



The Curriculum's Effectiveness in Technical and Vocational Education and Training (TVET): A Case Study of the National Vocation Institute in Battambang, Cambodia

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ABSTRACT

This manuscript investigates the preparation of Cambodian students for job opportunities and their satisfaction with vocational and training institutions through the use of virtual experiences. This study involved 234 Cambodian students evaluating the quality of the TVET curriculum and career satisfaction from the BIT (Battambang Institute of Technology) and NVIB (National Vocation Institute of Battambang) in Battambang province, as well as an additional 244 students who participated in a separate study assessing the effectiveness of the TVET program in meeting current labor market demands. Through a self-administered structured questionnaire, we recorded students' experiences with vocational and training institutions to meet and satisfy their career opportunities based on the needs and demands of the labor market. The ANOVA results indicate that students from both BIT (Battambang Institute of Technology) and NVIB (National Vocational Institute of Battambang) perceived that participating in the vocational training program enhanced their job satisfaction, as it prepared them for the industry's needs. Therefore, this manuscript also provides detailed coverage of further research findings.

Keywords: Curriculum Quality, Teaching Methodology, Career Adaptability, Social career support, Career Satisfaction, TVET, Treasure study.

INTRODUCTION

The 21st century presents challenges and a new era of knowledge, information, and communication. Globalization and ICT advancements necessitate a human-centered

development paradigm, with education, particularly technical and vocational education and training (TVET), playing a crucial role in improving living conditions and promoting sustainable development. A paradigm shift in TVET is needed globally [1]. South Asian studies show a small TVET stream, poor labor market outcomes, despite growing demand for skilled labor. Governments are focusing on strengthening the system [2]. Another study highlights labor market needs and weaknesses in the TVET system of ASEAN and South Asia, particularly in India, recommending government, private, and joint public-private measures for transformation. Private sector ownership and financing are limited [3]. Indeed, another scholar discusses industrial development and the shift in the labor market, focusing on technical and vocational education and training (TVET) competencies. It emphasizes a praxis-oriented approach and alignment with outcome-oriented qualification frameworks [4]. The debate on skills provision is crucial in adapting to changing social, economic, and geographical contexts.

In 2015, the UN launched the Sustainable Development Goals, calling for nations to end poverty, protect the planet, and ensure peace and prosperity by 2030 [5]. TVET plays a vital role in sustainable development, responding to external needs and promoting more equitable development agendas [6]. Cambodia faces a skills gap, necessitating immediate action to achieve upper-middle-income status by 2030. In Asia Pacific, millions of young people require innovative, creative, and entrepreneurial skills for a sustainable future. This journey through innovation, sustainability, and leadership in TVET is vital in the 21st century [7]. Technical and vocational education and training (TVET) can help address this issue [8]. Technical and Vocational Education and Training (TVET) is a comprehensive education system that prepares young people for employment, promoting social parity, access, inclusion, and sustainable development through formal, non-formal, and informal learning modes [9]. Vocational training curricula should involve faculty, teachers, and industries in their development. They should reflect the philosophy, objectives, learning experiences, teaching resources, and evaluations of the program. Teachers should be involved in creating tailored plans and resources to help schools succeed [10]. Education is crucial for global economic and social development, with skilled workers being the foundation for sustainable socio-economic transformation. Technical and Vocational Education and Training (TVET) is a triad that equips individuals with the knowledge and skills necessary for employment or self-employment [11]. The Ministry of Labor and Vocational Training (MLVT) in Cambodia aims to become a higher-middle-income country by 2030, with a 1.5 million-student cross-nation TVET program in the academic year 2023-2025. In Cambodia, TVET (Technical and Vocational Education and Training) institutions are upper secondary institutions that utilize formal, non-formal, and informal teaching methods to equip students with the skills necessary for various economic and social sectors. Industry stakeholders play a crucial role in achieving the mission of vocational education [12]. Cambodia's vocational education encompasses both formal and non-formal programs, with formal TVET programs managed by the Ministry of Labor and Vocational Training. These long-term courses require a minimum of lower secondary school completion and cover various subjects, including general mechanics, agricultural mechanics, computer technology, electricity, electronics, and civil engineering. TVET policies are seen as significant investments in human capital [13]. An empirical study aims to advance sustainable development in Technical and Vocational Education and Training (TVET) across Southeast Asia by integrating inclusivity, gender equality, and innovation. This study uses secondary data analysis and

literature to identify national TVET strategies and innovative approaches, providing policy recommendations for promoting these elements in TVET [14].

By 2045, 90% of Indonesian workers are expected to be graduates of high schools and universities. Vocational education is crucial for equipping young people with technical skills and developing study programs. Indonesia's Vision 2045 aims to prepare for job market disruption by promoting STEM education and economic growth [15]. Vietnam's efforts to boost labour productivity and enhance its participation in global value chains have been hindered by the inadequate implementation of university and TVET reforms [16]. A study of 18 TVET teachers in Bangladesh reveals challenges such as insufficient salary structures, a lack of career paths, social stigma, and an inadequate curriculum. The findings suggest the need for broader stakeholder involvement to improve [17]. Recently, Indonesia's vocational education has faced challenges, particularly in technical competency training. To address this, a collaborative upskilling model involving government, industry, and training institutions is necessary. This includes industry-based schemes, digital platforms, and blended learning, ensuring equal access to training for teachers [18].

TVET, despite its growth, has not effectively filled the workforce gap, highlighting the need for more targeted and skilled education [19]. Key aspects of technical and vocational education (TVET) employ a pragmatic approach, incorporating hands-on training, on-the-job training (OJT), apprenticeships, and internships to prepare individuals for specific courses. However, OJT provisions are not specifically categorized for diploma-level courses in pre-diploma curricula and short courses. A research study looks into the problems that TVET instructors in Nepal face, such as not having a curriculum that matches industry needs, not enough input from instructors, limited chances for professional growth, not enough hands-on knowledge of new technologies, poor training assessments, lack of industry experience, no organized way to manage performance, and low motivation [20]. Vocational education is a vital component of the education system, equipping individuals with the knowledge and skills necessary for careers in the labor market. It differs from college and university education, offering broad knowledge applicable to various industries. Therefore, vocational education in Cambodia is crucial for economic growth and ASEAN integration. It equips individuals with transferable skills and technical knowledge, enhancing competitiveness, diversifying the labor force, and promoting industrialization. The research aims to evaluate the most important factor influencing students' career satisfaction with the TVET programs in Battambang province. Additionally, this study assesses the effectiveness of the TVET curriculum in meeting current labor market needs.

METHODS

Research Design

This study employs a quantitative survey of 2020-2024 TVET alumni to investigate the relationship between curriculum quality, social career support, perceived career adaptation, and teaching methodology, to understand students' career satisfaction and curriculum effectiveness.

Study Sites and Sampling Procedures

Battambang Province in Cambodia is implementing the Pentagon Strategy Phase I to increase incomes by 2030. TVET in the province is working to reduce migration by conducting

vocational training programs. A study used non-probability sampling with snowball sampling [21] to survey 4,353 students (for example, based on official reports, NVIB had 2,852 students and BIT had 1,500 students in the academic year 2020–2024). The formal sample sizes were 234 students to evaluate their job satisfaction after graduation and 244 students to assess how well the TVET curriculum meets the labor market's needs. Thus, the total sample size for this study was 478 students. The sampling procedure was calculated by using the existing formula of Yamane [22].

Measurement Items

This study operationalized five key research variables from existing literature reviews and also matched them with practical working experience in the TVET programs in Cambodia. Thus, these five research constructs were operationalized and adopted for this study (i.e., Appendix 3), such as (1) *Career Adaptability*, which has five sub-dimensions (i.e., self-confidence with eight items, self-control with three items, social responsibilities with nine items, curiosity with five items, and personal commitment with six items), which were adopted from Chan and Mai [23]. (2)-*Social career support* has four items that were operationalized from Hirschi, Nagy [24]. (3)-*Career satisfaction* has five items that were adopted from Afonso, Ramos [25]. (4)-*Curriculum quality* has five items, which were operationalized from García-López, Gutiérrez [26]. A-3 item of (5) *teaching methodology* was operationalized by Moreno-Murcia, Silveira Torregrosa [27]. To minimize variance bias among respondents, questionnaire items were translated from English to Khmer, and the translations were confirmed before designing both self-delivered and online surveys via Google Forms. These measurement items were rated on a five-point Likert scale (i.e., 1 = very dissatisfied to 5 = very satisfied) to assess the job satisfaction or career satisfaction of 234 students. The authors designed all measurement items for the treasure study to invite 244 students to evaluate the effectiveness of the TVET curriculum.

Statistical Analysis

This study utilizes several statistical analysis tools, including descriptive statistics and frequency distribution to examine the characteristics of the respondents (Table 3.1) [28]; factor analysis and reliability tests to assess the reliability and validity of the items (Table 3.2) [29]; Automatic Linear Modelling (ALM) (Table 3.3) to identify the most significant factors affecting students' career satisfaction [30, 31]; and one-way ANOVA (Table 1A) [29] to evaluate the effectiveness of the TVET curriculum for this study.

RESULTS

Descriptive Statistics

A frequency distribution analysis (Table 3.1) was conducted to describe the demographic characteristics of the sample (n = 234). The distribution across institutions showed that most participants were from the National Vocational Institute of Battambang (NVIB), accounting for 64.1% (n = 150), while 35.9% (n = 84) were from the Battambang Institute of Technology (BIT). Regarding gender, a majority of respondents identified as female (61.5%, n = 144), whereas 38.5% (n = 90) identified as male. The marital status distribution revealed that an overwhelming majority of participants were single (97.9%, n = 229), with only 2.1% (n = 5) reporting being married. In terms of age, the median age of respondents was 21.26 years, with a standard deviation of 2.016, indicating a relatively young and homogeneous age distribution.

The demographic profile suggests that the study sample is predominantly composed of young, single, and female students, with a significant representation from the NVIB. These characteristics provide important contextual insights for interpreting the study's findings, particularly regarding educational interventions, program design, and student engagement strategies within vocational and technical education settings.

Table 3.1: The result of demographic of respondents

Demographics	Frequency	Percent
1. Institutions		
<i>NVIB</i>	150	64.1
<i>BIT</i>	84	35.9
Total	234	100.0
2. Gender		
<i>Male</i>	90	38.5
<i>Female</i>	144	61.5
Total	234	100.0
3. Marital status		
<i>Single</i>	229	97.9
<i>Married</i>	5	2.1
Total	234	100.0
4. Age		
<i>Median</i>	21.26	
<i>Std. Deviation</i>	2.016	

Factor Analysis and Reliability Test

The study validated the measurement constructs used by conducting a factor analysis and reliability test [29]. The evaluation was based on standard criteria, including factor loading scores ($FL \geq 0.70$), Kaiser-Meyer-Olkin ($KMO \geq 0.50$), eigenvalues greater than 1, cumulative variance explained ($CUM \geq 60\%$), corrected item-total correlation ($ITM \geq 0.50$), and Cronbach's Alpha ($\alpha \geq 0.70$). The factors evaluated included perceived career adaptability, self-confidence, self-control, curiosity, personal commitment, social responsibility, teaching methodology, curriculum quality, Social career support, and career satisfaction. The factors showed strong factor loadings, high internal consistency, and high reliability. The teaching methodology had acceptable reliability, while the curriculum quality had strong psychometric properties. The Social career support construct had moderate reliability, but one item was removed to improve cumulative variance. The career satisfaction factor retained four items with Factor loading scores greater than 0.74 and an Alpha (α) of 0.782. Therefore, the exploratory factor analysis and reliability testing confirmed the construct validity and internal consistency of the scales used. All final constructs met or exceeded accepted thresholds, with Cronbach's alpha values ranging from 0.725 to 0.926, indicating good to excellent reliability.

Table 3.2: The result of factor analysis and reliability test

Variables	Factor Analysis and Reliability Test				Reliability Test	
	FL > 0.7	KMO ≥ 0.5	Eigenvalue > 1	CUM (%) > 60%	ITM ≥ 0.5	Alpha (α) > 0.70
Perceived Career Adaptability						
<i>1. Self-confidence—[SCO]</i>						
SCO2	0.794	0.925	4.886	61.080	0.720	0.909

SC08	0.794				0.720	
SC07	0.790				0.717	
SC05	0.789				0.715	
SC04	0.787				0.711	
SC01	0.786				0.710	
SC03	0.764				0.685	
SC06	0.747				0.667	
2. Self-control—[SEC]						
SEC2	0.864	0.704	2.157	71.887	0.676	0.804
SEC1	0.863				0.672	
SEC3	0.816				0.604	
3. Curiosity—[CUR]						
CUR1	0.868	0.872	3.559	71.186	0.785	0.899
CUR4	0.850				0.757	
CUR5	0.837				0.738	
CUR3	0.834				0.735	
CUR2	0.828				0.728	
4. Personal Commitment—[PEC]						
PEC2	0.881	0.835	2.963	74.072	0.776	0.883
PEC3	0.875				0.766	
PEC1	0.851				0.731	
PEC4	0.835				0.709	
PEC5	-0.188	Deleted: Factor loading < 0.7				
PEC6	0.090					
5. Social Responsibilities—[SOR]						
SOR3	0.856	0.922	5.660	62.886	0.807	0.926
SOR6	0.835				0.779	
SOR5	0.808				0.747	
SOR2	0.803				0.743	
SOR8	0.799				0.735	
SOR9	0.779				0.715	
SOR4	0.776				0.711	
SOR7	0.754				0.685	
SOR1	0.720				0.649	
Teaching Methodology—[TME]						
TME2	0.842	0.690	2.034	67.813	0.62	0.762
TME1	0.833				0.607	
TME3	0.794				0.554	
Curriculum Quality—[CUQ]						
CUQ2	0.855	0.817	3.202	64.044	0.749	0.859
CUQ3	0.838				0.727	
CUQ1	0.774				0.641	
CUQ4	0.772				0.635	
CUQ5	0.757				0.619	
Social Career Support—[SCS]						
SCS2	0.861	0.633	1.947	64.896	0.637	0.725
SCS1	0.850				0.612	
SCS4	0.722				0.424	

SCS3	0.695	Deleted to increase the value of CUM %				
Career Satisfaction—[CAS]						
CAS5	0.830	0.729	2.422	60.552	0.661	0.782
CAS3	0.787				0.600	
CAS2	0.752				0.550	
CAS4	0.741				0.542	
CAS1	0.647	Deleted to increase the level of CUM %				

Note: FL = Factor loading score, KMO=Kaiser-Meyer-Olkin and Bartlett's test, CUM (%) = Cumulative %, ITM= Corrected Item-Total Correlation.

Automatic Linear Modelling—ALM

This study assigned four key independent variables (i.e., perceived career adaptability—5 sub-dimensions; teaching methodology; curriculum quality; and Social career support) to predict the students' career satisfaction, which was treated as a dependent variable. The mean score of each research construct and sub-dimension was computed after the formal results of factor analysis and reliability were performed, as shown in Table 3.2. Thus, the results of Table 3.3 indicated that only three key independent variables (i.e., personal commitment, teaching methodology, and Social career support) play the most important role in enhancing students' career satisfaction after they graduate from the TVET program in Battambang province, Cambodia.

The corrected model explained a significant proportion of variance in the outcome, with personal commitment ($\beta = 0.177^{***}$, $t = 5.293$, $p < 0.001$), teaching methodology ($\beta = 0.255^{***}$, $t = 4.863$, $p < 0.001$), and Social career support ($\beta = 0.177^{**}$, $t = 3.219$, $p = 0.001$) emerging as statistically significant predictors. These variables also had corresponding F-values above the threshold of 4 (28.013, 23.647, and 10.362, respectively), indicating meaningful contributions to the model. Among them, personal commitment showed the highest importance score (0.437), followed by teaching methodology (0.368) and Social career support (0.161). In contrast, self-confidence did not have a statistically significant effect on the outcome ($\beta = -0.057$, $t = -1.467$, $p = 0.144$), with a low importance score (0.034), indicating it plays a minimal role in predicting the dependent variable within this model. The automatic linear modeling results suggest that personal commitment, teaching methodology, and Social career support are key predictors influencing the dependent variable. Strategic or programmatic interventions should prioritize these factors as they significantly impact outcomes. However, self-confidence, despite being a potentially relevant psychological construct, did not significantly affect the model, suggesting its influence may be indirect or moderated by other variables. Future research may explore interaction effects or mediators involving self-confidence to understand its role better.

Table 3.3: The result of Automatic Linear Modeling—ALM

Corrected Model	Coefficient	df	F-value	t-value	Sign.p	Important
Personal commitment	0.177***	4	28.013	5.293	0.000	0.437
Teaching methodology	0.255**	1	23.647	4.863	0.000	0.368
Social career support	0.177**	1	10.362	3.219	0.001	0.161
Self-confident	-0.057	1	2.152	-1.467	0.144	0.034

Note: Significant of ***p-value < 0.001, **p<0.05 at t-value > |1.96| and F-value ≥ 4 .
The results were combined from Figure 2A in (Appendex-2).

One-Way ANOVA Test

The ANOVA results (Table 1A—The results of one-way ANOVA) reveal key insights into group differences across various educational and demographic factors in the study. Notably, significant differences were found in several variables, indicating that certain factors have a meaningful influence on respondents' perceptions or outcomes. The analysis showed a statistically significant effect for certificate qualifications Q13: Are the qualifications you received from technical and vocational education and training sufficient for you to work in public and private enterprises? with $F(4, 229) = 11.33$, $p < 0.001$, suggesting that qualifications vary significantly among groups. Similarly, significant results were observed for Q28 -Job satisfaction, Q18-Knowledge exchange between teachers and students during studies at technical and vocational training institutes, and Q19-Teaching methods at the Technical and Vocational Training Institute, with p-values less than 0.01, indicating substantial differences in attitudes, skills, or learning outcomes across different groups. Q20-Effective classroom management also demonstrated a significant difference, $F(4, 229) = 2.81$, $p = 0.026$, though the effect was comparatively smaller.

On the other hand, no significant differences were found for gender (Q2), educational level (Q4), TVET programs (Q9), and Q21-Teachers' attitudes towards gender role mindsets, as all had p values well above the .05 threshold. These findings suggest that demographic factors, such as gender and general educational level, do not significantly influence the outcomes measured in this study. A marginally non-significant result for institutional quality (QQ-TVET Institution) with $p = 0.057$ suggests a potential trend worth further exploration.

In summary, the study highlights that certificate qualifications and specific performance-related perceptions have a significant influence on respondents' outcomes. At the same time, broader demographic categories, such as gender and general education level, show a limited impact. These findings emphasize the importance of targeted educational achievements over demographic background in vocational or technical training contexts.

CONCLUSION

The ALM found that personal commitment, teaching methodology, curriculum quality, and Social career support significantly predict career satisfaction among students in Battambang province, Cambodia, with self-confidence having minimal influence. These factors enhance long-term satisfaction. Indeed, the ANOVA result reveals significant differences in educational experiences and perceptions across different groups in technical and vocational education and training (TVET). Key variables, including job satisfaction, knowledge exchange, and teaching methodology, exhibited significant variation, underscoring the influence of instructional practices and learning interactions on learner outcomes. Effective classroom management also showed a small effect. Demographic factors, such as gender and education level, did not significantly influence core learning or satisfaction outcomes. The findings emphasize the importance of program quality, teaching practices, and learner-instructor engagement.

The study suggests that TVET institutions should enhance personal commitment programs, strengthen teaching methodology, improve curriculum quality, expand Social career support services, and monitor classroom management. It also suggests that future research should explore mediating and moderating variables, conduct longitudinal studies on career

satisfaction, investigate the learning experience qualitatively, and examine cross-regional or cross-country comparisons, as well as re-evaluate the role of self-confidence. These recommendations aim to improve students' motivation and purpose, enhance teaching methodology, and provide career counseling, job placement assistance, and employer networking opportunities. The study advocates for a comprehensive approach to technical education, ensuring curriculum design, teaching quality, and career readiness programs align with student and employer expectations, and integrating ICT in teaching to support student learning needs. China's TVET training institutions have established training goals and implemented programs tailored to local needs, with previous studies assessing the demand for upgrading teacher competence [32]. Thus, this study recommends that future studies focus on capacity building for teacher competency to improve the quality and effectiveness of the TVET program's curriculum.

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Appendix 1A—The results of one-way ANOVA

Variables		Sum of Squares	df	Mean Square	F	Sig.
Q4-Educational Level	Between Groups	1.536	4	.384	.252	.909
	Within Groups	349.580	229	1.527		
	Total	351.115	233			
Q9-TVET Programs	Between Groups	4.049	4	1.012	.354	.841
	Within Groups	655.678	229	2.863		
	Total	659.726	233			
Q13-Certificate qualifications	Between Groups	23.935	4	5.984	11.328	.000
	Within Groups	120.959	229	.528		
	Total	144.893	233			
QQ-TVET institutions	Between Groups	2.274	4	.569	2.330	.057
	Within Groups	55.880	229	.244		
	Total	58.154	233			
Q2-Gender	Between Groups	.815	4	.204	.952	.435
	Within Groups	49.031	229	.214		
	Total	49.846	233			
Q28- Job satisfaction	Between Groups	9.353	4	2.338	5.002	.001
	Within Groups	107.050	229	.467		
	Total	116.403	233			
Q18- Knowledge exchange between teachers and students during studies at technical and vocational training institutes	Between Groups	10.116	4	2.529	5.359	.000
	Within Groups	108.069	229	.472		
	Total	118.185	233			
Q19- Teaching methods at the Technical and Vocational Training Institute	Between Groups	14.198	4	3.550	6.293	.000
	Within Groups	129.160	229	.564		
	Total	143.358	233			
Q20-Effective classroom management	Between Groups	4.606	4	1.151	2.813	.026
	Within Groups	93.750	229	.409		
	Total	98.356	233			
Q21- Teachers' attitudes towards gender role mindsets	Between Groups	1.419	4	.355	.572	.684
	Within Groups	142.173	229	.621		
	Total	143.592	233			

Source: Author's survey (2025)

Appendix 2-The results of ALM

Effects

Target: Career_Satisfaction

Source	Sum of Squares	df	Mean Square	F	Sig.	Importance
Corrected Model ▼	23.083	4	5.771	25.987	.000	
Personal_Commitment_transformed	6.221	1	6.221	28.013	.000	0.437
Teaching_Methodology_transformed	5.251	1	5.251	23.647	.000	0.368
Career_Development_transformed	2.301	1	2.301	10.362	.001	0.161
Self_confidence_transformed	0.478	1	0.478	2.152	.144	0.034
Residual	50.852	229	0.222			
Corrected Total	73.935	233				

Figure 2A-The result of ALM

Coefficients

Target: Career_Satisfaction

Model Term	Coefficient ▼	Std.Error	t	Sig.	95% Confidence Interval		Importance
					Lower	Upper	
Intercept	1.701	0.201	8.465	.000	1.305	2.097	
Personal_Commitment_transformed	0.177	0.033	5.293	.000	0.111	0.243	0.437
Teaching_Methodology_transformed	0.255	0.052	4.863	.000	0.152	0.358	0.368
Career_Development_transformed	0.177	0.055	3.219	.001	0.069	0.285	0.161
Self_confidence_transformed	-0.057	0.039	-1.467	.144	-0.132	0.019	0.034

Figure 2A-The result of ALM

Appendix 3-Questionnaire items

Career Adaptability

Self-confident—[SCO]

1. I am confident in my abilities to take good decisions.
2. I am confident in my abilities to be successful in different careers
3. I am confident in my abilities to give my best even in the face of obstacles and adversities.
4. I am confident in my abilities to analyze and solve many problems.
5. I am confident in my own abilities to grasp opportunities and not to miss occasions
6. When I think of my future, tell myself that I will become what I wish to become.
7. I am confident in my abilities to 'never let go' and to devote more of my time and energy when things are not going as they should.
8. I am confident in my abilities to learn what is needed to perform well in the career I choose.

Self-Control—[SEC]

1. I can resist provocations.
2. I can control my nerves.
3. I can be patient and persistent.

Social Responsibilities—[SOR]

1. I Openly state my disagreement in the face of something wrong, injustice or abuse
2. I have moral principles.
3. I can say 'No' to friends and mates that want to act in an improper way.
4. I can act in a friendly way.
5. I collaborate and do not hesitate to do my part.
6. I can take my own responsibilities even if sharing them with others.
7. I can uphold my own convictions and ideas.
8. I take responsibilities in the family, in studying, etc.
9. I get others to respect my rights

Curiosity—[CUR]

1. I like exploring, fantasizing, imagining, thinking in an unconventional way, finding novel solutions.
2. I like also taking a risk, trying, experimenting.
3. I like to stop and think and try diverse ways of doing things.
4. Am curious, I like meeting new people, experiencing novel things and situations.
5. I like to look at things from different points of view.

Personal Commitment—[PEC]

1. I think I will have to continue studying and keeping up to date in the future.
2. I'm already preparing to face my future as well as I can.
3. I like reading and improving my knowledge and preparation.
4. I think my future will depend above all on what I am doing now and on what I will do in the years to come.
5. I think my future will depend above all on what I am doing now and on what I will do in the years to come.

Teaching Methodology—[TME]

1. My lecturer encourages student interest and the motivation to learn.
2. My lecturer interacts satisfactorily with the students.
3. My lecturer organizes activities for the student to actively participate in course assignments.

Social Career Support—[SCS]

1. I know many people who support me in my Social career support.
2. My friends support me in my Social career support.
3. I receive a high level of career support from my social environment.
4. My coworkers support me in my Social career support/my fellow students support me in my Social career support.

Career Satisfaction—[CAS]

1. I am satisfied with the success I have achieved in my career.
2. I am satisfied with the progress I have made toward meeting my overall career goals.
3. I am satisfied with the progress I have made toward meeting my goals for income.
4. I am satisfied with the progress I have made toward meeting my goals for advancement.
5. I am satisfied with the progress I have made toward meeting my goals for the development of new skills.

Curriculum Quality—[CUQ]

1. The TVET employs a competence-based curriculum for teaching.
2. The TVET lesson planning follows the competence-based curriculum model.
3. The TVET curriculum is designed based on competence, ensuring that students are well-prepared for the actual work they will undertake.
4. The TVET program creates teaching activities that focus on developing key competencies.
5. The TVET assesses students' competences and learning outcomes.