Design of the Creativity Practice Framework for Teaching Engineering Drawing Teachers (CP-EDT) at SMT Malaysia: Exploratory Factor Analysis (EFA)

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Abstract

A creative teacher will automatically inspire students to be creative. Teachers' teaching creativity practices are the most important thing to enable students' concentration in the classroom as well as make ongoing teaching and learning more interesting and meaningful. Realizing the importance of creativity in teacher teaching, the study to identify the constructs, sub-constructs and elements of the Creativity Practice Framework for Teaching Engineering Drawing Teachers (CP-EDT) was conducted with the aim of developing a framework that can be used as a guide and reference by all teachers and related parties. To answer the question of the study related to the design of the CP-EDT framework, the researcher used EFA analysis to identify, reduce and arrange the elements into specific constructs as well as identify the ability of the elements to measure each construct based on the value of the factor weights, in addition to involving the Kaiser-Meyer-Olkin Test (KMO) and the Bartlett Sphericity Test. The findings of the study show that each element can represent a sub-construct and the measured construct is reliable and in accordance with the measurement model of this study. Furthermore, the KMO value has also been complied with and shows the adequacy of the sample involved and the variance and dimension values of a construct have also been complied with. The findings also show that the Designing TL construct consists of four sub-constructs followed by 20 elements. The Learning Guiding Construct consists of three sub-constructs and contains 15 elements. Meanwhile, there are three sub-constructs of Implementing TL which also contain 15 elements. Furthermore, there are three sub-constructs and 15 elements contained in the building of the Creative Community Building. Finally, the results show that 15 elements are contained in three sub-constructs for the Estimating construct. The findings of this study are very important to enable researchers to continue the development process of the CP-EDT framework. It is hoped that this study can create teachers' awareness of creativity and make it a practice in to increase the effectiveness of teaching optimally as well as produce creative, innovative and competitive human capital in line with the development of globalization today.

Keywords: Creativity Practice Framework, Teaching Engineering Drawing Teachers, Exploratory Factor Analysis

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Introduction

Transformation in today's education system requires changes in line with the development of today's education world. In this regard, the need for a paradigm shift among teachers is urgently needed to go hand in hand in facing this transformation (Ahmad Saifudin & Hamzah, 2021). In addition, teachers play an important role in producing human capital that is knowledgeable, with integrity, creative thinking, innovative and able to meet the needs of the industrial revolution 4.0 (Apak & Taat, 2018). In the effort of teachers to carry out their responsibilities and play an important role in the realisation of the National Education Philosophy (FPK), teachers must not be tied to one way in delivering their teaching and learning. Instead, teachers should try to break out of their habits and comfort with the same goal, which is to make their teaching more engaging and able to achieve teaching and learning objectives (Hamdan, 2017; Sahrir et al., 2020). According to Mohd Nor et al., (2020) and Dagang (2016), effective teaching requires systematic planning and thinking outside the box as well as the use of more effective teaching approaches.

Meanwhile, a teaching process that prioritizes creativity in teaching can develop the overall potential of students and make teachers' teaching more engaging and effective (Leifler, 2020). In this regard, teachers must be aware of the importance of practicing creativity in teaching and practicing in an orderly and planned manner (Sahrir et al., 2020; Mohd Nor et al., 2020). Therefore, this study is very important as an effort to respond to the recommendations of the MOE in transforming education through efforts to empower the practice of creativity in teacher teaching while improving student success. This study is in line with a study conducted by Batjo et al., (2019) and Jamil & Rabihah (2021) that a student's success depends on the teacher's effort and creativity in delivering his teaching. In addition, it also includes teachers' efforts to practice creativity in their role as facilitators and even incorporate creativity during the teaching and learning process (Samsudin et al., 2013; Abu Hassan et al., 2018).

The concept of creativity is interpreted as the process of thinking to come up with powerful and useful ideas to solve problems (Erica McWilliams & Dawson, 2008). Meanwhile , Soh, (2015) also stated that the generation of new ideas is considered original, authentic and useful in their living environment. He also added that creativity in coming up with new ideas or products requires proactive action. Therefore, Sternberg, (2006) also emphasizes that creatively structured strategic planning can lead to new inventions and shape proactive thinking. In this regard, Raja Ismail & Ismail (2018) also found that the act of nurturing a culture of creativity needs to be strengthened at the school level through human resource development to prepare for the current and future challenges of globalization.

Creativity not only depends on cognitive processes, generating ideas and solving problems, but it also encompasses a wide range of related fields, creative etymology, cognitive processes, social processes, creative personality and emotions (Sternberg, 2006). In fact , Cropley, (1995) also states that most experts related to creativity agree that there are three main core elements in creativity which are (i) originality in the production and action of the product; (ii) effectiveness in achieving goals and (iii) the production of something ethical and selfless. In this regard, an understanding of the concept of creativity is required by a teacher to adapt to practicing their creative teaching.

In this regard, realising the importance of teachers practicing creativity in teaching, Ahmad et al., (2019), also stated that teachers' ability to make their teaching more engaging depends on their ability to use creativity in delivering their teaching. This is also acknowledged by Abu Hassan et al., (2018) who also stated that the concept of creativity practice in teacher teaching is geared towards how a teacher adapts to various changes by spreading new ideas through creativity. Awi & Zulkifli, (2021) also believe that the changes and reforms made during the teaching and learning process will be more meaningful and enjoyable for students. In this regard, through the practice of activities in teachers' teaching along with various ideas, they can make their teaching more planned. A study by Badrul & Nasruddin (2016) and Speranza et al., (2017) also found that teachers who practice creative teaching are also responsible for their teaching, become more motivated, creative-minded and strive to make their teaching more creative, planned and purposeful. Furthermore, through the practice of creativity in a person, it also helps to form creative people, creating a comfortable climate Sternberg (2006) and conducive to the creative teaching process in the classroom (Raja Ismail & Ismail, 2018).

This study aims to develop a CP-EDT framework. There are several challenges faced by teachers to practice creativity in their teaching. Therefore, one of the problems identified is the absence of specific guidelines for teachers to practice creativity in LK subjects. Based on this issue, research related to creativity knowledge, teaching strategies and the implementation of creativity practices in teaching requires full exploration in ensuring the effectiveness of teaching and learning. There are also some questions about how these teachers' teaching creativity practices can help improve student teaching and learning. In this regard, this question can be answered with the Creativity Practices in teaching guide to help teachers improve their creativity knowledge, plan TLs, guide learning, implement TLs, build creative communities, and make guided assessments. It is hoped that through the LK Teacher Teaching Creativity Practice guide, it can help teachers equip students with 21st century skills and subsequently produce meaningful teaching and learning.

Therefore, this study aims to identify, reduce and organize the sub-constructs into constructs in designing the CP-EDT framework. Furthermore, the research questions that need to be answered to achieve the objectives of the study have been set. The first objective is to determine whether the elements contained in the sub-build represent the CP-EDT build. Furthermore, the second objective is to ensure that the ability of the elements studied to measure each construct based on factor weights and ensure that the data obtained is suitable for conducting confirmatory factor analysis tests.

Methodology

This research uses Mixed Methods involving a combination of qualitative and quantitative methods. This method was chosen because it involves the exploration of constructs and sub-constructs using qualitative methods and then using quantitative methods to verify the constructed and sub-constructs obtained. The advantage of this method is that it can expand the findings of the study through a complete picture using quantitative methods. However, to answer the question of the seventh study, namely the design of the CP-EDT framework, the

researchers used EFA analysis. Accordingly, Exploratory factor analysis (EFA) has been used to identify, reduce and organize sub-constructs into specific constructs (Johnson & Christensen, 2014).

This method also aims to explain and summarize data by grouping elements into a specific construct (Mutang et al., 2014; Tabachnick & Fidell, 2013). In addition, EFA analysis can also identify elements that can measure each construct based on the weighting value of the factor (Hair et al., 2014; Howard, 2016). However, Awang, (2018) stated that only elements with a *loading factor* of 0.6 and above will be accepted. Therefore, EFA analysis was chosen as one of the data analysis methods for this study to identify, reduce and arrange the elements contained in the TL planning construct, guide learning, implement TL, build a creative community and estimate which is expected to represent the data.

In this study, the EFA analysis conducted involved *the Kaiser-Meyer-Olkin Test (KMO)* and *the Bartlett's Test of Sphericity*. The *Kaiser-Meyer-Olkin Test (KMO)* is intended to determine the suitability of the study data while the *Bartlett's of Sphericity* Test is to confirm the existence of a factorability relationship between the variables studied (Hair et al., 2014). In this regard, Awang (2018) and Hoelzle & J. Meyer (2012) argue that the KMO index value of 0.6 and above and the value *of the Bartlett's of Sphericity* Test are significant *(P-Value < 0.05)* indicating that the data obtained is suitable for the Validation Factor Analysis (CFA) process.

To assess whether the factors extracted from the analysis of these factors are reliable or not is to pay attention to the *factor loading* values of each element in the *pattern matrix table.* In this regard, Awang (2018) stated, the value of the weighting factor can show the correlation relationship between the elements and the factors or constructs that are formed. Meanwhile, the value of elements with a *factor loading value* of 0.6 is only accepted (Ehido et al., 2020). Finally, to ensure that each element is in a consistent state and can reflect the measured construct, the Alpha Cronbach coefficient value of all elements should be paid attention to while the Alpha Cronbach value should be 0.7 and above (Hair et al., 2014).

Findings

To develop the CP-EDT framework, the researchers used EFA analysis. Accordingly, an EFA analysis was carried out on each element contained in the framework constructed representing the sub-constructs and constructs studied. The explanation of the findings of the study refers to the main constructs as follows:

Planning Teaching and Learning

There are four sub-constructs contained in the TL planning construct, namely the following sub-constructs; (AA) set teaching objectives; (AB) adjusting the student's background, (AB) developing a teaching strategy, (AC) developing a teaching strategy and (AD) determining the use of Teaching Aids (TA). Accordingly, the results of the analysis of the four factors involved were collected and elaborated in one table. The summary of the KMO Schedule and Bartlett's Test *of Sphericity* for the sub constructs contained in the TL planning construct is shown in

Table 1. Referring to the results of the exploration factor analysis, it was found that the KMO value for the four sub-constructs of the TL planning was above 0.6 which ranged from 0.605 to 0.691. While the Bartlett's Test values for the AA, AB, AC and AD constructs (Chi-Square = 68.010, 83.276, 82.325 and 47.954) and p-values = 0.000 for all the sub-constructs. These findings show the adequacy of sampling to conduct factor analysis on all sub-constructs of designing TL.

Table 1 KMO Schedule and Bartlett's Test for TL Planning Constructs

KMO and Bartlett's Test		AA	AB	AC	AD
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.691	0.605	0.650	0.642
Bartlett's Test of Sphericity	Approx. Chi-Square	68.01	83.276	82.325	47.954
	Df	10	10	10	10
	Sig.	0.000	0.000	0.000	0.000

Table 2 shows the matrix components that combine the four sub-constructs of the TL design, and it is found that all elements from AA1 to AA5 have a factor-weighting range ranging from 0.652 to 0.790. While elements AB1 to AB5 have a factor-weighting range ranging from 0.650 to 0.790, elements AC1 to AC5 have a factor-weighting range ranging from 0.686 to 0.837 and elements AD1 to AD5 have a factor-weighting range ranging from 0.648 to 0.768. All weighting ranges achieved by all elements contained in the TL planning construct are above 0.6 values.

Table 2 Components and weighting values of the TL Planning sub-construct

	AA *Component*	AB *Component*	AC *Component*	AD *Component*
AA1	.689			
AA2	.790			
AA3	.743			
AA4	.760			
AA5	.650			
AB1		.689		
AB2		.790		
AB3		.743		
AB4		.760		
AB5		.650		
AC1			.714	
AC2			.686	
AC3			.731	
AC4			.837	
AC5			.719	

AD1	.667
AD2	.710
AD3	.768
AD4	.648
AD5	.733

These findings also show that all the elements listed can well describe the entire sub-construct contained in the TL planning construct.

Guiding Learning

There are three sub-constructs contained in the Guiding Learning construct as follows; (BA) provides learning support, (BB) models themselves as creative individuals and (BC) guides the process of knowledge possession. Accordingly, the results of the analysis of the three factors involved are collected and elaborated in one table. The summary of the KMO Table and the Bartlett's *Test of Sphericity* for the sub-constructs contained in guiding learning are shown in **Table 3**. Referring to the results of the analysis of exploration factors, it was found that the KMO value for the three sub-constructs guiding learning was above 0.6 which ranged from 0.657 to 0.675. While the Bartlett's Test values for the BA, BB, and BC constructs (Chi-Square = 61.936, 55.538 and 44.938) and p-value = 0.000 for the three sub-constructs. These findings show the adequacy of sampling to conduct factor analysis on all sub-constructs guiding learning.

Table 3 KMO Schedule and Bartlett's Test for the Guiding Learning construct

KMO and Bartlett's Test		BA	BB	BC
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.657	0.675	0.663
Bartlett's Test of Sphericity	Approx. Chi-Square	61.936	55.538	44.938
	Df	10	10	10
	Sig.	0.000	0.000	0.000

Table 4 shows the matrix components that combine the three sub-constructs to guide learning. It was found that all elements from BA1 to BA5 had a factor weighting range ranging from 0.619 to 0.896. Meanwhile, elements BB1 to BB5 have a factor-weighting range ranging from 0.684 to 0.902 and elements BC1 to BC5 have a factor-weighting range ranging from 0.601 to 0.706. All weighting ranges achieved by all elements contained in the TL planning construct are above 0.6 values.

Table **Error! No text of specified style in document.** Components and weighting values for the Learning Guiding sub-construct

	BA	BB	BC
	Component	*Component*	*Component*
BA1	.883		
BA2	.896		
BA4	.619		
BA3	.738		
BA5	.727		
BB1		.902	
BB2		.684	
BB3		.772	
BB4		.791	
BB5		.721	
BC1			.706
BC2			.609
BC3			.601
BC4			.695
BC5			.603

These findings also show that all elements can explain well the sub-constructs contained in the learning guiding construct.

Implementing Teaching and Learning

There are three sub-constructs contained in the construct of implementing TL, namely: (CA) implementing relevant activities, (CB) controlling students' concentration and (CC) providing an environment that encourages the creative process. Accordingly, the results of the analysis of the three factors involved are collected and elaborated in one table. The summary of the KMO Table and Bartlett's *Test of Sphericity* for the sub-constructs contained in implementing the TL is shown in **Table 5** Referring to the results of the exploratory factor analysis, it was found that the KMO values for the three sub-constructs implementing the TL were above the value of 0.6 which ranged from 0.624 to 0.687. While the values of Bartlett's Test for the CA, CB, and CC constructs (Chi-Square = 38.666, 41.562 and 23.190) and *p-value* = 0.000 for the three sub-constructs. These findings show the adequacy of sampling to conduct factor analysis on all sub-constructs implementing TL.

Table 5 KMO Schedule and Bartlett's Test for Construct Implementing TL

KMO and Bartlett's Test	CA	CB	CC
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.687	.682	.624

Bartlett's Test of Sphericity	Approx. Chi-Square	38.666	41.562	23.190
	Df	10	10	10
	Sig.	0.000	0.000	0.000

Next, Table 6 shows the matrix component table that combines the three sub-constructs to guide learning, it is found that all elements from CA1 to CA5 have a factor weighting range ranging from 0.643 to 0.893. While the CB1 to CB5 elements have a factor weighting range between 0. 719 to 0.941 and CC1 to CC5 elements recorded a factor weighting range between 0.603 to 0.756. All the weighting ranges achieved by the entire elements contained in the TL planning construct are above the value of 0.6.

Table 6 Components and weighting values for constructs Implementing TL

	CA *Component*	CB *Component*	CC *Component*
CA1	.869		
CA2	.643		
CA3	.684		
CA4	.893		
CA5	.793		
CB1		.812	
CB2		.941	
CB3		.744	
CB4		.769	
CB5		.719	
CC1			.603
CC2			.745
CC3			.676
CC4			.604
CC5			.756

These findings also show that all elements can explain well the sub-constructs contained in the construct to implement the TL.

Building a Creative Community

There are three sub-constructs contained in the creative community development construct, namely the sub-construct (DA) priorities collaboration, (DB) values diversity and (DC) fosters a sense of responsibility. Accordingly, the results of the analysis of the three factors involved are collected and elaborated in one table. The summary of the KMO Table and the Bartlett's *Test of Sphericity* for the sub-constructs contained in the construct of building a creative community are shown in Table 7. Referring to the results of the exploratory factor analysis, it was found that the KMO value for the three sub-constructs of developing creative communities

exceeded the value of 0.6 which ranged from 0.609 to 0.651. While the Bartlett's Test values for the DA, DB, and DC sub-constructs (Chi-Square = 84.815, 107.891 and 35.307) and *p-values* = 0.000 for the three sub-constructs. These findings show the adequacy of sampling to conduct factor analysis on all sub-constructs for the construction of a creative community.

Table 7 KMO Analysis and Bartlett's Test for Creative Community Development constructs

KMO and Bartlett's Test		DA	DB	DC
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.651	.609	.622
Bartlett's Test of Sphericity	Approx. Chi-Square	84.815	107.891	35.307
	Df	10	10	10
	Sig.	0.000	0.000	0.000

Table 8 shows the matrix component table that combines the three sub-constructs of developing a creative community, it is found that all elements from DA1 to DA5 have a factor weighting range ranging from 0.605 to 0.803. Meanwhile, the DB1 to DB5 elements have a factor weighting range of 0.607 to 0.834 and the DC1 to DC5 elements have a factor weighting range of 0.742 to 0.958. These findings also show that all the weighting ranges achieved by all elements contained in the creative community building construct are above 0.6. Therefore, the findings show that all the elements listed can well explain the sub-constructs contained in the building of a creative community.

Table 8 Components and weighting values for the Creative Community Building construct

	DA *Component*	DB *Component*	DC *Component*
DA1	.803		
DA2	.760		
DA3	.721		
DA4	.605		
DA5	.783		
DB1		.607	
DB2		.790	
DB3		.655	
DB4		.732	
DB5		.834	
DC1			.820
DC2			.958
DC3			.742
DC4			.764
DC5			.766

Estimating

There are three sub-constructs contained in the estimating construct, namely the alternative assessment sub-construct (EA), the continuous assessment (CB) and the improvement (CC). Accordingly, the results of the analysis of the three factors involved are collected and elaborated in one table. The summary of the KMO Table and Bartlett's *Test of Sphericity* for the sub constructs contained in the estimating construct are shown in **Table 9**. Referring to the results of the analysis of exploration factors, it was found that the KMO value for the three estimating sub-constructs exceeded the value of 0.6 which ranged from 0.614 to 0.671. While the Bartlett's Test values for the EA, EB, and EC sub-constructs (Chi-Square = 35.307, 40.201 and 93.324) and p-values = 0.000 for the three sub-constructs. These findings show the adequacy of sampling to conduct factor analysis on all sub-construct estimations.

Table 9 KMO Schedule and Bartlett's Test for Estimating Constructs

KMO and Bartlett's Test		EA1	EA2	EA3
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.622	0.671	0.614
Bartlett's Test of Sphericity	Approx. Chi-Square	35.307	40.201	92.324
	df	10	10	10
	Sig.	.000	.000	.000

Next Table 10, showing the matrix component table that combines the three estimating sub-constructs, it is found that all elements from EA1 to EA5 have a factor-weighting range ranging from 0.602 to 0.769. Meanwhile, the EB1 to EB5 elements have a factor-weighting range ranging from 0.743 to 0.892 and the EC1 to EC5 elements have a factor-weighting range ranging from 0.612 to 0.902. All weighting ranges achieved by all elements contained in the estimating construct are above the value of 0.6. These findings also show that all the elements contained explain well the sub-constructs contained in the TL estimating construct.

Table 10 Components and weighting values for estimating constructs

	EA *Component*	EB *Component*	EC *Component*
EA1	.602		
EA2	.747		
EA3	.673		
EA4	.708		
EA5	.769		
EB1		.810	
EB2		.892	
EB3		.769	

EB4	.743	
EB5	.776	
EC1		.612
EC2		.902
EC3		.650
EC4		.855
EC5		.814

Furthermore, reliability analysis with reference to Alpha Cronbach values was also performed to obtain the reliability value of the study instrument. Thus, the findings show that the entire instrument used has excellent internal consistency measurements. This detail is since the Alpha Cronbach value obtained by each construct is above 0.70. A breakdown of the Alpha Cronbach values for each construct and the number of elements is shown in **Table 11**.

Table 11 Number of elements and values of Alpha Cronbach for each CP-EDT construct

Bil	Construction	Number of elements	Alpha Value Cronbach
1.	Designing TL	20	0.752
2.	Guiding Learning	15	0.750
3.	Implementing TL	15	0.728
4.	Building a Creative Community	15	0.709
5.	Estimating	15	0.732
	Total / Average	80	0.734

Discussion of Study Findings

Based on the analysis obtained, there is a significant contribution of elements and sub-constructs to each CP-EDT construct. The selected teachers representing the overall population have given positive feedback on the importance of CP-EDT. Based on the feedback given, it was found that each element of the sub-construct for the listed constructs is a guide and reference that can be applied for the purpose of increasing teaching creativity and increasing the effectiveness of teachers' teaching.

Through the factor analysis that has been carried out, the elements and sub-constructs for each construct that have been identified are in accordance with the constructs of Planning TL, Guiding Learning, Implementing TL, building a Creative Community and Estimating. In this regard, for the teacher's creativity practice construct Designing TL consists of four sub-constructs and 20 elements are listed, while the construct of implementing TL involves three sub-constructs represented by 15 elements, then the teacher's creativity practice construct of Implementing TL consists of three sub-constructs with 15 elements, while there are three sub-constructs in the teacher creativity practice construct of Developing a Creative Community which contains 15 elements and the final once the construct of teacher creativity practice

Estimating also contains three sub-constructs with 15 elements. These findings also show that the practice of teacher teaching creativity is a necessary practice to create a climate and environment to cultivate creativity among teachers and students.

The results of this finding are in line with the findings of Awi & Zulkifli, (2021) and Zulkifli et al., (2021) that the practice of teaching creativity requires teacher awareness to support a quality learning process in order to have a positive impact on the entire TL process. In addition, this finding is also supported by a study by Kurniawati et al., (2002) that the quality and creative teaching practices of teachers significantly affect student learning outcomes. Therefore, the findings of this study are in line with a study related to creative teaching practices conducted by Khoerudin et al., (2023) which explained that the application of creativity in TL can lead to more interesting pedagogical practices for a more meaningful TL process. Therefore, teachers who apply elements of creativity in pedagogical design can foster students' interest and motivation to learn. This can be achieved through the implementation of various creative methods such as role-playing, group projects, and creative experiments by actively involving students in the learning process.

The practice of teachers' creativity in conducting assessments and assessments also allows teachers to identify and appreciate students' creative potential that cannot be fully reflected in traditional assessments. The strength of the findings of this study can also help teachers understand the need for creativity practice in teaching by adjusting the teaching strategies used to align with the students' level of self-learning for a more meaningful learning experience. The findings of this study are also in line with studies related to teachers' teaching creativity conducted by Shakir & Adnan (2020) and Wahab & Yasin (2022) that teachers' teaching creativity practices in developing teaching strategies by integrating TMK can contribute to the improvement and development of a conducive learning environment. Lastly, the practice of teachers' teaching creativity can also increase students' willingness and interest to engage with active learning in line with the 21st Century TL.

Conclusion

In conclusion, the results of the exploration factor analysis have been carried out and have been able to identify elements that can measure each construct based on a *factor loading value of* 0.6 and above. The study also found that each sub-construct and element measured was reliable and consistent with the measurement model. Furthermore, the KMO value for the purpose of seeing the adequacy of the sample involved and the ability to conduct factor analysis, the variance value described, and the dimensions of a construct were also observed. The results of the analysis of the exploration factors obtained show that the TL Designing construct consists of four sub-constructs followed by 20 elements. The Learning Guiding Construct consists of three sub-constructs and contains 15 elements. While there are three sub-constructs of Implementing TL also contain 15 elements. Furthermore, there are three sub-constructs, and 15 elements contained in the building of the Creative Community Building. Finally, the results show that 15 elements are contained in three sub-constructs of the Estimating construct. The findings of this study are very important to enable researchers to continue the development process of the CP-EDT framework. It is hoped that this study can create teachers' awareness of

creativity in TL. Therefore, it is the hope of researchers that creativity is used as a practice to increase the effectiveness of teaching optimally as well as to produce creative, innovative and competitive human capital in line with the development of globalization today.

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