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PROCESS DIMENSION MEASUREMENT MODEL IN THE EVALUATION OF ENTREPRENEURSHIP CURRICULUM IMPLEMENTATION IN COMMUNITY COLLEGES: A CONFIRMATORY FACTOR ANALYSIS APPROACH

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Abstract: *The evaluation of the entrepreneurship curriculum is very important to ensure that its implementation can achieve the set objectives. Therefore, this study aims to evaluate the process dimension in the implementation of entrepreneurship curriculum at Community Colleges based on the Context-Input-Process-Product (CIPP) model. The study focuses on teaching and learning methods, assessment methods, and the use of teaching and learning materials. The research method used in this study is a quantitative approach in the form of a survey. A questionnaire adapted from previous studies was used to obtain student perception data from eight Cluster 1 Community Colleges regarding the implementation of the Entrepreneurship Curriculum. A total of 416 students were selected as study respondents through simple random sampling. The data obtained was then analyzed using descriptive analysis and Confirmatory Factor Analysis (CFA). The findings of the descriptive study show that the respondents' assessment of the sub-construct aspects of teaching and learning methods (average mean=4.17), assessment methods (average mean=4.12), the use of teaching and learning materials (average mean=4.06) is high. In addition, the findings of inferential statistics show that the process dimension measurement model is valid and achieves the appropriateness index set. The findings of this study have implications for the need to maintain and improve the process dimension construct in the implementation of the Entrepreneurship Curriculum.*

Keywords: *CIPP, Entrepreneurship, Curriculum, Evaluation, Process Dimension.*

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Introduction

Entrepreneurial skills can generate economic growth in the country, create job opportunities, and further reduce the country's unemployment rate. Accordingly, a career in the field of entrepreneurship is a job that needs to be given attention by graduates in an effort to overcome unemployment that is often associated with graduates of institutions of higher learning (Sarimah Che Hassan et al., 2020). The country always strives to ensure the increase of youth who have technical and vocational skills, good jobs, and entrepreneurial knowledge by the year 2030 (Jabatan Perangkaan Malaysia, 2020). Entrepreneurship education has developed into a learning process that crosses various fields to produce more students with entrepreneurial skills (Janius et al., 2023; Hannon, 2018). Entrepreneurial skills are skills that can be formed through learning in education (Soeharso & Riyanti, 2021). Therefore, entrepreneurship education needs to be expanded today to open up space for anyone who is inclined to become an entrepreneur or who wants to make entrepreneurship a career despite having a permanent job at the same time.

A form of entrepreneurship transformation needs to be implemented through an approach to entrepreneurship education, considering that educational entrepreneurship is one form of awareness of the application of education to national progress (Janius et al., 2023). The transformation of entrepreneurship education, focusing on entrepreneurship activities and entrepreneurship culture, is implemented at all levels of education, especially in institutions of higher education. However, the results are less encouraging, especially if seen among the youth, where the unemployment rate is still high (Othman et al., 2023). In an effort to build world-class graduates through entrepreneurship education, the role of lecturers is important and challenging, and the failure of lecturers to meet the required skill criteria will thwart the government's efforts (Natesan, 2017). Entrepreneurial skills can be formed by lecturers who have the willingness and knowledge of entrepreneurship and are able to apply entrepreneurial culture in teaching and learning (Zulhafizi, 2021). Therefore, Community College lecturers should have skills in the delivery process of entrepreneurship teaching and learning, including assessment skills and the use of learning materials. Therefore, there are two objectives in this study, which are (i) to evaluate the implementation of the entrepreneurship curriculum from the perspective of the process dimension and (ii) to confirm the measurement factors of the process dimension in the implementation of the entrepreneurship curriculum.

Literature Riview

The trend of community college graduates choosing a career as entrepreneurs in 2022 is 12.8% (Ministry of Higher Education, 2023). This percentage is decreasing when compared to 2021 (15.2%) and 2020 (18.5%). This is further supported by the fact that the tracking data of TVET institution graduates, such as community college, shows that the number of entrepreneur graduates is still not at a satisfactory level (Sarimah, 2018). A study done by Suraiya et al. (2018) and Ahmad Raflis et al. (2014) showed that an ineffective learning process will cause the delivery of knowledge and basic entrepreneurship skills to be unsuccessful, and subsequently students are not prepared to choose the field of entrepreneurship as a career. This raises the question of whether the implementation process of the entrepreneurship curriculum is not good enough to help graduates enter the field of entrepreneurship after graduation.

The quality of a curriculum is a determining aspect of human development as well as the progress and success of a nation (Abdul Haris, 2018). Effective education should be based on the curriculum guidelines developed. This is because the curriculum developed is a tool for building student competence and is a guiding center in the implementation of education (Erin

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et al., 2022). Therefore, the implementation of the curriculum is the thing that has the most influence on the success of education (Santika et al., 2022). Entrepreneurship curriculum is known as education to impart knowledge, skills, and abilities to students to help them succeed in their career as entrepreneurs if they have graduated (Nian, Rosni, & Md. Aminul, 2014). As a conclusion in 21st century education, entrepreneurship curriculum is a way to provide students with skills in any field of study or discipline to produce creative, innovative, and entrepreneurial students (Welsh, Tullar, & Nemati, 2016). Through the entrepreneurship curriculum, flexibility, adaptability, and resilience will be applied to students so that success in employment can be achieved due to the changing demands of the workforce over time (Welsh, 2014).

Entrepreneurship Curriculum in The Context of Malaysian Community Colleges

The entrepreneurship curriculum was created at the community college with the aim of giving students exposure to improve their skills and interest in business. The knowledge and skills acquired can help students enter the field of entrepreneurship after completing their field of study (Entrepreneurship Curriculum, 2017). In this highly developed world, students need to be able to continue to explore and exploit opportunities outside their own fields if they want to survive and succeed after graduation. The curriculum at community colleges is centralized under the responsibility and supervision of the curriculum division of the Department of Polytechnic and Community College Education (JPPKK). This division is responsible for planning, developing, and coordinating the new curriculum for the community college diploma and certificate program.

Process Dimensions in Curriculum Evaluation

Process evaluation was introduced by Stufflebeam (2000) through the context-input-process-product (CIPP) Evaluation Model. Process evaluation is an evaluation of the process or action that has been built. It is also a continuous and planned survey. The information obtained in the evaluation of this process will be a yardstick for the success of a program through the implementation of strategies, activities, and program procedures, whether the set goals are achieved or not. Process evaluation also has a positive impact on the improvement of programs and activities carried out to be in harmony with the environment and community (Stufflebeam & Coryn, 2014). Therefore, an organization needs to evaluate the actions and implementation that are being carried out (Farsi & Sharif, 2014). Process evaluation also aims to assess whether the course curriculum is responsive to the diversity of needs in the current entrepreneurial world. In this study, the evaluation of the evaluated process is the implementation aspect of teaching and learning, assessment methods, and the use of teaching and learning materials.

Sub-Constructs in The Process Dimension

There are 3 sub-constructs in the process dimension of this study, namely teaching and learning methods, assessment methods, and the use of teaching and learning materials. Lecturers should implement teaching methods that meet the needs of students based on the right learning style to increase student motivation and performance (Idrizi et al., 2023). This is because the learning style of each individual is different when they process information in their own way, which makes it easier for them to understand the content of the lesson (Juniati & Budayasa, 2022). According to Abu Bakar (2021), the lecturer's creative method of teaching can help students understand certain concepts or skills. On the other hand, lecturers who do not have enough competence in educating students will face problems in their teaching and learning process. The knowledge, skills, and attitudes of lecturers in teaching are elements of competence involved in this issue.

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In addition, the study by Fonseca et al. (2020) in Tee et al. (2023) showed challenges in teaching, including a lack of references, traditional learning methods, and difficulty using teaching and learning materials that can attract students' attention. The use of teaching aid charts plays an important role in the learning process to ensure that students can understand the lecturer's teaching content more clearly (Sallehin and Ab Halim, 2018). Next, the learning atmosphere and process, teaching materials, and content should be suitable for each student's characteristics to ensure the effectiveness of learning for each student (Hamdaoui et al., 2018). Therefore, lecturers need to have elements of competence such as mastering the course content being taught, having pedagogical knowledge, and being able to choose teaching resources (Bordeianu, 2019). Materials in the form of technology benefit and facilitate the effective teaching and learning process, especially in improving the foundation of a concept (Akhimullah Abd Hamid, 2019). Conventional teaching methods only focus on the delivery of information (Naquiah Nahar & Jimaain Safar, 2018), which results in the teaching process becoming less effective and causing students to lack cognitive skills (Hasnah, 2017). Traditional teaching methods do not give students the opportunity to explore ideas in addition to taking a long delivery time (Abdul Halim Masnan, 2019), making students feel bored and easily distracted (Abu Bakar, 2021).

The Community College entrepreneurship curriculum also conducts assessments for learning to achieve the set curriculum objectives. Therefore, Community College lecturers play an important role in implementing assessment to achieve learning objectives based on curriculum documents by implementing teaching and learning planning, assessment methods, recording assessment results, analyzing assessment results, making follow-up actions, and reporting assessment results to students, administrators, and parties interested (Wan Nor Fadzilah Wan Husin et al., 2021). Figure 1 below shows the process dimension factors in the implementation of the entrepreneurship curriculum at Community College.

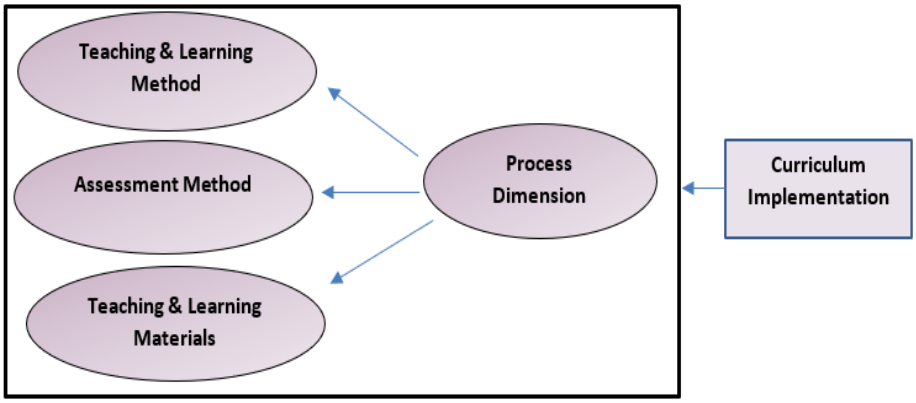

Figure 1:Process Dimension Measurement Model On The Entrepreneurship Curriculum
(Adapted: Stufflebeam (2000)

Methodhology

The design of this study is a quantitative study, which is an assessment in the form of a survey. The population in this study consists of 4836 students of Cluster 1 Community College in Peninsular Malaysia who are in the third and fourth semesters. The probability sampling method, which is simple random sampling to select student respondents, was used in this study. Researchers have managed to obtain as many as 416 sets of respondent questionnaires from 8 Cluster 1 Community Colleges in Peninsular Malaysia based on Krejcie and Morgan's (1970)

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sample size determination table. Therefore, in this study, a total of 416 samples were selected, consisting of Community College students as respondents.

Questionnaire research instruments were built and modified with reference to existing instruments as well as discussions with Polytechnic and Community College lecturers. There are 12 items representing the sub-construct of teaching and learning methods, 7 items representing the sub-construct of assessment methods, and 6 items representing the sub-construct of using teaching and learning materials. Table 1 below shows the measurement level of the questionnaire score set by the researcher, taken from Ghazali Darusalam and Sufean Hussin (2016).

Table 1: Questionnaire Measurement Level

Scale	Score
1	Strongly disagree
2	Disagree
3	Less agree
4	Agree
5	Strongly agree

Source: Ghazali Darusalam and Sufean Hussin (2016)

The objective analysis of study one (1) used in this study is a descriptive analysis using SPSS (Statistical Packages for Social Science for Windows) software. Table 2 shows the level of interpretation of the mean score used to evaluate the implementation of the entrepreneurship curriculum in this study, according to Jamil Ahmad (2002).

Table 2: Interpretation of The Mean Score

Mean Score Range	Interpretation
1.00 – 2.33	Low
2.34 – 3.66	Moderate
3.67 – 5.00	High

Source: Jamil Ahmad (2002)

While the objective analysis of two (2) studies using SPSS AMOS by conducting Confirmatory Factor Analysis (CFA) against the process dimension measurement model consisting of teaching and learning methods, assessment methods, and the use of teaching and learning materials. Therefore, the measurement model is achieved when the item factor loading value for each latent construct is 0.6 or more (Zainuddin Awang et al., 2018). If the value is less than 0.6, then a process such as the 'item elimination process' or set 'free parameter estimation process' is performed. In addition to checking the factor loading values, there are three types of validity that need to be met, namely construct validity, convergent validity, and discriminant validity. The validity of a construct can be achieved when the fit index reaches the set level, as summarized in Table 3. When the proposed model does not reach the set acceptance level, the value of the modification index (MI) is used to modify the model to obtain a good fit. According to Zainudin Awang et al. (2018), if the MI value is > 15, this indicates that there are at least two overlapping items in the model. Therefore, modification of the parameters in the model should be done either by removing one of the parameters or restricting a pair of repeated parameters.

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Once the modifications are made, the model needs to be re-evaluated to determine its overall fit. Validation of the measurement model also involves convergent validity, which refers to the measurement of the same concept with a high variance sharing rate (Hair et al., 2019). Convergent validity is achieved when each construct records an average value of variance extracted (AVE) of at least 0.50. Discriminant validity is achieved when the square root value of AVE for each construct is greater than the correlation value between different constructs. Additionally, the correlation between the exogenous constructs must be less than 0.85. Correlation values between constructs that exceed 0.85 indicate that the measurement model has a multicollinearity problem (Zainudin Awang et al., 2018). Reliability assesses the extent to which the measurement model is consistent in measuring related constructs (Zainudin Awang et al., 2018). There are two criteria used to assess reliability, namely composite reliability (CR) and AVE. Values of CR ≥ 0.60 and AVE ≥ 0.50, respectively, show that the reliability of the construct has been achieved. Table 3 shows a summary of the interpretation of fit index.

Table 3: Interpretation of Goodness of Fit Index

Goodness of Fit Index	Agree Value	Reviews
Absolute fit index:		
Chi-square (X^2)	p > 0.05 (not significant)	shows model fit. Values are sensitive to large sample sizes.
Root Mean Square Error of Approximation (RMSEA)	RMSEA ≤ 0.08	RMSEA < 0.05: good fit RMSEA 0.05 - 0.08: adequate fit values Value to 0.10: poor fit
The Goodness-of-Fit Index (GFI)	[0.00, 1.00]	GFI = 1.00: perfect fit GFI > 0.9: good fit
Incremental fit indices:		
Adjusted Goodness od Fit (AGFI)	[0.00, 1.00]	approximate value to 1.00 good fit AGFI > 0.9: good fit
Comparative Fit Index (CFI)	CFI ≥ 0.90	0.00 > CFI > 1.00 acceptance value
Tucker-Lewis Index (TLI)	TLI > 0.90	0.0 > TLI > 1.00 acceptance value
Normed Fit Index (NFI)	NFI > 0.90	NFI = 1.00: perfect fit approximate value to 0.00: poor fit
Parsimonious fit:		
Chi-square (X^2/df)	X2/df < 5.0	this is to reduce the sensitivity of X^2 to sample size X^2/df < 3.0: good fit

Source: Zainudin Awang et al. (2018) and Nor Hasnida (2015)

Findings

Based on the demographic analysis of the respondents, it was found that the gender of the respondents was more or less the same, with 219 male students (52.6%) and 197 female students (47.4%). As for the race of the respondents, it is clear that the majority of students at Community College are Malay, as many as 404 (97.1%). Next, for the respondent's area of residence, it was found that respondents from urban and rural areas were approximately the same, namely 228 people from urban areas (54.8%) and 188 people from rural areas (45.2%).

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Next, based on the descriptive analysis, it was found that the item mean for the three sub-constructs in the process dimension factor, namely teaching and learning methods, assessment methods, and the use of teaching and learning materials, is high. Table 4 is a summary of the results of the mean factor analysis of the process dimension in this study.

Table 4: Average Mean Score for Process Dimension Evaluation

Sub-Construct	Average Mean	Interpretation
Teaching and learning methods	4.17	High
Assessment methods	4.12	High
The use of teaching and learning materials	4.06	High

Based on Table 4, all three sub-constructs in the process dimension are highly rated by the respondents. This is based on the interpretation of the mean score that has been set in this study. Therefore, the results of this analysis have been able to answer objective one (1) of this study. Next, the study looks at the analysis for the second objective of the study, which is to confirm the measurement factors of the process dimension in the implementation of the entrepreneurship curriculum at the Community College. Figure 2 shows the results of the Amos analysis of the third-time process dimension measurement model.

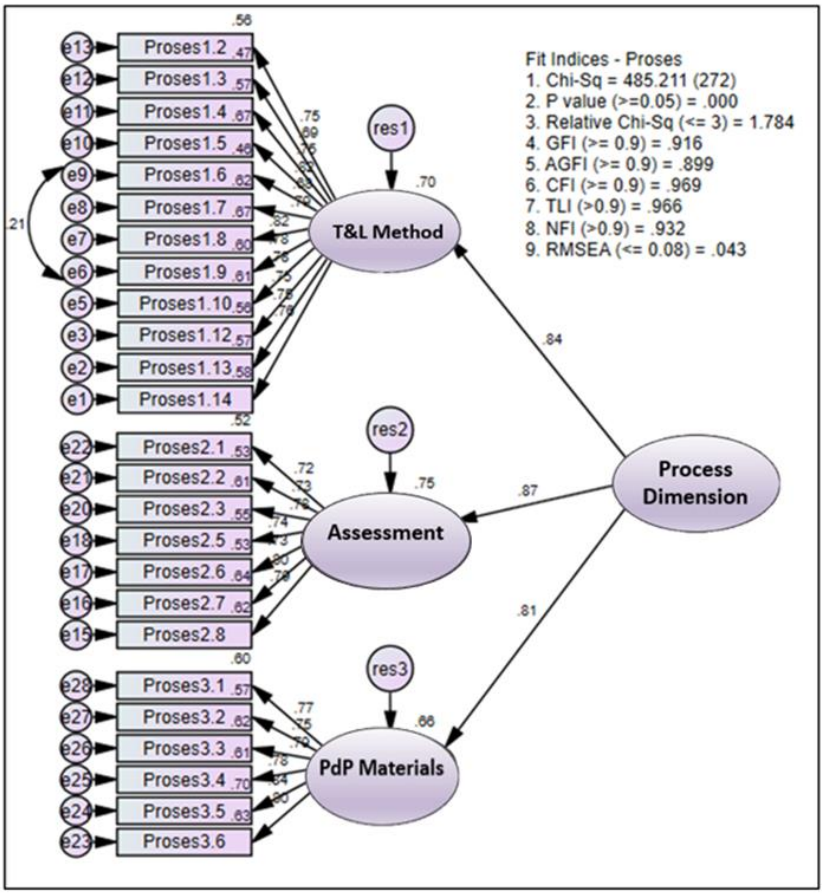

Figure 2: Process Dimension Measurement Model

Based on Figure 2, it was found that e6 and e9 are excessive because, usually a large MI value of more than 15 is considered large. Therefore, only one item pair has a high or excessive relationship. Accordingly, in this study, the researcher chose to resolve "correlated errors" or redundant items by setting both items to be in the "free parameter estimate" by combining the

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two errors between e6 and e9 and reanalyzing the model to produce a third-time process dimension measurement model.

Therefore, the researcher found that the process dimension model for the third time has a better fit. Index values such as Relative Chi-sq (1.784), GFI (0.916), CFI (0.969), TLI (0.966), NFI (0.932), and RMSEA (0.043) have met the conditions of model fit and completeness. Only the AGFI index (0.899) did not reach the specified conditions. However, in this study, the researchers have chosen the Relative Chi-sq, RSMEA, CFI, and TLI indicators as indicators that need to be met. This means the Goodness of Fit Indexes (GoF) were successfully achieved as specified. These results also show how good the proposed model is between the items in the measurement model for the process dimension construct and its sub-constructs. Therefore, this process dimension measurement model is acceptable.

Next, the study checked the normal distribution of the items in the process dimension measurement model for the third time in terms of univariate and multivariate, as shown in Table 5. Based on the table, all skewness and kurtosis values are still within the range of a normal distribution, so it can be said that the items have a distribution that is univariately normal. As for the multivariate normal distribution, Mardia's value of 232,235 is lower than 25 x 27 = 675, so this model meets the conditions of the multivariate normal distribution.

Table 5: Normal Distribution Evaluation of Process Dimension Models

Item	skew	c.r.	kurtosis	c.r.
Process 3.1	-1.311	-10.920	2.595	10.804
Process 3.2	-1.388	-11.560	3.937	16.390
Process 3.3	-0.922	-7.673	2.425	10.096
Process 3.4	-0.445	-3.705	0.011	0.045
Process 3.5	-0.735	-6.122	-0.312	-1.301
Process 3.6	-1.075	-8.949	1.084	4.512
Process 2.1	-1.012	-8.425	2.722	11.331
Process 2.2	-0.561	-4.671	1.535	6.389
Process 2.3	-0.400	-3.333	-0.248	-1.034
Process 2.5	-0.864	-7.193	3.923	16.334
Process 2.6	-1.050	-8.746	3.350	13.946
Process 2.7	-0.417	-3.476	0.222	0.925
Process 2.8	-0.907	-7.554	2.853	11.879
Process 1.2	-1.167	-9.720	4.846	20.176
Process 1.3	-0.189	-1.573	1.319	5.490
Process 1.4	-1.056	-8.796	3.851	16.032
Process 1.5	-0.702	-5.846	1.499	6.239
Process 1.6	-0.392	-3.264	2.491	10.373
Process 1.7	-0.779	-6.488	1.005	4.184
Process 1.8	-0.879	-7.319	3.081	12.826
Process 1.9	-1.155	-9.618	3.389	14.108
Process 1.10	-1.116	-9.294	3.788	15.772
Process 1.12	-0.600	-4.994	1.807	7.522
Process 1.13	-1.093	-9.100	5.280	21.981
Process 1.14	-0.653	-5.436	1.110	4.623
Multivariate			232.235	64.458

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Next, Table 6 summarizes the results of Amos to evaluate the convergence validity and reliability of the third-time process model construct. Based on the table, it was found that all sub-constructs have an AVE value exceeding 0.5, and the process dimension also reached an AVE value of 0.706, which exceeds 0.5. In addition, all the sub-constructs in the process dimension showed a CR value that exceeded 0.6. Based on the findings of the study above, it can be concluded that the process dimension measurement model, for the third time, has a satisfactory level of reliability and convergent validity.

Table 6. Validity and Reliability Statistics of the Process Dimension Measurement Model

Relationship			B	Beta	P	AVE	CR
PdPMethods	<---	Process	0.401	0.837	***	0.706	0.878
Assessment	<---	Process	0.460	0.868	***		
PdP Materials	<---	Process	0.595	0.814	***		
Process 1.14	<---	PdPMethods	1.000	0.764		0.579	0.943
Process 1.13	<---	PdPMethods	0.943	0.752	***		
Process 1.12	<---	PdPMethods	0.881	0.749	***		
Process 1.10	<---	PdPMethods	1.078	0.779	***		
Process 1.9	<---	PdPMethods	1.115	0.777	***		
Process 1.8	<---	PdPMethods	1.119	0.819	***		
Process 1.7	<---	PdPMethods	1.304	0.789	***		
Process 1.6	<---	PdPMethods	0.784	0.676	***		
Process 1.5	<---	PdPMethods	1.288	0.817	***		
Process 1.4	<---	PdPMethods	1.037	0.754	***		
Process 1.3	<---	PdPMethods	0.781	0.686	***		
Process 1.2	<---	PdPMethods	0.985	0.750	***		
Process 2.8	<---	Assessment	1.000	0.790		0.572	0.903
Process 2.7	<---	Assessment	0.976	0.800	***		
Process 2.6	<---	Assessment	0.950	0.731	***		
Process 2.5	<---	Assessment	0.864	0.744	***		
Process 2.3	<---	Assessment	1.067	0.778	***		
Process 2.2	<---	Assessment	0.878	0.726	***		
Process 2.1	<---	Assessment	0.945	0.720	***		
Process 3.6	<---	PdP Materials	1.000	0.796		0.623	0.908
Process 3.5	<---	PdP Materials	1.377	0.839	***		
Process 3.4	<---	PdP Materials	0.929	0.783	***		
Process 3.3	<---	PdP Materials	0.704	0.788	***		
Process 3.2	<---	PdP Materials	0.701	0.754	***		
Process 3.1	<---	PdP Materials	0.788	0.772	***		

Next, the study evaluates the discriminant validity of the process dimension measurement model for the third time using the square root value of AVE and the correlation value between the constructs. Table 7 shows statistics regarding the discriminant validity of the third-time process measurement model. In general, it is clear that all constructs in the process dimension show higher square root AVE values than correlation values with other constructs. From the table, it is found that the mean square root of AVE 0.789 is greater than 0.707 and 0.681. Next, the value of 0.756 is greater than 0.707 and 0.727. Finally, the value of 0.761 is greater than

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0.727 and 0.681. With that, the study can conclude that the process dimension model of the third-time has shown sufficient discriminant validity characteristics.

Table 7: AVE Statistics and Correlations Between Constructs of the Third Time Process Dimension Model

Sub-construct	The use of teaching and learning materials	Assessment methods	Teaching and learning methods
The use of teaching and learning materials	**0.789**		
Assessment methods	0.707	**0.756**	
Teaching and learning methods	0.681	0.727	**0.761**

Diagonal values = square root of AVE, other values = correlation between constructs

Based on the Confirmatory Factor Analysis (CFA) procedure, it was found that the process dimension measurement model is valid and acceptable. Therefore, this analysis has answered the second objective of the study, which is to confirm the measurement factors of the process dimension in the implementation of the entrepreneurship curriculum.

Discussion

The findings in this study related to teaching and learning methods by lecturers are very good. This finding is in line with the study carried out by Ahzilah et al. (2017) and Nurzulaikha and Noor Aslinda (2021), in which a good teaching and learning delivery factor can give satisfaction and interest to students. According to Syed Zamberi et al. (2018), there are good methods in the entrepreneurial teaching and learning process, such as consulting projects and problem-based learning, as stated in the questionnaire of this study. The aspect of curriculum implementation in terms of assessment methods shows a high mean based on the results of the analysis. This means that lecturers have used their expertise and skills to provide effective assessment to students. This coincides with Yeh and Mohd Zahuri's (2018) study, which states that lecturers must be knowledgeable and skilled in conducting assessments for students.

Based on the findings of the use of teaching and learning materials in this study, lecturers have a high level of use of various uses of teaching and learning materials during the learning and delivery process of the entrepreneurship curriculum. This finding also supports the fact that the use of teaching and learning materials such as multimedia can encourage better collaboration among students, form critical thinking skills, and increase knowledge in a student-centered learning process (Park and Gentry, 2017; Fathia et al., 2016). As for the Confirmatory Factor Analysis (CFA), in this study, no items or sub-constructs were removed in the CFA process. Therefore, this study has been able to prove the appropriateness of the measurement model that links dimensions and sub-constructs.

Conclusion

The evaluation of process dimensions in this study is at a high level. This means that the teaching and learning process of the entrepreneurship curriculum at Community College is good. Next, validation of the measurement model is a prerequisite that must be met before modelling the cause-and-effect relationship between constructs in a structural equation model. It aims to ensure that the research instrument is really capable of measuring what it is supposed to measure for the situation in which it is applied while also being consistent in measuring the intended construct. This paper has reported the process dimension measurement model

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validation procedure for the sub-construct of teaching and learning methods, assessment methods, and the use of teaching and learning charts.

The third time measurement model that has been modified has high construct validity with reference to the established compatibility index value. All three measurement models also achieve unidimensionality and pass reliability and construct validity tests in addition to having convergent and discriminant validity. Overall, the CFA analysis used in this study successfully confirmed the number of sub-constructs and items representing each sub-construct in the process dimension as proposed. Thus, the process dimension measurement model is acceptable and suitable to be used to model the relationship between the constructs.

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References

Abdul Halim Masnan,(2019). Pengetahuan Pengajaran dalam Kalangan Guru Prasekolah. *Jurnal Pendidikan Awal Kanak-kanak, 33-41*.

Abdul Haris. (2018). *Pelaksanaan Kurikulum Mata Pelajaran Pendidikan Jasmani Peringkat Sekolah Menengah Pertama Di Makassar, Sulawesi Selatan*. http://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203

Abu Bakar, M. H. (2021). Cabaran Memperkasakan Pendidikan Teknik Dan Vokasional. Prosiding Penyelidikan TVET Peringkat Negeri.

Ahmad Raflis Che Omar, Abdullah Sanusi Othman, Suraiya Ishak, Jumaat Abd Moen, Mohd Rizal Palil, Mohamad Abdul Hamid, & Mohd Fauzi Mohd Jani. (2014). Mengasuh bakal usahawan Malaysia: Penentu keberkesanan pembelajaran kewangan di Institusi Pengajian Tinggi Awam. *Malaysian Journal of Society and Space*, 10 (2), 104-114.

Akhimullah Abd Hamid, A. R. (2019). Concept, Issues and Challenges for Effective Facilitations in History Education. *Social Sciences, Education and Humanities Vol (2), 176-181*.

Ahzilah Wahid, Amlus Ibrahim, & Norashidah Hashim. (2017). The Review of Teaching and Learning on Entrepreneurship Education in Institution of Higher Learning. *Journal on Technical and Vocational Education*, 1(2), pp. 82- 88.

Bordeianu, (2019). *Exploring Global Competencies for Future Educators:Investigating Students 39; Global Competency Level in Teacher Preparation Programs-Traditional Versus Global Education*. [Doctoral Dissertation, Oakland University].

Erin Aprillia, Cut Nurhayati, & Anjani Putri Belawati Pandiangan. (2022). Perubahan Kurikulum Pada Proses Pembelajaran. *Jurnal Ilmu Pendidikan Dan Sosial*, *1*(4), 402–407. https://doi.org/10.58540/jipsi.v1i4.78.

Farsi, M., & Sharif, M. (2014). Stufflebeam ' S Kipp Model & Program Theory : A Systematic Review. *International Journal of Language Learning and Applied Linguistics World (IJLLALW)*, *6*(July), 400–406.

Fathia, L., Ajlan, S. A., & Mohamad, A. (2016). Proposed framework between internal, external and pedagogy dimensions in adoption of interactive multimedia e-learning. *Turkish Online Journal of Distance Education*, 17(4), 158–174.

Ghazali Darussalam & Sufean Hussin. (2016). *Metodologi penyelidikan dalam pendidikan*. Kuala Lumpur : Penerbit Universiti Malaya

Haara, F. O., & Jenssen, E. S. (2016). Pedagogical entrepreneurship in teacher education–what and why? Icelandic Journal of Education, 25(2), 183-196.

Volume: 9 Issues: 66 [September, 2024] pp. 723 - 736
Journal of Islamic, Social, Economics and Development (JISED)
eISSN: 0128-1755
Journal website: www.jised.com
DOI: 10.55573/JISED.096660

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Hampshire, UK: Cengage Learning EMEA.

Hamdaoui, N., Idrissi, M. K., & Bennani, S. (2018). Modeling learners in educational games: Relationship between playing and learning styles. Simulation & Gaming, 49(6), 675–699. https://doi.org/10.1177/1046878118783804.

Hasnah, I. (2017). Kompetensi Guru Bahasa Melayu Dalam Menerapkan Kemahiran Berfikir Aras Tinggi Dalam Pengajaran dan Pembelajaran. *Jurnal Pendidikan Bahasa Melayu, 56-65.*

Idrizi, E., Filiposka, S. & Trajkovikj, V. (2023). Gender impact on STEM online learning- a correlational study of gender, personality traits and learning styles in relation to different online teaching modalities. Multimedia Tools and Applications. https://doi.org/10.1007/s11042-023-14908-x.

Jabatan Perangkaan Malaysia. (2020). Indikator Matlamat Pembangunan Mampan (SDG Indicator) Malaysia 2019. Jabatan Perangkaan Malaysia. https://www.epu.gov.my/sites/default/files/2021-02/Sustainable- Development-Goals-%28SDG%29-Indicators-Malaysia-2019.pdf

Jamil Ahmad. (2002). *Pemupukan Budaya Penyelidikan di Kalangan Guru-guru di Sekolah: Satu Penilaian* (Tesis Doktor Falsafah yang tidak diterbitkan). Bangi, Selangor: Fakulti Pendidikan, Universiti Kebangsaan Malaysia.

Janius, N., Jahadi, N. E. H. B., Abdullah, S. N. L. B., & Simon Ling, M. (2023). Kesedaran Pendidikan Keusahawanan Terhadap Kerjaya Kanak-Kanak di Masa Hadapan: Satu Tinjauan Literatur. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, *8*(5), e002286. https://doi.org/10.47405/mjssh.v8i5.2286

Juniati, D., & Budayasa, I. K. (2022). The effect of learning style on problem solving strategies of prospective mathematics teachers. AIP Conference Proceedings, 2577. https://doi.org/10.1063/5.0096017.

Kurikulum keusahawanan (2017). Jabatan Pendidikan Kolej Komuniti, Kementerian Pendidikan Tinggi (KPT).

Krejcie, R. V, & Morgan, D. (1970). Determining Sample Size For Research Activities. *Educational And Psychological Measurement*, 607–610.

Ministry of Higher Education. (2023). Graduate Tracer Study Report 2022. Putrajaya: Ministry of Higher Education.

Natesan, M. A. (2017). *Keberkesanan Perkhidmatan Bimbingan Dan Kaunseling Sekolah Menengah Di Malaysia*. [Tesis Doktor Falsafah, Universiti Malaya].

Naquiah Nahar, & Jimaain Safar. (2018). Penguasaan Pengetahuan Kandungan (Content Knowledge): Pemangkin Keterampilan Pedagogi Jawi Berkesan Abad ke-21. *Jurnal Teknikal & Sains Sosial, 8(1), 45-59.*

Nian, T. Y., Rosni, B., & Md. Aminul, I. (2014). Students' Perception on Entrepreneurship Education: the case of Universiti Malaysia Perlis. *International Education Studies*, *7*(10), 40–49. https://doi.org/10.5539/ies.v7n10p40.

Nor Hasnida Che Md Ghazali. (2015). An Evaluation of The Implementation of The School-Based Assessment System in Malaysia. *Thesis for the Degree of Doctor of Philosophy.*

Nurzulaikha Amran, & Noor Aslinda. (2021). Hubungan antara Faktor Sokongan Pendidikan dan Minat Pelajar dalam Bidang Keusahawanan. *Research in Management of Technology and Business, 2*(1), 1499–1508.

Othman, M., Jantan, J., & Agos, A. M. (2023). Impak Pendekatan Pembelajaran Berasaskan Kerja Dalam Membina Kemahiran Keusahawanan Dalam Kalangan Pelajar Politeknik METrO Johor Bahru. *International Journal of Advanced Research in Education and Society*, *5*(3), 75–89. https://doi.org/10.55057/ijares.2023.5.3.8

Volume: 9 Issues: 66 [September, 2024] pp. 723 - 736
Journal of Islamic, Social, Economics and Development (JISED)
eISSN: 0128-1755
Journal website: www.jised.com
DOI: 10.55573/JISED.096660

Park, S., & Gentry, V. (2017). Promoting pre-service teachers' multimedia design skills through collaborative multimedia service-learning (CMSL). *Journal of Service-Learning in Higher Education*, 6(1), 1–14.

Sallehin, S. A., & Ab Halim, F. (2018). Penggunaan alat bahan bantu mengajar berasaskan multimedia dalam pengajaran dan pembelajaran di sekolah menengah zon benut. Online Journal for TVET Practitioners. Retrieved June 27, 2023, from https://publisher.uthm.edu.my/ojs/index.php/oj-tp/article/view/4814.

Santika, I. G. N., Suarni, N. K., & Lasmawan, I. W. (2022). Analisis Perubahan Kurikulum Ditinjau Dari Kurikulum Sebagai Suatu Ide. *Jurnal Education and Development*, 10(3), 694–700. https://journal.ipts.ac.id/index.php/ED/article/view/3690

Sarimah Che Hassan. (2018). *Kolej Komuniti Hulu Langat Wadah Melahirkan Majikan (Entrapreneur dan Intrapreneur) Lestari Menerusi Pendidikan Keusahawanan*. Diges Kolej Komuniti Hulu Langat Jabatan Pendidikan Politeknik dan Kolej Komuniti.

Sarimah Che. Hassan, Norlizah Che. Hassan, Suhaidal Mohd Daud, & Aidah Abdul Karim. (2020). Tahap Kesediaan Keusahawanan Pelajar di Institusi Pendidikan Teknikal dan Latihan Vokasional (TVET) di Hulu Langat. *Jurnal Dunia Pendidikan*, *2*(3), 95–107. http://myjms.moe.gov.my/index.php/jdpd

Soeharso, S. Y., & Riyanti, B. P. D. (2021). The intentions to become entrepreneurs in the Indonesian Vocational School Graduates. Academy of Entrepreneurship Journal, 27(5), 1-5.

Stufflebeam, D. L. (2000). The CIPP Model For Evaluation. *Evaluation Models: Viewpoint on Educational and Human Services Evaluation*, 279–317. https://doi.org/10.1007/0-306-47559-6_16

Stufflebeam, D. L., & Coryn, C. L. S. (2014). *Evaluation, Theory, Model & Applications* (2nd ed.). United States of America: Jossey-Bass A Wiley Brand.

Suraiya Ishak, Ahmad Raflis Che Omar, Fahruddin Mustafa Al Bakri & Lokhman Hakim Osman. (2018). Amalan Pembelajaran dan Kesannya Terhadap Pembentukan Pengetahuan Serta Kemahiran Perniagaan Dalam Kalangan Generasi Z. *Malaysian Journal of Society and Space* 14 issue 1 (15-28).

Syed Zamberi Ahmad, Abdul Rahim Abu Bakar, & Norita Ahmad. (2018). An evaluation of teaching methods of entrepreneurship in hospitality and tourism programs. *International Journal of Management Education*, Vol. 16, No. 1, pp. 14–25.

Tee, T. K., Yee, C. S., Wulansari, R. E., Singh, C. K. S., Azid, N. W., & Hanapi, Z. (2023). Challenges and Teaching Needs for Technical Communication Graphics Teachers at National Secondary Schools. *Online Journal for TVET Practitioners*, *8*(2), 44–59. https://doi.org/10.30880/ojtp.2023.08.02.005.

Wan Nor Fadzilah Wan Husin, Ilhavenil Narinasamy, & Logeswari Arumugam M Pillay. (2021). Pembinaan dan pengesahan instrumen kajian pelaksanaan Pentaksiran Bilik Darjah Tahap Satu: Satu analisis faktor. *Jurnal Kurikulum, 6, 43–55.*

Welsh, D. H. (2014). A Model of Cross Campus Entrepreneurship and Assessment, *4*(1), 95–115. https://doi.org/10.1515/erj-2013-0038

Welsh, D. H. B., Tullar, W. L., & Nemati, H. (2016). Entrepreneurship education: Process, method, or both? *Journal of Innovation & Knowledge*, *1*(3), 125–132. https://doi.org/10.1016/j.jik.2016.01.005

Yeh, L. H. & Mohd Zahuri Khairani. (2018). Pelaksanaan PBD Guru-Guru PSV Hilir Perak dan Bagan Datuk dalam Pengajaran dan Pelajaran Berasaskan Estetik. *KUPAS SENI Jurnal Seni Dan Pendidikan Seni*, 6, 1-10.

Zainudin Awang, Hui, L. S., & Nur Fairuza Syahira Zainudin. (2018). *Pendekatan Mudah SEM (Structural Equation Modelling)*. MPWS Rich Resources Sdn. Bhd.

Volume: 9 Issues: 66 [September, 2024] pp. 723 - 736
Journal of Islamic, Social, Economics and Development (JISED)
eISSN: 0128-1755
Journal website: www.jised.com
DOI: 10.55573/JISED.096660

Zulhafizi bin Mohd Yusof, M., binti Tahir Pusat Kajian Pembangunan, Z., & dan Persekitaran, S. (2021). *Faktor Kejayaan Usahawan Muda dalam Perniagaan Industri Kecil dan Sederhana (IKS) di Malaysia Success Factors for Young Entrepreneurs in Small and Medium Industry (SME) Businesses in Malaysia*. *5*(1), 1–13.