

The creativity of contract lecturers in fostering student learning motivation in the industrial era 4.0

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ABSTRACT

This paper discusses the creativity of adjunct lecturers in fostering student learning motivation in the digital era. The study employs a qualitative method. Qualitative research describes and explains the empirical research findings obtained in the field. Data is collected through field observations, in-depth interviews, and document analysis. The research findings indicate that the ability of adjunct lecturers to foster student learning motivation in the digital era necessitates good lesson planning. Lecturers can design strategies and teaching methods according to the needs and characteristics of the students. These young lecturers also need to combine learning with entertainment to motivate students. Furthermore, the creativity of adjunct lecturers in fostering student motivation in the digital era includes being communicative instructors. These adjunct lecturers also utilize the advancements in social media as a learning resource, create educational videos, and integrate current issues with course materials. This research implies that lecturers are expected to pay more attention to creativity in implementing the learning process. Adequate learning facilities support this creativity.

ARTICLE INFORMATION

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creativity, learning
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1. Introduction

Creativity is an individual characteristic evident in their ability to create something new and make existing things more innovative. Lecturers also collaborate on various learning materials to make them more exciting and innovative, thus more beneficial. Creativity is defined as an individual's ability to express themselves more innovatively (Carmeli, Sheaffer, Binyamin, Reiter-Palmon, & Shimoni, 2014). Therefore, creativity can be enhanced and honed depending on the individual's earnest efforts. The word "creative" means having the ability to manifest something (Carmeli et al., 2014). Hence, we can observe someone's creativity from their behavior or daily activities. It should be noted that creativity is also necessary in the learning process, where it plays an essential role in bringing about something new. Creativity also serves as a strength to generate new ideas that can be applied in analyzing problems.

The scope of an individual's creativity can bring forth new ideas or innovations that can be applied to solve problems. In the context of learning, both students and lecturers need creativity that can contribute to education development. The purpose of creativity is to enhance the learning process, making it less tedious and more effective (Jankowska & Atlay, 2008). Higher education curricula define creativity as the ability to do something that already exists differently, making it more innovative, imaginative, and expressive. This understanding is based on the notion that lecturers should be

creative in their respective disciplines as educators at the higher education level.

In higher education, many lecturers often need a better understanding of how to formulate instructions that can stimulate creative thinking and enhance students' creativity as part of their learning. In this case, the subject of this research is the creation of adjunct lecturers to foster student learning motivation at the State Islamic University (UIN) Datokarama Palu. Considering the importance of creativity applied by lecturers in the learning process will determine the direction of the course content. Students can better understand the course materials by using various methods and media in instructional technology. Another crucial factor is the need for an open and safe forum for students to express their creativity. A common challenge in the higher education learning process is that many lecturers need a clearer understanding of how to develop instructions that can encourage creative thinking and enhance students' creativity as part of their learning.

In this regard, the research subject is the creativity of adjunct lecturers in fostering student learning motivation at the State Islamic University (UIN) Datokarama Palu. Considering the importance of creativity applied by lecturers in education will significantly influence the direction and orientation of the course content, determining whether it can be effectively measured or not. Consequently, students can understand the course material descriptions through various media in instructional technology. Rahmawati states that creativity is the ability to produce new

forms of art or design (Lindström, 2006). In solving these problems, new methods are employed.

Promoting creativity among students is a fundamental competency of learning achievement indicators that can lead to good results. In the application of modern learning, students become critical, creative, and enthusiastic learners. However, some students may need to catch up due to a lack of knowledge about media in the teaching and learning process. The creativity of educators is crucial to make learning activities more lively and dynamic (Amiruddin, Nurdin, & Ali, 2021). Considering the importance of learning motivation in the teaching and learning process, educators must be able to inspire their students. One internal factor that can affect learning achievement is learning motivation. Learning motivation encourages individuals to engage in learning, resulting in effective learning that yields high academic performance. With diligent effort, learners can achieve good results. The intensity of one's motivation significantly determines the level of their learning achievement.

The digital era, also known as the Fourth Industrial Revolution, drives technological advancements, including advancements in education (Nurdin, 2022). These advancements make it easier for students to fulfill their knowledge needs by seeking, evaluating, organizing, and communicating information to solve the problems they face (Nurdin, 2023). The readiness of Indonesian higher education institutions to meet internal and external challenges, both on a local

and international scale, must be manifested in efforts to create qualified human resources that will enable Indonesian higher education institutions to compete internationally. This research aims to understand lecturers' efforts in fostering student learning motivation at UIN Datokarama Palu.

2. Literature Review

2.1 Creativity

Creativity stems from the word "creative," which means having the ability to create something. Creativity is an individual's ability to create something new, whether ideas or tangible works that differ from what already exists. A person can produce or create new jobs or combinations based on existing data by exploring various possible solutions. Creativity emphasizes qualities, usefulness, and diverse solutions that reflect fluency, flexibility, and originality in thinking. It also means the ability to combine ideas. Something new does not necessarily mean something that has never existed before. Instead, it is about creating unique combinations of previous objects' qualities.

Creativity is a phenomenon of a person who communicates a new concept, obtained through mental processes, in generating ideas. Combining ideas is an effort to meet the needs influenced by ecological pressures. In creativity, there are four dimensions known as "The Four P's of Creativity" (Glover & Sautter, 1977). A person's creativity emerges when personal and environmental conditions support it.

The conditions that allow someone to create meaningful creative products are personal conditions and environmental conditions. In other words, individuals become creative when they are encouraged by their environment to engage in creative processes, activities, and pursuits. Individuals have the capacity for creativity, which can be developed through increased quantity and diversity of information, utilizing memory, experience, imagination, and ability. Unique and original creativity is built through a lengthy process of idea management, plan management, and transforming those ideas into something new. Creativity is not merely a process of creating new ideas or works; it also involves developing and enhancing the quality of the creation, making it enjoyable and beneficial to the broader community.

2.2 Creativity in Learning

Creative and innovative learning is a crucial issue in improving the quality of education. Social-cultural developmental theories emphasize social interaction and culture in studies of cognitive development. Effective learning design can ensure that programs address the identification of educational needs. Teaching methods and assessment strategies can be selected to achieve the desired learning outcomes (Alamsyah, Pettalongi, & Nurdin, 2023). Evaluation and review processes that facilitate the preservation of teaching materials and continuous improvement contribute to better education. In the fourth industrial revolution era, information technology

becomes the foundation of human life (Imawan, Pettalongi, & Nurdin, 2023). Computing power and data usage are limitless due to the development of the internet and massive digital technology, which form the basis of human-machine movement and connectivity. This era also disrupts various human activities, including science, technology, arts, and education.

21st-century education or learning focuses on creativity, critical thinking, communication, and collaboration. These skills are essential not only for students but also for educators. Educators must possess strong competencies, including critical and creative thinking, effective communication, and collaboration. They play a vital role as role models, motivators, and inspirations for students (Wahyuddin, Nurdin, & Pettalongi, 2022). This role cannot be replaced by technology. They should have competencies in education, research, digital business, globalized competencies, and interaction in learning. Currently, an appropriate learning model can transform students' mindsets and characteristics. Therefore, higher education institutions need to develop student's talents and potential. Various learning models that explore different instructional systems can broaden students' knowledge of multiple disciplines.

In achieving 21st-century skills, learning trends and practices are adjusted to meet the job market's needs. One way is through integrated or blended learning. Blended learning is an approach that incorporates the use of information technology in the learning

process. Integrated learning allows for reflection in learning. Integrated learning is a method that combines face-to-face classroom learning with online learning. It integrates physical classroom learning with a virtual (digital) environment. Integrated or blended learning combines traditional literacy and new literacy, including human literacy, technological literacy, and data literacy.

Blended learning is expected to improve learning outcomes and provide an effective way to extend learning time, enabling students to meet the standards of readiness for higher education and the workforce. It allows students to acquire digital literacy and online learning skills. In higher education institutions, the skills of instructors or lecturers greatly influence the educational output, making it a significant factor in the learning process. It can prevent student boredom and create a creative and enjoyable learning atmosphere. Nowadays, creativity must be developed to stimulate the emergence of innovation from lecturers, whether in the form of ideas, real works, creative thinking, or new teaching methods.

2.4 Student Learning Motivation

An individual's motivation to learn can be observed through indicators that stem from within themselves or external stimuli. The presence of motivation is crucial in the learning process because when students are motivated to learn, they actively participate in learning activities (Askar, Pettalongi, & Nurdin, 2022). The term "motivation" comes from the word "motive," which can be understood as

the force within an individual that causes them to act or behave. Motives cannot be directly observed but can be interpreted in their behavior, such as stimuli, drive, or the emergence of energy that leads to specific behaviors. Student learning motivation relates to the hopes or goals students want to achieve in their education (Daskalovska, Gudeva, & Ivanovska, 2012). Students who are motivated solely to pass a particular course exhibit different learning activities compared to students who aim to master the course material as preparation for its application in life.

Students with motivation solely to pass a course can exhibit behaviors that are less aligned with the learning demands as expected because obtaining a good or high grade requires not only studying well but also employing specific strategies (Hanrahan, 1998). Motivation is an individual's energy change characterized by feelings and reactions to achieve a goal. The understanding of motivation contains three essential elements that are interconnected:

- 1) Motivation is characterized by a change in energy within the individual. Specific changes in the neurophysiological system of the human organism cause this energy change, for example, the emergence of hunger or feelings of appetite due to changes in the digestive system (Lowman, 1990).
- 2) Motivation is characterized by feelings, initially in the form of psychological tension, then emotional states, leading to motivated behavior. This change can be observed in a person's behavior, such as when

engaging in a discussion, a student becomes interested in the issues being discussed and expresses their opinions related to the topic.

- 3) Motivation is characterized by the response to achieve a motivated goal. This response reduces the tension caused by the energy change within the individual. For example, students study diligently if they want to achieve good grades.

Based on these definitions of learning motivation, learning motivation is an impetus that arises from within or outside an individual, capable of creating enthusiasm and eagerness to learn and providing direction to learning activities to achieve desired goals.

2.5 The Relationship between Learning Creativity and Motivation

Being a lecturer in the digital era is a challenging task. There are challenges for lecturers to innovate and improve their productivity as educators. In this era, lecturers are required to have strong core competencies in their field of expertise and adapt to rapid technological changes. Creativity, as a form of learning, is a vital part of cognitive development. It can explain and present abstract concepts by involving curiosity and the ability to discover, explore, search, capacity, and enthusiasm. Thus, creativity can inform various types of learning. Creative learning emphasizes how lecturers or tutors facilitate learning activities, creating a conducive and comfortable learning environment that encourages students to engage in creative and enjoyable activities (Baeten, Dochy, & Struyven, 2013).

The products of lecturers' creativity are expected to provide real situations in the learning process. So far, students have been required to have high verbal skills in dealing with abstract matters. The products of lecturers' creativity are crucial in developing a scientific thinking framework involving rational, systematic, and consistent steps. The results of the lecturers' invention will stimulate students to help identify problems, observe data, process data, and formulate hypotheses. These activities strengthen memory retention of absorbed information and contribute to the formation of cognitive elements related to understanding.

The theory of motivation originated and developed primarily among psychologists. According to psychologists, motivation has a hierarchical structure corresponding to psychological and physiological needs. One psychological theory related to learning motivation is humanistic psychology. This theory acknowledges and values the dignity of human beings as whole individuals, emphasizing individual worth. Based on the above understanding, learning in the humanistic concept highly values unique abilities. Therefore, creativity and initiative should grow to the maximum extent possible. In this regard, lecturers only assist students in self-development, helping them recognize themselves as unique individuals and realize their potential.

Learning motivation and the learning process are greatly influenced by lecturers' creativity, as creativity is

the ability to generate new art forms or solve problems with new methods. Therefore, lecturers must be more creative in designing learning programs and solving new problems during the learning process. With various challenges and learning models, education requires creative thinking in solving multiple issues, especially in the learning process. A creative lecturer will exhibit flexibility in facing multiple issues and challenges. It demonstrates that the lecturer can interact with drastically changing situations with a fresh perspective. Thus, learning activities are greatly determined by the creativity of the individuals involved.

Optimally achieving learning objectives requires lecturers' creativity to enhance students' motivation. Teachers can consider several factors to improve students' motivation to learn. The world has entered the fourth industrial revolution era, characterized by rapid connectivity, interaction, and the development of digital systems, artificial intelligence (AI), and virtual reality. The correlation between humans, machines, technology, and other resources impacts various sectors of life, including the education system in Indonesia. The education sector is one of the key pillars for the progress of future generations, and it needs to adapt to the changing times. Therefore, preparing quality human resources is necessary to adjust and compete globally. The success of a country in facing the fourth industrial revolution era is determined by the quality of educators who possess various skills and can adapt to the development of information technology.

3. Methodology

This research adopts a qualitative approach. Qualitative research is characterized by collecting descriptive data, including the informants' words, actions, and feelings, who serve as the needed data sources (Nurdin & Pettalongi, 2022). The collected data is supported by textual and documentary data (files, audio, visual, audiovisual) that support the research. With this approach, the researcher aims to provide a detailed description of the phenomena occurring in the field, the nature of the phenomena, and all aspects related to the theme under investigation (Nurdin, Scheepers, & Stockdale, 2022; Nurdin, Stockdale, & Scheepers, 2013).

This study is classified as a case study research. Case study research delves more intensively into the current situation to gather information (Nurdin et al., 2022). In other words, the researcher must build good relationships with various individuals and entities to become sources of information within the environment, such as academic units, social groups, individuals, institutions, and communities. The researcher must also immerse themselves in the surrounding environment to gather as much data as possible.

The research is conducted at Campus II of UIN Datokarama Palu, located in Pembowe Village, Sigi Regency. The data collection techniques employed in this research include observation, interviews, and documentation. This study has three stages of data analysis: data reduction,

data presentation, and data verification.

4. Result and Discussion

The era of the fourth industrial revolution is characterized by the belief that information technology is the basis of human life. The computational power and data utilized have no boundaries due to the massive development of digital technology, which forms the basis of human-machine connectivity. This era of Industry 4.0 will disrupt various human activities, including science, technology, and art. The focus of education in the 21st century encompasses skills such as creativity, critical thinking, communication, and collaboration. These skills are not only possessed by students but also by lecturers as educators. Lecturers must have strong competencies, including critical thinking, creativity, communication, and collaboration. The most crucial role of a lecturer is to set an example of character, motivate, and inspire students. Technological advancements cannot replace this role. Competencies in education, writing, the digital business world, globalization, and interaction in learning are essential.

A learning model that can change students' mindsets and nature in the current era is a model that aligns with the needs of the job market. Therefore, universities should be able to develop lecturers' and students' talents and potential. Diverse learning models and the freedom for lecturers to explore learning systems are needed to broaden students' perspectives. Adjustments to

learning models are necessary to achieve 21st-century skills through integrated or blended learning. Blended learning is a way to incorporate information technology in learning activities. Integrated learning allows for reflection on the learning process. It combines face-to-face classroom learning with online learning outside the classroom. Integrated learning occurs by combining physical classroom learning with the virtual environment. Integrated or blended learning is a combination of traditional literacy and new literacy, including human literacy, technological literacy, and data literacy. In higher education, the creativity of teaching staff greatly influences educational outcomes. Creativity needs to be developed to stimulate innovation from lecturers, such as ideas, actual works, creative thinking, and new teaching methods.

In this paper, the author uses Mel Rhodes' theory of creativity, which states that creativity is the phenomenon of someone communicating a new concept to meet educational needs. The educational outcomes result from a mental process influenced by ecological pressures to generate ideas. Mel Rhodes argues that four indicators of creativity are known as "The Four P's of Creativity." Based on this creativity theory and field research, it is found that some young lecturers meet the indicators of creativity in digital learning. This can be seen as young lecturers are closer to students in their interactions during the learning process. These young lecturers can overcome challenges in formulating, revising, and communicating information technology and social media development in the

learning process. This approach can motivate young lecturers to create various teaching methods that align with the current characteristics of students.

Therefore, with the advancement of information technology and social media, young lecturers must provide engaging, innovative, and creative teaching methods to prevent students from becoming bored and ensure they understand the material effectively. Educators also need to collaborate education with entertainment. Lecturers must adapt by providing various technology-based learning approaches, such as learning through applications, games, or other visual aids that transform the learning content into digital content. In addition to leveraging information technology, lecturers' teaching style influences students' learning motivation. The learning process will be more engaging, and students will be motivated to participate. At the beginning of each learning session, lecturers can share real-life experiences related to the working world or industry relevant to the lecture theme by incorporating current issues into the teaching.

The creativity in learning demonstrated by contract lecturers has influenced students' learning motivation. Referring to McDonald's theory of motivation, motivation can be a factor that energizes individuals, characterized by positive feelings and reactions toward achieving specific goals. This understanding of motivation involves three essential interrelated elements: a change in energy within the individual and positive psychological

emotions characterized by positive reactions toward achieving specific goals. Based on the findings in the field, there is a relevance between the creativity of contract lecturers and students' learning motivation. The indicators of motivation can be seen in the following table 1.

Table 1. Indicators of Motivation

Indicators of motivation according to McDonald	Student Response
Marked by a change in energy within the individual	Students become enthusiastic in the learning process.
Marked by psychological tension	The classroom atmosphere becomes active
Marked by reactions to achieve specific goals	Evident in class discussions and assignment completion.

Based on field research, the creativity of young lecturers at UIN Datokarama Palu can foster students' motivation to learn. It is evident from the increasingly creative teaching methods they employ. The lecturers' age is close to that of the students, enabling them to keep up with the times. These lecturers can present more updated learning materials that align with the characteristics of today's students. Using social media platforms such as TikTok, Instagram, and YouTube, the lecturers engage students in discussing the presented materials. They leverage information technology in delivering the content, such as creating educational

videos, introducing applications, and utilizing online learning resources, making learning materials more enjoyable. In addition to the teaching methods mentioned above, students are motivated by lecturers who possess authority, a sense of humor, and good communication skills. The research findings also indicate that all students appreciate these qualities in lecturers. Students adapt themselves when facing lecturers with specific characteristics. Lecturers play a crucial role in making classroom activities more exciting and interactive. It extends beyond the field of study itself, encompassing various current news and popular trends among students. Lecturers can inspire students with expertise and willingness to adapt to changing times, becoming incredible and up-to-date lecturers. Indeed, there are many knowledgeable lecturers, but conveying complex theories informatively and comprehensibly requires a specific skill set. Communicative lecturers, on the other hand, motivate students to explore and delve deeper into the subject matter. This interactive two-way teaching process stimulates in-depth discussions, enhancing students' understanding of the material. Lecturers are not merely instructors; they also serve as a source for inquiries and consultations regarding academic matters, career paths, and personal lives. An ideal lecturer is someone willing to allocate time to listen and address students' concerns. They listen attentively and reflect on students' issues, allowing them to gain insights and find solutions. A good lecturer does not stop at assessment alone but invests time in providing constructive feedback

and criticism on students' assignments. In reality, students need such feedback to identify areas of improvement and rectify their mistakes.

5. Conclusion

Based on the data, research findings, and analysis presented in the previous sections, the author concluded that students in this era, known as digital natives, are familiar with technology, the internet, gadgets, social media, etc. Therefore, teachers need to plan their teaching approaches to foster student motivation in the digital era. Teachers can design strategies and teaching methods suitable for students' current needs and characteristics, such as integrating education and entertainment. Based on the author's research, it was found that teachers' creativity in fostering student motivation in the digital era includes being communicative, utilizing social media developments as a learning resource, creating educational videos, and integrating current issues or trends with the learning materials.

REFERENCES

- Alamsyah, Moh Ayuub, Pettalongi, Sagaf S, & Nurdin, Nurdin. (2023). *Peran Teknologi Pendidikan Dalam Meningkatkan Minat Belajar Siswa Di Era Society 5.0*. Paper presented at the Prosiding Kajian Islam dan Integrasi Ilmu di Era Society (KIIIES) 5.0, Palu.
- Amiruddin, Amiruddin, Nurdin, Nurdin, & Ali, Moh. (2021). *Islamic Education Teacher*

- Communication Strategy in Increasing Students' Learning Interest. *International Journal of Contemporary Islamic Education*, 3(1), 41-61.
- Askar, Askar, Pettalongi, Adawiyah, & Nurdin, Nurdin. (2022). Factors Influence Muslim Students' Motivation To Use Online Academic Support Services Within Islamic Higher Education In Indonesia. *Journal of Positive School Psychology*, 6(12), 721-736.
- Baeten, Marlies, Dochy, Filip, & Struyven, Katrien. (2013). The effects of different learning environments on students' motivation for learning and their achievement. *British Journal of Educational Psychology*, 83(3), 484-501.
doi:<https://doi.org/10.1111/j.2044-8279.2012.02076.x>
- Carmeli, Abraham, Sheaffer, Zachary, Binyamin, Galy, Reiter-Palmon, Roni, & Shimoni, Tali. (2014). Transformational Leadership and Creative Problem-Solving: The Mediating Role of Psychological Safety and Reflexivity. *The Journal of Creative Behavior*, 48(2), 115-135.
doi:<https://doi.org/10.1002/jocb.43>
- Daskalovska, Nina, Gudeva, Liljana Koleva, & Ivanovska, Biljana. (2012). Learner Motivation and Interest. *Procedia - Social and Behavioral Sciences*, 46, 1187-1191.
doi:<https://doi.org/10.1016/j.sbspro.2012.05.272>
- Glover, John A., & Sautter, Fred. (1977). Relation of Four Components of Creativity to Risk-Taking Preferences. *Psychological Reports*, 41(1), 227-230.
doi:10.2466/pr0.1977.41.1.227
- Hanrahan, Mary. (1998). The effect of learning environment factors on students' motivation and learning. *International Journal of Science Education*, 20(6), 737-753.
doi:10.1080/0950069980200609
- Imawan, Muhammad, Pettalongi, Adawiyah, & Nurdin, Nurdin. (2023). Pengaruh Teknologi Terhadap Pendidikan Karakter Peserta Didik di Era Society 5.0. Paper presented at the Kajian Islam dan Integrasi Ilmu di Era Society (KIIIES) 5.0, Palu.
- Jankowska, Maja, & Atlay, Mark. (2008). Use of creative space in enhancing students' engagement. *Innovations in Education and Teaching International*, 45(3), 271-279.
doi:10.1080/14703290802176162
- Lindström, Lars. (2006). Creativity: What Is It? Can You Assess It? Can It Be Taught? *International Journal of Art & Design Education*, 25(1), 53-66.
doi:<https://doi.org/10.1111/j.1476-8070.2006.00468.x>
- Lowman, Joseph. (1990). Promoting Motivation and Learning. *College Teaching*, 38(4), 136-139.
doi:10.1080/87567555.1990.10532427
- Nurdin, Nurdin. (2022). *Impact of Internet Development on Muslim Interaction with Islam*. Paper presented at the Proceeding of International Conference on Islamic and Interdisciplinary Studies, Palu.
- Nurdin, Nurdin. (2023). *Tantangan Guru Dimasa Industri 4.0: Pengetahuan*

- dan Ketrampilan Baru*. Paper presented at the Kajian Islam dan Integrasi Ilmu di Era Society (KIIIES) 5.0, Palu.
- Nurdin, Nurdin, & Pettalongi, Sagaf Sulaiman. (2022). Interpretive case study to understand online communication in an e-tendering project implementation. *Jurnal Manajemen Komunikasi*, 7(1), 39-54.
- Nurdin, Nurdin, Scheepers, Helana, & Stockdale, Rosemary. (2022). A social system for sustainable local e-government. *Journal of Systems and Information Technology*, 24(1), 1-31. doi:10.1108/JSIT-10-2019-0214
- Nurdin, Nurdin, Stockdale, Rosemary, & Scheepers, Helana. (2013). *The Use of Social Media to Gather Qualitative Data: A Case of Government E-Procurement Implementation and Use*. Paper presented at the 24th Australasian Conference on Information Systems (ACIS)
- Wahyuddin, Wahyuddin, Nurdin, Nurdin, & Pettalongi, Adawiyah. (2022). *Strategy for Developing Honesty and Caring Attitude in Students*. Paper presented at the Proceeding of International Conference on Islamic and Interdisciplinary Studies, Palu.