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Factors Impacting English Teachers' Creativity in Teaching English as a Foreign Language in Indonesia

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Abstract

Teachers bring various experiences to the classroom, and their beliefs about 'creative teaching' or 'good teaching' practices are frequently influenced by various factors, including their own teaching experiences, individual motivation, and organizational constraints. This context frames their early efforts to develop creative practices, and recognition of influences further affects the level of creativity displayed by teachers. This study aims to ascertain the factors that affected teachers' creativity in English language teaching (ELT) in contemporary Indonesian higher education. We interviewed twenty Indonesian English as a Foreign Language (EFL) teachers about the factors influencing their creativity and their motivations for teaching creatively. We identified three factors which influenced teachers' creativity: their knowledge and teaching experiences, their motivation, and the role of technology. These three factors served as a guide for teachers regarding how they might integrate creativity into their teaching practice. Additionally, Indonesian EFL teachers believed that their creativity was necessary to assist students in learning, create an

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enjoyable learning experience, and encourage students to be creative. This belief appears to be partially due to the affordance of the rapidly changing digital environment which enables student-centred and self-directed learning. Finally, this study indicates that creativity is not instinctive to teachers; however, they can nurture their creativity by accepting their innovative ideas through developing their abilities to teach creatively.

Keywords: EFL classrooms, higher education, motivation, teacher creativity.

1. INTRODUCTION

For over two decades, there has been a growing global recognition of '21st-century skills' in which 'creativity' is recognised as a core competency for students to develop and is embedded in school curriculums. In Indonesia, this was articulated in *Kurikulum 2013* (Al Faris, 2016). Beyond the curriculum, it is routinely described as one of the '4Cs', along with communication, collaboration, and critical thinking (World Economic Forum, 2016). There has been broader interest in the concept of creativity in recent years, and the term is frequently used as an educational imperative for both students and teachers to develop (Aikhenvald & Storch, 2019; Alves et al., 2021; Kettler et al., 2018). Of specific relevance to this study, numerous studies have also examined teachers' creativity in language teaching and learning (Artini & Padmadewi, 2020; Fitriah, 2018; Masadeh, 2021; Wang & Kokotsaki, 2018). In this literature, two factors contribute to the growing interest in creativity at schools: students' fulfillment and their future success as knowledge-based economy participants (Craft, 2003; Kamyliis et al., 2009).

Raising educational achievement coupled with 21st-century skills inevitably secures increased employment opportunities and maintains economic performance. Creativity is seen as a strong driver for developing new products or services, solving new problems (Chua et al., 2014), enhancing personal success, and resolving conflict positively (Hennessey & Amabile, 2010). As a result, over the last few decades, an increasing number of policy statements have been made to incorporate creativity into the curriculum to nurture students' and teachers' creativity. However, the definition of creativity in educational settings varies according to the context in which it is viewed (Chan et al., 2019; Larraz-Rábanos, 2021).

Generally, we can recognize creative acts or efforts when we see them, but defining them remains challenging as creativity is expressed in diverse ways (Maley, 2015). Consequently, much of the research mainly focuses on creative practices, creative processes, the concept of creativity, and the creative pedagogy of technology use (Mejia et al., 2021). In contrast, there is a dearth of research that focuses on resources for teachers' creativity development. To fill this gap, this study is intended to provide an answer to the topic of what factors influence teachers' creativity in the classroom within the context of Indonesian tertiary education. The research question for this study is: What factors affect the creativity of English language teaching (ELT) in Indonesian higher education?

Understanding teachers' creativity is pivotal as they are the ones who engage students, present them with challenging ideas, and expose them to the language in

meaningful contexts. It is also interesting to learn about the factors motivating teachers to be creative in their teaching to understand their attitudes and activities in their work environment. One key aspect that may influence teachers' creativity in this study is motivation, as it is a basic need for individuals to achieve 'self-actualisation.' The findings of this study will portray a comprehensive view of the essential elements necessary for teachers to maintain their creativity and the actions they take to keep their creativity current.

2. LITERATURE REVIEW

2.1 Teachers' Creativity

Definitions of creativity vary from one context to another in the literature. Csikszentmihalyi (1988), for example, is known for using creativity as a key construct in articulating his 'flow theory' within positive psychology. In focusing on teacher creativity, this study is informed principally by two key definitions of creativity: one proposed by National Advisory Committee on Creative and Cultural Education (NACCCE, 1999) as a 'democratic definition' that distinguishes between teaching creatively and teaching for creativity, and Craft (2005) proposing 'little c creativity' (LCC). According to the democratic concept of creativity, everyone can be creative in their relevant knowledge and skills. In a complementary way, Craft (2005) describes creativity as daily creativity associated with one's ability to cope, identify, and make decisions. These two ideas of creativity are more relevant for understanding teachers' creativity in classroom practices since they both see creativity as a natural ability that all instructors (potentially) have.

While creativity is viewed as a natural ability shared by all teachers, it does not occur automatically. Teachers must possess specific characteristics to teach creatively, and Lin (2011) proposes a three-element framework fostering creativity in teaching that builds upon the NACCCE approach. Likewise, Amabile (1983, 1996) says that creativity results from the interaction of three pivotal components, namely knowledge, creative thinking, and motivation. The first component, knowledge, encompasses pertinent information that serves as the basis for developing innovative products (Renzulli & De Wet, 2010). Creativity occurs when teachers have absorbed sufficient knowledge to ponder, generate connections, and produce new ideas (Cropley, 1999; Feldman, 1999). It requires a level of domain competence, and if they have assimilated the information, they may be able to develop something innovative (Fautley & Savage, 2007; Runco, 2003). A study on the factors influencing teachers' self-efficacy in creative teaching found three key conclusions (Huang et al., 2019). First, school support, the practicality of creative teaching, teacher perceptions of their own creative behaviour, and student expectations affected teachers' intentions to teach creatively. Second, a teacher's self-assessment of their creative behaviour has a significant impact on their confidence in adopting creative instructional strategies and student engagement. The students' expectations are significant for the dimension of student engagement, whereas the expectations of colleagues are significant for the self-efficacy dimension of creative teaching strategies. Thirdly, teachers in suburban and rural schools are more influenced by the school environment, whereas teachers in urban schools are more influenced by student expectations. Even though this study's

finding does not specifically mention knowledge as a contributing factor to creative teaching, teachers' knowledge is critical for their creativity. For example, when they adopt creative strategies, they need a solid knowledge base to modify what they do in the classroom. By sharing information and creative ideas with others, people can foster creativity and create new angles on the same problem (Wang & Noe, 2010).

2.2 Creativity from Three Types of Knowledge

In probing the knowledge component, creativity can draw from three types of knowledge: procedural, declarative, and conditional knowledge (Anderson, 2014; Gardner, 1993; Murphy, 2009). Procedural knowledge, or 'knowing-how', describes both the knowledge and skill of doing things (Anderson, 2014) and explains how to carry out an activity within well-defined processes (Yilmaz & Yalcin, 2012). The emphasis is on cognitive abilities such as decision making, mathematical problem solving, computer programming, and language production (Anderson, 1983). It is frequently associated with changes in knowledge, skills, and task performance (LeFevre et al., 2006). Declarative knowledge or 'knowing-that' is conceptual knowledge or knowing about something (Anderson, 2014). Conditional knowledge is often more complex in combining aspects of 'knowing-when', 'knowing-why', and sometimes 'knowing-if' (Arroyo & Hunt, 2011; Rahmat et al., 2022). Conditional knowledge represents people's comprehension of why a method works or whether or not a technique is accepted (Hiebert & Lefevre, 1986). Anderson (1983) asserts that knowledge begins with declarative acts, the awareness, and control; this control paves the way for the procedural process. Declarative knowledge is the foundation of knowledge transfers. On the other hand, procedural knowledge plays an important role in the conceptual structure and attaining declarative knowledge (Lawson et al., 2000). Alternatively, creativity is also conceived as emergent, sometimes spontaneous and associated with 'mindset' (Crowell & Reid-Marr, 2013; Pretz & Nelson, 2017).

The second term 'creative thinking skills' refers to an individual's capacity to combine previously unrelated pieces of knowledge and comprehend it in novel ways (Fautley & Savage, 2007). The more experienced a teacher is, the more likely they are open to new methods of instruction. They may teach the same topic several times, but they are different each time, for example, in how they improvise in dealing with the materials. As previously said, creativity emerges when people have enough knowledge to ponder, discover connections, and produce new ideas (Fautley & Savage, 2007). Thus, thinking in this context aims to mix and link what instructors know to create a new understanding of information.

The next consideration concerns motivation which, in this context, refers to a desire to solve problems or discover new approaches in creative productions (Amabile, 1983). Creativity occurs when teachers have an access to sufficient information to think, combine, and connect what they have already known. Moreover, Trunnell et al. (1997) also stated that passion, enjoyment in learning, eagerness to help people, and satisfaction motivated teachers to be creative in teaching. According to Hennessey and Amabile (2010), motivation is critical for creative production. It indicates the distinction between what creative people are capable of accomplishing and what they will accomplish in any particular scenario. Extrinsic and intrinsic motivational orientations can motivate people to be creative (Dörnyei & Ryan, 2015; Dörnyei & Ushioda, 2010).

Extrinsic motivation, such as monetary rewards or status and recognition, may have a limited effect on individual performance. However, people will continue to engage in uninteresting activities regardless of such incentives. This is in contrast to intrinsic motivation. Individuals will perform various tasks and employ a variety of strategies if they are motivated, interested, and enjoy doing so. It is clearly stated that motivation significantly impacts the direction of an individual's behaviour and actions. By being motivated to complete tasks and accomplish goals, people may be driven to the desire for success or the pursuit of excellence by exploring their creativity. That is why [Hennessey and Amabile \(2010\)](#) asserted that motivation is critical to an individual's ability to be creative. It is also supported by the investment theory of creativity, which includes six critical resources for developing individual creativity: intelligence, knowledge, intellectual style, personality, motivation, and environment. It explains why some people are more creative than others ([Sternberg & Lubart, 1992](#); [Zhang, 2013](#)). Again, motivation is a considerably significant part of building teachers' creativity as it encompasses the 'why' creative teachers should be creative teachers.

The ongoing development of the digital environment also provides important context as a stimulus of creativity ([Bruno, 2022](#)). Innovations in digital technology and advancements in specialized fields such as human computer interaction and user experience provide specialist perspective, as they contribute to understanding usability, user appeal and acceptance. Moreover, the increasingly pervasive nature of digital technology means that it is a feature of the environment and more than 'just a tool' to be used. An important caveat, however, is that depending on context digital technology can be experienced as enabling or frustrating. Thus, for teachers there may exist both a need for professional development as well as stimulus to be creative. Among the affordances of the rapidly changing digital environment is that it enables self-directed learning which requires that teachers 'keep up' with developments and arguably compete for students' attention ([McVaugh & Robinson, 2022](#)).

3. METHODS

A qualitative approach was undertaken to obtain an insight into the lived experience of factors sustaining teachers' creativity and reasons for being creative. Twenty EFL teachers (10 males and 10 females) who came from seven different institutions (three state institutions and four private institutions) with more than five years of teaching experience participated in this study. Most of the teachers were ELT professionals with postgraduate degrees, and only six of them had bachelor's degrees. They teach English at non-English departments in universities in East Java, Indonesia. They were specifically selected based on three criteria: (1) teaching in fields other than English; (2) possessing ELT credentials; and (3) possessing at least three years of teaching experience. Establishing these criteria is critical for three reasons.

First, students majoring in non-English subjects, such as Mathematics, Science, Information, and Technology, may exhibit a different level of motivation than English majors. Teachers must develop their creativity to meet the challenges. Second, we noticed that many EFL teachers in fields other than English lack ELT credentials. They are employed as a result of their international education. This ELT qualification is crucial for ensuring that instructors have the appropriate knowledge and abilities to teach ELT, since this study recognized teachers' inventiveness. Third, we assumed that

instructors with at least two years of classroom experience would be better at innovative teaching than teachers with no experience. To elicit rich and comprehensive information about the subject, we conducted semi-structured interviews with twenty EFL teachers, allowing us to develop questions in response to the participants' responses (Denzin & Lincoln, 2018; Gall et al., 2007).

This study used a thematic analysis in analysing the data (Braun & Clarke, 2006; Flick, 2014). The analysis began with the researchers becoming familiar with the data by transcribing the interviews. Since all of the participants were English teachers with ELT qualifications, the interviews were done in English. When they ran out of suitable words to convey their ideas, some of them turned to Bahasa Indonesia. The transcription enabled us to gain our first understanding of the data. After that, we read the entire dataset and assigned notes or codes to each statement. The notes or codes represent the participants' statements' content or meaning. It was a recursive process that required constant back-and-forth movement between the entire dataset. We followed the same procedure with the twenty interview transcripts. Then, we created a 'codebook' containing the coding list from twenty interviews, categorized them, and classified them into themes. In reporting on this research, codes are used throughout the discussion to refer to each participant for ethical reasons.

4. RESULTS AND DISCUSSION

We identified three factors that influence teachers' creativity: their knowledge and experience, their motivation to be creative, and the role of technology (see Figure 1). The participating teachers gained knowledge and experience through various avenues: formal education, professional development, on-the-job training, and teaching experience. They believed that each of these experiences aided in the development of their knowledge and teaching abilities. *Motivation* is defined as a strong desire or interest in discovering new ways, resolving problems, and enhancing teaching practices that result in creative production. Teachers believed that technological tools such as the internet, mobile phones, YouTube videos, and laptops enable them to explore their creativity by transforming their concepts into reality.

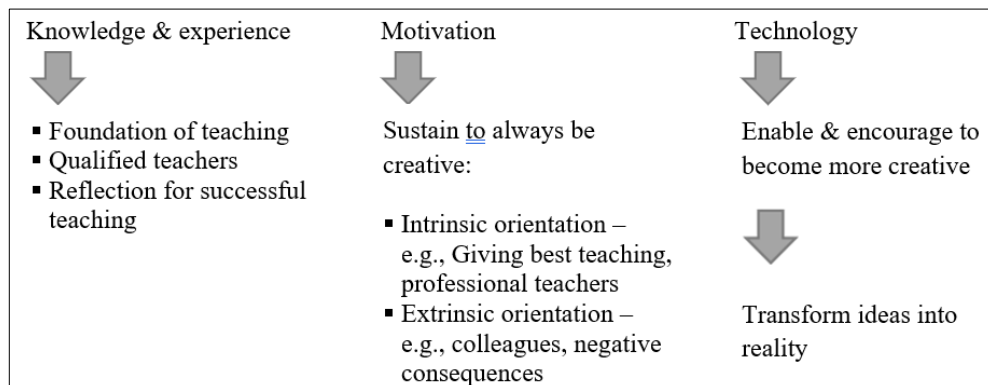


Figure 1. Factors influencing teachers' creativity.

4.1 Knowledge and Experience

As previously stated, teachers gained their knowledge and experience through formal education, professional development, learning experiences, and teaching experiences. Their formal education gave them a solid foundation and comprehension of the theoretical components of teaching. They became qualified teachers after completing professional courses and on-the-job training. Their academic experience may perform as a mirror for effective teaching. Teachers believed that formal education was necessary for establishing a solid foundation for teaching, but they gained additional knowledge through professional development courses and their teaching practices. RD, for example, stated unequivocally that his formal education provided him with a foundation for teaching, and he was aware that the emergence of technology might alter how people view education. As a result, he was required to adapt to change by utilizing technology (e.g., the internet) to align IT development in the classroom. RD's creativity came from combining what he learned in formal education using technology to increase students' engagement. Two teachers shared a similar view of the advantages of formal education in providing English knowledge. They were required to take professional courses and reflect on their current practices to enhance their teaching abilities and creativity.

Additionally, they explained that taking professional courses enhance their thinking and creativity. Professional development courses increased their motivation and confidence in teaching because they allowed them to meet new people, discuss specific issues, and share their concerns with others (GD; WD). This indicates that professional development courses serve as a mirror for how a teacher should behave. They may discover new approaches or strategies they had not previously considered, which benefit their thinking and creativity.

- (1) My education gave me a foundation, but education has changed so much in the last ten years with the emergence of technology. Nowadays, the internet is ubiquitous, and students do not like to read much. (RD)
- (2) My skills were developed not only from the university; I obtained more experiences from my previous institutions. The university just gave me a theory. I learned a lot from my teaching practices. (GD)
- (3) I learned a lot from the professional courses I attended. When I did my Bachelor's and Master's Degree, I only learned English, but I learned the way to teach the students somewhere else. (WD)

All participants agreed that professional development courses were helpful in the development of their knowledge and teaching abilities. They improved in various areas, including pedagogical skills, motivation, confidence, personality, and assessment. Most teachers indicated that they gained valuable knowledge about meaningfully transforming information and creating an encouraging learning environment for specific language skills.

Two teachers reported that professional development increased their motivation and confidence in the classroom. This may occur as they gain more teaching experience and become more familiar with the subject being discussed and how to manage a class. For instance, when teachers observe students' reluctance to participate in classroom activities, they can take different approaches to resolve the issue. However, participants recognized that they could not immediately apply what they learned in professional development courses to their classroom practices. There was a need to adjust and choose a specific issue, approach, material, or method to address

the students' diversity. Thus, the two teachers emphasized that there was no quick way to develop their skills and creativity; it took time and effort to teach confidently. What they learned from professional courses was a critical component of their creativity.

Another important source of knowledge for teachers is their own experience as learners, or in other words, as 'reflective practitioners' (Schön, 1991). This experience, be it positive or negative, had a positive effect on teachers' creativity. Positive learning experiences identified include learning with teachers who could explain the same concept/topic in various ways and employ a variety of strategies to motivate students to learn. Negative learning experiences include being in a boring class with a strict teacher. These experiences inspired participating teachers to act similarly to their previous teachers and do something different when they felt their previous teachers' actions were not a good instructional practice example. For instance, RD believed that the ability to explain the same concept in various ways aided students in comprehending the materials. RF encountered an unfavorable learning environment, but he did not perform in the same manner as his previous teacher. He believed that being a strict or harsh teacher hindered students' learning, and he had his vision of the ideal classroom. As the study notes, both positive and negative learning experiences positively affect the way these teachers teach. Positivity in the classroom teaches them how to create an ideal, encouraging, and interesting class. At the same time, an unmotivating learning environment informs them of the attitudes and behaviors that may impede students' progress.

4.2 Motivation

Another factor that contributes to teachers' creativity is motivation. This refers to a strong interest in figuring out how things work, solving problems, and improving one's skills and creativity and depends on self-reflection. This study identified two distinct motivations: intrinsic and extrinsic motivations (see Table 1). Intrinsic orientation entails an individual's satisfaction, enabling them to be creative in their teaching and an awareness of their responsibility to be creative. Extrinsic motivation refers to external factors that can help teachers develop and encourage their creativity. This study's intrinsic orientation includes providing students with novel and superior teaching, successfully performing teaching, being professional teachers, feeling satisfied with successful teaching, and feeling disappointed with unsuccessful teaching. Colleagues' accomplishments and institutional evaluations of teachers' work were extrinsic motivators for teachers' creativity.

Table 1. Type of motivation.

Intrinsic	Extrinsic
Giving something new Providing best teaching Being professional teachers Performing successful teaching Satisfaction for conducting successful teaching Disappointment for doing unsuccessful teaching	Colleagues' achievement Institution evaluation

As illustrated in Table 1, intrinsic orientation is critical for teachers to maintain their creativity. Four teachers reported that providing students with innovative and effective instruction motivated them to be creative and perform acts of creativity in the

classroom. They hoped that they would inspire the students to do the same by demonstrating their energy. As a result, when they visited the classroom, they ensured that their students received the best instruction possible. Teachers recognized that developing something new was necessary to accommodate students' diverse personalities, learning styles, and abilities. Notably, these teachers teach adult learners: they cannot simply hand students an answer; they must provide adequate opportunities for students to identify and solve problems and achieve educational goals. FJ stated that he needed to make teaching beneficial and meaningful, which he could accomplish by providing the best instruction. He appears to understand that his actions may affect students' thinking and perceptions of what constitutes a good education. Providing the best instruction is his responsibility as a teacher. The best teaching is when teachers offer something novel and different: for example, a difference in enhancing students' learning, a difference in using the materials, or a difference in transforming information.

- (4) I always believe that in life we have to do the best things we can, so we can be someone meaningful: meaningful for others. That motivates to be creative. (FJ)
- (5) I want my students to have a good learning experience. They may be a teacher someday so they can learn from my teaching on how to create an enjoyable classroom. (FD)
- (6) What motivates me? I always have new students every year. New students mean new characteristics, new persons with different characteristics. This motivates me to give something new for them. (FB)
- (7) It's self-satisfaction when I can create something new, I can make the students motivated, they will have fun in their learning, and I'm also satisfied with my own teaching strategies. That's the reason of why I am trying to always make something new. (AN)

Another intrinsic motivation identified was pursuing a career as a teacher. Two teachers stated that their desire to be professional in their work motivated them to be creative in their teaching. They desired to appear professional and engage students in their instruction (DN; RF). RF defined professionalism as successfully imparting knowledge by creating an enjoyable learning environment. If he can accomplish this, he can serve as a role model for his students. In this instance, being a professional teacher entails creating an enjoyable learning environment and assisting students in their learning. They believed that they could influence students' perceptions of, for example, how to teach creatively by being professional.

The last intrinsic orientations reported were satisfaction with successful teaching and disappointment with ineffective teaching. The majority of the teachers indicated that they would be satisfied if they could teach successfully, which they defined as students comprehending the materials. MN, ID, HN, and GD indicated that they would be excited if students demonstrated comprehension of the lesson. MN expressed how pleased she was to create something new, motivate students to learn, and engage them in enjoyable activities. Additionally, it was evident that her instructional strategy was effective with students. GD presented an eloquent case for her passion to teach. She knew that her responsibility was to assist students in reaching their greatest potential and that she would be happy if she could do so.

Teachers, interestingly, admitted that their work environment, or extrinsic incentive, was one of the elements motivating them to be innovative in their teaching. This relates to the atmosphere that fosters creativity in teachers, such as peer accomplishment and institutional assessment. Two teachers stated that their creative coworkers pushed them to be innovative and that they would feel ashamed if they

could not be as creative as their colleagues (FD; DN). Therefore, creative coworkers positively affect teachers' perceptions or attitudes toward teaching. They may feel embarrassed if they continue to teach in the same manner without attempting to make their classrooms more enjoyable.

Furthermore, these teachers have a competitive advantage. Students typically compare what DN does in the classroom to what other teachers do, signaling that he must be creative in his instruction, according to DN. Another driving factor in the job was avoiding unpleasant results. DN remarked that institutional assessment drove him to be unique in his teaching. Perhaps his institution conducts a survey to evaluate the performance of teachers. DN appears to be concerned about the ramifications of his poor teaching performance. It may have a survey employment status; for example, if he cannot demonstrate extraordinary accomplishment, the institution may opt not to extend his contract.

4.3 Role of Technology

Participating teachers recognize the value of technology in their creative practices and incorporate it into their classroom instruction through laptops, computers, Liquid Crystal Display (LCD) projectors, the internet, social media, PowerPoints (PPTs), and YouTube videos. Among the technological tools listed, audio-visual materials (e.g., videos and PowerPoint presentations) and hardware (e.g., laptops and LCDs) are most frequently used. LCDs and laptops/computers are standard equipment in all classrooms, and teachers use them in conjunction with PowerPoint presentations. When they present information using PowerPoint presentations, they automatically utilize a laptop/computer and LCD projector to transform the information easily. YN, for example, stated that using PPTs enabled her to explain the materials better because she could attach images and hyperlinks to relevant videos.

Another teacher noted the value of using technology (e.g., a video recorder), particularly when requiring students to complete a speaking project outside of the classroom (RF). He asked students to video record the activity and upload it to Schoology (a learning management system) to identify and provide feedback on their conversation recording. The two teachers appear to recognize the pedagogical benefits and potential of incorporating technology into their practices. It is up to their creativity to maximize their use of technology to make learning more meaningful. For instance, RN used PowerPoint presentations that combined images and video. She may believe that the presentation will be unappealing if she uses only words on the slides. Additionally, videos can supplement information about a particular subject and help students better understand the subject. Thus, technology-mediated processes encourage these teachers to be more creative in their practices, particularly when selecting appropriate technological tools and combining them with other resources to benefit students' learning and achievement of goals.

Additionally, the majority of the teachers reported using the internet in their classrooms. They did not, however, use it live in their actual teaching. They prepared their lessons using the Internet outside of the classroom. They believed that the internet facilitated the expression of their ideas and the exploration of their creativity. RD and DD accessed resources via the internet. RD, for example, required internet access when he asked students to participate in a class debate. The students conducted their research outside of the classroom, on the internet. RD provided learners with creative

spaces to search for and select information to complete their tasks. Students may need to develop a specific strategy for defending their opponent's argument during class debates, such as using logic and clear reasoning. They can do so if they are conversant with and understand the subject. Internet technology enables students to access educational websites, articles, and other resources that aid their comprehension of specific topics.

MY required internet access, particularly when asking students to engage in fictitious travel. The students researched the most beautiful places they desired to visit and pretended to book the flight and hotel to accomplish this. MY was able to carry out this activity using internet technology. Thus, internet technology encourages students to engage in real-world scenarios/conditions associated with virtual travel. What MY did may help students describe their dream travels more accurately because they had factual information about the location they wished to visit, the hotel they intended to stay at, and the flight they wanted to book. MY's ideas and creativity flourish because of the technology. If there were no internet technology, students might have not been able to make an online reservation or search for affordable accommodation. Thus, technology is critical in bringing MY's ideas and creativity to classrooms.

- (8) I need the internet to research a class debate. I do not teach it, but I supervise the students in doing the research. For example, when they are doing the debate, they need to search for information. The students do this outside the classroom. (RD)
- (9) I need to use the internet because the library provides limited resources. I use the internet not in the classroom, not during the teaching and learning process but outside the classroom. (DD)
- (10) I use the internet when I teach speaking classes. I usually ask the students to imagine their traveling by Googling the most exciting place in the world they want to visit. So, they search on Google to find the best place for them to visit, and they make an online booking for flight and hotel. They can do this because of the technology. (MY)

Interestingly, despite technology's positive effects on creativity, teachers are also aware of its limitations. MY recognized that creativity was not dependent on facilities. A typical classroom tool, such as a 'ball,' may be the source of teachers' creativity. Being creative is associated with teachers' intelligence, and creative teachers can utilize a ball as an excellent tool for performing creative teaching. She emphasized that creativity is not contingent on technological advancements such as the internet. Although the internet is a critical tool for examining teachers' creativity, it is not the only one, as creativity can be found everywhere (MY).

5. DISCUSSION

The study's findings indicated that three factors influence teachers' creativity: knowledge and experience, motivation, and technology. This suggests that knowledge and learning experience are essential in developing teachers' creativity. When they have a certain base of knowledge, they can produce something new. Creativity occurs when someone has absorbed enough knowledge to allow them to think and produce novel insights (Crompton, 1999; Feldman, 1999). Studies also indicated that teachers with more professional knowledge were able to produce creative pedagogy by incorporating their own learning objectives into professional development activities (Bae et al., 2013; Hughes, 2005). In other words, teachers with less professional

knowledge (e.g., pre-service or novice) may still require supervision or professional learning opportunities to perform creative teaching. In learning contexts, teachers use their prior knowledge and experience to interpret, challenge, or evaluate new knowledge, and the “extension and enrichment of their professional knowledge base” is crucial for their lifelong learning (Borko & Putnam, 1995, as cited in [MacPhail et al., 2019](#)). Therefore, knowledge is essential because it can help them decide what to do in the classroom.

This finding confirms two sources (e.g., knowledge and motivation) for creativity in the investment theory of creativity ([Sternberg & Lubart, 1991, 1995](#)). Specifically, this study addressed [Sternberg and Lubart's \(1995\)](#) two approaches to a certain extent, but it does not encompass all facets of the investment theory of creativity's person-centered approaches. In this study, knowledge, experience, and motivation refer to teachers' needs and commitments to develop their skills to perform creatively. Therefore, knowledge, experience, and motivation are all oriented around the individual, whereas technology is oriented around the context.

According to [Zhang and Sternberg \(2011\)](#), a person-centered approach entails pursuing untested but valuable ideas. Teachers in this study believed that the knowledge they acquire through professional development courses and teaching experience is critical to their skill development. Each time they take a particular professional course, they may use the information to reflect their classroom practice: for example, have they implemented the discussed approaches? If not, or if they believe their strategies are ineffective, they may change or adjust them to the situation. As a result, their knowledge through professional courses and teaching experiences can foster personal development and boost creative performance. Teachers in this study view technology through the lens of the investment theory of creativity's context-centered approach or environment. It is a method of addressing the current situation or context. Teachers may notice that students are more comfortable with technology use nowadays. Thus, they use this tool to engage students' creativity and encourage them to take risks by implementing creative ideas. This section will expand on the three critical components of teacher creativity identified in this study (knowledge, motivation, and technology) and explain why those three resources are critical for Indonesian teachers.

First, knowledge and experience are the primary sources of teachers' creativity, and they serve as a foundation or starting point for creative endeavors. Teachers gained knowledge in various ways, including formal education, professional development, personal experience as learners, and teaching experience. These experiences developed their pedagogical and cognitive abilities, increased their teaching confidence, and deepened their understanding of effective or creative teaching. According to scholars, knowledge is a necessary component of the creative process ([Jordan & Charlile, 2012; Renzulli & De Wet, 2010](#)), serving as a foundation for individual creativity ([Weisberg, 1999](#)). Therefore, when teachers lack sufficient knowledge, there appears to be a constraint on creative performance.

[Amabile \(1998\)](#) defines knowledge as information that enables individuals to solve problems, and this data serves as a foundation for developing new understanding. Referring to the study's findings, participating teachers stated that they gained knowledge through learning experiences, whether they are positive or negative. These educational experiences shape their perceptions of effective teaching and the classroom role they should play. Teachers may compare their past teachers' messages

and behaviors, and their beliefs about professional practices may justify or affect what they do in the classroom (Devine et al., 2013; Karekatti & Shinde, 2012). Individuals become creative when surrounded by enough information to think, make connections, and develop new insights. Thus, knowledge is a necessary component of an individual's creative performance. Without knowledge, teachers will be at a loss for where to begin as novel ideas and behaviors emerge, at the very least, from prior knowledge or experience (Masadeh, 2021; Renzulli & De Wet, 2010; Zhang, 2013; Zhang & Sternberg, 2011).

Motivation is the second source of teachers' creativity. As illustrated in Table 1, this study identified two distinct motivational styles: intrinsic and extrinsic orientations. The majority of the teachers stated that intrinsic motivation was critical to maintaining their creativity. To be creative, one must be intrinsically motivated and focus on the task at hand rather than on the potential rewards. Typically, innovative ideas that result in successful products result from extensive trial and error over a relatively long period. Individuals cannot be truly creative unless they genuinely invest in the task at hand (Zhang & Sternberg, 2011). Some research has demonstrated the critical nature of such motivation for creativity (Auger & Woodman, 2016; Hennessey & Amabile, 2010).

There are two reasons why intrinsic motivation appears to be the most influential factor in motivating them to be innovative in their classroom instruction. First, the teachers appear to understand that their job is to educate and make a difference, at least in the classroom setting. They made an effort to be creative as part of their role as educators. This finding is consistent with other research demonstrating the critical nature of creative people's dedication to their jobs (Auger & Woodman, 2016; Kreitler & Casakin, 2009; Zhang & Kitalong, 2015). Second, teachers did not work in the hope of receiving external recognition for their efforts or accomplishments, such as high salary or social recognition. They were, however, creative in the hope of improving students' performance. 'Improving students' performance' appears to be their reward for being creative in their teaching. Although they did not express it explicitly, their intention to give something new, provide the best teaching possible, and become professional teachers reflects their sense of fulfillment. It was a form of reward for them, and they took pleasure in doing it. As teachers in this study noted, being creative enables them to be excellent and professional educators. Good teachers were able to assist students in learning to their full potential, and achieving this goal was satisfying (Harmer, 2010; Hediandah & Surjono, 2020).

Technology is the final source or stimulus for teachers' creativity. Teachers can foster everyday creativity by incorporating technology into their instructional practices. In this study, teachers used various technological tools in their creative practices, including a computer, a mobile phone, the internet, an LCD projector, and videos. The frequency with which it is used varies from one teacher to another. Additionally, the majority of the teachers used the internet in their teaching practices, but not in the classroom. Teachers used the internet to prepare for classroom activities. Teachers, for example, used the internet to conduct a 'class debate' or a 'class presentation' on 'virtual travel'. They instructed students to conduct pre-class searches on the internet and directed them to search for information they needed for the activity. The internet is a necessary tool for information retrieval, and teachers can use this activity due to the Internet's existence. Thus, internet technology enables educators to create authentic situations and access reliable information (Fitriah, 2018). According

to scholars, the application of technology can affect how teachers and students work (Fautley & Savage, 2007; Henriksen et al., 2016), and technology can transform teachers' ideas into real classroom activities (Alobaid, 2020; Jordan & Charlile, 2012; Szymkowiak et al., 2021).

Any technological tools used by teachers in this study had a beneficial effect on their practices. Audio-visual materials (e.g., videos and PowerPoint presentations) and hardware (e.g., laptop and LCD) assisted teachers in meaningfully transforming the information. Teachers used the internet to access supplemental materials and bring their ideas and creativity to class. This study demonstrates that being creative does not require students to exclusively use the internet in the classroom. Teachers can use other technological tools to stimulate creative activities, such as electronic devices and audio-visual materials. They can still create interesting and creative activities and encourage learners' creativity using these tools. The critical point is that teachers understand how to incorporate or utilize technology into their instruction to align with students' interest in digital practices (Chun et al., 2016; Fitriah, 2018). Any technological tools used by teachers are a necessary component of teaching. Teachers in this study did not prioritize technology use, and technology could not transform teachers' knowledge. Technology by itself does not generate ideas; it can supplement skills by facilitating experimentation and exploration (Jordan & Charlile, 2012). Technology implementation can be meaningful or effective if teachers understand the 'know-how' of integrating it into classroom activities.

6. CONCLUSIONS

This study found three key aspects in driving teachers' creativity to accomplish their tasks: knowledge and experience, motivation, and technology. They could perform at a high level of creativity if they had the necessary technical knowledge and skills. Attending academic courses and reflecting on previous classroom practices were critical for their personal development as they gained valuable insight into what constitutes effective teaching. Additionally, when a teacher was willing and motivated to continue learning, they could improve their knowledge, competency, and creativity in education. The finding emphasizes the critical nature of teachers' motivation, enthusiasm, and dedication to their profession. Their performance and attitudes did not only assist students in comprehending cognitive information, but their vitality also enabled them to inspire students' enthusiasm. Another point made in this study is that teachers used technology to assist them in actualizing their creativity meaningfully and excitingly. However, technology could not do all of the work on its own, and it needed to be used with other factors, like teacher creativity, student participation, frequent interaction, and cooperation.

The study's findings have three significant implications for EFL educators and researchers. First, this study established that for the cohort studied, intrinsic motivation is the primary factor influencing teachers' creativity. However, as a limitation, there is no information about how these teachers teach in their classrooms. As a result, future research should include classroom observation to understand teachers' creativity better. Second, teachers emphasized the critical role of technology in bringing their ideas into their classrooms. Future research should therefore also concentrate on the creative pedagogy of technology integration in classroom practices and how teachers

incorporate technology into creative classroom activities. Third, there is insufficient information about teachers' creativity from the students' perspective. Thus, future research could examine students' attitudes toward creative pedagogy.

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