

## **GAP BOARD AS AN ALTERNATIVE MEDIA TO MOTIVATE TEACHING STUDENTS (PRE-SERVICE TEACHER PERCEPTION IN TEACHING MEDIA)**

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### **Abstract:**

This research employed a qualitative descriptive approach aimed at providing a comprehensive and detailed description of learning phenomena using everyday language. The study examined students' perceptions of the use of Gap Board media in the learning process. The findings indicate that the Gap Board is perceived as interesting, challenging, and effective in enhancing student motivation, learning activities, and overall learning experience. The dominance of *agree* and *strongly agree* responses across all indicators suggests a positive student response to learning that integrates visual elements, challenges, and active engagement. Furthermore, the challenging elements embedded in the Gap Board contribute to increased learning motivation, supporting intrinsic motivation theory, which posits that enjoyable yet challenging activities foster sustained interest and engagement.

**Keywords:** Gap Board, an alternative media, Motivate, Teaching, and students

### **Introduction**

In the contemporary educational landscape, teachers are no longer perceived as the "sage on the stage" or the sole dispensers of information. Instead, they must evolve into facilitators and curators of meaningful learning experiences that prioritize student agency. This shift is essential because, as noted by Hattie (2023), the modern educator's primary role is to orchestrate a classroom environment that actively stimulates critical thinking, collaboration, and creativity. By moving away from lecture-heavy methods, teachers empower students to become independent problem-solvers.

To achieve this ambitious goal, the integration of advanced technology and diverse learning media has become an indispensable tool. Recent research by Selwyn (2022) highlights that digital tools do not replace the teacher but rather expand their ability to provide personalized and interactive instruction. Furthermore, Luckin (2020) emphasizes that leveraging educational media allows for "intelligence augmentation," enabling educators to curate complex data into digestible, creative formats. Ultimately, these tools bridge the gap between abstract theory and real-world application, ensuring that the learning process remains relevant and engaging for 21st-century learners.

For pre-service teachers, the mastery of diverse learning media—ranging from traditional tactile tools to sophisticated digital platforms—has transitioned from an optional skill to a fundamental core competency. This proficiency is not merely a technical requirement; it serves as a vital psychological foundation that bolsters self-efficacy. According to Bandura's theories as applied in recent studies by Scherer et al. (2021), a teacher's belief in their ability to succeed in specific situations is heavily influenced by their mastery of instructional tools. When future educators possess the "technological pedagogical content knowledge" (TPACK), they enter the professional world with significantly higher self-confidence.

Current research by Tondeur et al. (2020) suggests that pre-service teachers who are adept at utilizing media are far more adaptive when navigating the complexities of a heterogeneous classroom. In an era of inclusive education, media serves as a bridge to reach students with varying learning styles and cognitive abilities. Furthermore, Koehler and Mishra (2020) emphasize that the strategic integration of media allows teachers to deconstruct complex, abstract concepts into digestible, concrete representations. This ability directly reduces the "instructional anxiety" often felt by novice teachers, enabling them to deliver challenging material with clarity and authority.

Ultimately, the ability to curate and design meaningful media experiences fosters a dynamic classroom atmosphere. As noted by Punie et al. (2022) in the context of digital competence frameworks, educators who command these tools are better equipped to foster student engagement and resilience. Consequently, robust training in learning media during initial teacher education is essential for producing resilient, confident, and highly effective professionals ready for the modern classroom.

This is supported by the opinion of Kiptiyah and Untung (2023) that the use of media can bring positive transformation in the classroom, creating a much more lively and energetic atmosphere. The presence of this technology not only captures attention at a glance but is also effective in stimulating learning enthusiasm and active student involvement throughout the session. Furthermore, Wardani and Firmansyah (2025) state that media is one of the factors that supports the success of the learning process in schools because it can facilitate the process of conveying information from teachers to students or vice versa.

From the explanation above, by mastering both digital and conventional media, prospective teachers will have higher motivation to teach because they feel more confident in simplifying complex material into interesting content. The right media creates a lively and energetic classroom atmosphere, which effectively stimulates students' enthusiasm for learning. Success in conveying information through these media creates professional satisfaction for teachers, making them more enthusiastic to continue innovating in managing the dynamics of a heterogeneous classroom in order to achieve learning success.

According to Yonanda et al. (2024), learning motivation is a central factor in determining students' success in the learning process. Motivation is not merely a desire or willingness to learn, but rather the inner energy that drives students to remain focused, committed, and persistent, even when they encounter challenges or complex learning tasks. Students with high learning motivation tend to demonstrate greater effort, resilience, and responsibility toward their academic activities. This strong motivational drive transforms passive learners into active participants who are eager to explore new

knowledge, practice skills, and achieve mastery in their learning outcomes.

Learning motivation also plays a crucial role in shaping students' attitudes toward learning and their long-term academic development. When educators successfully cultivate motivation, they not only help students achieve immediate learning goals but also build a strong foundation for lifelong learning and continuous personal growth. Motivated students are more likely to develop positive learning habits, self-confidence, and independence, which are essential for future academic and professional success.

Furthermore, motivation is recognized as one of the most dynamic and influential elements within the educational process. As stated by Aditama, Hotimah, and Ningsih (2025), low academic achievement or unsatisfactory learning outcomes are often not caused by students' limited intellectual abilities, but rather by a lack of motivation to learn. Students who are unmotivated may show minimal engagement, low persistence, and a negative attitude toward learning tasks, which ultimately affects their performance. Therefore, increasing learning motivation should be a primary focus of instructional strategies, as it directly influences student engagement, achievement, and overall learning quality.

Motivation is recognized as one of the most critical and dynamic elements influencing the success of the instructional process. It acts as the internal engine that drives engagement, persistence, and cognitive effort. Often, when students exhibit low academic achievement or produce unsatisfactory learning outcomes, the root cause is not necessarily a deficit in innate cognitive ability, but rather a profound lack of motivation to learn. As highlighted by Hattie (2023), motivation serves as a bridge between a student's potential and their actual performance, suggesting that even highly capable learners can underperform if they do not perceive value or purpose in their tasks.

Recent research by Ryan and Deci (2020) through the lens of Self-Determination Theory (SDT) emphasizes that for students to be truly motivated, their basic psychological needs for autonomy, competence, and relatedness must be met. Without these, students often experience "amotivation," a state where they see no point in exerting effort, regardless of their IQ or skill set. Furthermore, Pintrich and Schunk (2022) argue that

motivation is not a static trait but a fluctuating state that can be revitalized through supportive teaching strategies and meaningful learning environments.

In the digital age, the challenge has intensified. Selwyn (2022) notes that distractions and fragmented attention spans require educators to consciously design experiences that trigger "intrinsic motivation." Ultimately, addressing the motivation gap is essential because, as Dweck (2021) posits in her work on growth mindsets, a motivated student is more likely to view challenges as opportunities for growth rather than insurmountable obstacles. Therefore, fostering a high-motivation environment is the most effective way to unlock the latent potential of every learner.

This is in line with what Jannah and Linggawati (2025) stated, that learning motivation is also one of the key factors that influence student learning outcomes. When students have high motivation, they tend to be more enthusiastic about understanding the material, doing assignments, and achieving their educational goals. Conversely, low learning motivation can hinder students from reaching their maximum potential and can even cause a decline in academic achievement.

However, involving students directly in the instructional process is a fundamental strategy for creating a more meaningful, engaging, and less boring learning experience (Aditama and Ningsig, 2025). When students are no longer passive objects, their enthusiasm for the material will increase significantly. One highly effective technological innovation in learning media that facilitates this active engagement is interactive media such as the Jurang Board (Addition and Subtraction Board).

The integration of concrete instructional media, such as manipulative tools for numeracy, represents a transformative approach for pre-service teachers in fostering dynamic classroom environments. By utilizing these tools, future educators can bridge the gap between abstract mathematical theories and tangible reality. Research by Carboneau et al. (2020) indicates that physical manipulatives are essential for students in the "concrete operational" stage, as they allow for direct physical interaction that solidifies numerical logic more effectively than traditional rote memorization.

Furthermore, the use of media that encourages physical manipulation or direct interaction significantly accelerates a student's grasp of mathematical reasoning. According to Sowell (2021), when students engage in hands-on learning, their

cognitive load is reduced because the media provides a visual and tactile scaffold for complex ideas. This interactive process does not only enhance individual understanding but also builds a collaborative and enjoyable classroom atmosphere. Boaler (2022) emphasizes that creative and visual approaches to mathematics reduce "math anxiety" and promote a growth mindset. Consequently, for pre-service teachers, mastering these tools is a vital competency; it enables them to transition from being mere lecturers to facilitators of active discovery, ensuring that the learning process is both inclusive and pedagogically sound.

## **Method**

This research used a qualitative descriptive approach, a method designed to provide a comprehensive and detailed summary of events in everyday terms. According to Creswell and Poth (2024), qualitative descriptive research is particularly effective in educational settings as it allows researchers to explore the nuances of human experience without the constraints of highly structured quantitative variables. The study was conducted over a specific two-week period, from October 20 to 31, 2025.

The subjects of this research are pre-service teachers who are undertaking their teaching practice in real classroom settings. This group is particularly important because the teaching practicum represents a pivotal stage in teacher education, during which theoretical knowledge acquired in university coursework is tested, adapted, and reshaped through direct classroom experience. As emphasized by Darling-Hammond (2021), the practicum phase serves as a crucial intersection between pedagogical theory and field reality, allowing pre-service teachers to engage with authentic teaching challenges such as classroom management, lesson planning, student engagement, and assessment practices.

During this phase, pre-service teachers begin to construct and negotiate their professional identities as educators. They are required to make instructional decisions, reflect on their teaching performance, and respond to diverse student needs, all of which provide rich qualitative insights into their developing instructional competence. Moreover, teaching practice encourages reflective thinking, enabling pre-service teachers to evaluate

the effectiveness of their pedagogical strategies and align them with educational goals and contextual demands.

From a research perspective, pre-service teachers in practicum settings offer valuable data because their experiences capture the dynamic process of learning to teach. Their reflections, perceptions, and instructional actions reveal how pedagogical knowledge, beliefs, and skills evolve in practice. Therefore, focusing on pre-service teachers during teaching practice allows this research to gain an in-depth understanding of professional growth, instructional adaptation, and the formation of teaching competence in authentic educational contexts.

To ensure a deep understanding of the subjects' experiences, the study employed observation and interviews as the primary instruments. Merriam and Tisdell (2020) emphasize that the synergy between direct observation of classroom behavior and Skala Likert interviews allows for data triangulation, ensuring that the findings are both credible and reflective of the participants' lived realities. This methodological framework provides a robust foundation for identifying the challenges and successes faced by future educators in real-world environments.

## **Result and Discussion**

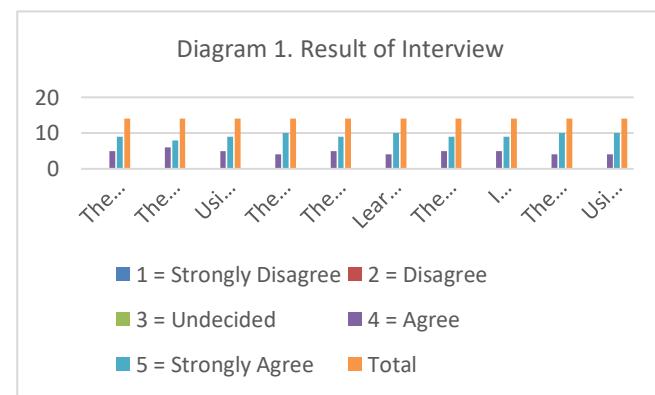
There are ten questions used to measure the effectiveness of Gap Board Learning as an alternative learning medium in motivating the learning process of students. These questions are systematically arranged to explore students' perceptions, experiences, and responses to the use of Gap Board media during learning activities. Each question is designed to represent important aspects of learning, including the attractiveness of the medium, challenging elements, learning motivation, student activity, group cooperation, understanding of material, critical thinking skills, self-confidence, classroom management, and overall learning experience.

Through the ten structured questions, the researchers were able to obtain rich and in-depth qualitative data regarding the implementation of Gap Board Learning in the classroom. These questions were designed to explore students' perceptions, experiences, and responses toward the learning process, particularly

in relation to how the Gap Board Learning media contributes to creating a more interactive, enjoyable, and less monotonous learning atmosphere. By encouraging active participation and providing learning challenges, this medium allows students to engage more directly with the learning materials rather than remaining passive recipients of information.

Furthermore, the instrument functions as an important tool to identify the extent to which Gap Board Learning fosters student engagement across three essential domains: cognitive, affective, and social. Cognitive engagement is reflected in students' involvement in problem-solving and critical thinking activities, affective engagement appears through increased interest, enjoyment, and learning motivation, while social engagement is seen in collaboration, communication, and peer interaction during learning activities. These dimensions provide a holistic understanding of how students experience the learning process.

The responses collected from participants were systematically analyzed to examine potential changes in students' attitudes and levels of learning motivation after the implementation of Gap Board Learning. This analysis enables researchers to determine whether the learning media has a meaningful impact on students' enthusiasm, participation, and overall learning experience. Therefore, the use of these ten questions is expected to present a comprehensive and accurate picture of the role of Gap Board Learning as an effective alternative learning medium that supports increased motivation, active engagement, and improved learning quality. Below the result:



The bar chart shows the results of the questionnaire on respondents' perceptions of the use of the Gap Board, which consists of 10 statements. Each statement is measured using a 1–5 Likert scale, namely

Strongly Disagree, Disagree, Undecided, Agree, and Strongly Agree, with a total of 14 respondents for each statement.

In general, the diagram shows that respondents tend to give positive assessments of the use of Gap Boards in learning. This can be seen from the dominance of the “Agree” and “Strongly Agree” categories in almost all statements. The number of respondents who stated Strongly Agree was in the range of 8–10 people, while those who chose Agree ranged from 4–6 people.

Conversely, negative responses were minimal. The Strongly Disagree and Disagree categories appeared only in small numbers for several statements, and no respondents chose Undecided. These findings indicate that respondents had clear and consistent attitudes toward the effectiveness of the Gap Board media.

Overall, this diagram indicates that the Gap Board is considered interesting, challenging, and effective in increasing student motivation, activity, and learning experience. With a consistent total number of respondents for each item, this data reinforces the conclusion that the Gap Board is suitable for use as an alternative learning medium that supports a more interactive and meaningful learning process.

## Discussion

Based on the diagram shows that the Gap Board media is perceived as interesting, challenging, and effective in increasing student motivation, activity, and learning experience. The dominance of agree and strongly agree responses to all statements indicates that students respond positively to learning that combines visual elements, challenges, and active engagement. These findings are in line with active learning theory, which emphasizes that learning is more effective when students are directly involved in the process of constructing knowledge (Yonanda et al, 2024)

The challenging elements in the Gap Board also contribute to increased learning motivation. According to intrinsic motivation theory, challenging but enjoyable learning activities can increase students' interest and engagement in a sustainable manner (Deci & Ryan, 2000). In addition, game-based learning has been proven to create a more interactive and meaningful learning atmosphere because students learn through experience, rather than just passively receiving information (Wardani and Firmansyah, 2025).

The consistency of the number of respondents on each item strengthens the reliability of the data and

shows a relatively stable perception of the effectiveness of the Gap Board media. This supports the constructivist view that learning media that encourages interaction, collaboration, and problem solving can improve the quality of students' learning experiences (Jannah, 2025). Thus, the Gap Board is suitable for use as an alternative learning medium that supports interactive and meaningful learning processes.

## Conclusion

Based on the findings and discussion, it can be concluded that the Gap Board media is positively perceived by students as an interesting, challenging, and effective learning medium. The dominance of *agree* and *strongly agree* responses across all statements indicates that the integration of visual elements, challenge-based activities, and active engagement successfully enhances students' motivation, classroom participation, and overall learning experience. Furthermore, the challenging nature of the Gap Board plays a significant role in fostering intrinsic motivation, as students are encouraged to engage in enjoyable yet demanding learning tasks. The application of game-based learning principles also contributes to a more interactive and meaningful learning environment, enabling students to learn through experience rather than passive reception of information. The consistent number of respondents across all items strengthens the reliability and stability of the data, indicating a uniform perception of the media's effectiveness. Overall, these findings support a constructivist perspective, suggesting that learning media which promote interaction, collaboration, and problem-solving significantly improve the quality of students' learning experiences. Therefore, the Gap Board can be confidently recommended as an alternative learning medium that effectively supports interactive, engaging, and meaningful learning processes.

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