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TRANSFORMATIVE EDUCATIONAL: EXPLORING THE STUDENT CREATIVE POTENTIAL OF ELEMENTARY SCHOOL

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Abstrak

Siswa diharapkan memiliki suatu potensi kreativitas, dalam perkembangan teknologi saat ini. Penelitian ini bertujuan untuk mengeksplorasi potensi kreativitas siswa sekolah dasar pada pendidikan transformatif. Metode penelitian yang digunakan adalah scoping review research dengan pendekatan deskriptif kualitatif dalam pemetaan literatur yang relevan pada topik penelitian. Hasil penelitian menunjukkan bahwa salah satu aspek tujuan pendidikan transformatif adalah membentuk individu yang terampil, kreatif, dan mandiri, siap menghadapi tantangan perkembangan zaman, sesuai dengan visi dan misi Pendidikan Nasional. Salah satu hasil dari pembelajaran transformatif adalah kreativitas pada proses interaksi pembelajaran, yang dapat meningkatkan rasa percaya diri dalam berinteraksi dengan lingkungan. Proses pembelajaran juga menitikberatkan pada pengembangan kreativitas siswa untuk menghadapi perkembangan teknologi. Oleh karena itu, integrasi pendidikan transformatif dan pengembangan kreativitas harus diprioritaskan dalam sistem pendidikan untuk menciptakan generasi masa depan yang lebih baik dalam menghadapi tantangan tersebut.



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Kata Kunci: Pendidikan; Transformasi; Kreativitas; Potensi

Abstract

Students are expected to have the potential for creativity, in current technology development. This research aims to explore the creativity potential of elementary school students in transformative education. The research method used is scoping review research with qualitative descriptive approach in mapping the relevant literature on the research topic. The results indicate that one aspect of transformative education's objectives is to shape individuals who are skilled, creative, and independent, ready to face the challenges of modern development, aligning with the vision and mission of National Education. One outcome of transformative learning is creativity in the learning interaction process, which can increase confidence in interacting with the environment. The learning process also emphasizes the development of students' creativity to deal with technological developments. Therefore, the integration of transformative education and creativity development should be prioritized in the education system to create a better future generation to face these challenges.

Keywords: Education; Transformative; Creativity; Potential

INTRODUCTION

In this current development of digitalization, the learning process has an outcome to improve the abilities and skills that must be possessed by students, this is necessary in facing future challenges. According to the research results of the Partnership for 21st Century Learning, in the 21st century, living and working requires knowledge, skills, standards and results as well as a support system that has never been obtained from school, based on the ability of innovation and the learning process, namely critical thinking, communication, collaboration, and creativity (Sandi et al., 2022).

The potential for creativity is believed to be an important component that needs to be developed in students in elementary school. This is in line with Nugraha's opinion which states that, education today does not only teach intellectual abilities, but also teaches how to process emotions and strengthen students to be able to demonstrate the ability to think critically, and creatively in building, using, and applying information about the surrounding environment (Nugraha et al., 2024). To solve the problem of creativity in elementary school, students can be stimulated through various learning models and psychological empowerment of teachers (Haumahu & Tupamahu, 2022; Salamiyah & Kholiq, 2020).

Basically, creativity encourages children to learn more, so that one day they will be able to produce new things beyond our expectations. According to Yunesti cited by Anggun Marfuah, the development of creativity has a major impact on the development of children's growth and development factors. In addition, creativity has an important role that can influence and improve children's intelligence (Yunesti cited in Marfuah et al., 2023). Referring to the mandate of the National Education System Law, one of the several educational objectives is to form human qualities that have creativity. In the 21st century, Indonesia needs superior, creative and skilled human resources to produce innovative work (Muqodas, 2015). In the current learning pattern, a student is never educated or accustomed to

being creative and innovative and oriented to a student's desire to know (curiosity) (Purnamasari & Soegeng, 2022).

Learning in elementary school is not only aimed at understanding knowledge, but also developing students' ability to solve complex problems through their creative skills (Muqodas, 2015). Apart from the unending problems of education in current technological development, education is basically a process of actualizing the basic potential (fitrah) that exists in every human being. Therefore, education is the basis of learning that moves towards the transformation it can achieve.

Transformative education is education that carries the mission of change with the vision of changing traditional society towards modern society and aims towards a better direction (Akbarjono, 2015; Murwanto, 2022; Triono, 2020). One of the learning principles in the Merdeka Curriculum is that learning is designed taking into account the current stage of development and level of achievement of students. This principle is in line with humanistic learning theory which is oriented towards humanizing learning. Students are directed to develop themselves based on their uniqueness so that they are able to realize their potential (Thahir, 2014). Therefore, there is a need for transformative elementary school education that facilitates students to learn with creative skills to be able to work together, understand their potential, improve performance and communicate effectively in every problem faced. Departing from this matter, the researcher wants to examine the literature on transformative education as an effort to explore the potential of children's creativity in elementary schools.

METHOD

This literature study research uses a scoping review approach using the Preferred Reporting Items for Systematic Reviews and Meta Analysis method, this method is used to identify step-by-step procedure of the research. The scoping review research design was chosen because the reference sources that researchers used varied greatly from various articles. A scoping review is

research that aims to map the literature based on terms of discussion space, nature, and characteristics; summarize and disseminate research findings; and identify existing research gaps (Arksey & O' Malley, 2005). Scoping review aims to answer the questions of the research topic that has been determined, based on grouping various sources of similar research articles and making conclusions. Scoping reviews can be used to identify topic areas for future systematic reviews (Tricco, Lillie, Zarin, O'Brien, Colquhoun, Kastner, & Straus, 2016). In this study, researchers conducted a thematic synthesis compiled from the results of previous studies to obtain a summary of theories and empirical findings related to the topic under study. In literature review research, researchers conduct a thematic synthesis compiled from the results of previous research so that readers can use it to obtain a summary of theories and empirical findings related to the topic under study.

Eligibility Criteria

This research has several criteria based on the type of paper used, namely:

- a. All research exploring the potential of student creativity in elementary schools as an educational transformation using a qualitative approach and descriptive method;
- b. Brief information explaining the forms, types, stages, and factors that explore the potential of student creativity in elementary schools as an educational transformation;
- c. Guidelines or rules in education that inform research on the exploration of students' creativity potential in elementary schools as an educational transformation (which can include the background of the problem, the theory used in the research, accurate research results and those obtained using explicit methods); and
- d. Studies that assess the quality of research in the exploration of students' creative potential in primary schools as educational transformation. It aims to quickly map the key concepts underlying the research and the main sources and types of evidence available

and can be used to comprehensively identify issues concerning the concept.

According to Levac, Colquhoun, and O'Brien in Tricco et al., (2016) the stages in the scoping review, namely:

- a. Identify research questions by clarifying, linking objectives and research questions;
- b. Identify relevant studies by balancing feasibility with breadth and completeness;
- c. Literature selection using an iterative approach to study the selection and extraction of data that match the research topic;
- d. Data charts that combine a summary of study characteristics and qualitative thematic analysis;
- e. Compile, summarize and report the results of the literature analysis; and
- f. Consultation with competent parties, which is an optional step and can be adopted as a mandatory component of the scoping review.

Literature Strategy

This literature review is a comprehensive summary of several research studies determined based on the theme of exploring the potential for student creativity in elementary schools as an educational transformation. The data used in this research is secondary data that is not obtained from direct observation but obtained from the results of research that has been conducted by previous researchers. Secondary data sources obtained are scientific articles with national reputations in Indonesian and English with the theme of exploring the potential of student creativity in elementary schools as an educational transformation. The literature search in this literature review uses databases, namely Google Scholar, ResearchGate, and Academia.

Search for articles using the following keywords: creativity criteria, types of creativity of elementary school students, stages in creativity as an educational transformation, factors that support the creativity process, and challenges in current technological developments. Inclusion

criteria are an explanation of the factors chosen by the author to include articles for review. Meanwhile, the exclusion criteria are explanations of the author's factors for deciding that the articles in the search are not included in the articles to be reviewed (Ulhad et al., 2020)

The criteria for articles to be reviewed are research articles on exploring the potential of student creativity in elementary schools as an educational transformation. Research articles found in accordance with the keywords are then screened, viewed abstracts, and then read full-text articles. Articles that fit the inclusion criteria and have the theme of elementary school student creativity and educational transformation are then reviewed. The criteria for articles selected for review are articles that contain the theme of elementary school student creativity and educational transformation.

Strategies used to search for articles using the PICOS framework:

- Population/problem, population or problem that will be analyzed in scientific work;
- Intervention, the action taken against a problem;
- Comparison, comparison of other treatments;
- Outcome, the result of the study;
- Study design, research design that will be used to review.

This research uses the PICOS framework with the theme of exploring the potential creativity of students in elementary schools as an educational transformation with the following format.

Table 1. PICOS format in formulating inclusion and exclusion criteria.

No	Criteria	Inclusion	Exclusion
1.	Populasi/ Problem	Student creativity	Not student creativity
2.	Intervention/ Indicator	As a transformation of education	Not as a transformation education
3.	Comparison	Elementary school	Other than elementary school
4.	Outcome	Characteristics, types, and factors that	Not Characteristics, types, and

		support the exploration of students' creativity potential in elementary school as an educational transformation	factors that support the exploration of students' creativity potential in elementary school as an educational transformation
5.	Study Desain	Qualitative	Quantitative
6.	Publication years	After the year of 2004	Before the year of 2004
7.	Language	Indonesian language	In addition to Indonesian

(Source: research results)

PRISMA Flowchart is used to describe in detail and transparently the PRISMA literature identification process. PRISMA is the Preferred Reporting Items for Systematic Reviews and Meta-Analyses, developed to assist authors in reporting literature selection. PRISMA is considered appropriate to use because its use can improve the quality of publication reporting (Peters et al., 2015). The keywords used in the search for articles are "creativity" and "educational transformation," and all articles are related to "exploring the potential for student creativity in elementary schools as an educational transformation."

These keywords are used to search for articles, journals, and theses related to the researcher's discussion and then selected using the PRISMA Flowchart. The PRISMA Flowchart details the amount of literature identified from the search results, the screening process, the number of studies that met the eligibility criteria, and the number of studies that will be included for a thorough review to obtain quality research results. Based on the inclusion criteria, the articles identified at the beginning of the search in this article were 1.839 articles published on Google Scholar, ResearchGate, and Academia. The articles were then screened for duplication and excluded (n = 113), followed by exclusion of articles that were not relevant to the topic (n = 1.554), then continued exclusion of articles that did not match the title, abstract, or full text and were not suitable

for review ($n = 75$). Based on the inclusion criteria, the final total number of articles that meet the critical appraisal requirements and are suitable for review is 5 articles, as illustrated in the following chart:

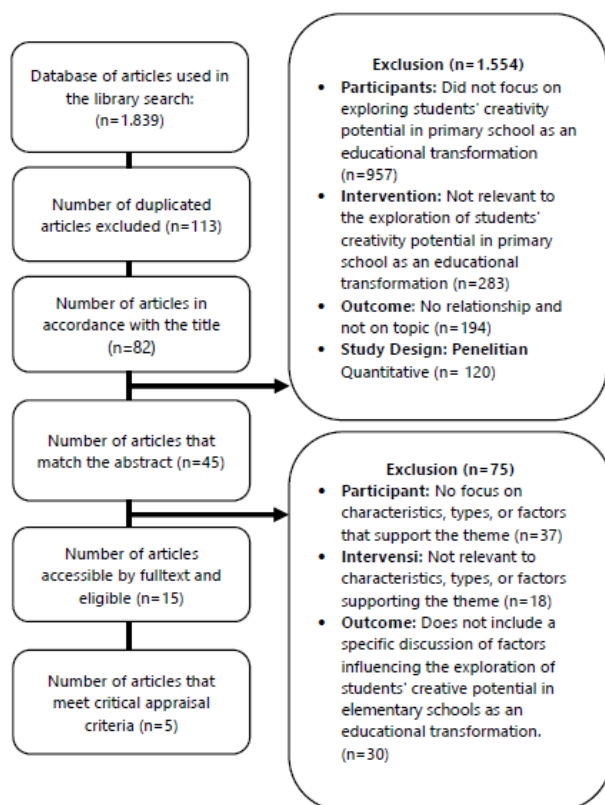


Figure 1. PRISMA Flowchart Diagram

Data Collection

The data in this study are secondary data in the form of previous research results related to creativity criteria, types of creativity of elementary school students, stages in creativity as an educational transformation, factors that support the creativity process, and challenges in current technological developments obtained through online searches of national scientific articles. A systematic search strategy was carried out based on Indonesian language online search strategies selected from Google Scholar, ResearchGate, and Academia.

Studies that met the inclusion criteria were critically appraised using the PRISMA flowchart. Researchers conducted a review using a qualitative research design and critical appraisal of the literature that had been eliminated from the inclusion criteria. Study quality assessment using critical appraisal checklist for qualitative research guided by Joanna Briggs Institute Appraisal Tools. Methodological

quality was assessed as moderate if it met criteria 6-8 and high if it met criteria 9-10 of the critical appraisal checklist. To allow for replication by others or duplication, improve the reliability of the findings and methodological accuracy; this will be documented using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Stenberg et al., 2018).

Data Analysis

Research articles that fit the inclusion criteria were then collected and summarized, including the name of the researcher, year of publication, research objectives, research design, data collection, summary of research results, and conclusions. The summary of the research articles was entered into a table sorted according to the year of publication of the article.

The analysis was based on the abstract and full text of the article. The summary of the article is then analyzed for content contained in the research objectives, methods, results, and conclusions. Findings will be presented under thematic headings using summary tables that can inform the description of key points. Furthermore, detailed tables will present the authors, geographical distribution of the study, year of publication, interventions presented, theories used in the study, experiences reported, main results and findings, and research methodology (Stenberg et al., 2018).

RESULTS AND DISCUSSION

Based on several previous research studies, there are five (5) articles that are close to this research. The first research was conducted by Tatang Suratno, Creativity or creative thinking, is a person's ability to produce an idea. The essence of science learning is creative thinking, where teachers should be able to develop learning qualities such as motivation, collaboration, imagination, relative freedom, and independent thinking. The development of students in science learning is not enough to master the understanding of concepts and process skills but also how they think creatively. This development can be facilitated by providing challenges that emphasize the problem-solving process. Basically, students need academic challenges and creative thinking opportunities to explore phenomena and apply the skills they have and

develop. Based on this study, the development of science learning at the primary school level is to transform science process skills towards creative thinking skills (Suratno, 2009).

The second study conducted by Idat Muqodas, Creativity is not one of the main factors in education, but good education is education that is able to stimulate students to develop their creativity. Creativity is the hallmark of human courage that represents who a person is and what he or she will become in the future. Creativity comes from an individual's natural curiosity and openness when exploring the phenomena around them and finding out about themselves. Based on the results of the study, there is a positive correlation between learning models and developing student creativity. This condition is influenced by student commitment, development of cognitive aspects such as daring to try new things, taking risks, efforts to increase interest and motivation, good utilization of time, and self-confidence (Muqodas, 2015).

The third study conducted by Wirdatul Aini, regarding the management of transformative learning in enhancing student creativity and innovation, the results of the study showed that there are stages of transformative learning implementation strategies including planning, organizing, implementing, evaluating. Furthermore, in the process of increasing creativity and innovation through providing understanding, questions, attention and free time. Finally, the management of transformative learning provides flexibility and freedom for students to study learning by showing the ability to think critically, creatively and innovatively, taking into account opportunities and potential, and gaining understanding and being ready to face various possibilities about what to think and what to do (Aini, 2023).

The fourth study conducted by Nurhadi Santoso and Eka Mustika, this study aims to determine the implementation of the 2013 curriculum in developing student creativity in elementary schools. Based on the research results, lesson planning has been designed by considering the aspects contained in the 2013

curriculum objectives, namely producing productive, creative, innovative, and affective students through strengthening attitudes, skills, and integrated knowledge. The implementation of the 2013 curriculum in developing student creativity has been running according to standards, as for the implementation of creativity, students are involved in actively observing, analyzing, and communicating. as well as supporting factors in the aspect of adequate facilities and infrastructure so that the learning process runs effectively, one of which is with media and props that can encourage students to experiment and create something new (Nurhadi Santoso, 2014).

The last research was conducted by Retno Nabillah Putri, Yantoro, Issaura Sherly Pamela, This study aims to describe the application of the outdoor learning method in improving student creativity with the help of environmental media around the school. Based on the results of the research that has been carried out, the results show that the application of the outdoor learning method is increasing student learning creativity. The implementation of the outdoor learning method makes students more active and fosters courage. Students explore their own knowledge by observing and asking friends and teachers. The completion or follow-up stage of the implementation of outdoor learning is in the form of evaluation and understanding in the material they learn. Based on the evaluation, there is an increase in student creativity by applying the outdoor learning method assisted by the media around the school environment (Putri et al., 2023).

Based on previous research studies, there are several aspects that are slices in the discussion of research, but in these studies it is still not enough to discuss studies on transformative education that can explore the potential creativity of elementary school students. So the researcher will review and conclude related slices in the discussion of this research.

Initiating Transformative Education

In the digital era, science and information technology have developed so rapidly that they

penetrate across countries, nations, cultures, and civilizations. Various kinds of information can be accessed and forwarded by every individual around the world without the constraints of time and space. The issues that must be considered in this case are aspects related to changes in the learning paradigm because of the rapid development of information technology (Svari & Arlinayanti, 2024).

Learning is no longer just an effort to transfer knowledge but also an effort to educate generations to be more independent and understand the context and environmental resources (Novak & Gowin, 2004). Related to learning activities in the era of technological development, the role of teachers is expected to immediately improve competence (up to date) in the learning process.

Education and learning as conceptualized require the development of learning that can foster relationship patterns and interaction models between teachers and students that are more humane or authentic relationships (Cranton, 2000). The application of authentic relationships in the implementation of education and learning is believed to foster a high social culture, respect for the characteristics of each student while still paying attention to the intelligence, independence, and learning creativity of students. The implementation of such learning is included in the category or perspective of transformative learning.

In transformative learning, it does not mean that students can behave freely according to their wishes, but still in the process of assisting teachers to bridge them in awakening and activating themselves in creating a sense of responsibility for learning. The end of this issue is the growth of student learning creativity in managing learning activities responsibly through a process of mentoring, friendship, and dialectics by applying the principles of respect and reinforcement as well as punishment that is educational in nature for learning success and failure.

Key to transformative learning are processes of mentoring, encouragement, trust,

recognition of achievement, and the creation of learning independence. The transformation of the meaning of learning will also result in learning needs that are relevant to student characteristics and that are based on personal strengths and environmental demands influenced by changes in information technology. Related to this, the development of innovative, adaptive, and accelerative learning models to change is needed because it will be able to improve critical, creative, communication, and collaborative thinking (Lipman, 1998). One of the products of transformative learning is creativity and intelligent action in the learning interaction process that can increase confidence in interacting with the environment.

Teachers must provide opportunities or facilitate students to improvise and explore various learning resources and strategies available in their environment according to the needs and objectives of life-based learning. For students to have the confidence to improvise and explore their competencies, the learning process must build mutual trust and respect for the existence or presence of each person. Capacity and capability must be possessed by a teacher in understanding learning models that can provide opportunities for students to maximize their learning creativity.

Transformative learning is expected to be a trigger of transformation in mindset and action patterns in the learning process. Environment in learning, ability to motivate students to be active in learning, and instill student learning independence. The problems described above must be addressed immediately, because in the perspective of adult learning and community education, independence, creativity, and activity of learning are the core values of the principle of higher order thinking skills. It is time for learning patterns that can encourage the realization of self-confidence and learning creativity to be instilled and developed in learners.

Exploring The Creative Potential of Elementary School Student

Creativity in the world of children's education can be defined in various ways, depending on who views it and how, and it can be developed through a variety of activities that can attract children's interest and are enjoyable. Creativity in everyday life can be associated with a good appreciation for presenting something new, finding new ways that others might not discover, and generating new ideas (Ardiyanto, 2017; Munandar, 2012; Rohani, 2017).

Creativity is generally very important to instill in children from an early age because through creativity, an individual can create something concrete or real, and this embodiment is a necessity in a person's life. Creativity allows individuals to improve their quality of life. When creativity is said to be an innate human trait (potential) that every child possesses, it is believed to emerge on its own; thus, it can be understood that all children have the potential to create and continue to develop, even though their creative capacities may differ.

In the perspective of existentialist educational philosophy, creativity is the ability of an individual to provide new ideas and apply them in everyday life (Rohmah, 2019). Developing creativity in children is vital and should start from early childhood to support their future success. Therefore, teachers play a crucial role in helping to enhance children's potential in developing various aspects. This development is carried out using strategies that combine learning through play and playing through learning. In this way, children can explore and develop their imagination. Creative thinking and productive behavior among learners will develop when an educational approach that actualizes all the potential of learners is present.

Developing student creativity can begin by providing trust in the students. A good emotional atmosphere between a teacher and students will give students a sense of security, allowing them to continue developing at their respective levels. In the process of developing creativity, attention needs to be paid to the aspects present within the

students, namely: intellect, physicality, and feelings. Among these aspects, stimuli must come from learning experiences or play provided to students. Learning and play experiences can be applied through play activities, both at home and in the yard, using toys made from scratch or purchased from stores (Handayani et al., 2017).

To stimulate students' creativity, teachers or educators can use various methods, one of which is play. Play has its own meaning and purpose for students. Play serves to socialize oneself; this means that play can be used as a tool to measure students' abilities. Students will master various kinds of objects, understand the properties of objects, or recall events that have occurred in their environment. Play in education can demonstrate that it can stimulate all developmental aspects, such as motor development, creativity, and cognitive social skills, and so forth (Aisyah, 2017). This can stimulate several indicators of creativity, including: 1) Having high curiosity, 2) Frequently asking important questions, 3) Providing multiple solutions and ideas for problems, 4) Able to work independently, 5) Often trying new things (Natty et al., 2019).

Based on the previous definition, although there are various definitions of creativity, most experts agree on the five phases of the creative process (Guilford, 1975). First, the preparation phase, eliciting ideas, sensing, and defining the problem. Second, the concentration phase, focusing on a specific issue. Third, in the incubation phase, get out of the problem and hypothesize problem solving. Fourth, the Illumination phase, the emergence of ideas. Fifth, the elaboration phase, testing of ideas. The five phases reflect that a learning process that emphasizes student creativity requires a task structure that facilitates the process of generating ideas and a variety of problem-solving, rather than drilling, surface understanding, or discussion of one particular answer (Torrance, 1982).

Teaching and learning emphasize efforts to build understanding of natural phenomena. The process contains elements of creative thinking and thinking skills for problem solving. In this

case, learning is not only limited to understanding the material but also related to aspects of reasoning, problem solving, communication, and metacognition.

Learning at the primary school level emphasizes the achievement of scientific understanding and skills through a process known as learning process skills. Charlesworth & Lind developed a hierarchy of learning process skills and divided them into three levels: basic, intermediate, and advanced, and analyzed the relationship between learning process skills and creative thinking (Charlesworth & Lind, 1995). The relationship with creative thinking was developed from the criteria of openness to experience, flexibility, dissatisfaction with certain explanations, and elaboration.

Table 2. The relationship between learning process skills and creative thinking		
Skills	Learning Process Skills	Creative Thinking
Basic	To Observing	Open to experience: being sensitive and observant
	To Comparing	Flexibility: comparing from different points of view.
	To Categorizing	Flexibility and Elaboration: considers different ways to categorize something and provides detailed characteristics of the group criteria.
	To Measuring	this skill requires less creative thinking
	To Communicating	Elaboration: giving clear and complete explanations
Intermediate	To Inferencing	Flexibility: thinking of multiple meanings before choosing a particular inference
	To Predicting	Flexibility and Convergence:

		considering various possibilities before choosing the most feasible one.
Advanced	Creating a Hypothesis	Convergence: making hypotheses based on selected possibilities, not rushing to conclude an answer.
	Defining and Controlling Variables	Elaboration: carefully plan how to control variables.

Learning approaches generally emphasize memorization; for example, teachers provide information without students processing it meaningfully. Craft in his argument reveals that learning activities that provide various learning approaches can facilitate students' creative thinking processes (Craft, 2000). With this approach, it can facilitate as well as become the basis for assessing aspects of openness, flexibility, convergence, and elaboration of student thinking.

The transformation from observation to grouping and communication provides aspects of ability differentiation for students. The challenge for students during this process is to determine the discriminating factor, e.g., large-small size, hard-soft appearance, etc. Next, students elaborate and communicate the characteristics they found as their findings. With regard to the process of ability differentiation, some teachers argue that gifted students tend to be capable of free exploration and discovery, through which this group of students differentiates their learning. To a certain extent, this is true because the group of students gifted in creative thinking are curious, which is evident in the way they ask and answer questions.

CONCLUSION AND SUGGESTION

Transformative education aims to change traditional approaches towards more modern and humanistic learning, which facilitates students to develop critical thinking, creativity, collaboration, and communication skills. Previous research on

creativity and transformative education shows that learning models such as problem-based learning, outdoor learning, and creativity-oriented curricula can enhance students' creativity.

Creativity is an important skill to develop from an early age as it improves quality of life and supports future success. An educational process that combines play with learning can help students explore and develop their imagination and creative skills. Teachers need to provide opportunities for students to explore learning resources and strategies that suit their needs. Authentic relationships between teachers and students can increase students' confidence and independence in learning, thus stimulating students' creative thinking.

In learning, the five stages of the creative process (preparation, concentration, incubation, illumination, elaboration) need to be integrated in learning to encourage problem solving and idea development. Learning process skills such as observation, comparison, and categorization are closely related to creative thinking. In conclusion, transformative education in the digital era needs to focus on learning that supports the development of students' creative potential, using innovative, adaptive, and collaborative methods to prepare them for future challenges.

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