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Employing Modified Design and Development Research (DDR) Approach to Develop Creativity Clay Module to Teach Special Educational Needs (SEN) Students with Learning Disabilities

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Abstract

Design and Development Research (DDR) is a systematic study of design, development, and assessment process for production of instructional and non-instructional tools. The purpose of this study is to discuss the Modified DDR approach to develop the Creativity Clay Module to teach Special Educational Needs (SEN) students with learning disabilities in primary schools. Studies indicate that SEN students with learning disabilities are weak when presenting creative skills in the classroom. Students are not sufficiently taught creativity skills in schools as teachers' creativity is low, and they possess suboptimal skills in adopting teaching strategies of a creative in nature. Therefore, there is a need to develop a specific teaching module to foster creativity skills among students. This study employs the Modified DDR approach. There are three phases in DDR namely; phase one: needs analysis; phase two: design and development; and phase three: evaluation. During phase one, a survey method will utilize using purposive sampling by adopting questionnaire instruments for 110 teachers to ascertain the necessity of module development. Subsequently, the Fuzzy Delphi Method (FDM) utilized to obtain 15 experts' consensus to design and develop the module prototype. In phase three, the usability of module measured by conducting a survey study using a questionnaire instrument with 120 samples of special education teachers. Then, organize the findings systematically under the DDR phases and analyze the data using descriptive analysis in phases one and three. In what follows, the researcher derives the threshold, d value, and experts' consensus value in designing, developing, and evaluating constructs and items of the phase two module. The conclusion of this article presents a conceptual framework for this research. Hence, the findings provide potential information and guidance to design and develop the Creativity Clay Module to teach SEN students with learning disabilities.

Keywords: Special Educational Needs (SEN) Students with Learning Disabilities, Design and Development Research (DDR), Special Education Integration Program (SEIP), Fuzzy Delphi Method (FDM)

Introduction

The rise of Industrial Revolution 4.0 and 21st Century Learning is pushing reform in Malaysia's education system. Students need to learn critical skills including critical thinking, communication, collaboration, and creativity in addition to the most recent developments (21st Century Education Implementation Handbook, 2017). The 21st century is turning creativity skills into a crucial component (Faroh et al., 2020). Creativity skills are no longer optional for today's youth; they are a requirement (Agnoli et al., 2018). Creativity abilities are vital for students since the Organization for Economic Cooperation and Development selected creativity as a catalyst for innovation in the International Student Assessment Program (PISA) 2021 (OECD, 2019). Additionally, creativity abilities are prioritized in upcoming transformative competences (OECD, 2018; Vincent-Lancrin et al., 2019). For the Sustainable Development Goals (SDGs) set by the United Nations to be achieved, creative problem-solving abilities are essential (UNESCO, 2015).

In an effort to revolutionize education via life skills and citizenship education, the United Nations Children's Fund (UNICEF, 2015) had classified creativity skills as the first of 12 fundamental life skills that children need to learn from a young age. Creativity abilities can enhance academic performance, foster children's capabilities, and foster innovative thought processes, according to UNICEF (2015). Ability or capacity to generate something novel and valuable is a sign of creativity (Chen et al., 2021). According to Kai (2018), creativity is the capacity to create a work that possesses a "novelty" or new aspects in the work in addition to original ideas, which are not anticipated by others.

But not everyone has the ability to express their creativity. As a result, students need to improve their creative skills throughout teaching and learning using innovative teaching techniques (Adibah & Hafizhah, 2021). This is due to the fact that creativity is a skill that can be learned (Sun et al., 2020). In support of this view, a study by Egan et al (2017) revealed that the classroom teaching and learning process can implies creativity. Therefore, primary school students, especially those with Special Educational Needs (SEN) and learning disabilities, should be encouraged to express their creativity during the teaching and learning process. In order to implement Malaysia's Philosophy of Special Education, the government took the proactive step of including SEN students with learning disabilities in the education development agenda (MEB, 2013-2025). According to the Education Act of 1996's Education (Special Education) Regulations Part 3, a student with special needs is one who has been certified by a physician, an ophthalmologist, an audiologist, or a psychologist as having a visual impairment, a hearing impairment, a speech impairment, a physical disability, learning disabilities, or a combination of any of these conditions.

Based on the primary school creativity handbook, the Malaysian Ministry of Education fosters creativity skills through cross-curricular components for both mainstream students and SEN students with learning disabilities. In order to prepare SEN students with learning disabilities for the transfer to secondary school and to succeed in technical and vocational education, it is necessary to foster their creativity in primary schools (Norfarahi et al., 2020). As a result, the instruction of creative abilities aids students in developing their technical and vocational skills in order to prepare for the workplace and to fulfil future needs (Anizam et al., 2020). Through the marketing of creative ideas, creativity skills can produce creative ideas

to create alternate career routes for SEN students with learning disabilities (Widoyoko et al., 2018). Previous research on creativity by Bulut et al (2022); Faroh et al (2020); Salbiah and Roslinda (2017) have demonstrated that the students' creativity is at a low level. According to previous studies, students struggle to demonstrate their creative abilities. Therefore, the purpose of this study is to design and develop a Creativity Clay module employing the Modified DDR approach to teach SEN students with learning disabilities in primary school. The conclusion of this article presents a conceptual framework for this research. The findings provide potential information and guidance to design and develop module to teach SEN students with learning disabilities using DDR approach for future researchers.

Literature Review

The literature review includes the definition of Modified Design and Development Research (DDR), Creativity, Special Educational Needs (SEN) Students with Learning Disabilities.

(1) Modified Design and Development Research (DDR)

The modified DDR approach is divided into two main categories: type 1 is related to product development and research tools, and type 2 is related to model development, module, framework, and teaching methods (Siraj et al., 2020). Lessons learnt from the development of specific products, such as software design and teaching project development, as well as from an analysis of the conditions that support their usage, are the outcomes of Type 1 research design. The results of Type 2 research design, are studies of new design and development processes as well as models, frameworks, modules, and conditions that allow their application. Table 1 provides a summary of the emphasis and outcomes for both types of Modified DDR.

Table 1
Comparison of Two Types of Design and Development Research

Aspect	Type 1	Type 2
Emphasis	Products and Tools Research	Model Research, Modules, Frameworks, Forms of Teaching Methods
Outcomes	Product -specific study or software design and teaching project development that emphasizes the processes involved More specific conclusions and different contexts	Study of model development, validation or use of design and development of new procedures or models, and conditions that facilitate use Conclusions to the final results of the study

DDR is characterized as systematic study by developing an empirical foundation on the creation of a product or equipment through the design, development, and evaluation processes, according to (Richey & Klien, 2007). The following is an explanation of Richey & Klien's (2007) viewpoints on this DDR:

> *"The systematic study of design, development and evaluation processes with the aim of establishing*

> *an empirical basis for the creation of instructional and non-instructional products".*
>
> (Richey & Klien, 2007, page 1)

The DDR approach's methodology is arranged systematically according to each step and is directed by the goals and research questions established for a study. Nevertheless, the DDR technique selects the most appropriate method for each step based on the study's goals and its research questions. DDR is a strategy that integrates a few systematic approaches (Siraj et al., 2020).

DDR is a research methodology that can offer trustworthy and helpful information to practitioners in the fields of instructional technology and curriculum development, according to (Alias et al., 2013). The DDR methodology is currently a popular technique in educational research. For the design and development of a product, researchers employ DDR approach. Software, tools, models, modules, frameworks, questionnaires, guidelines, and other items can be included in these products. The process where a team of experts contributes in the design, development, and evaluation of a product. In a similar context, recent research by Hidayatul et al (2019); Nuzul (2019); Muqsith (2018); Ridhuan (2016); Nazri (2014); Nidzam (2016); Nurul (2020) demonstrates the methodical approaches used in DDR. In order to support SEN students with learning disabilities for strengthen their creative capabilities, this study utilizes Modified DDR to design and develop a module.

(2) Creativity

The term "creativity" refers to the ability to discover acceptable new ideas and original, creative concepts (Shen et al., 2021). According to Kai (2018), creativity is a capacity to create works that are 'novelty' or contain fresh features and creative ideas that are appropriate and unanticipated by others. While saying that, Sugita et al (2021) said that creativity is the capacity of a person to generate and put into practice a variety of ideas in addition to using recommendations and ideas and thinking creatively.

(3) Special Educational Needs (SEN) Students with Learning Disabilities

According to the Education Act of 1996's Education (Special Education) Regulations Part 3, "Students with Special Needs" refers to a student who has been certified by a medical practitioner, optician, audiologist, or psychologist as having one or more of the following conditions: visual impairment, hearing impairment, speech impairment, physical disabilities, learning difficulties, or a combination of any of these conditions. SEN students with learning disabilities are referred to as pupils with brain intelligence that is not compatible with their biological age in the Special Education Code of Practice (2014), which was issued by the Special Education Division, Ministry of Education Malaysia. Subsequently, learning disabilities are termed as brain intelligence that is out of step with one's biological age by the Department of People with Disabilities and Social Welfare (Azman et al., 2021). Six categories of SEN students with learning disabilities persist, including those with (1) Late Global Development, (2) Down Syndrome, (3) Intellectual Disability, (4) Autism, (5) Attention Deficit Hyperactivity Disorder (ADHD), and (6) Specific Learning Difficulties including Dyslexia, Dyscalculia, and Dysgraphia.

Methodology

The Modified Design and Development Research (DDR) Approach, developed by Saedah Siraj et al., (2020) is the research methodology employed in this study. The modified DDR approach

is divided into two categories: type 1 is concerned with product development and research tools, and type 2 is concerned with model development, modules, frameworks, and forms of teaching (Saedah Siraj et al., 2020). The research design employed in this study is DDR type 2 because the goal is to construct a module. The modified DDR approach consists of three phases: (1) Need Analysis; (2) Design and Development; and (3) Evaluation.

Methodology Framework

The Modified Design and Development Research Approach in developing Creativity Clay Module. This method comprises three main phases namely the needs analysis phase, the design and development phase and the evaluation phase.

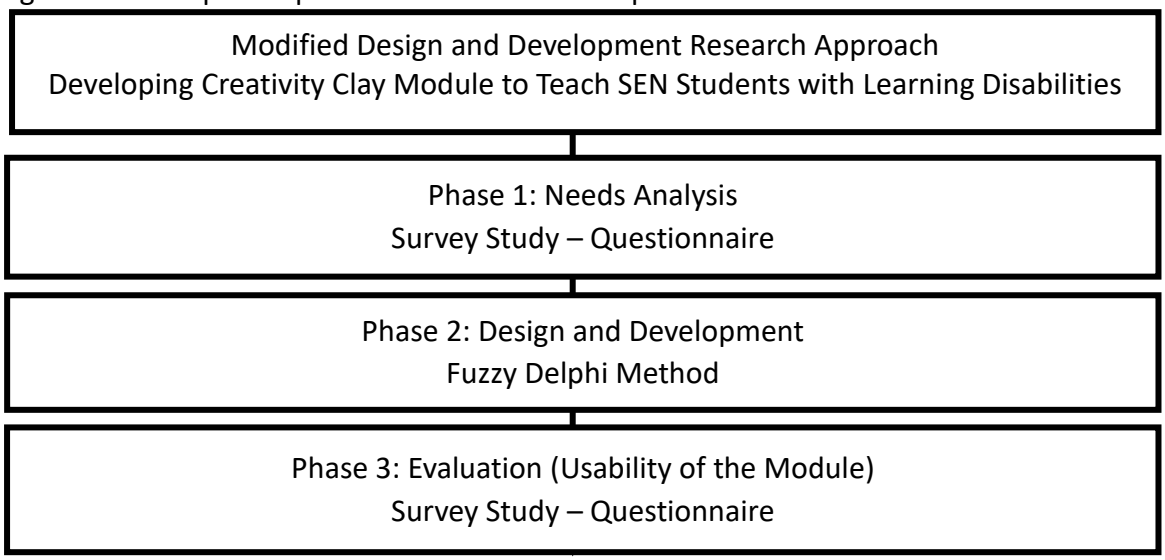

Figure 1. Methodology Framework

Phase one: Need Analysis

The need analysis phase identifies the need for developing modules to improve the creative skills of SEN students with learning disabilities. To analyze needs, the researcher employed the Discrepancy Model presented by McKillip (1987). In the needs analysis process, this model gives priority to three critical goals: (1) goal setting; (2) performance monitoring; and (3) discrepancy identification. In this step, the researcher first establishes the objective. Determine the requirements for designing and developing the Creativity Clay module to teach SEN students with learning disabilities in primary school is the aim of this phase. The researcher then compiles and evaluates the data gleaned from a literature review on the performance and current information pertinent to SEN students with learning disabilities. The researcher further acknowledges the discrepancy that emerged when many SEN students with learning disabilities were unable to find employment owing to a lack of skills and were experiencing unemployment problems. To the best of the researchers' knowledge, there are not any modules available to support students enhance their creativity. In this study, the need analysis employs a quantitative study design using a survey method. A questionnaire instrument used to collect data for need analysis. Based on the sample selection criteria, the researcher uses the purposive sampling method to choose 110 special education teachers. Additionally, the researcher selects special education teachers who teach in primary Special Education Integration Program (SEIP) schools because researchers believe that their knowledge and experience in the classroom will be useful in determining the requirements for the Creativity Clay module.

Phase two: Design and Development

The researcher designed and developed the module at this phase with consensus from experts. The Creativity Clay module was developed using the Fuzzy Delphi Method (FDM), which was employed in this phase to gather expert consensus. The constructs and items in the questionnaire instrument are created by the researcher prior to performing FDM based on literature reviews from prior studies. An accurate Likert scale can result in reliable study results. Therefore, a seven-point Likert scale must be used to examine the FDM. According to Chang et al (2011), using a seven-point Likert scale can lessen the ambiguity gap for each expert acceptance and agreement value.

To participate in this FDM, the researcher chooses 15 experts. According to Adler and Ziglo (1996), 10 to 15 experts are enough to reach a high level of consensus. In order to use the FDM to measure what should be measured, 15 experts are required, according to (Burn, 1998; Ocampo et al., 2018). As a result, the researcher chooses 15 experts from a variety of professions, including four exceptional special education teachers, two experts in the department of Special Education Curriculum Development, and five experts in the field of special education. Purposive sampling was used to choose the study's sample because it is a very effective strategy for utilizing FDM (Hasson et al., 2000).

There are six selection criteria determined for expert sampling. (1) Professor or senior lecturer in the area of special education for students with learning disabilities is one of the selection requirements; (2) as is an officer in the Curriculum Development Division who wrote the Special Education Curriculum for Students with Learning Disabilities; (3) Experts must hold a Doctor of Philosophy degree and possess in-depth expertise in the field of special education (Dalkey, 1972; Delbecq et al., 1975; Swanson & Holton, 2009); (4) Experts must have at least five to ten years of expertise in the field of special education (Berliner, 2004a); (5) Experts who can commit to carrying out the study to the end while taking full responsibility for the tasks and trusts assigned; (6) In order to prevent bias in this study, experts have no personal stake in it. The researcher then sends a consent form and a questionnaire to the experts to get their consensus. The researcher designed and developed a prototype of the Creativity Clay module based on the results from the experts that is pertinent and appropriate to teach SENs students with learning disabilities.

Phase three: Evaluation

The evaluation phase in this study employs quantitative study design using a survey method. This evaluation phase measures the usability of the module developed from the user's point of view using a questionnaire instrument. This phase can obtain information related to the suitability of constructs, items, and activities in the module from the user's point of view, namely from special education teachers. The selection of samples in this evaluation phase uses purposive sampling to meet the specific purpose of this phase which is to evaluate the usability of the Creativity Clay module. Thus, the researcher should select the user as a sample in the evaluation phase to measure the usability of the module. Hence, the researcher chooses special education teachers who serve in SEIP primary school as the respondent in this phase. The researcher has set some criteria for sample selection using purposive sampling as follows; (1) Special Education Coordinator Teacher or Senior Assistant Teacher of Special Education; (2) have experience teaching students with learning disabilities in SEIP primary schools for more than 5 years; (3) teaching students with learning disabilities in SEIP primary schools using the Special Education Primary School Standard Curriculum (Learning Disabilities). The researcher selects only 120 special education teachers who meets the

sample selection criteria. The researcher sends an email to them with the questionnaire instrument and attached it with the Creativity Clay module to evaluate the usability of the module after implemented in their teaching.

Instruments

Table 2 shows the instruments used in this study. There are six instruments used in this study.

Table 2
Instruments used in this Study

Phase	Instruments
Phase one: Need Analysis	1. Need Analysis Questionnaire 2. Content Validity Questionnaire for Need Analysis
Phase two: Design and develop	3. Questionnaire for Fuzzy Delphi Method (FDM) 4. Content Validity Questionnaire for FDM Questionnaire
Phase three: Evaluation	5. Usability Questionnaire 6. Content Validity Questionnaire for Usability

Research Procedures

While conducting research, every researcher is required to abide by research ethics. The parties or organizations concerned in this study must therefore grant authorization for the researcher to perform the study before the study may begin. Prior to data collection, the permission request process must be put in place. Before they can be confirmed and given authorization to carry out this study, researchers must go through several stages. The Ministry of Education Malaysia (MOE) through the Daily School Management Division, Selangor State Education Department, and District Education Office must first grant permission for researchers to conduct this study. These parties include the Faculty of Human Development at Sultan Idris Education University, Research and Innovation Management Centre (RMIC) of Sultan Idris Education University, and the researcher is permitted to carry out the study after receiving approval from each of these parties.

Next, a questionnaire instrument was used to conduct a needs analysis throughout the data collection process for phase one. Utilizing the purposive sampling strategy, the researcher emailed the questionnaire via a Google form to the 110 samples those who had chosen. The questionnaire's questions were all to be answered on a 5-point Likert scale by the samples. The researcher extracts all the data for analysis once the study samples fill out the Google form. The researcher chooses eligible experts based on the selection criteria during phase two of design and development. The researcher contacts each expert after identifying them via phone, email, or in-person meetings as necessary. The researcher then provided a letter of expert appointment and a consent form.

The researcher disseminated a questionnaire instrument to gather experts' opinion on the constructs and items that need to be included in the Creativity Clay module after receiving expert agreement to participate in the study. To design and develop the prototype of the Creativity Clay module in accordance with the opinions of experts, the collected data was analyzed using the Fuzzy Delphi approach. In the third phase, the researcher selects the samples using a purposive sampling technique and sample selection criteria. Then, the

researcher emails the samples the Creativity Clay module along with a 5-point Likert scale questionnaire instrument. Lastly, the researcher uses the data to analyze.

Data Analysis Procedures

Phase one, the data collected from need analysis survey analyzed by using Statistical Package for Social Science (SPSS) version 25 to obtain the descriptive statistics. The descriptive statistics is this phase includes percentages and means. Table 3 shows the mean analyses category in this phase by Zakaria (2016). Meanwhile, Table 4 shows the scale of agreement for needs analysis questionnaire.

Table 3
Mean Analyses Category

Mean Score	Mean Score Interpretation
1.00 till 2.33	Low
2.34 till 3.66	Average
3.67 till 5.00	High

Table 4
Scale of Agreement for Needs Analysis Questionnaire

Likert Scale	Scale of Agreement
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Phase two involved applying the Fuzzy Delphi approach. The excel software created by Ridhuan et al (2017) was used to evaluate the data collected. In order for the researcher's use of the Fuzzy Delphi technique to be recognized as an empirical study, certain procedures must be followed. This Fuzzy Delphi approach entails seven phases that the researcher must adhere to, according to (Ridhuan and Nurulrabihah, 2020). Following are the steps:

Step 1

Form the items in the Fuzzy Delphi questionnaire instrument based on; (1) Literature review, (2) Expert interviews, (3) Focus group and (4) Existing questionnaires. The process of forming a questionnaire script is not much different from a commonly developed questionnaire but this Fuzzy Delphi questionnaire has its uniqueness. The Fuzzy Delphi questionnaire is more structured as well as having a literature reference source on each item in the questionnaire. Ridhuan and Nurulrabihah (2020) mentioned that reference sources from literature review or interviews are very important to be placed in the questionnaire in order to provide basic information to the panel of experts in the Fuzzy Delphi method. Next, the Likert scale used in the questionnaire is based on the requirements of the research question and the things that the researcher wants to measure such as the level of AGREEMENT, the LEVEL, and the level of INTEREST.

Step 2

Assume that expert K is appointed and invited to determine the importance of evaluation criteria on constructs, elements, items, variables to be measured using linguistic variables. This step describes the process or way to obtain data from an expert panel based on a number of initiatives that the researcher can take. Researcher disseminate the questionnaire instrument through online using email to a panel of identified experts.

Step 3

Convert all linguistic variables into Fuzzy triangular numbers. Assume that the Fuzzy number rij is a variable for each criterion for expert K for i = 1,… .., m, j = 1,… ..n, k = 1… .., k and rij = 1/K ($r^1ij \pm r^2ij \pm r^Kij$). Table 5 shows the 'AGREEMENT' level for the 7 -point Fuzzy scale.

Table 5

Agreement Level and Fuzzy Scale for 7 points

Linguistics Variable	**Fuzzy Scale**
Very Strongly Disagree	(0.0, 0.0, 0.1)
Strongly Disagree	(0.0, 0.1, 0.3)
Do Not Agree	(0.1, 0.3, 0.5)
Average Agree	(0.3, 0.5, 0.7)
Agree	(0.5, 0.7, 0.9)
Strongly Agree	(0.7, 0.9, 1.0)
Very Strongly Agree	(0.9, 1.0, 1.0)

Step 4

The researcher should convert all Likert scales to Fuzzy scale as soon as they receive the data from the expert panel for analysis. Data obtained from the expert panel were analyzed using Microsoft Excel software developed by Ridhuan et al., (2017). Once the data is entered in Microsoft Excel, the threshold value, (d) is calculated in the template. The threshold value, (d) is calculated using the formula. According to Chen (2000) the vertex method is used to calculate the distance between rij for each expert involved in this Fuzzy Delphi method. Meanwhile, the distances of two Fuzzy numbers namely m = (m1, m2, m3) and n = (n1, n2, n3) are calculated using the formula as in the figure 2:

$$d(\tilde{m},\tilde{n}) = \sqrt{\frac{1}{3}\left[(m_1 - n_1)^2 + (m_2 - n_2)^2 + (m_3 - n_3)^2\right]}.$$

Figure 2. Formula for obtaining the value of Threshold, d

Step 5

This fifth step is the first step of determining the conditions that must be complied with by each researcher. According to Cheng and Lin (2002), if the distance between the mean and the expert evaluation data is less than or equal to the threshold value, (d) = 0.2, then all experts are considered to have reached and made a consensus.

Step 6

The second condition if among **m x n** experts, the percentage value reaching group consensus is more or equal to the value of 75.0% (Chu & Hwang, 2008; Murry & Hammons, 2017) indicates that the expert group agreement has also been adhered to. Shubashini, Izran Sarrazin, Jawahar, Abdul Hakim and Gunavathy (2015) stated that values equal to or above 67% can be accepted as reaching a percentage of expert agreement. Nevertheless, there are views that state the acceptable percentage value is 60% and above. Meanwhile, the views of Ridhuan and Nurulrabihah (2020) stated that researchers can use both percentages and need to adapt to the study conducted. However, if the data are found not to reach the level of agreement of the expert group based on the stated conditions, then a second round of Fuzzy Delphi should be conducted.

Step 7

Aggregate calculation process Fuzzy evaluation process to determine the value of the Fuzzy score and the position and priority of each item, element, issue, etc. as in figure 3:

$$\tilde{A} = \begin{bmatrix} \tilde{A}_1 \\ \tilde{A}_2 \\ \vdots \\ \tilde{A}_m \end{bmatrix}$$

$$i = 1, \cdots, m$$

Figure 3. Fuzzy score formula

The calculation and determination of this Fuzzy evaluation process is using the Fuzzy score formula, **Amax = ¼ (m_1 + 2m_2 + m_3).** The resulting Fuzzy score value is a number that is in the range of 0 to 1. This is important to meet the requirements of the Fuzzy number itself which is from the range of 0 to 1. Therefore, a value less than 0 is not a Fuzzy number, and a value greater of 1 is also not a Fuzzy number. Meanwhile, the Fuzzy number is from 0 to 0.99999 or 1.

Discussions

The researcher used Modified Design and Development Research (DDR) to design and develop the Creativity Clay module to teach SEN students with learning disabilities in SEIP primary school. Following an extensive analysis of the literature, this study employs the DDR approach to propose a conceptual framework for encouraging creativity in SEN students with learning disabilities. A conceptual framework can establish relationships and correlations between the study's variables (Adom et al., 2018). A starting point for designing the Creativity Clay Module to instruct SEN students with learning disabilities can be found in the conceptual framework. The conceptual framework for this study using the DDR approach is displayed in Figure 4.

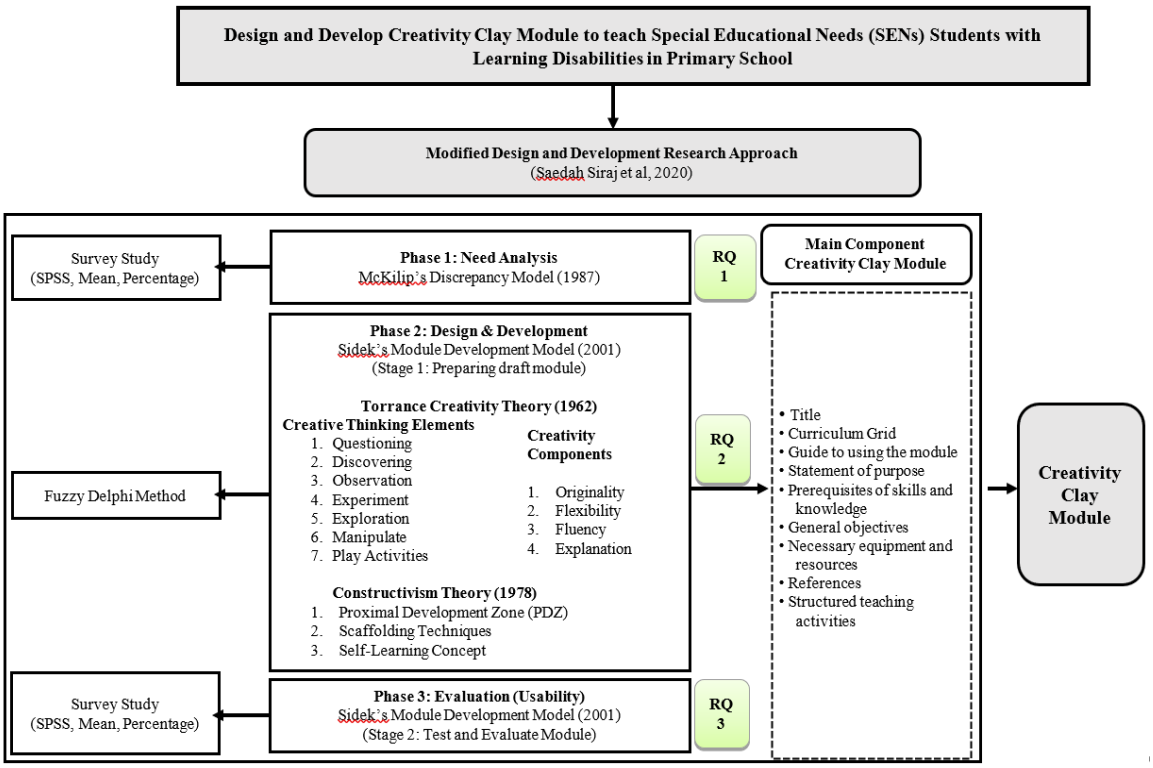

Figure 4. Conceptual Framework

A systematic conceptual framework was proposed to enable the researcher to accomplish the study's goals. Following these procedures, the researcher was able to develop a Creativity Clay Module to teach SEN students with learning disabilities in primary school. The Torrance Creativity Theory, Constructivism Theory, and Sidek Module Development Model used to build and construct the Creativity Clay Module. The research methodology for developing the Creativity Clay Module would be modified DDR (Siraj et al., 2020). The Need Analysis Phase, the Design and Development Phase, and the Evaluation Phase are the three primary phases of the DDR process. Consequently, each phase has particular study goals and research problems.

The first phase is the need analysis phase. The researchers performed the need analysis during phase one using McKilip's Discrepancy Model (1987) as a model. In this stage, 110 special education teachers were surveyed to learn more about the requirements for developing the Creativity Clay Module. A questionnaire instrument was used to perform the survey study. Statistical Package for Social Sciences (SPSS) 25.0 was utilized to examine the data that has been obtained. Data will be analyzed with means score and percentage using descriptive analysis. Phase 2 is the Design and Development phase, in the meantime. The Creativity Clay Module was designed and developed during this period. Thus, the researcher employs Sidek's Module Development Model (2001) as the model throughout this stage. 15 experts were participated in the FDM. The selection criteria used by researchers to choose the special education experts. In this stage, the researcher was able to determine the elements in the components according to priority in this module and get the opinion of experts on the main components. To get consensus from experts, the researcher employs a questionnaire instrument using a seven-point Likert scale.

The evaluation phase follows in the third phase. This phase of evaluation intends to assess the Creativity Clay Module's usability by the special education teachers as the users of the module. In this evaluation step, the researcher therefore employs the second stage of (Sidek's Module Development Model, 2001). Testing and assessing the module is the second stage. To determine the usability of the Creativity Clay Module, the researcher perform a survey study utilizing a questionnaire instrument. SPSS 25.0 software was used to examine the study's results. Data analyzed with means score and percentage using descriptive analysis. Creativity Clay Module will be fully constructed once these three steps have been completed. Hence, the special education teachers can use the Creativity Clay Module to teach SEN students with learning disabilities in primary school.

Conclusion

As a conclusion, the use of Modified Design and Development approach in developing Creativity Clay module is intended to foster creativity among SEN students with learning disabilities in the classroom. Therefore, the findings provide potential information and guidance to design and develop Creativity Clay Module by employing DDR approach systematically. Furthermore, this article presents a conceptual framework using DDR approach to design and develop the Creativity Clay module. This research highlighted the necessity of creativity skills for SEN students with learning disabilities in the 21st Century Learning. Besides that, the outcome of this research can contribute to the body of knowledge. This study will give significant benefits to Ministry of Education Malaysia, special education teachers, and researchers to understand the creativity skills among SEN students with learning disabilities. Lastly, sustaining creativity among SEN students with learning disabilities is a productive venture in this 21st century. Hence, developing creativity skills through the Creativity Clay module is crucial for the SEN students with learning disabilities.

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