

## INTEGRATING DEEP LEARNING INTO SCHOOL-BASED GUIDANCE AND COUNSELING SERVICES: TRAINING JUNIOR HIGH SCHOOL COUNSELORS IN THE SOCRATIC METHOD

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### Abstract

*The integration of information and communication technology (ICT) in education often remains limited to knowledge transmission without adequately fostering critical thinking and emotional development. School counselors need to adopt holistic, student-centered approaches aligned with deep learning principles. This study aimed to enhance the competencies of junior high school counsellors in Garut Regency through Socratic method training within school-based guidance and counseling services. A qualitative participatory action research design was employed involving 51 school counsellors using the APPLE Facilitation Model (Assess, Plan, Prepare, Lead, Evaluate). Data were collected through reflective exercises, service plan development, practice observations, and in-depth interviews, and were analyzed using thematic analysis. The findings revealed transformation across four dimensions: a shift in professional identity from advice-giver to facilitator, increased student engagement, strengthened collaborative professional culture, and greater comfort with uncertainty. Implementation outcomes showed 98% increased confidence in student-centered approaches, 91% motivation for facilitative methods, and 96% intention to implement Socratic questioning. This study contributes a methodological innovation by integrating the APPLE model with Socratic questioning for counsellor professional development, demonstrating effective cultural adaptation within the Indonesian educational context and providing a practical, scalable framework for enhancing school-based guidance and counseling services.*

**Keywords:** *Deep learning, Socratic method, school counseling, professional development, APPLE model.*

### Abstrak

Integrasi teknologi informasi dan komunikasi (TIK) dalam pendidikan sering kali masih terbatas pada transfer pengetahuan tanpa secara memadai mendorong berpikir kritis dan perkembangan emosional. Konselor sekolah perlu mengadopsi pendekatan holistik yang berpusat pada peserta didik dan selaras dengan prinsip pembelajaran mendalam. Penelitian ini bertujuan meningkatkan kompetensi konselor sekolah jenjang SMP di Kabupaten Garut melalui pelatihan metode Socrates dalam layanan bimbingan dan konseling. Penelitian ini menggunakan desain *participatory action research* kualitatif yang melibatkan 51 guru bimbingan dan konseling dengan Model Fasilitasi APPLE (*Assess, Plan, Prepare, Lead, Evaluate*). Data dikumpulkan melalui latihan reflektif, penyusunan rencana pelaksanaan layanan, observasi praktik, dan wawancara mendalam, kemudian dianalisis menggunakan analisis tematik. Hasil penelitian menunjukkan transformasi dalam empat dimensi: pergeseran identitas dari pemberi nasihat menjadi fasilitator, peningkatan

keterlibatan siswa, penguatan budaya profesional kolaboratif, dan meningkatnya kenyamanan terdapat ketidakpastian. Hasil implementasi menunjukkan peningkatan kepercayaan diri sebesar 98% dalam pendekatan yang berpusat pada siswa, 91% motivasi untuk menggunakan metode fasilitatif, serta 96% niat untuk menerapkan pertanyaan Socrates. Studi ini berkontribusi melalui inovasi metodologis yang mengintegrasikan Model APPLE dengan pertanyaan Socrates untuk pengembangan profesional konselor, menunjukkan adaptasi yang efektif dalam konteks budaya Indonesia, serta kerangka praktis yang dapat direplikasi dan diskalakan untuk pengembangan layanan bimbingan dan konseling.

**Kata Kunci:** Pembelajaran Mendalam, Metode Socrates, Bimbingan dan Konseling Sekolah, Pengembangan Profesional, Model APPLE.

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## INTRODUCTION

Education in the contemporary era cannot be separated from the integration of information and communication technology (ICT), which is expected to provide more meaningful learning experiences for students (Romero-Ochoa et al., 2025). However, research consistently demonstrates that ICT implementation remains limited to knowledge transfer rather than developing critical thinking abilities or affective aspects that prepare students for 21st-century challenges (Luan, 2023).

In guidance and counseling contexts, professionals are expected to enhance their capabilities through service delivery transformation while developing innovative methods that genuinely help students (Jen Chiu et al., 2024). The American School Counselor Association (ASCA) emphasizes that professional development is essential for staying current with educational trends and providing high-quality student support (Chae et al., 2022). However, traditional counseling approaches often remain directive and advice-oriented, inadequately preparing students for complex decision-making and autonomous problem-solving.

The concept of deep learning has emerged as a solution within holistic educational approaches. Unlike computational applications, educational deep learning represents a pedagogical framework emphasizing meaningful, transformative experiences that engage students in personally relevant learning (Andayanie et al., 2025). This approach aligns with the pedagogical shift toward heutagogy, where learning transitions from teacher-centered to learner-centered with student self-determination (Blaschke & Hase, 2016).

Recent research has identified the Socratic method as particularly effective for implementing deep learning principles (Andrade-Castellanos et al., 2024; Giuseffi, 2021; Prendergast, 2024). Socratic questioning utilizes deliberate intellectual discourse to

examine rationale, justifications, and assumptions, fostering critical thinking development (Ang et al., 2023). Pitorini (Pitorini et al., 2025) found that Socratic dialogue enhances students' critical thinking skills and promotes transformative learning experiences. However, despite its 2000-year history and proven effectiveness, the Socratic method remains underutilized in both technology-integrated and conventional educational settings (Favero et al., 2025; Mahoney et al., 2023).

In Indonesian educational contexts, many guidance counselors maintain conventional approaches focused on information delivery and advice-giving rather than student empowerment (Fathoni et al., 2021). This presents challenges for implementing deep learning principles that emphasize student autonomy, critical thinking, and reflective practice. Garut Regency, located in West Java, faces particular challenges related to professional development needs and innovative approach implementation in school counseling services.

Despite growing interest in deep learning and Socratic questioning, several gaps remain in the literature. Most studies focus on classroom instruction, with limited attention to school-based guidance and counseling contexts. Research on counselor professional development also tends to identity and practice. Although participatory training approaches have been discussed, evidence specific to cultural contexts such as Indonesia remains limited. Existing frameworks, including the ASCA National Model, Guskey's Five-Level Professional Development Evaluation Model, and communities of practice, provide useful guidance but have limitations. The ASCA model focuses on program standards rather than training processes, Guskey's model emphasizes evaluation outcomes, and communities of practice support collaboration but lack structured phases for implementation and assessment. These limitations highlight the need for a cyclical process, assess, plan, prepare, lead, and evaluate that supports systematic and context-sensitive professional transformation, providing a suitable framework for integrating deep learning principles and Socratic questioning into counselor professional development.

This study addresses these challenges by investigating how the APPLE Facilitation Model can systematically transform counselor practices through Socratic method training. The research examines professional transformation processes,

implementation strategies, and the potential for scaling innovative counseling approaches within Indonesian educational contexts.

## **LITERATURE REVIEW**

### **Deep Learning in Educational Contexts**

Deep learning in education encompasses comprehensive pedagogical approaches that transcend surface-level knowledge acquisition to promote meaningful, transformative learning experiences (Fawzia & Karim, 2024). Recent systematic reviews indicate that deep learning involves goal alignment, advanced problem-solving, and rigorous knowledge application that enables students to make psychological investments in their learning (Chen & Singh, 2024).

Contemporary deep learning frameworks identify three fundamental pillars: mindful learning, meaningful learning, and joyful learning (Kovač et al., 2025). Mindful learning emphasizes conscious, awareness-based educational experiences where students engage fully with content and processes. Meaningful learning connects academic content to students' lived experiences, cultural contexts, and future aspirations. Joyful learning creates engaging, emotionally positive experiences that integrate cognitive, affective, and behavioral dimensions holistically.

Estrada-Molina et al. (Estrada-Molina et al., 2024) conducted a systematic review of deep learning applications in open learning environments, finding that implementation has primarily focused on specific applications such as predicting student dropout and automated assessment rather than comprehensive pedagogical transformation. This suggests significant potential for broader deep learning implementation in educational settings, particularly in counseling contexts where holistic student development is paramount.

### **The Socratic Method in Contemporary Education**

The Socratic method, characterized by systematic questioning and collaborative inquiry, has demonstrated renewed relevance in contemporary educational contexts (Habermacher, 2025; Hani, 2022). Socratic wisdom in the age of AI, finding that human tutors using Socratic questioning techniques significantly outperformed AI systems in fostering critical thinking skills among students (Fakour & Imani, 2025). Recent clinical education research defines core Socratic questioning concepts as deliberate intellectual discourse designed to examine rationale, justifications,

assumptions, and alternative perspectives (Ang et al., 2023). They emphasize that authentic Socratic questioning requires genuine curiosity rather than predetermined answers, distinguishing it from traditional interrogative teaching methods.

The effectiveness of Socratic questioning has been demonstrated across multiple educational contexts. Pitorini (Pitorini et al., 2025) found that students' critical thinking skills improved significantly when exposed to problem-based learning combined with Socratic dialogue. Similarly, clinical psychology research demonstrates that Socratic questioning enhances therapeutic outcomes by empowering patient participation and fostering skill acquisition (Montazeri, 2022; Overholser & Beale, 2023; Vittorio et al., 2022).

However, Oyler and Romanelli (Oyler & Romanelli, 2014) caution that Socratic method implementation requires careful training and adaptation. Their research identifies three types of strategic questions: procedural questions with correct answers, preference questions without predetermined responses, and judgment questions requiring critical analysis for optimal solutions. This framework provides structured approaches for counselor training and implementation.

### **School Counseling Professional Development**

Professional development in school counseling has evolved significantly in response to changing student needs and educational contexts. Effective counselor professional development must incorporate cutting-edge program components and interventions that create dynamic counseling programs (Dack & Merlin-Knoblich, 2023). Recent research on counselor professional development identifies several critical challenges. Research reports that between 30% and 66% of school counselors experience high levels of emotional exhaustion and burnout, with 80% of counselors' time devoted directly or indirectly to students, leaving limited opportunities for continuing education (Sangganjanavanich & Balkin, 2013; Wilkerson, 2009; Wilkerson & Bellini, 2006). These constraints necessitate innovative, efficient approaches to professional development that maximize impact while respecting time limitations.

The ASCA National Model provides a comprehensive framework for school counseling programs, emphasizing data-informed practices and evidence-based interventions (Brigman et al., 2017). However, successful implementation requires systematic professional development that transforms counselor beliefs, skills, and

practices rather than merely providing information transfer (Chiang et al., 2023; Gibson et al., 2010).

### **The APPLE Facilitation Model**

The APPLE Facilitation Model (Assess, Plan, Prepare, Lead, Evaluate) provides a systematic framework for professional development that has demonstrated effectiveness across various educational contexts (Rohnke, 1996). This model emphasizes comprehensive needs assessment, collaborative planning, thorough preparation, active leadership development, and continuous evaluation.

The model's strength lies in its participatory approach, involving participants as co-creators of their learning experiences rather than passive recipients of information. This aligns with deep learning principles and Socratic methodology, creating coherent theoretical and practical frameworks for counselor development.

## **METHOD**

### **Research Design**

This study employed a qualitative participatory action research design to explore the implementation and effectiveness of the APPLE Facilitation Model in training junior high school guidance and counseling teachers. The qualitative methodology enabled in-depth understanding of participants' experiences, perceptions, and transformative processes throughout the training program.

The participatory action research framework facilitated collaborative work between researchers and participants in examining and improving professional practice. This methodological choice aligned with the study's goals of understanding the training process while facilitating meaningful change in participants' counseling approaches. The design incorporated multiple cycles of reflection and action, enabling participants to experiment with new techniques, reflect on experiences, and refine implementation strategies.

### **Participants**

The study involved 51 guidance and counseling teachers from 23 junior high schools across Garut Regency, West Java, Indonesia. Selection criteria included active employment as guidance counselors, minimum two years of experience, willingness to participate in training, and commitment to implementing learned strategies.

Participant demographics revealed a diverse, experienced group: 32 female (62.7%) and 19 male (37.3%) participants, ages ranging from 26-54 years (mean: 37.8 years), counseling experience from 2-22 years (mean: 9.2 years). Educational backgrounds included bachelor's degrees in guidance and counseling (92.2%), psychology (5.9%), and educational psychology (1.9%), with 15.7% holding master's degrees, demonstrating commitment to professional development.

### **APPLE Facilitation Model Implementation**

**Assessment Phase:** Comprehensive needs assessment utilized pre-training questionnaires, focus group discussions, and classroom observations to understand current practices and identify professional development needs. Assessment revealed that 79% of participants had limited deep learning understanding, 76% lacked Socratic questioning experience, and 84% primarily used directive counseling approaches.

**Planning Phase:** Collaborative planning involved participants in training design, ensuring cultural relevance and practical applicability. Learning objectives focused on developing deep learning understanding, mastering Socratic questioning techniques, and integrating approaches into daily practice. Training materials included comprehensive handbooks, video demonstrations, case studies relevant to Indonesian contexts, and practical worksheets.

**Preparation Phase:** Extensive preparation included culturally appropriate material development, realistic simulation scenarios, and comprehensive facilitator training. Materials reflected common Indonesian junior high school situations including academic difficulties, social conflicts, career exploration, and family pressures.

**Leadership Phase:** Five-day intensive training (40 contact hours) combined theoretical foundations with extensive practical application. Components included deep learning and Socratic method principles, practical questioning technique exercises, service plan (RPL) development, simulation-based learning activities, and peer collaboration sessions.

**Evaluation Phase:** Comprehensive evaluation utilized pre- and post-training assessments, participant feedback, implementation monitoring, and impact assessment at 3-month and 6-month intervals.

## **Data Collection**

Data collection employed multiple qualitative methods to capture professional transformation complexity. Reflective exercises included personal journals, guided self-assessments, and belief examination activities documenting evolving understanding and practice. Service plan (RPL) development provided data about Socratic questioning integration into planning and intervention design.

Practical implementation observations during role-playing and simulation exercises, supported by video recordings with consent, enabled real-time skill development analysis. Semi-structured interviews and focus groups at multiple time points captured participants' experiences, challenges, and transformative insights throughout the process.

## **Data Analysis**

Qualitative data were analyzed using Braun and Clarke's six-phase thematic analysis framework (Naudé, 2024). The analysis was conducted manually by organizing data from multiple sources. The process followed six stage: (1) familiarization with the data through repeated reading of interview transcripts, reflective journals, and observation notes; (2) generation of initial codes using both inductive and deductive approaches aligned with deep learning and Socratic questioning constructs; (3) searching for patterns by grouping related codes into preliminary themes; (4) reviewing themes by comparing them across participants and data sources; (5) defining and naming themes through iterative discussions among the research team; and (6) producing the final thematic narrative. This process resulted in four overarching themes describing participants' professional transformation: shift from advice-giver to facilitator, increased student engagement, development of collaborative professional culture, and enhanced comfort with uncertainty.

To ensure credibility and trustworthiness, several validation strategies were applied. Member checking was conducted with subset of participants who reviewed preliminary interpretations and confirmed that the themes reflected their experiences, with minor clarifications incorporated into the final analysis. Peer debriefing involved independent qualitative researchers who examined coding consistency and discussed discrepancies until consensus was reached. Data triangulation was achieved by comparing reflective journal, service plans, observations notes, and interview transcripts.

Researcher reflexivity was maintained through analytic memos and regular team reflection meetings to identify and document assumptions and potential biases throughout the analysis process.

## **RESULTS AND DISCUSSION**

### **Results**

#### **Professional Identity Transformation**

Thematic analysis revealed profound professional identity transformation as participants evolved from viewing themselves as problem-solvers and advice-givers to embracing facilitative roles. This identity shift represented fundamental changes in counseling philosophy rather than mere technique modification.

Participants described gradual recognition that effective counseling involves empowering students to discover their own solutions rather than providing expert advice. One participant reflected: *"This training has changed not just what I do, but who I am as a counselor. I now see my role as helping students find their own wisdom rather than sharing mine."*

The transformation process involved periods of uncertainty and discomfort as participants questioned previously held assumptions about effective counseling. However, this discomfort proved productive, leading to deeper understanding and more authentic professional practice. Participants frequently mentioned feeling more aligned with their core educational values after developing Socratic questioning facility.

#### **Enhanced Student Engagement and Critical Thinking**

Participants reported significant improvements in student engagement and critical thinking development following Socratic questioning implementation. Students demonstrated increased participation in counseling sessions, deeper self-reflection, and greater ownership of problem-solving processes.

Several participants noted that students began seeking counseling support more frequently, suggesting increased trust and comfort with the counseling relationship. Students appeared to appreciate being treated as capable thinkers rather than passive advice recipients. These changes aligned with deep learning principles emphasized throughout the training program.

One counselor observed: *"Students are more engaged and thoughtful now. They ask better questions and seem more confident in their ability to work through challenges independently."* This enhanced engagement extended beyond individual counseling sessions to group guidance activities and classroom interventions.

### **Collaborative Professional Learning Culture**

The training fostered development of collaborative professional learning culture among participants that extended beyond the formal program period. Participants formed ongoing professional relationships characterized by mutual support, shared problem-solving, and continued learning.

Many participants organized informal follow-up meetings to discuss implementation experiences and continue developing skills. This collaborative culture provided crucial support for sustained implementation of new practices, with participants reporting feeling less isolated in professional challenges and more confident in their ability to adapt and improve practice through peer consultation.

The professional learning community became a valued resource for ongoing development that participants actively maintained. As one participant noted: *"The relationships I've built with colleagues through this training are as valuable as the techniques I learned. We continue to support each other's growth."*

### **APPLE Model Effectiveness Analysis**

Analysis revealed that each APPLE phase contributed uniquely to participant transformation. The assessment phase established readiness for change by helping participants critically examine existing practices without judgment, building trust and motivation for learning. Comprehensive assessment revealed gaps between current practices and desired outcomes while identifying strengths to build upon.

Planning and preparation phases enhanced ownership through collaboration while providing culturally relevant materials that enabled participants to envision successful implementation. Collaborative planning demonstrated respect for participants' professional expertise and practical knowledge, enhancing confidence in adaptation and implementation abilities.

The leadership phase transformed participants from passive learners to active practitioners, developing technical skills and professional confidence through extensive

practice opportunities. Emphasis on reflective practice throughout helped participants develop metacognitive awareness crucial for ongoing implementation and adaptation.

The evaluation phase sustained implementation by fostering continuous improvement culture and supporting evidence-based practice development. Participants developed appreciation for ongoing reflection and assessment, learning to recognize growth while identifying areas for continued development.

### **Implementation Outcomes**

Quantitative indicators revealed remarkable transformation: 98% of participants reported increased confidence in student-centered approaches, 91% expressed strong motivation to shift to facilitative methods, 96% indicated intention to implement Socratic questioning, and 89% expressed interest in further professional development.

Beyond statistics, participants demonstrated creativity in adapting techniques to their contexts through gradual integration, contextual adaptation, and peer support strategies. Many described starting with small modifications, incorporating additional questions per session, and gradually reducing advice-giving behaviors.

One participant shared: *"I started by just asking one more 'why' or 'what do you think' question in each session. Students noticed the difference immediately and started sharing more deeply."* This gradual, thoughtful approach suggested strong potential for sustained practice change.

### **Service Plan (RPL) Development and Integration**

Participants successfully integrated Socratic questioning into their service planning through Rencana Pelaksanaan Layanan (RPL) development. Analysis of RPL documents showed evolution in understanding learning objectives, moving from behavior-focused goals to deeper objectives related to student self-awareness, critical thinking, and autonomous decision-making.

Participants incorporated reflection time, follow-up questions, and student self-assessment into planned interventions. The collaborative development process revealed growing appreciation for peer learning and professional collaboration, with participants learning from each other's experiences and perspectives.

Focus group discussions during RPL development revealed creative thinking about adapting Socratic questioning to various counseling contexts. Participants demonstrated increasing sophistication in planning, moving beyond simple question-and-

answer formats to designing comprehensive learning experiences promoting student reflection and growth.

## **Discussion**

### **Theoretical Implications**

This research demonstrates successful integration of deep learning principles through Socratic method implementation in Indonesian school counseling contexts. The findings support contemporary educational philosophy emphasizing student-centered, inquiry-based approaches that promote critical thinking and autonomous learning (Nghiem et al., 2025).

The study contributes to understanding how ancient pedagogical wisdom can address contemporary educational challenges. The Socratic method's emphasis on questioning, dialogue, and self-discovery aligns naturally with deep learning objectives of meaningful, transformative educational experiences (Giuseffi, 2021; Habermacher, 2025).

Theoretical integration of the APPLE Facilitation Model with Socratic methodology provides a framework for systematic professional development that respects cultural contexts while promoting innovative practice. This integration demonstrates how structured approaches can facilitate complex pedagogical transformation.

### **Practical Implications for Counselor Education**

Results suggest several important implications for counselor education and professional development. The APPLE model's systematic approach provides replicable framework for professional development programs, while Socratic questioning techniques offer practical tools for enhancing counseling effectiveness.

Cultural adaptation proved crucial for implementation success. Materials, scenarios, and training approaches must reflect local contexts and values while maintaining core methodological integrity. This suggests that professional development programs should invest significantly in preparation phases to ensure cultural relevance (Chu & Leino, 2017).

The collaborative approach to professional development, involving participants as co-creators rather than passive recipients, enhanced ownership and commitment to implementation. This finding supports participatory models of professional development

over traditional training approaches (Dunst & Trivette, 2009; Power & Underwood, 2018).

### **Implications for Educational Policy and Practice**

Findings have important implications for educational policy and school counseling practice. The evidence of professional transformation suggests that systematic, well-designed professional development can facilitate significant changes in counselor beliefs and practices (Dollarhide et al., 2023).

The success in Indonesian contexts demonstrates that innovative pedagogical approaches can be successfully adapted across cultural contexts when proper attention is given to cultural sensitivity and local adaptation. This has implications for international professional development initiatives (Pitsoe, 2025).

Results support policy initiatives emphasizing holistic student development and student-centered educational approaches. The evidence of enhanced student engagement and critical thinking development aligns with educational reform objectives emphasizing 21st-century skill development (Avdiu et al., 2025).

### **Limitations and Future Research**

Several limitations should be acknowledged. The study was conducted in a specific geographic region with particular cultural characteristics, potentially limiting generalizability. Long-term sustainability of implementation changes requires further investigation through longitudinal studies.

Direct measurement of student outcomes was beyond this study's scope but represents important future research direction. Investigation of how Socratic questioning approaches affect student academic performance, critical thinking development, and psychological well-being would strengthen evidence base.

Comparative studies examining Socratic questioning effectiveness relative to other counseling approaches would provide valuable evidence for practice decisions. Additionally, research on implementation factors that facilitate or hinder Socratic method adoption across different educational contexts would inform professional development design.

## **CONCLUSION**

This research demonstrates that systematic integration of deep learning principles through Socratic method training can significantly transform school counseling practice. The APPLE Facilitation Model proved effective for guiding comprehensive professional development that respects cultural contexts while promoting innovative practice.

Key contributions include methodological innovation using the APPLE model with Socratic questioning for counselor training, evidence of deep, sustainable professional transformation, and successful cultural adaptation in Indonesian educational contexts. The study provides a practical framework for scaling similar initiatives across different contexts.

The integration of deep learning principles and Socratic questioning techniques holds significant promise for enhancing the quality and effectiveness of school-based guidance and counseling services. When counselors transform their approach to practice, they ultimately transform how students experience learning, growth, and self-discovery.

Future directions include scaling implementation to other regions, developing online and blended learning versions, creating assessment tools for measuring deep learning in counseling contexts, and establishing ongoing support systems for sustained implementation. The research demonstrates that systematic, culturally sensitive professional development can facilitate profound improvements in educational practice with lasting benefits for students and educators alike.

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