

## Empowering Education: Integrating Critical Pedagogy into Transformative Teaching Strategies

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### Abstract

Tujuan dari studi ini adalah untuk mengeksplorasi implikasi dan efektivitas pedagogi kritis dalam memajukan keadilan sosial dan memberdayakan siswa dalam pengaturan pendidikan. Terjadinya kesenjangan pemahaman tentang bagaimana pedagogi kritis dapat memajukan keadilan sosial dan memberdayakan siswa dalam pembelajaran. Keterampilan abad ke-21 dan strategi pengajaran terhubung dengan pendekatan pedagogi kritis yang mempromosikan keterampilan seperti berpikir kritis dan berkolaborasi. Strategi pengajaran yang terintegrasi dengan pedagogi kritis mendorong pembelajaran berpusat pada siswa dan mendorong partisipasi aktif, mempersiapkan siswa untuk menghadapi tuntutan zaman modern secara kritis dan mandiri dalam memperjuangkan keadilan sosial. Penelitian ini mengadopsi pendekatan kualitatif, menggunakan tinjauan pustaka untuk mengeksplorasi implementasi dan hasil dari pedagogi kritis dalam berbagai konteks pendidikan. Temuan studi menunjukkan bahwa pedagogi kritis berperan sebagai alat yang kuat untuk menantang norma-norma sosial, memberdayakan individu yang terpinggirkan, dan mempromosikan keadilan sosial dalam pengaturan pendidikan. Melalui pembelajaran berpusat pada siswa, pemecahan masalah kolaboratif, dan pengembangan keterampilan abad ke-21, pedagogi kritis membekali siswa dengan alat dan pola pikir yang diperlukan untuk mengevaluasi lingkungan mereka secara kritis dan mengambil tindakan untuk mengatasi kondisi yang menindas dalam masyarakat. Selain itu, penelitian ini menyoroti peran penting guru dalam memfasilitasi penyelidikan kritis, memajukan dialog, dan mempromosikan keadilan sosial dalam kelas. Dengan terlibat dalam refleksi diri dan praktik transformatif, pendidik dapat menciptakan lingkungan belajar inklusif yang memberdayakan siswa untuk menjadi agen aktif dalam pendidikan mereka dan advokat perubahan positif dalam masyarakat.

**Kata kunci:** Pedagogi Kritis, Pemberdayaan Pendidikan, Strategi Pengajaran

### Abstract

*The objective of this study is to explore the implications and effectiveness of critical pedagogy in fostering social justice and empowering students in educational settings. The gap in understanding on how critical pedagogy can advance social justice and empower students in learning. 21st-century skills and teaching strategies are connected to critical pedagogy approaches that promote skills such as critical thinking and collaboration. Teaching strategies integrated with critical pedagogy encourage student-centered learning and active participation, preparing students to critically and independently address the demands of the modern era in advocating for social justice. This research adopts a qualitative approach, employing literature review to examine the implementation and outcomes of critical pedagogy in various educational contexts. The study findings reveal that critical pedagogy serves as a powerful tool for challenging societal norms, empowering marginalized individuals, and promoting social justice within educational settings. Through student-centered learning, collaborative problem-solving, and the development of 21st-century skills, critical pedagogy equips students with the tools and mindset necessary to critically evaluate their surroundings and take action to address oppressive conditions in society. Furthermore, the research highlights the pivotal role of teachers in facilitating critical inquiry, fostering dialogue, and promoting social justice within the classroom. By engaging in self-reflection and transformative practice, educators can create inclusive learning environments that empower students to become active agents in their education and advocates for positive change in society.*

**Keywords:** Critical Pedagogy, Educational Empowerment, Teaching Strategies

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## INTRODUCTION

Sustainable development relies on education for social well-being, with information technology driving education reforms. New technology-assisted learning tools like mobile devices, smartboards, and MOOCs have transformed education, with the Internet of Things

(IoT) emerging as a cost-effective method for widespread learning (J. Keengwe & M. Bhargava, 2014, P.L. Rogers, 2000, S. Dreimane, 2022). Educational technology businesses strive to enhance access to education, while social media serves as an essential tool for e-learning, facilitating information exchange and networking opportunities (Haddad, W. D., & Draxler, A., 2002). Traditional classroom methods lack immediacy, quick assessments, and high engagement levels. In contrast, digital learning tools offer unparalleled efficiencies, addressing these shortcomings. The widespread popularity of smartphones and wireless devices among the public underscores the importance of integrating technology into classrooms. Despite the adaptability and non-intrusive nature of modern technology, traditional instructors may initially find it challenging to embrace these tools, perceiving them as distractions rather than aids to intelligent learning (T.A. Vakaliuk, et al, 2021).

The integration of digital tools in education has several benefits. An online classroom calendar can help students plan their schedules effectively by providing information on class schedules, assignments, field trips, speaker events, exams, and semester breaks. Additionally, student response systems, such as smartphones and clicker devices, enable teachers to gauge students' understanding of the content quickly and adjust their teaching accordingly (I.O. Biletska, A.F. Paladieva, H.D. Avchinnikova, Y.Y. Kazak, 2021). Moreover, digital technologies have a significant impact on agricultural operations, potentially revolutionizing farming practices in developed countries by reducing dependency on pesticides and conserving water resources. The covid-19 pandemic has highlighted the importance of digital technologies in education. Despite the challenges posed by lockdowns and quarantines, these technologies have enabled the educational system to continue functioning, with students able to learn from the comfort of their homes (G. Kostopoulos, 2022 & G. Emmanuel, 2008).

Furthermore, integrating technology into education creates a more engaging learning environment, keeping students interested in the subject matter. Utilizing projectors, computers, and other cutting-edge technical equipment in the classroom can make studying fascinating and entertaining for students. By incorporating technology resources, oral presentations, and group participation, student learning becomes dynamic and engaging, extending beyond verbal communication (E. Bilotta, F. Bertacchini, L. Gabriele, S. Giglio, 2021). Digital learning offers numerous benefits, ranging from environmental sustainability to improved accessibility and cost-effectiveness. By reducing the use of paper for handouts and books, digital learning contributes to environmental conservation while also saving time and resources. Moreover, it enhances convenience and efficiency in research, benefiting both students and teachers (M. Beardsley, L. Albó, P. Aragón, D. Hernández-Leo, 2021).

The integration of technology into education represents a significant shift, driven by the ongoing digital revolution. This transformation is expected to revolutionize the learning process, making education more affordable and accessible for all (M.I. Qureshi, N. Khan, H. Raza, A. Imran, F. Ismail, 2021). Pedagogy, the method of teaching employed by educators, plays a crucial role in shaping the learning experience. It encompasses teaching styles, theories, assessments, and feedback mechanisms. Pedagogy is informed by various factors, including educational theory, research, political influences, practical experience, teacher expertise, and societal needs (Nanjundaswamy et al., 2021; Özaydınlık, Kevser & Sağlık, 2021).

Pedagogy extends beyond the act of teaching; it reflects broader social and cultural values within learning relationships. This concept is shaped by society's beliefs about learning and typically stems from two main paradigms: the traditional view of learning as a cognitive acquisition of knowledge and the perspective of learning as a cultural and social construction within communities of practice (Kumar, 2021). Traditional pedagogy often

entails hierarchical relationships between teachers and students, mirroring societal power dynamics (Aksakalli, 2018).

In the context of modern society, education undergoes transformation in line with socio-cultural changes. The shift from traditional teaching methods to ideological education signifies significant changes in the educational landscape (Mahmoodarabi & Khodabakhsh, 2015). Modern pedagogy encompasses various aspects, including instructional settings, training methods, and teaching practices, emphasizing active student engagement and application of knowledge in community contexts (Kumar, 2021). Today's pedagogical approach emphasizes learner autonomy and participation in cultural and social communities, valuing diverse learning styles and preferences. It examines the dynamics of the student-teacher relationship, the role of schools in society, and educational models within cultural contexts (Özaydınlık, Kevser & Sağlık, 2021). At its core, pedagogy revolves around individuals learning to interact with the world around them (Özaydınlık, Kevser & Sağlık, 2021).

Implementing appropriate pedagogy aligned with the learning methods of the 21st century is essential. This era demands students to possess critical thinking, problem-solving, collaboration, and active learning skills, collectively known as 21st-century learning skills (Xu & Zhou, 2022). Assessment criteria should not only focus on students' ability to answer questions but also on their proficiency in applying these skills. Additionally, study skills are viewed as essential for lifelong learning, enabling students to adapt to evolving living conditions and become more adaptable. In the 21st century, individuals must possess fundamental skills categorized into life and career skills, knowledge, media, and technology skills, and learning and innovation skills. Traditional pedagogical approaches centered on memorization or simple procedures are inadequate for developing critical thinking and autonomy in learners. Instead, meaningful inquiry-based learning experiences that hold personal relevance and value for students and their communities are necessary (Barron and Darling-Hammond, 2008). Real-world experiences, coupled with sustained engagement and collaboration, allow learners to construct knowledge, conduct research, analyze information, and communicate effectively to various audiences.

Teachers and educators face the challenge of determining the most effective approaches to support learners in developing essential skills for the twenty-first century. Research indicates that certain pedagogies are more successful in fostering deeper learning, including personalized learning strategies, collaborative learning, and informal learning (Gijsbers and van Schoonhoven, 2012; Leadbeater, 2008; Learnovation, 2009; Redecker and Punie, 2006). Saavedra and Opfer (2012) emphasize the urgency for learners to enhance their skills in order to tackle global challenges effectively. However, despite the recognized importance of skills such as critical thinking, communication, innovation, and problem-solving, traditional instructional approaches, such as the 'transmission' or lecture model, persist in education systems worldwide. This outdated approach often leads to disengagement and boredom among learners. Instead, learners require opportunities for interaction with mentors and peers, as well as practice and application of acquired skills and knowledge.

Effective pedagogy should involve collaborative encounters that support learners in adapting their learning to new problems and contexts, allowing for the integration and application of new knowledge. Without such opportunities, creativity and innovation may be stifled. In summary, the 'transmission' model of instruction is ineffective for teaching twenty-first century skills and must be replaced with more interactive and engaging approaches. Technology has become increasingly prevalent worldwide, with educational institutions grappling since the 20th century to integrate digital tools like video, audio recording, email, and teleconferencing into traditional teaching methods to assess their effectiveness. However,

over the past two decades, the challenge has become more complex due to the proliferation of new technologies flooding the market.

Critical Pedagogy emerges as a potent approach for nurturing students' critical thinking skills and instigating positive behavioral changes. This method encourages students to cultivate awareness, insight, and discernment, empowering them to actively engage in classroom discussions. Freire (2001) characterizes Critical Pedagogy as an educational philosophy emphasizing students' active participation in their own learning journey, urging them to articulate their perspectives and opinions. Expanding on this, Kaya and Kaya (2017) define Critical Pedagogy as a framework addressing systemic issues within education. It aims to illuminate how power dynamics, audience engagement, and assessment practices influence educational environments, fostering critical inquiry and challenging traditional dichotomies between theory and practice, analysis and common sense, and learning and societal transformation.

Freire (2001) defines Critical Pedagogy as more than just intelligence; it's a transformative mindset. He promotes an educational model where learners actively shape their learning experiences through dialogue with educators, fostering collaboration. This dialogic approach stimulates curiosity and facilitates idea exchange, promoting inquiry and learning. Freire also advocates problem-posing education, encouraging collective problem-solving. Similarly, Dewey emphasized child-centered education, nurturing students' active participation in learning. Critical Pedagogy's essence lies in engaging students in meaningful learning and empowering them in their education.

This paper outlines the integration of critical pedagogy and innovative teaching strategies in education. It explores the transformative potential and various applications of these approaches. Additionally, it discusses challenges in adopting critical pedagogy, prompting a critical examination. Finally, it looks ahead to the future of education, advocating for a pedagogical approach centered on critical inquiry and societal engagement.

## **METHOD**

This study used a descriptive and qualitative literature study methodology. This approach enables researchers to delve deeply into the phenomena being studied, especially within the intricate and evolving landscape of educational environments. It is conducted under natural circumstances, allowing for subjective data processing, which aligns with the principles of naturalistic research methodology (Sugiyono, 2016). The literature criteria grid for this research study includes aspects such as the relevance of materials to critical pedagogy, the focus on social justice in education, empowering marginalized individuals, how critical pedagogy is implemented in educational contexts, the outcomes of using critical pedagogy to promote social justice, student-centered learning approaches, collaborative problem-solving strategies, the development of 21st-century skills, the role of teachers in facilitating critical inquiry, and the promotion of social justice within classroom settings. These criteria serve as a structured framework for evaluating and analyzing relevant literature to gain insights into the effectiveness and implications of critical pedagogy in educational settings. This methodology facilitates a comprehensive exploration and comprehension of the subject matter, offering valuable insights into the complexities and nuances inherent in educational practices.

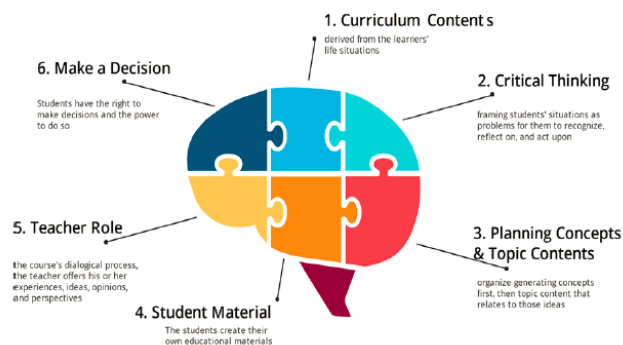
## RESULT AND DISCUSSION

### RESULT

Research study conducted by Udin, M.S in 2019 with title "Critical Pedagogy and its Implication in the Classroom," delves into the primary goal of critical pedagogy in education: to foster a fair and just society. Rooted in Freire's ideology, critical pedagogy aims to liberate individuals from social and cultural hegemony rather than seize political power. Freire's work encouraged illiterate peasants to challenge their marginalized status and promoted the use of diverse interactive teaching methods, such as dialogical and problem-posing approaches, to enhance students' critical consciousness. However, some scholars have politicized Freire's critical pedagogy theory, associating it with Marxism, leading to Freire's exile from Brazil for eight years and his exclusion from the United States.

Kaya and Kaya (2017) also support Freire's advocacy for education as a means of liberation for the impoverished and oppressed. Mahmoudi et al. (2014) argue that schools should serve as agents of social change, not only fostering critical thinking but also teaching students how to effect change in their environments. Freire's vision aimed to awaken the oppressed to their plight while prompting oppressors to recognize their role in perpetuating injustice. He envisioned a society where every individual had equal rights and opportunities, advocating for an education that empowers the oppressed and instills a sense of social justice in the oppressors.

In a study by Pikhart et al. in 2022, titled "The Implementation of Critical Pedagogy in Digital Second Language Acquisition in Higher Education: Age and Gender Differences," students are portrayed as capable of critically evaluating their surroundings to construct their social reality. Freire conceptualized the educational process as a tool for social and cultural emancipation, emphasizing the importance of portraying education as both a political and pedagogical endeavor. This involves fostering discussions, democratizing teacher-student interactions, co-constructing curricula, and making learning relevant to the learner, as outlined by Schugrensky (2014).



**Figure 1.** Critical Pedagogies Principles (Freire, 2004)

From the late 1970s to the mid-1990s, Freire's ideas began to influence educational thought, albeit to a limited extent. Crawford (1978, 1981, 1982) extrapolated language critical pedagogy principles from Freire's work, as depicted in Figure 1. These principles underscore the fundamental values of critical pedagogy and provide guidance for educators in implementing its core tenets:

#### 1. Curriculum content rooted in learners' life experiences

This principle emphasizes the importance of making educational content relevant and meaningful to students by connecting it to their lived experiences. By incorporating topics and themes that resonate with students' realities, educators can enhance

- engagement, foster deeper understanding, and promote a sense of relevance and applicability in learning.
2. **Cultivating critical thinking through experiential learning**  
Education should not merely transmit information but should instead encourage students to critically engage with their experiences. By presenting real-life situations or challenges as learning opportunities, students are prompted to analyze, evaluate, and problem-solve, thereby developing their critical thinking skills and becoming active agents in their own learning process.
  3. **Prioritizing conceptual frameworks in planning**  
Planning educational activities should begin with the development of conceptual frameworks or overarching themes that guide the exploration of specific topics. This approach ensures coherence and depth in learning, allowing students to grasp underlying principles and connections before delving into detailed content.
  4. **Active student participation in creating educational materials**  
Involving students in the creation of educational materials empowers them to take ownership of their learning. Whether through collaborative projects, presentations, or multimedia creations, this approach fosters creativity, collaboration, and a deeper understanding of the subject matter.
  5. **The teacher as a co-learner**  
Teachers adopt the role of co-learners alongside students, recognizing that learning is a collaborative process. By demonstrating a willingness to learn alongside their students, educators' model lifelong learning habits and create a supportive learning environment based on mutual respect and shared inquiry.
  6. **Facilitating collaborative problem-solving**  
Teachers facilitate learning by posing open-ended problems or challenges for students to explore and solve together. This collaborative approach promotes teamwork, communication skills, and critical thinking as students engage in dialogue, debate ideas, and work towards solutions collaboratively.
  7. **Teacher contribution to the dialogical process**  
Teachers contribute to the educational dialogue by sharing their experiences, perspectives, and insights. By participating actively in discussions, educators enrich the learning experience, provide valuable context, and encourage students to consider diverse viewpoints.
  8. **Empowering students to make decisions**  
Students are empowered to make decisions and take ownership of their learning journey. By involving students in decision-making processes, such as choosing topics, setting learning goals, or selecting learning activities, educators foster autonomy, responsibility, and agency in students, empowering them to become self-directed learners.

In critical pedagogy, the curriculum is not standardized but rather tailored to the unique needs and interests of each student. This approach recognizes that there is no one-size-fits-all methodology and emphasizes the importance of framing the curriculum based on students' lived experiences and realities (Degener, 2001). The curriculum is designed to be transformative, empowering students to develop the critical skills necessary to become social critics capable of navigating and challenging societal norms and structures (Giroux & McLaren, 1992).

Lesson plans in critical pedagogy are centered around authentic materials such as TV programs, commercials, and movies that represent the culture being studied (Ohara et al.,

2000). These materials serve as the basis for critical reflection and discussion, allowing students to engage with and analyze cultural norms and practices. Texts and themes are selected collaboratively by both teachers and students, drawing on their diverse experiences and perspectives (Kincheloe, 2005). Assignments are designed to be meaningful and relevant to students' lives, encouraging them to critically examine existing societal problems and take action to address them (Okazaki, 2005).

Authentic materials help students connect their learning to real-world issues and empower them to recognize and challenge oppressive conditions in society (Ares, 2006). Transformative practice in critical pedagogy prioritizes students' cultural heritage, knowledge, and languages, aiming for social transformation through critical reflection and action (Ares, 2006). By engaging with authentic materials and transformative practices, students develop the skills needed to critically analyze and navigate complex social issues, ultimately working towards creating a more just and equitable society.

In this approach, teachers are seen as facilitators of critical inquiry, encouraging students to question and challenge the status quo. Drawing from Dewey's ideas on problem-solving and practical application, educators empower students to actively shape their experiences and positions within society (Dewey, 1963). Kincheloe and McLaren emphasize the role of teachers in raising students' awareness of societal inequities and transforming existing inequalities (Kincheloe & McLaren, 1994). In Giroux's framework, teachers are envisioned as Transformative Intellectuals who critique and challenge societal norms, while also learning from and appreciating students' perspectives.

## **DISCUSSION**

According to Giroux, teachers create conditions that enable students to become cultural producers, fostering collaboration, critical thinking, and dialogue in the classroom (Giroux, 1997). Paulo Freire underscores the importance of teachers in facilitating classroom experiences that empower students to become active agents in their education, developing critical consciousness and evaluating the validity of information (Freire, 1998). Teachers play a central role in critical pedagogy, spending significant time with students and shaping the learning environment (Degener, 2001). They should elicit student opinions, promote dialogue, and engage in self-reflection to create an open and equitable classroom environment (Degener, 2001). Through their critically reflective role, teachers contribute to fostering dialogue, challenging power dynamics, and promoting social justice within the educational setting.

Crabtree and Sapp (2004) define self-reflection as a process of questioning one's motives, purpose, ideology, and pedagogy, informed by theory and habit. This practice allows teachers to create student-centered classrooms by acknowledging ineffective educational approaches and oppressive practices in their own teaching methods (Higgins, 1996). According to Degener (2001), critical educators help students comprehend the underlying reasons behind factual information. Horton and Freire (1990) advocate for teachers to be authorities in their subject matter while remaining open to engaging with students and integrating their knowledge into classroom interactions.

Teachers employing critical pedagogy engage students in critical reflection on societal and cultural aspects, empowering them to identify actions necessary for improving conditions for marginalized groups (Ohara et al., 2000). Both students and teachers are encouraged to question knowledge, with teachers guiding students in critical practice (Kessing-Styles, 2003). Teachers are urged to challenge existing structures by rejecting entrenched cultural norms and relinquishing some of their power.

Critical pedagogy fosters the development of 21st-century skills, including Critical Thinking, Communication, Collaboration, and Creativity (Nurhabibah & Indrajit, 2021).

These skills are essential for effectively solving problems and completing tasks in various fields of work that require critical thinking and collaboration across borders. Therefore, students must be encouraged to cultivate these skills to compete in the workforce successfully. It's crucial to integrate the concept of the 4Cs skills into every learning activity in the classroom or school setting. Educators need a thorough understanding of how to apply these skills in teaching and learning to ensure effective implementation.

Critical thinking and problem-solving are fundamental skills for navigating the complexities of the modern world. Critical thinking involves rational and analytical thinking, leading to effective problem-solving. It encompasses analyzing, interpreting, reasoning, and problem-solving. Various reasoning or logical methods, both inductive and deductive, can be employed in critical thinking. Effective problem-solving is essential for addressing societal challenges and is highly valued. In education, critical thinking skills can be cultivated through student-centered learning models such as Problem-Based Learning and Discovery Learning. Integrating learning across multiple subjects in the 21st century allows for comprehensive problem-solving, drawing from various scientific perspectives.

Communication is integral to human interaction and plays a crucial role in conveying ideas and fostering social connections. Effective communication involves not only clear reading, pronunciation, and writing but also the ability to analyze and convey ideas effectively. In the digital age, students must also learn to use technology appropriately for communication. Effective communication is characterized by the acceptance and understanding of conveyed messages. Communication skills are closely linked to collaboration skills, which are essential for effective teamwork. Collaboration is vital for solving complex problems that require input from multiple fields. In the 21st century, collaboration extends beyond local boundaries, often involving international cooperation facilitated by communication skills.

Collaboration skills are nurtured through group-centered activities like Cooperative Learning models. Effective collaboration emphasizes working efficiently towards common goals while respecting diverse perspectives. Students need to take responsibility for their roles within groups to achieve shared objectives.

Creativity and innovation are invaluable in today's competitive world, particularly in industry. They involve generating new ideas and improving performance through analysis and evaluation. Project-based learning fosters creativity and innovation by encouraging students to develop projects that are interesting and useful in their field of study. Project-based learning allows students to explore and develop a wide range of ideas, ultimately leading to innovative solutions to real-world challenges.

### *Critical pedagogy paves the way for transformative teaching strategies*

Despite the challenges teachers face in finding time to implement diverse strategies while prioritizing students' academic performance, they can still engage students in various activities during regular classroom activities through proper planning. Some of these activities are explained below.

### *Interactive Discussions*

Web-based learning environments are characterized by interactivity, which involves sustained communication between students and instructors, facilitating task completion and social relationship building (Chou, 2003; Vrasidas, 2000). This interactivity encompasses various forms, including learner-content, learner-learner, learner-instructor, and learner-interface interactions (Chou, 2003; Hillman, Willis, & Gunawardena, 1994). Learner-content interaction allows students to engage with course materials, essential for understanding



educational content (Wang, 2007). Meanwhile, learner-learner and learner-instructor interactions involve communication for information sharing, negotiation, and knowledge construction (Liaw & Huang, 2000; Moallem, 2003). Despite differences in power dynamics, these interactions foster social and interpersonal communication among learners (Liaw & Huang, 2000; Moallem, 2003). Additionally, learner-interface interaction refers to how learners interact with the computer interface to access course content (Lohr, 2000). While pedagogical design is crucial, interface design supports the usability of computer-based learning environments (Lohr, 2000). Teachers play a vital role in facilitating interactive discussions that promote critical thinking and collaboration among students, fostering an engaging and participatory learning environment.

### *Hands-on Activities*

The hands-on activities learning model, also known as inquiry learning, empowers students to discover understanding through their own explorations, guided by the teacher's proposed concepts (Paul, 2017). This approach encourages creativity and critical thinking as students engage in group work, experiments, and discovery (Paul, 2017). By actively participating in hands-on activities, students gain psychomotor skills, knowledge comprehension, and positive attitudes (Kartono, 2010). Kartono (2010) highlights that this model involves students in information gathering, questioning, data collection, analysis, and conclusion-making, allowing them to construct their own thoughts and findings without feeling burdened but instead motivated and engaged. Furthermore, Wena (2012) emphasizes that hands-on activities enable students not only to observe and listen but also to interact directly with the subject matter, providing them with firsthand experiences to address learning challenges effectively. By integrating hands-on activities into the curriculum, students can bridge theoretical knowledge with practical application, whether through experiments, simulations, or collaborative projects, fostering experiential learning and a deeper understanding of concepts.

### *Group Investigation*

The group investigation learning model involves organizing students into small groups to plan and execute their learning process independently, while the hands-on activities model incorporates tangible objects to stimulate students' understanding of the material. In the implementation of learning with the group investigation based on hands-on activities model, the following steps are followed 1) Identifying topics and forming student groups based on their interests, 2) Providing students with teaching aids such as pictures and videos to enhance understanding of the material, 3) Collaboratively planning learning tasks within each group, including defining investigation objectives and individual responsibilities, 4) Conducting the investigation by gathering information, analyzing data, and drawing conclusions, utilizing teacher-provided materials and worksheets. 5) Compiling a final report outlining key findings and presentation plans, assigning roles within the group to coordinate the presentation. 6) Delivering the final presentation to the entire class, with presentation order randomly determined to ensure readiness and engagement from all groups. 7) Engaging in peer evaluation and feedback-sharing sessions to assess understanding, creativity, and critical thinking skills.

This approach emphasizes student centered learning, active participation, and collaborative knowledge construction, fostering a deeper understanding of concepts and promoting essential skills development (Ambarita et al., 2019).

### *Problem-Solving Tasks*

Understanding the nature of a problem and the steps required to solve it is crucial for finding suitable solutions. However, how a problem is presented and mentally processed can affect this understanding. Factors like the wording of the problem can contribute to comprehension difficulties (Baker & Brown, 1984; Bransford, Sherwood, Vye, & Rieser, 1986; Markman, 1985). While formal problem-solving processes are essential, students often solve problems without explicit techniques, especially if they have prior experience (Shuell, 2015).

Problem-solving in classrooms involves diverse and complex goals for teachers and students. Teachers focus on instructional delivery, classroom management, while students prioritize assignments and understanding new material. Affective factors like self-concept maintenance and fear of failure also influence problem-solving (Shuell, 2015). To effectively solve problems, specific skills are required, including problem identification, information evaluation, and strategy implementation. Explicit instruction in these skills is crucial for enhancing problem-solving abilities (Shuell, 2015).

### *Role-Playing*

Engaging in multi-stakeholder interactions is a vital skill for humanities and social sciences students in today's interconnected world. Role play methods effectively develop understanding of professional complexities and negotiation skills within classrooms. These activities can be adapted with online and face-to-face elements and adjusted based on learning objectives. This guide focuses on role play techniques for tertiary-level social science education.

In classroom role plays, students assume stakeholder roles in simulated scenarios, selected by the teacher to illustrate key theories or concepts. Preparatory readings and assigned roles facilitate immersion in the learning process. Interaction formats vary, and a debriefing stage reinforces learning post-role play (Manorom & Pollock, 2006).

As noted by Brierley, Devonshire, and Hillman (2002), role plays foster functioning knowledge, including theoretical understanding, practical skills, and application in specific contexts. They create immersive environments, offering insights into complex issues and developing practical skills. Role plays can incorporate diverse formats, online or face-to-face, considering available resources and time constraints. The subsequent section will outline steps for designing and executing effective role play activities tailored to specific learning objectives, engaging students in meaningful learning experiences.

## **CONCLUSION**

Critical pedagogy, rooted in Freire's ideology, stands as a powerful approach to education aimed at fostering social justice and liberation. The research reviewed underscores its importance in empowering individuals to challenge societal norms and cultivate critical consciousness. However, further study is warranted to deepen our understanding and enhance its practical application. Suggestions for further research is making exploration of critical pedagogy in diverse contexts like investigate how critical pedagogy can be adapted to meet the needs of diverse cultural and socio-economic student populations. Understanding its effectiveness in different contexts can inform inclusive educational practices. Beside that examine the impact of critical pedagogy on student outcomes, such as academic achievement, critical thinking skills, and civic engagement. This research can provide insights into its effectiveness as an educational approach. By addressing these areas of inquiry, researchers

can contribute to advancing our understanding of critical pedagogy and its implications for creating inclusive, empowering, and socially just educational environments.

## **REFERENCES**

- Aksakalli, A. (2018). The Effects of Science Teaching based on Critical Pedagogy Principles on the Classroom Climate. *Science Education International*, 29(4), 250–260.
- Ambarita, R. A., Yunastiti, & Indriayu, M. (2019). The Application of Group Investigation Based on Hands-on Activities to Improve Learning Outcomes Based on Higher Order Thinking Skills of Students at SMA Negeri 2 Pematangsianta. *Budapest International Research and Critics in Linguistics and Education (BirLE)*
- Ares, N. (2006). Political aims and classroom dynamics: Generative processes in classroom communities. *Radical Pedagogy*, 8(2), 12-20.
- Baker, L., & Brown, A.L. (1984). Metacognitive skills and reading. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 353-394). New York: Longman.
- Barron, B., & Darling-Hammond, L. (2008). Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning. In L. Darling-Hammond et al. (Eds.), *Powerful Learning: What We Know About Teaching for Understanding*. San Francisco, Calif., Jossey-Bass/John Wiley & Sons.
- Beardsley, M., Albó, L., Aragón, P., & Hernández-Leo, D. (2021). Emergency education effects on teacher abilities and motivation to use digital technologies. *British Journal of Educational Technology*.
- Biletska, I. O., Paladieva, A. F., Avchinnikova, H. D., & Kazak, Y. Y. (2021). The use of modern technologies by foreign language teachers: Developing digital skills. *Linguistics and Culture Review*, 5(S2), 16–27.
- Bilotta, E., Bertacchini, F., Gabriele, L., Giglio, S., Pantano, P. S., & Romita, T. (2021). Industry 4.0 technologies in tourism education: Nurturing students to think with technology. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 29, 100275.
- Bransford, J., Sherwood, R., Vye, N., & Rieser, J. (1986). Teaching thinking and problem solving: Research foundations. *American Psychologist*, 41, 1078-1089.
- Brierley, Gary; Devonshire, Liz and Hillman, Mick; “Learning to Participate: Responding to Changes in Australian Land and Water Management Policy and Practice”, in *Australian Journal of Environmental Education*, vol. 18, 2002, pp. 7-13.
- Camilleri, M. A., & Camilleri, A. C. (2017). Digital learning resources and ubiquitous technologies in education. *Technology, Knowledge and Learning*, 22(1), 65–82.
- Cavas, B., Cavas, P., Karaoglan, B., & Kisla, T. (2009). A study on science teachers’ attitudes toward information and communications technologies in education. *Online Submission*, 8(2).
- Chou, C. (2003). Interactivity and interactive functions in web-based learning systems: A technical framework for designers. *British Journal of Educational Technology*, 34(3), 265–279.
- Crawford-Lange, L. M. (1982). Curricular alternatives for second-language learning, in T. V. Higgs (Ed.) *Curriculum Competence and the Foreign Language Teacher*. Skokie: National Textbook Company.

- Degener, S. (2001). Making sense of critical pedagogy in adult literacy education. In J. Comings, B. Garner, & C. Smith (Eds.), *Review of adult learning and literacy* (pp. 26-62). San Francisco: Jossey-Bass.
- Dewey, J. (1963). *Experience and Education*. New York: Collier Books.
- Dreimane, S., & Upenieks, R. (2022). Intersection of serious games and learning motivation for medical education: A literature review. In *Research Anthology on Developments in Gamification and Game-Based Learning* (pp. 1938–1947).
- Emmanuel, G., & Sife, A. (2008). Challenges of managing information and communication technologies for education: Experiences from Sokoine National Agricultural Library. *International Journal of Education and Development using ICT*, 4(3).
- Freire, P. (1973). *Education for Critical Consciousness*. Seabury Press.
- Freire, P. (1998). *Teachers as Cultural Workers: Letters to Those Who Dare to Teach*. Westview Press.
- Freire, P. (2014). *Pedagogy of commitment* (Terjemahan oleh D. Brookshaw & A. Oliveira). Paradigm Publishers.
- Freire, P. (2004). *Pedagogy of indignation*. Paradigm Publishers.
- Gijsbers, G., & van Schoonhoven, B. (2012). The future of learning: A foresight study on new ways to learn new skills for future jobs. European Foresight Platform (EFP) Brief, No. 222. [www.foresight-platform.eu/wp-content/uploads/2012/08/EFPBrief-No.-222\\_Future-of-Learning.pdf](http://www.foresight-platform.eu/wp-content/uploads/2012/08/EFPBrief-No.-222_Future-of-Learning.pdf)
- Gilbert, L., & Moore, D. R. (1998). Building interactivity into web courses: Tools for social and instructional interaction. *Educational Technology*, 3(83), 29–35.
- Giroux, H. A. (1997). *Pedagogy and the Politics of Hope: Theory, Culture, and Schooling*. A Critical Reader. Westview Press.
- Giroux, H. A., & McLaren, P. (1992). Writing from the margins: Geographies of identity, pedagogy, and power. *Journal of Education*, 174(1), 7-30.
- Haddad, W. D., & Draxler, A. (2002). The dynamics of technologies for education. In *Technologies for Education Potentials, Parameters, and Prospects* (Vol. 1, pp. 2–17).
- Hillman, D.C., Willis, D.J., & Gunawardena, C.N. (1994). Learner-interface interaction in distance education: An extension of contemporary models and strategies for practitioners. *The American Journal of Distance Education*, 8(2), 30–42.
- I Gusti Ayu Sundari Meyanti, Putu Kerti Nitiasih & Putu Nanci Riastin. (2022). Analysis of Implementation Critical and Cyber Pedagogy: A Review. *Synesis*, 15(2). ISSN 1984-6754. © Universidade Católica de Petrópolis, Rio de Janeiro, Brasil.
- Kartono. (2010). Hands on activity pada pembelajaran geometri sekolah sebagai assesmen kinerja siswa. *Jurnal Matematika Kreatif-Inovatif*.
- Kaya, C., & Kaya, S. (2017). Perspective teachers' education belief and their views about the principles of critical pedagogy. *Journal of Education and Learning*, 6(4), 181-190.
- Keengwe, J., & Bhargava, M. (2014). Mobile learning and integration of mobile technologies in education. *Education and Information Technologies*, 19(4), 737–746.
- Kincheloe, J. L. (2005). *Critical Pedagogy Primer*. Peter Lang Publishing.

- Kincheloe, J. L., & McLaren, P. (1994). Rethinking critical theory and qualitative research. In: N. Denzin, and Y. Lincoln (Eds.), *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage, pp. 138-157.
- Kostopoulos, G., & Kotsiantis, S. (2022). Exploiting semi-supervised learning in the education field: A critical survey. In *Advances in Machine Learning/Deep Learning-Based Technologies* (pp. 79–94).
- Leadbeater, C., & Wong, A. (2010). *Learning from the Extremes: A White Paper*. San Jose, Calif., Cisco Systems Inc.
- Learnovation. (2009). Inspiring Young People to Become Lifelong Learners in 2025. Vision Paper 1. Brussels, MENON, pp. 1-12. [www.menon.org.gr/wp-content/uploads/2012/10/Learnovation-Vision-Paper-1\\_Learning-at-School-Ages1.pdf](http://www.menon.org.gr/wp-content/uploads/2012/10/Learnovation-Vision-Paper-1_Learning-at-School-Ages1.pdf)
- Liaw, S. S., & Huang, H. M. (2000). Enhancing interactivity in web-based instruction: A review of the literature. *Educational Technology*, 40(3), 41–45.
- Lohr, L.L. (2000). Designing the instructional interface. *Computers in Human Behavior*, 16(2), 161–182.
- Mahmoodarabi, M., & Khodabakhsh, M. R. (2015). Critical pedagogy: EFL teachers' views, experience and academic degrees. *English Language Teaching*, 8(6), 100–110. <https://doi.org/10.5539/elt.v8n6p100>
- Mahmoudi, A., Khoshnood, A., & Babael, A. (2014). Paulo Freire's critical pedagogy and its implication in curriculum planning. *Journal of Education and Practices*, 5(14), 86-92.
- Manorom, K., & Pollock, Z. (2006). *Role Play as a Teaching Method: A Practical Guide*. The Mekong Learning Initiative and the Mekong Sub-region Social Research Centre, Faculty of Liberal Arts, Ubon Ratchathani University.
- Markman, E.M. (1985). Comprehension monitoring: Developmental and educational issues. In S.F. Chipman, J.W. Segal, & R. Glaser (Eds.), *Thinking and learning skills: Vol. 2. Research and open questions* (pp. 275-291). Hillsdale, NJ: Erlbaum.
- McLaren, P. (1998). Che: The pedagogy of Che Guevara: Critical pedagogy and globalization thirty years after Che. *Cultural Circles*, 3, 29–103.
- Moallem, M. (2003). An interactive online course: A collaborative design model. *Educational Technology Research and Development*, 51(4), 85–103.
- Nanjundaswamy, C., Baskaran, S., & Leela, M. H. (2021). Digital Pedagogy for Sustainable Learning. *Shanlax International Journal of Education*, 9(3), 179–185.
- Nurhabibah, & Richardus Eko Indrajit. (2021). *Cyber Pedagogy: Pendampingan Guru yang Tepat di Era Digital*. Yogyakarta: Penerbit Andi.
- Ohara, Y., Saft, S., & Crookes, G. (2000). Teacher Exploration of Feminist Critical Pedagogy in Beginning Japanese as a Foreign Language Class. Paper presented at the University of Hawai'i, Manoa.
- Okazaki, T. (2005). Critical consciousness and critical language teaching. *Second Language Studies*, 23(2), 174-202.
- Özaydınlık, K. P., & Sağlık, M. A. (2021). Teachers' approaches to the principles of critical pedagogy: A mixed-method study. *Psycho-Educational Research Reviews*, 10(2), 126–141.

- Paul, S. (2017). *Filsafat Konstruksivisme dalam Pendidikan*. Yogyakarta: Kanisius.
- Pikhart, M., Al-Obaydi, L. H., & Tawafak, R. M. (2022). The Implementation of Critical Pedagogy in Digital Second Language Acquisition in Higher Education: Age and Gender Differences. *Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, 23(2), 56-75.
- Punie, Y., & Cabrera, M. (2006). *The Future of ICT and Learning in the Knowledge Society: Report on a Joint DGJRC-DG EAC Workshop held in Seville, 20-21 October 2005*. Luxembourg, Office for Official Publications of the European Communities.
- Qureshi, M. I., Khan, N., Raza, H., Imran, A., & Ismail, F. (2021). Digital Technologies in Education 4.0. Does it Enhance the Effectiveness of Learning? *International Journal of Interactive Mobile Technologies*, 15(4).
- Redecker, C., Ala-Mutka, K., & Punie, Y. (2010). *Learning 2.0 – The Impact of Social Media on Learning in Europe: Policy Brief*. JRC Technical Notes. Luxembourg, Office for Official Publications of the European Communities.
- Rogers, P. L. (2000). Barriers to adopting emerging technologies in education. *Journal of Educational Computing Research*, 22(4), 455–472.
- Saavedra, A., & Opfer, V. (2012). *Teaching and Learning 21st Century Skills: Lessons from the Learning Sciences*. A Global Cities Education Network Report. New York, Asia Society.
- Schugurensky, D. (2014). *Paulo Freire*. Bloomsbury Publishing.
- Shuell, T. J. (2015). *Teaching and learning as problem solving*. Theory Into Practice.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R & D*. IKAP.
- Uddin, M. S. (2019). Critical Pedagogy and its Implication in the Classroom. *Journal of Underrepresented and Minority Progress*, 3(2), 109-119. Retrieved from
- Vakaliuk, T. A., Spirin, O. M., Lobanchykova, N. M., Martseva, L. A., Novitska, I. V., & Kontsedailo, V. V. (2021, March). Features of distance learning of cloud technologies for the quarantine organisation's educational process. *Journal of Physics: Conference Series*, 1840(1), 012051.
- Vrasidas, C. (2000). Constructivism versus objectivism: Implications for interaction, course design, and evaluation in distance education. *International Journal of Educational Telecommunications*, 6(4), 339–362.
- Wang, Q.Y. (2007). Evaluation of online courses developed in China. *Asian Journal of Distance Education*, 5(2), 4–12. Retrieved April 15, 2008, from link
- Wena, M. (2012). *Strategi Pembelajaran Inovatif Kontemporer*. Jakarta: BumiAksara.
- Xu, S.-R., & Zhou, S.-N. (2022). The Effect Of Students ' Attitude Towards Science, Technology, Engineering, And Mathematics On 21st Century Learning Skills: A Structural EquatioN. *Journal of Baltic Science Education*, 21(4), 706–719.