similar programs. Future research should test the current framework on programs that focus on these groups of youth which may bring different outcomes that can change or distort our main findings, particularly on attitudinal change, behavioral change, and self-esteem (Lee et al., 2015).

Also, while the directionality of proposed relationships is coherent with extant research, the reliance of the study on the cross-sectional data introduces uncertainty regarding its causality. However, it is worth mentioning that our study utilised the bootstrapping technique to estimate the effects and their confidence intervals, which according to Awad and Warsame (2022), is beneficial for cross-sectional dependence. The application of this approach to cross-sectional data has also been well-documented and supported by extensive research in youth studies (e.g., Gerçek, 2023; Cheng & Nguyen, 2023). Accordingly, future research may wish to consider performing a longitudinal study or applying a time-lagged design to detect in-depth changes and capture more variations to better track the development of the participants in leadership programs.

Furthermore, with the increasing number of graduates and intense competition, youth among university students recognise the value of employability skills for their employment (Ahmad Tajuddin et al., 2022). Therefore, their perceptions of the gains obtained from youth leadership programs are considered important to highlight that such programs represent the channel through which they can develop the skills necessary to secure employment. However, as suggested by Musa and Idris (2020), there must exist coordination between various stakeholders such as training institutions, employers, incumbent employees, and educational institutions who are responsible for achieving the mission to enhance youth employability. Replication of the study may be pursued to strictly focus on collecting data from youth who are studying at the university. In addition to that, future studies can extend the current findings by qualitatively investigating the current industry demands for relevant skills and the initiatives that may have been practiced to develop prospective youth leaders for the workforce.

## CONCLUSION

The present study signifies the importance of youth leadership programs on perceived employability skills in Brunei Darussalam, particularly in fostering skills development among youth that are pivotal for gaining successful careers and becoming more employable throughout their career. The study presents novel contributions to youth leadership development context, not only in Brunei, but also to one of the few studies in the Asian region to demonstrate the impact of youth leadership programs on employability skills perceptions. Understanding the merits of youth's participation in leadership programs are profound, not only for the process of designing these programs but also for continuous improvement in leadership development programs in the future. Therefore, policy-makers, academic institutions, and stakeholders should come together in working towards implementing highly effective programs to mitigate unemployment issues of the country.

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## APPENDIX

Construct	Indicator	Items
Knowledge-based outcomes (KBO)	K1	I learned a lot from this youth leadership program.
	K2	My knowledge about leaders and leadership increased as a result of this program.
	K3	I remember most of the knowledge learned in this program.
	K4	I can easily say several things learned in the program.
	K5	I have forgotten most of the knowledge learned from this program.
Skills-based outcomes (SBO)	S1	My skills increased as a result of this youth leadership program.
	S2	I am provided with direct practical experience to help understand the course concepts throughout the program.
	S3	I was able to actively test my ideas of how the course material can be applied into practice throughout the program.
	S4	I was able to apply the course concepts in order to understand them throughout the program.
	S5	I learned how to exert my skills throughout the program activity.
	S6	I was able to finish the tasks from beginning to the end of the program activity.
Attitudinal outcomes (AO)	A1	I was able to think about what the course material really meant to me throughout the program activity.
	A2	I was able to think about how to use the terms and concepts from the program in my work and tasks.
	A3	I have found the contents of the program to be relevant to my job.
	A4	I was motivated to use the information obtained from the program to my work and tasks.
	A5	I became interested in trying to improve my work as a result of the program
Behavioral outcomes (BO)	B1	The program has helped me improve my work performance.
	B2	I have applied the things covered in the program to my work and tasks.
	B3	I use almost everything that was covered in the program in my work and tasks.
	B4	I use the things covered in the program almost every day.
	B5	I can accomplish my work/tasks faster than before participating in the program.
	B6	I can carry out my work/tasks better than before participating in the program.

Construct	Indicator	Items
Self-esteem (SE)	SE1	I certainly feel useless at times.
	SE2	I feel that I have a number of good qualities.
	SE3	All in all, I am inclined to think that I am a failure.
	SE4	I am able to do things as well as most other people.
	SE5	I feel that I do not have much to be proud of.
	SE6	I take positive attitude toward myself.
	SE7	On the whole, I am satisfied with myself.
	SE8	I wish I had more respect for myself.
	SE9	At times, I think I am no good at all.
	SE10	I feel that I am a person of worth, equal to others.
Perceived Employability Skills (PES)	PES1	Competent in reading.
		Communicate effectively.
		Convey information one-to-one.
	PES2	Ability to write well to the needs of an audience.
		Interacting well with colleagues.
		Utilizing time efficiently.
		Ability to understand and manage priorities.
		Ability to select the best approach for tasks.
		Ability to begin, follow through, and complete tasks.
PES3	Maintaining a positive attitude.	
	Identifying problems.	
	Solving problems.	
		Assigning, supervising, and coordinating work to/of others.

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PES4	Making decisions in a short time period. Recognizing the effects of decisions made. Assessing long-term effects of decisions. Accountability for actions/decisions taken. Giving direction and guidance to others. Working cooperatively with others. Resolving conflicts. Taking reasonable job-related risks. Ability to think creatively. Taking initiative in identifying and suggesting new ideas to solve problems. Adapting well to situations of change.
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