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Pedagogical Transformation of 21st Century Education: Psycho-Cognition Homogeneity Workshop to Strengthen Emotional Literacy and Critical Thinking

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Abstract: The development of emotional literacy and critical thinking skills is an important aspect in building adaptive, reflective, and student-centered learning experiences. This community service activity aims to strengthen the professional capacity of educators in integrating these two competencies through the Homogeneity Psycho-Cognition (HPC) strategy. A participatory workshop was conducted involving 41 participants, consisting of 15 lecturers of Physical Education, Health, and Recreation from Halu Oleo University and 26 junior high and senior high school teachers from partner schools. Activities included preparation, material delivery, interactive discussions, and evaluation, with a focus on emotional management, information analysis, problem-solving, alternative evaluation, and rational decision-making. The results of the activity indicated that the workshop facilitated the strengthening of educators' conceptual understanding of the relationship between emotional and cognitive dimensions and the relevance of HPC strategies in learning design. The main contribution of this activity lies in strengthening the pedagogical foundation for developing learning that integrates emotional regulation, collaborative interaction, and critical reasoning. However, the effectiveness of HPC implementation in improving educator competency and student learning outcomes requires further empirical evaluation.

Keywords: Critical Thinking; Emotional Literacy; Homogeneity Psycho Cognition; Integrative Learning; Professional Development of Educators

Introduction

Education plays a strategic role in shaping a generation that not only masters academic knowledge but is also able to recognize and manage emotions, interact positively, and use thinking skills to address various problems. In contemporary educational environments, learning success is not solely measured by students' ability to memorize information or solve problems, but also by their ability to manage differences of opinion, face failure, make decisions, and solve problems responsibly. This need is increasingly relevant as students navigate complex social and digital environments, which demand the ability to manage emotional responses while critically assessing information (Aktepe & Gündüz, 2022). One important aspect that needs to be strengthened in learning is emotional literacy. The emotional literacy program aims to identify various problems that occur in schools through real-life experiences and requires students to

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actively engage, collaborate, and discuss the situations and problems they face (Perry et al., 2008). This competency relates to an individual's ability to recognize, understand, express, and manage emotions appropriately in various social situations.

Emotional literacy helps students understand their feelings, develop empathy, build healthy interpersonal relationships, and respond constructively to conflict. In the school context, these skills are necessary for students to participate in learning activities, receive feedback, collaborate with peers, and face academic challenges without easily losing control of their emotional responses. Therefore, developing emotional literacy needs to be part of efforts to improve the quality of student interactions and learning experiences (Brackett et al., 2012). In various countries, emotional literacy is now being integrated into educational curricula as an essential competency, alongside mastery of other basic knowledge. The implementation of emotional literacy education has had a positive impact on the learning environment, including reducing levels of violence in schools, strengthening social relationships between students, and supporting increased academic achievement in basic science subjects (Yeigh et al., 2016). Individuals who have emotional literacy skills are able to recognize emotions in themselves and others, understand those emotions both internally and externally, and express them through communication while learning to control their feelings (Kovbuz, 2025).

In general, studies from Durlak et al. (2011) concluded that social and emotional learning (SEL) plays a crucial role in supporting students' holistic development, including social, emotional, behavioral, and academic aspects. Students participating in SEL programs experience improved social and emotional skills, positive attitudes toward themselves and others, and prosocial behavior. Furthermore, the program contributes to a decrease in behavioral problems and emotional distress, as well as improved academic achievement. This study also demonstrates that teachers can effectively implement SEL programs in school learning activities. Therefore, the development of social and emotional competencies needs to be integrated into the learning process as an essential part of creating a holistic education, oriented not only toward academic achievement but also toward developing students' abilities to understand and manage emotions, build positive relationships, behave constructively, and face various challenges in the learning process. Similar conditions were reported by Taylor et al. (2017) concluded that SEL programs have long-term positive impacts on student development. These programs improve social and emotional skills, prosocial behavior, and academic achievement, while reducing behavioral problems and emotional distress. These benefits were found in students from diverse backgrounds and remained evident in follow-up measurements. Therefore, integrating social and emotional learning in schools is crucial for supporting students' academic success, well-being, and positive development.

Emotional literacy is an individual's ability to recognize and differentiate the emotions they feel, and express them appropriately in social interactions so that other people can understand and respond appropriately to these emotions (Ostrander & Ferrucci, 2007; Knight & Modi, 2014).The term emotional literacy was first introduced by Steiner, a transactional analysis theorist, in his 1979 book, "Healing Alcoholism." This concept relates to the ability to understand, control, and manage emotions. A person with emotional literacy is able to recognize their emotions in a way that benefits them, thereby increasing their self-empowerment and quality of life, while simultaneously improving the quality of life of those around them (Steiner, 1984). Emotional literacy can foster empathy, resilience, social bonds, conflict resolution skills, and classroom management skills; it empowers teachers to create a supportive environment, while allowing students to thrive both academically and emotionally (Hayat et al., 2025). This ability plays an important role in building social competencies that support positive interactions with peers, family, and teachers (Konold & Pianta, 2005). In addition, emotional literacy is associated with a variety of positive developmental outcomes in children and adolescents, such as readiness to enter school (Denham, 2006), good mental health (Calear et al., 2024), academic success (Elias & Haynes, 2008; Downey et al., 2008), as well as success in career (Dulewicz & Higgs, 2003; Aydin et al., 2005).

Until now, studies on emotional intelligence have largely focused on the world of business and leadership (Bachman et al., 2000). Emotional intelligence is seen as a capacity that supports individual success, both in educational and professional settings, while also helping to build quality social relationships. This concept relates not only to the ability to control or restrain emotional expression, but also involves the ability to understand, reflect on, and consider feelings before deciding on a course of action. Meanwhile, the term emotional literacy is more often found in discussions about education and the learning process (Knight & Modi, 2014). In addition, emotional literacy in professionals working in the justice system and emotional management in correctional environments (Crawley, 2004). Studies on emotional intelligence are also found in the context of police work (Schaible & Gecas, 2010; Crewe, 2011), as well as social work practice (Morrison, 2007). In contrast to these various fields, discussions on emotional literacy among professionals, namely teachers working in the education system, particularly physical education, are still

relatively limited. These various studies indicate that the emotional dimension is a relevant aspect to understand in jobs that require intensive interaction with individuals and groups with diverse needs. Emotional literacy in elementary school environments is not only related to the learning model implemented, but also to the school's socio-emotional climate, the quality of relationships between school members, and educators' efforts to build a safe, cooperative, and supportive learning environment for emotional development (Leasa et al., 2024).

In addition to emotional literacy, thinking skills are fundamental competencies needed to support meaningful learning. These skills include the ability to identify problems, analyze information, connect concepts, evaluate evidence, construct arguments, and generate alternative solutions. Critical thinking is a purposeful and self-regulated assessment, encompassing interpretation, analysis, evaluation, inference, and explanation based on reasoning (Abrami et al., 2015). Critical thinking is one of the essential skills needed in both academic and professional fields in the 21st century (Wenno et al., 2021). This competency plays an important role in equipping students to be able to face problems through a creative, systematic, analytical, and applicable approach (Jintalan & Litao, 2024; Yurt, 2026). Through critical thinking skills, students can understand information in depth and actively participate in asking questions, analyzing and interpreting information, and drawing conclusions through inductive reasoning (Dowd et al., 2018). In addition, various international assessments and global reports place critical thinking as one of the important competencies to prepare individuals to face the demands of the world of work while supporting the process of continuous lifelong learning (Seevaratnam et al., 2023). Meanwhile, Eklöf (2013) explains that critical thinking skills involve reasoning, decision-making, and problem-solving processes that can be developed through appropriate learning experiences. Therefore, teachers need to design learning that provides opportunities for students to ask questions, present reasons, test ideas, discuss, and reflect on their thinking processes.

The relationship between emotional development and critical thinking skills also requires attention in learning. When students face difficult tasks, differing opinions, or feedback that doesn't meet their expectations, their emotional state can influence their attention, judgment, and decision-making. Emotions play a crucial role in the learning process and decision-making (Immordino-Yang & Damasio, 2011). In general, Hasanpour et al., (2018) explained that overall emotional intelligence did not have a significant relationship with critical thinking skills in nursing students in Iran. However, of the various components of emotional intelligence studied, empathy was found to have a significant relationship with critical thinking skills. The results also showed that students' critical thinking skills were still relatively low, even though their emotional intelligence was considered quite good. Therefore, it is important to emphasize the importance of implementing active, student-centered learning strategies to develop both critical thinking skills and emotional intelligence. The relationship between emotional intelligence and critical thinking needs to be further studied by considering specific dimensions of emotional intelligence, especially empathy, as well as learning approaches that can support the development of both competencies. Therefore, learning needs to provide experiences that enable students to manage their emotions while practicing reasoning systematically. Emotional intelligence is closely related to students' critical thinking dispositions. Emotional intelligence was found to be the strongest predictor of critical thinking, indicating the importance of emotional aspects in supporting cognitive and reasoning processes (Ayed et al., 2025).

However, developing these two competencies requires the support of a well-planned learning strategy. In educational practice, character development activities and mastery of academic material are sometimes implemented separately. Learning that emphasizes achieving correct answers does not necessarily provide adequate opportunities for students to recognize emotions, listen to others' perspectives, express reasons, and reflect on the decision-making process. Conversely, activities oriented toward developing attitudes and social relationships also need to be linked with clear cognitive activities to contribute to the quality of learning. Therefore, teachers need to strengthen their capacity to integrate psychological and cognitive aspects into daily learning designs.

One approach that can be introduced to teachers to address these needs is the Homogeneity Psychocognition (HPC) strategy. This strategy was first developed by three experts in the field of learning from and within the context of physical education and health education (Fenanlampir et al., 2021). This research provides the initial foundation for developing HPC strategies that consider psychological and cognitive aspects of learning. Leasa & Pelamonia (2024) examined the application of HPC strategies combined with Problem-Based Learning (PBL) on the human circulatory system. The results showed superiority in the PBL-HPC group in problem-solving skills, although the difference in emotional literacy between the PBL-HPC group and the PBL-only group was not significant. These findings demonstrate the potential of HPC and indicate the need for strengthened implementation to

make emotional literacy development a more explicit target.

In community service activities, introducing and mentoring HPC strategies can be a means to strengthen teachers' pedagogical competence in designing learning that takes into account students' psychological and cognitive characteristics. Through outreach activities, workshops, practical learning tool development, simulations, and reflection, teachers can gain experience in integrating emotional management with thinking activities. This approach aligns with findings Darling-Hammond et al. (2020), which emphasizes the importance of social-emotional learning in supporting student development.

Teacher mentoring is also crucial because the successful implementation of learning strategies depends not only on conceptual understanding but also on the ability to translate these principles into concrete learning activities. Teachers need to be able to identify situations that trigger emotional responses in students, create a safe space for discussion, provide provocative questions, encourage students to express their reasoning, and facilitate reflection on the problem-solving process. These competencies require practice and feedback so that the strategies introduced don't stop at the level of knowledge but can be applied in everyday learning. This aligns with the findings of Kraft et al. (2018), which shows that mentoring or coaching for teachers can have a positive impact on learning practices and student learning outcomes.

Based on the description, this community service activity is aimed at introducing and strengthening teachers' capacity in implementing the Homogeneity Psycho-Cognition (HPC) strategy to support the development of students' emotional literacy and critical thinking skills. This activity is expected to help teachers understand the conceptual foundations of HPC, develop learning activities that integrate emotional and cognitive aspects, and design evaluations that align with learning objectives. Thus, this community service activity is not only oriented towards improving teachers' understanding of the HPC strategy, but also on strengthening practical skills in designing learning that is more reflective, participatory, and responsive to students' needs.

Method

This community service activity uses a participatory workshop approach oriented towards strengthening the professional competence of educators in understanding and developing HPC strategies to support students' emotional literacy and critical thinking skills. The workshop approach was chosen because it allows for direct interaction between resource persons and participants, the exchange of pedagogical experiences, and discussions regarding the possible application of learning concepts in educational contexts. This activity is not positioned as experimental research, but rather as an activity to develop educator capacity through the delivery of knowledge and strengthening conceptual understanding of learning strategies. The selection of HPC strategies is based on the development of learning strategies that consider the relationship between psychological characteristics and cognitive processes of students. Developing HPC strategies in the context of physical education learning by emphasizing the importance of learning processes that support student engagement and the development of cognitive abilities (Fenanlampir, Leasa, et al., 2025). In the context of this service, this principle is used as a foundation for introducing a learning approach that not only pays attention to mastery of the material, but also pays attention to the emotional conditions, social interactions, and thought processes of students.

The target audience for this activity were lecturers from the Department of Physical Education, Health, and Recreation (Penjaskesrek) at Halu Oleo University (UHO) and junior and senior high school teachers at partner schools who play a strategic role in planning, implementing, and evaluating learning. The number of participants included 15 lecturers and 26 teachers. Lecturers were targeted for the activity in relation to developing academic insight, learning innovation, and preparing prospective teachers with pedagogical and professional competencies. Meanwhile, teachers were targeted for capacity building in designing learning experiences that address the emotional needs and cognitive development of students. This selection of targets was based on the consideration that educators play a crucial role in building a learning environment that supports student engagement, social interaction, and development. Strengthening educator competencies is also relevant to the findings Kraft et al. (2018), which shows that professional mentoring of teachers can have a positive impact on learning practices and student achievement.

The activity implementation consists of three stages: preparation, workshop implementation, and evaluation. The preparation stage includes preparing materials on HPC strategies, emotional literacy, and critical thinking skills. The materials are structured based on educator competency development needs and the conceptual foundation of HPC strategies. The implementation stage is carried out through material delivery and discussions on the concepts and application of HPC strategies in learning. The discussions focus on the integration of emotional and cognitive aspects, particularly the ability to recognize and manage emotions, analyze information, evaluate

alternatives, and make logical decisions. This approach is in line with Abrami et al. (2015), which emphasizes the importance of learning strategies for developing critical thinking skills. The evaluation phase focuses on reviewing the implementation of activities, participants' understanding of the material, and the relevance of HPC strategies to learning practices. Evaluations are based on available data, such as activity documentation, participant responses, or evaluation instruments used by the implementation team. Evaluation results are used to illustrate the achievement of workshop objectives and identify opportunities for implementing HPC strategies in learning.

Results and Discussion

Emotional literacy and critical thinking are two competencies that have the potential to support each other in sports activities. Emotional literacy relates to the ability to recognize, understand, express, and manage emotions, while critical thinking encompasses the ability to analyze situations, evaluate information, consider alternatives, and make decisions based on logical reasoning. Emotional intelligence in the context of sports relates to the experience of emotions, responses to physiological stress, the use of psychological skills, and athletic performance (Laborde et al., 2016). Meanwhile, Pill & SueSee (2017) emphasizes the importance of critical thinking and problem-solving processes in physical education. Both studies provide a conceptual basis for understanding how emotional management and cognitive processes can work together to meet the demands of sport. For example, in soccer, emotional literacy is needed when players face the pressure of being behind, losing the ball, making a passing error, or accepting a referee's decision that is considered detrimental. The ability to recognize and manage frustration can help players maintain concentration and avoid impulsive reactions. Furthermore, critical thinking is needed to analyze the opponent's position, identify open space, determine passing options, and evaluate attacking strategies. Studies from Mon-López et al. (2023) a study involving elite athletes from eight sports, including soccer, volleyball, and basketball, demonstrated that emotional intelligence is a relevant variable to study in a competitive sports context. However, the direct relationship between emotional literacy and critical thinking in soccer decision-making remains to be specifically tested.

In volleyball, the ability to manage emotions becomes crucial when players experience a missed serve, a missed reception, or a miscommunication with a teammate. Disappointment that is not properly managed has the potential to disrupt communication and teamwork. Conversely, the ability to understand one's own and others' emotions can help players respond more constructively to mistakes. Critical thinking is needed to evaluate the opponent's attack pattern, identify defensive weaknesses, determine blocking position, and adjust game strategy. In basketball, players are required to make quick decisions when faced with opposing defenses, shooting opportunities, score changes, and the pressure of the final minutes of a match. Emotional literacy can help players recognize anxiety or frustration that arises during a match, while critical thinking is needed to read defensive patterns, assess shooting opportunities, determine the timing of passes, and consider the risks of a strategy. Studies from Vaughan et al. (2019) found a positive relationship between trait emotional intelligence and decision-making quality in non-sport decision-making tasks. This finding provides indirect support for the importance of considering emotional aspects in decision-making, but does not directly prove that emotional intelligence improves basketball players' critical thinking skills.

Overall, these examples demonstrate that emotional literacy has the potential to support critical thinking processes through recognizing the influence of emotions, maintaining concentration, accepting evaluations, and controlling responses to stress. Conversely, critical thinking enables athletes to evaluate emotionally triggering situations, consider the consequences of actions, and determine responses based on available information. However, these two competencies need to be understood as distinct constructs. Emotional intelligence or emotional literacy does not automatically result in high levels of critical thinking skills, as decision quality is also influenced by tactical knowledge, experience, technical skills, and match conditions. Therefore, developing both in physical education requires integrating emotional reflection, problem-solving, strategy evaluation, and discussion of the rationale behind game decisions. Therefore, workshops are important for lecturers and teachers to enhance professional competence in developing students' emotional literacy and critical thinking skills. For lecturers, these activities serve as a means to enrich academic knowledge and develop learning innovations that integrate emotional and cognitive aspects. Meanwhile, for teachers, these workshops provide strengthened understanding and practical skills in implementing learning strategies that help students recognize and manage emotions, understand others' perspectives, analyze information, solve problems, and make rational decisions. Collaboration between lecturers and teachers through this activity is expected to strengthen the synergy between the development of educational theory and practice, so that HPC strategies can be studied,

developed, and implemented contextually to support more meaningful learning and improve the quality of education.



Figure 1. HPC Strategy Workshop for Developing Emotional Literacy and Thinking Skills in Students

Teachers who have good emotional competence tend to be able to carry out the learning process and provide guidance to students more effectively (Schonert-Reichl, 2017). This ability also enables teachers to be positive role models by creating a safe, comfortable learning environment that supports student development. A high level of emotional literacy in teachers plays a role in building a conducive learning climate, strengthening interpersonal relationships with students, and supporting their emotional well-being (Brackett et al., 2011; Pekrun et al., 2017). The teaching profession faces complex demands and challenges, including coping with work pressures and emotional dynamics during the learning process. In this context, emotional literacy is a crucial capacity that helps teachers recognize, understand, and manage these challenges. Strengthening teachers' emotional literacy not only contributes to improved personal well-being but also benefits the well-being of students. This impact can further support improvements in the quality of learning practices and the ongoing development of teacher professionalism (Samnøy et al., 2023).

This statement was emphasized during the opening of the activity by Prof. Dr. Aris Badara, S.Pd., M.Hum. as the Vice Dean for Academic Affairs at the Faculty of Teacher Training and Education, Halu Oleo University (UHO) who conveyed that strengthening educators' competencies in integrating emotional and cognitive dimensions in learning. This activity is relevant to the contemporary educational paradigm that views learning success as not only determined by mastery of knowledge, but also by an individual's ability to recognize and regulate emotions, manage social interactions, and use critical reasoning in responding to various problems. Theoretically, the development of emotional literacy is related to social-emotional learning, which emphasizes self-awareness, self-management, social awareness, relationship-building skills, and responsible decision-making. Both dimensions are important to consider in an integrated manner because the learning process involves the interaction between students' affective responses and cognitive activities.



Figure 2. The activity was opened directly by Prof. Dr. Aris Badara, S.Pd., M.Hum.

This activity is expected to encourage educators to develop learning that is not only oriented towards achieving academic results, but also provides space for students to reflect on emotional experiences, analyze problems, evaluate information, and make decisions based on rational considerations. Thus, this activity is relevant in supporting the development of educational practices that are more holistic, reflective, and responsive to students' needs. Furthermore, emotional intelligence enables teachers to manage their emotional responses appropriately while understanding and responding to students' feelings, thus creating a learning environment that supports their engagement and development (Hayat, 2022). Emotional literacy is also an important foundation for building quality educational interactions. Teachers with adequate emotional competence tend to be better able to understand students' perspectives, demonstrate sensitivity to their needs, and provide appropriate and constructive responses. This ability can strengthen the quality of teacher-student relationships, both in terms of interpersonal closeness and the effectiveness of the learning process (Kliueva & Tsagari, 2018).

Based on this description, a study of teacher emotional literacy is crucial. Research in this area is expected to identify the contribution of emotional literacy to student development, improve teacher well-being, strengthen their professional competence, and encourage the formation of positive and meaningful pedagogical relationships between teachers and

students (Alemdar & Anilan, 2022). Teachers' emotional literacy plays a crucial role in supporting the quality and effectiveness of the learning process. Conversely, limited ability to understand and manage emotions can hinder teachers from optimally implementing learning, potentially hindering student development and achievement. Teachers who are able to control their own emotions and respond appropriately to the emotional states of others will more easily create a positive and conducive school climate. In the context of education, emotional literacy is a crucial competency that supports teachers in building meaningful interactions with students, addressing various classroom dynamics and problems, and creating a safe, empathetic learning environment that supports student development. Therefore, strengthening emotional literacy among educators is a strategic effort to improve students' psychological well-being and academic success. In the long term, these efforts are expected to contribute to improving the quality of human resources and national development (Hayat et al., 2025).



Figure 3. Presentation of Material by Prof. Dr. Albertus Fenanlampir, M.Pd., AIFO

Academically, workshops are a form of professional development for educators, enabling the exchange of knowledge between speakers and participants. Professional development is not simply achieved through the delivery of theoretical information; it also needs to be directed toward an understanding of concepts, principles, and their possible application in learning practices. In this context, HPC workshops are relevant because lecturers and teachers face the challenge of developing learning that accommodates differences in cognitive abilities, psychological characteristics, and emotional needs of students. Therefore, such activities can be a means to broaden educators' horizons while building an understanding of the importance of a learning environment that supports the holistic development of students. The HPC strategy is a learning strategy in physical education. This strategy considers students' cognitive characteristics as well as their psychological state in the learning process. HPC is considered suitable for implementation in learning at schools and universities. The HPC strategy also emphasizes the importance of building learning experiences that provide opportunities for students to participate, develop ideas, collaborate, and improve cognitive skills (Fenanlampir et al., 2024).

Introducing HPC strategies to lecturers and teachers is relevant because learning success is determined not only by mastery of the material but also by the educator's ability to manage the interaction process and create learning situations that meet the needs of students. In practice, students differ in their speed of understanding material, their courage to express opinions, their problem-solving abilities, and their readiness to face academic challenges. If these differences are not addressed, some students may struggle to participate optimally. Therefore, educators need to develop strategies that provide equitable learning opportunities, encourage active engagement, and avoid behavior that could undermine student self-confidence. One important aspect of HPC strategies is attention to the relationship between psychological conditions and cognitive development. Students who fear making mistakes, worry about receiving negative evaluations, or lack confidence in expressing ideas can experience barriers to learning engagement. In such situations, the educator's task is not only to explain the material but also to create an atmosphere that allows students to ask questions, express opinions, and attempt to solve problems without feeling psychologically threatened. The importance of a pleasant learning environment, collaborative interactions, and providing space for students to develop ideas is emphasized. These principles can be considered in developing learning practices that are more inclusive and responsive to differences in ability (Leasa et al., 2026).

The connection between HPC strategies and the development of emotional literacy was also an important aspect of the workshop. Emotional literacy refers to the ability to recognize, understand, express, and manage emotions, as well as to understand the emotions of others. In the learning process, this ability can help students face failure, manage differences of opinion, accept feedback, and maintain engagement when facing challenging tasks. Students who have difficulty understanding material, for example, may feel frustrated or lose confidence. Educators need to recognize this situation and provide appropriate support to prevent learning difficulties from developing into withdrawal from class activities. This relationship aligns with the findings of Fenanlampir & Mutohir (2021) regarding emotional skills and HPC strategies in

physical education learning in elementary schools. These findings strengthen the relevance of the study of emotional aspects in the application of HPC, although the results still need to be understood according to the research context and cannot be directly generalized to all subjects or levels of education (Fenanlampir et al., 2023). Thus, the workshop is positioned as an opportunity to deepen educators' understanding of the importance of considering emotional aspects in learning design.

In addition to emotional literacy, developing thinking skills is an important goal of student-centered learning strategies. Critical thinking skills involve analyzing information, evaluating evidence, considering alternative solutions, and drawing conclusions based on sound reasoning. Developing these skills requires learning experiences that provide students with opportunities to confront problems, ask questions, discuss possible answers, and reflect on the decision-making process. In research on the development of HPC strategies, (Fenanlampir et al. (2025) explained that this strategy encourages collaborative activities, the communication of ideas, decision-making, and the development of cognitive skills such as analysis, inference, and evaluation. This demonstrates HPC's potential to support students' thinking processes, although critical thinking skills as a specific construct still need to be measured using appropriate instruments.

For teachers, an understanding of these principles can be applied through the development of learning activities that involve group discussions, problem-solving, reflection, and evaluation of alternative answers. In physical education lessons, for example, students can be asked to observe a phenomenon, express a hypothesis, identify evidence, and explain the reasons supporting their conclusions. During this process, teachers can also observe how students respond to differing opinions, deal with incorrect answers, and accept feedback from peers. Thus, learning activities not only develop conceptual knowledge but also provide opportunities to practice emotional management, communication, collaboration, and critical reasoning in an integrated manner. For lecturers, this workshop has implications for the development of learning in higher education and the preparation of prospective teachers. Lecturers can use HPC principles as study material to design learning simulations, analyze pedagogical cases, and evaluate strategies used by students when facing problems in the classroom. Prospective teachers need to be equipped with the ability to recognize the differences in student needs, understand factors that can hinder participation, and design learning activities that provide space for the development of emotional and cognitive abilities. With this approach, prospective teacher education is oriented not only toward mastering learning theory but also toward the ability to apply theory reflectively in real-life educational situations.

In general, studies have concluded that cooperative learning has a positive and significant relationship with students' emotional intelligence in physical education learning. This is confirmed byRivera-Pérez et al. (2020)A study of 1,332 students aged 10–20 in Spain showed that the higher the level of cooperative learning implementation perceived by students, the higher their tendency to have the ability to recognize emotions, control and regulate emotions, and show empathy towards others. Cooperative learning provides a learning context that encourages students to work together, interact, take responsibility for group tasks, and understand the feelings of others. It was also found that the level of cooperative learning and emotional intelligence tended to be higher in elementary school students compared to students at the secondary and baccalaureate levels. Therefore, it is important to maintain and strengthen the implementation of cooperative learning at every level of education, especially secondary education, so that students' emotional development continues to receive attention in the physical education learning process.

Another study from Tanjung et al. (2025) concluded that emotional intelligence has a positive relationship with students' critical thinking skills. Critical thinking skills are not only related to cognitive aspects, but are also influenced by students' ability to recognize, understand, and control emotions during the learning process. Students with good emotional intelligence tend to be better able to manage stress, maintain learning motivation, analyze information, evaluate various alternative solutions, and make logical and systematic decisions when facing problems. Conversely, stress, frustration, negative thoughts, and low motivation can hinder concentration and limit students' ability to solve problems that require in-depth reasoning. Therefore, learning needs to be designed in an integrated manner that pays attention to the development of students' cognitive and emotional abilities through emotional management strategies, strengthening motivation, and creating a supportive learning environment.

The relationship between critical thinking skills and emotional intelligence is still a matter of debate. This debate arises from the perspective that distinguishes emotional and rational processes, with the assumption that critical thinking must be based on objective analysis and evaluation and should not be influenced by emotions. If memory is completely dependent on emotions, a person will only remember a small part of the experiences gained during education.(Kensinger & Ford, 2020). Therefore, experiences that elicit emotional responses do tend to be more memorable, but emotions cannot be considered a primary prerequisite for the

learning process. Zhang et al. (2025) suggests that emotions have the potential to influence the objectivity of assessments and lead to biased decision-making. Therefore, it is important to develop emotional intelligence and critical thinking skills in an integrated manner in prospective teacher education through problem-based learning, discussions, case analysis, and reflective activities. These two competencies are expected to shape prospective teachers who are capable of analytical thinking, making appropriate decisions, managing emotions, and creating a positive learning environment.



Figure 4. The workshop was well-executed by the participants from beginning to end.

Conclusion

In general, this study concluded that the HPC strategy has the potential to support the development of students' emotional literacy and critical thinking skills through the integration of emotional and cognitive aspects into the learning process. This workshop strengthened educators' conceptual understanding of the importance of implementing the HPC strategy to design more reflective, participatory, and learner-centered learning. This strategy emphasizes the ability to recognize and manage emotions, understand others' perspectives, analyze information, evaluate various alternatives, solve problems, and make decisions based on rational considerations. In the context of physical education and health, emotional literacy and critical thinking skills are two complementary competencies. The ability to manage emotions can help students maintain concentration, control frustration, accept feedback, and build positive collaboration. Meanwhile, critical thinking skills enable students to analyze situations, evaluate strategies, consider the consequences of actions, and make appropriate decisions. Therefore, educators have a crucial role in creating a safe, collaborative learning environment that supports the integrated development of both competencies. However, this workshop has not yet empirically proven that the implementation of the HPC strategy directly improves students' emotional literacy and critical thinking skills. Therefore, further research is needed to test the effectiveness of the HPC strategy through direct application in learning and systematic measurement of both competencies. Overall, the HPC strategy has the potential to be an alternative pedagogical approach to developing holistic learning, by balancing students' emotional development and cognitive abilities. Implementing this strategy is expected to support the development of reflective, adaptive, collaborative learners with critical thinking skills in addressing various problems.

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References

Abrami, P. C., Bernard, R. M., Borokhovski, E., Waddington, D. I., Wade, C. A., & Persson, T. (2015). Strategies for teaching students to think critically: a meta-analysis. *Review of Educational Research*, *85*(2), 275–314. https://doi.org/10.3102/0034654314551063

Aktepe, V., & Gündüz, M. (2022). Emotional literacy skills and educational activities in affective education process. *Erciyes Akademi*, *36*(2), 810–827. https://doi.org/10.48070/erciyesakademi.1106916

Alemdar, M., & Anilan, H. (2022). The development and validation of the emotional literacy skills scale. *International Journal of Contemporary Educational Research*, *7*(2), 258–270. https://doi.org/10.33200/ijcer.757853

Aydin, M. D., Leblebici, D. N., Arslan, M., Kilic, M., &

Oktem, M. K. (2005). The impact of IQ and EQ on pre-eminent achievement in organizations: Implications for the hiring decisions of HRM specialists. *International Journal of Human Resource Management*, *16*(5), 701–719. https://doi.org/10.1080/09585190500082998

Ayed, A., Aqtam, I., Malak, M. Z., Toqan, D., Hammad, B. M., Qaddumi, J., & Shouli, M. (2025). Insights into the relationship between emotional intelligence and critical thinking among nursing students. *BMC Nursing*, *24*(1), 1–8. https://doi.org/10.1186/s12912-025-03782-7

Bachman, J., Stein, S., Campbell, K., & Sitarenios, G. (2000). Emotional intelligence in the collection of debt. *International Journal of Selection and Assessment*, *8*(3), 176–182. https://doi.org/10.1111/1468-2389.00145

Brackett, M. A., Rivers, S. E., Reyes, M. R., & Salovey, P. (2012). Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum. *Learning and Individual Differences*, *22*(2), 218–224. https://doi.org/10.1016/j.lindif.2010.10.002

Brackett, M. A., Rivers, S. E., & Salovey, P. (2011). Emotional intelligence: Implications for personal , social, academic, and workplace success. *Social and Personality Psychology Compass*, *5*(1), 88–103.

Calear, A. L., Macleod, E., Hoye, A. M., McCallum, S., Morse, A., Farrer, L. M., & Batterham, P. J. (2024). Pragmatic controlled trial of a school-based emotion literacy program for 8- to 10-year-old children: study protocol. *BMC Psychiatry*, *24*(1), 1–10. https://doi.org/10.1186/s12888-024-05628-z

Crawley, E. M. (2004). Emotion and performance: Prison officers and the presentation of self in prisons. *Punishment and Society*, *6*(4), 411–427. https://doi.org/10.1177/1462474504046121

Crewe, B. (2011). Soft power in prison: Implications for staff-prisoner relationships, liberty and legitimacy. *European Journal of Criminology*, *8*(6), 455–468. https://doi.org/10.1177/1477370811413805

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, *24*(2), 97–140. https://doi.org/10.1080/10888691.2018.1537791

Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development*, *17*(1), 57–89. https://doi.org/10.1207/s15566935eed1701

Dowd, J. E., Thompson, R. J., Schiff, L. A., & Reynolds, J. A. (2018). Understanding the complex relationship between critical thinking and science reasoning among undergraduate thesis writers. *CBE Life Sciences Education*, *17*(1), 1–10. https://doi.org/10.1187/cbe.17-03-0052

Downey, L. A., Mountstephen, J., Lloyd, J., Hansen, K., & Stough, C. (2008). Emotional intelligence and scholastic achievement in Australian adolescents. *Australian Journal of Psychology*, *60*(1), 10–17. https://doi.org/10.1080/00049530701449505

Dulewicz, V., & Higgs, M. (2003). Leadership at the top: the need for emotional intelligence in organizations. *International Journal of Organizational Analysis*, *11*(3), 193–210.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405–432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Eklöf, A. (2013). A long and winding path: Requirements for critical thinking in project work. *Learning, Culture and Social Interaction*, *2*(2), 61–74. https://doi.org/10.1016/j.lcsi.2012.11.001

Elias, M. J., & Haynes, N. M. (2008). Social competence, social support, and academic achievement in minority, low-income, urban elementary school children. *School Psychology Quarterly*, *23*(4), 474–495. https://doi.org/10.1037/1045-3830.23.4.474

Fenanlampir, A., Batlolona, J. R., Divinubun, S., & Leasa, M. (2024). Emotional skills with homogeneity psycho cognition strategy: a study of physical education in elementary schools. *Retos*, *54*, 850–856. https://doi.org/10.47197/retos.v54.104283

Fenanlampir, A., Batlolona, J. R., Hasbullah, B., Rumahlewang, E., Solissa, J., Latar, I. M., Matitaputty, J., & Hattu, M. (2025). Investigation of communication skills using the psycho-cognitiv homogeneity strategy: A study of physical Education for elementary school students. *Jurnal Pendidikan Jasmani Indonesia*, *21*(2), 101–116. https://doi.org/10.21831/jpji.v21i2.79200

Fenanlampir, A., Leasa, M., & Batlolona, J. R. (2021). The development of homogeneity psycho cognition learning strategy in physical education learning. *International Journal of Evaluation and Research in Education*, *10*(3), 1047–1059. https://doi.org/10.11591/IJERE.V10I3.21713

Fenanlampir, A., Leasa, M., Batlolona, J. R., Rahul, R., & Latumahina, K. (2025). Pengembangan karakter dan kecerdasan emosional: Pendampingan implementasi strategi HPC bagi guru SD Inpres M/Morella Kabupaten Maluku Tengah. *Publikasi Pendidikan*, *15*(1), 216. https://doi.org/10.70713/publikan.v15i1.64209

Fenanlampir, A., & Mutohir, T. C. (2021). Emotional intelligence and learning outcomes: Study in physical education. *Journal Sport Area*, *6*(3), 304–

314. https://doi.org/10.25299/sportarea.2021.vol6(3).6836

Fenanlampir, A., Unmehopa, W., Leasa, M., & Batlolona, J. R. (2023). Pelatihan penyusunan perangkat pembelajaran berbasis strategi HPC dalam mendukung keterampilan hidup abad 21 di SD Negeri Negeri Lama, Kota Ambon. *AJAD : Jurnal Pengabdian Kepada Masyarakat*, *3*(3), 255–263. https://doi.org/10.59431/ajad.v3i3.206

Hasanpour, M., Bagheri, M., & Heidari, F. G. (2018). The relationship between emotional intelligence and critical thinking skills in Iranian nursing students. *Medical Journal of the Islamic Republic of Iran*, *32*(1), 1–4. https://doi.org/10.14196/mjiri.32.40

Hayat, K. (2022). Emotional literacy as a predictor of teachers' performance at primary school level İn Central Punjab. *Jahan-e-Tahqeeq*, *5*(2), 28–32.

Hayat, K., Toqeer, M. H., Iqbal, M., & Noreen, Z. (2025). Development and validation of teachers' emotional literacy scale. *ProScholar Insights*, *4*(2), 45–54. https://doi.org/10.62997/psi.2025b-42077

Immordino-Yang, M. H., & Damasio, A. (2011). We feel, therefore we learn: the relevance of affective and social neuroscience to education. *Mind, Brain, and Education*, *5*(1), 3–10. https://doi.org/10.36510/learnland.v5i1.535

Jintalan, J., & Litao, R. A. (2024). Sustainability education and critical thinking integration in general education. *International Journal of Current Educational Studies*, *3*(2), 51–76. https://doi.org/10.46328/ijces.146

Kensinger, E. A., & Ford, J. H. (2020). Retrieval of emotional events from memory. *Annual Review of Psychology*, *71*, 251–272. https://doi.org/10.1146/annurev-psych-010419-051123

Kliueva, E., & Tsagari, D. (2018). Emotional literacy in EFL classes: The relationship between teachers' trait emotional intelligence level and the use of emotional literacy strategies. *System*, 78, 38-53. https://doi.org/10.1016/j.system.2018.07.006

Knight, C., & Modi, P. (2014). The use of emotional literacy in work with sexual offenders. *Probation Journal*, *61*(2), 132–147. https://doi.org/10.1177/0264550514523817

Konold, T. R., & Pianta, R. C. (2005). Empirically-derived, person-oriented patterns of school readiness in typically-developing children: Description and prediction to first-grade achievement. *Applied Developmental Science*, *9*(4), 174–187. https://doi.org/10.1207/s1532480xads0904_1

Kovbuz, V. (2025). Emotional literacy as a core competency for psychological resilience in women experiencing forced migration. *International Journal of Innovative Research in Computer and Communication Engineering*, *13*(4), 3001–3010. https://doi.org/10.15680/ijircce.2025.1304001

Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: a meta-analysis of the causal evidence. *Review of Educational Research*, *88*(4), 547–588. https://doi.org/10.3102/0034654318759268

Laborde, S., Dosseville, F., & Allen, M. S. (2016). Emotional intelligence in sport and exercise: A systematic review. *Scandinavian Journal of Medicine and Science in Sports*, *26*(8), 862–874. https://doi.org/10.1111/sms.12510

Leasa, M., Fenanlampir, A., Batlolona, J. R., & Ferdinandus, M. S. (2026). Elementary school teachers in the island region of Tual City. *Publikasi Pendidikan*, *16*(2), 882. https://doi.org/10.70713/publikan.v16i2.82794

Leasa, M., & Pelamonia, J. (2024). Emotional literacy and problem-solving skills with pbl model and hpc strategy: Circulatory system concept. *Biosfer: Jurnal Pendidikan Biologi, 17*(2), 421–433.

Leasa, M., Pelamonia, J., Talakua, M., & Batlolona, J. R. (2024). Emotional literacy of elementary school teachers : a study on science learning with problem-based learning (PBL) and homogeinity psycho cognition (HPC) program. *KnE Social Sciences*, *2024*, 432–444. https://doi.org/10.18502/kss.v9i31.17605

Mon-López, D., Blanco-García, C., Acebes-Sánchez, J., Rodríguez-Romo, G., Marquina, M., Martín-Castellanos, A., de la Rubia, A., Cordente Martínez, C., Oliván Mallén, J., & Garrido-Muñoz, M. (2023). Emotional intelligence in spanish elite athletes: is there a differential factor between sports? *Sports*, *11*(8), 1–15. https://doi.org/10.3390/sports11080160

Morrison, T. (2007). Emotional intelligence, emotion and social work: Context, characteristics, complications and contribution. *British Journal of Social Work*, *37*(2), 245–263. https://doi.org/10.1093/bjsw/bcl016

Ostrander, J. F., & Ferrucci, S. (2007). Co-occurring disorders, emotion/mood literacy, and emotion/mood regulation. *International Journal of Mental Health and Addiction*, *5*(3), 195–209. https://doi.org/10.1007/s11469-007-9076-6

Pekrun, R., Lichtenfeld, S., Marsh, H. W., Murayama, K., & Goetz, T. (2017). Achievement emotions and academic performance: longitudinal models of reciprocal effects. *Child Development*, *88*(5), 1653–1670. https://doi.org/10.1111/cdev.12704

Perry, L., Lennie, C., & Humphrey, N. (2008). Emotional literacy in the primary classroom: Teacher

perceptions and practices. *Education 3-13*, *36*(1), 27–37. https://doi.org/10.1080/03004270701576851

Pill, S., & SueSee, B. (2017). Including critical thinking and problem solving in physical education. *Journal of Physical Education, Recreation & Dance*, *88*(9), 43–49. https://doi.org/10.1080/07303084.2017.1367741

Rivera-Pérez, S., León-Del-barco, B., Fernandez-Rio, J., González-Bernal, J. J., & Gallego, D. I. (2020). Linking cooperative learning and emotional intelligence in physical education: Transition across school stages. *International Journal of Environmental Research and Public Health*, *17*(14), 1–11. https://doi.org/10.3390/ijerph17145090

Samnøy, S., Jenssen, E. S., Thurston, M., Wold, B., & Tjomsland, H. E. (2023). Enhancing teachers' emotional awareness through continuing professional development: mission possible? *Scandinavian Journal of Educational Research*, *67*(6), 886–899. https://doi.org/10.1080/00313831.2022.2114539

Schaible, L. M., & Gecas, V. (2010). The impact of emotional labor and value dissonance on burnout among police officers. *Police Quarterly*, *13*(3), 316–341. https://doi.org/10.1177/1098611110373997

Schonert-Reichl, K. A. (2017). Social and emotional learning and teachers. *Future of Children*, *27*(1), 137–155. https://doi.org/10.1353/foc.2017.0007

Seevaratnam, V., Gannaway, D., & Lodge, J. (2023). Design thinking-learning and lifelong learning for employability in the 21st century. *Journal of Teaching and Learning for Graduate Employability*, *14*(1), 167–186. https://doi.org/10.21153/JTLGE2023VOL14NO1ART1631

Steiner, C. (1984). Emotional literacy. *Transactional Analysis Journal*, *14*(3), 162–173. https://doi.org/10.4324/9780429504051-6

Tanjung, W. K. A., Jupri, A., & Usdiyana, D. (2025). The role of emotional intelligence in mathematical critical thinking: a systematic literature review. *Jurnal Pendidikan MIPA*, *26*(1), 381–393.

Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: a meta-analysis of follow-up effects. *Child Development*, *88*(4), 1156–1171. https://doi.org/10.1111/cdev.12864

Vaughan, R., Laborde, S., & McConville, C. (2019). The effect of athletic expertise and trait emotional intelligence on decision-making. *European Journal of Sport Science*, *19*(2), 225–233. https://doi.org/10.1080/17461391.2018.1510037

Wenno, I. H., Jamaludin, & Batlolona, J. R. (2021). The effect of problem based learning model on creative and critical thinking skills in static fluid topics. *Jurnal Pendidikan Sains Indonesia*, *9*(3), 498–511. https://doi.org/10.28925/1609-8595.2019.4.5256

Yeigh, T., Woolcott, G., Scott, A., Donnelly, J., Snow, M., & Whannell, R. (2016). Emotional literacy and pedagogical confidence in pre-service science and mathematics teachers. *Australian Journal of Teacher Education*, *41*(6), 107–121. https://doi.org/10.14221/ajte.2016v41n6.7

Yurt, E. (2026). The effects of AI-assisted flipped learning on critical thinking skills, dispositions, and motivation in higher education. *Discover Artificial Intelligence*, *6*, 1–39. https://doi.org/10.1007/s44163-026-01773-4

Zhang, H., Dai, Z., Fu, J., Qiu, X., Chen, Z., Zhou, R., Yang, H., Sun, Y., Xu, B., & Zhu, J. (2025). Exploration and practice of critical thinking education model for medical students based on social and emotional ability cultivation. *International Journal of New Developments in Education*, *7*(2), 76–81. https://doi.org/10.25236/ijnde.2025.070212