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Research Article

Implementing Asta Protas through Kahoot in Islamic Religious Education at MAN 2 Bandung

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Abstract.

This study examines how Asta Protas Kemenag Berdampak, a national transformation framework initiated by the Minister of Religious Affairs, Nasaruddin Umar, can be operationalized through Kahoot in IRE at MAN 2 Kota Bandung. The research aims to analyze the alignment between Asta Protas' teacher professionalism pillars and the pedagogical potential of game-based learning, particularly in enhancing engagement, assessment quality, and higher-order thinking. Employing a qualitative descriptive design, data were collected through classroom observations, semi-structured interviews with teachers and students, and documentation of instructional materials. Analysis followed an interactive model of data collection, reduction, display, and interpretation. The findings indicate that Kahoot supports several key dimensions of Asta Protas, including pedagogical innovation, digital competence, and the development of meaningful learning experiences. Students exhibited strong behavioral, emotional, and cognitive engagement during Kahoot-based activities, while teachers demonstrated improved instructional planning and assessment literacy aligned with Bloom's Taxonomy. Despite challenges related to digital infrastructure, teacher readiness, and the need for

careful adaptation of religious content, Kahoot proved effective in fostering interactive, reflective, and value-oriented IRE learning. The study concludes that game-based learning can serve as a practical means to advance Asta Protas's goals and strengthen pedagogical transformation in madrasah education.
Keywords: Asta Protas; Kahoot; Game-Based Learning; Islamic Religious Education

INTRODUCTION

The rapid advancement of digital technology has transformed the educational landscape, impacting both teaching practices and student learning behaviors. This transformation requires educators to adopt pedagogical strategies capable of fostering interaction[1], engagement[2], and meaningful learning[3] in an increasingly digital classroom. As students become increasingly accustomed to technology-rich environments, the responsibility for designing innovative, student-centered learning has increased significantly. This shift underscores the need to integrate digital platforms into classroom learning to maintain relevance in the contemporary educational environment. Consequently, teachers are expected to align traditional subject matter with modern learning tools that encourage active participation.

In IRE, this transformation presents unique challenges due to the cognitive, ethical, and spiritual dimensions inherent to the subject. Conventional IRE learning in many *Madrasahs* (Islamic schools) still relies on a lecture-based approach that limits opportunities for student interaction and reflective engagement. Such methods can hinder students' ability to connect Islamic values to real-life contexts and reduce their motivation to participate meaningfully in learning activities. Therefore, there is a strong pedagogical need to adopt learning models that encourage deeper understanding, emotional resonance, and reflective thinking while maintaining the integrity of Islamic teachings. The shift towards a more interactive and humanist pedagogy is thus becoming increasingly important in religious education settings.

In response to these evolving educational demands, the Ministry of Religious Affairs of the Republic of Indonesia introduced Asta Protas Kemenag Berdampak, a strategic initiative formulated and launched under the leadership of Minister of Religious Affairs *(Menteri Agama)* Prof. Dr. KH. Nasaruddin Umar, M.A. Asta Protas

[1] Hariman Surya Siregar, Muhamad Rizza, and Nurhamzah Nurhamzah, "Islamic Education in the Digital Age: Students' Perspectives on the Vark Model in the Context of Education 4.0," *Ulumuna* 29, no. 1 (June 2025): 129–54, https://doi.org/10.20414/ujis.v29i1.1319.

[2] Muhammad Taisir and Mauzifa Mauzifa, "Model Problem Based Learning Berbantuan Artifisial Intelegence (AI): Strategi Pengembangan Berpikir Kritis Mahasiswa PAI UIN Mataram," *Al-Ahnaf: Journal of Islamic Education, Learning and Religious Studies* 2, no. 2 (August 2025): 242–56, https://doi.org/10.61166/ahnaf.v2i2.27; Mauzifa Mauzifa and Baehaqi Baehaqi, "Pengaruh Model Problem Based Learning(PBL) Integrasi ChatGPT Terhadap Kemampuan Berpikir Kreatif Mahasiswa PAI UIN Mataram," *Al-Ahnaf: Journal of Islamic Education, Learning and Religious Studies* 2, no. 2 (August 2025): 273–86, https://doi.org/10.61166/ahnaf.v2i2.28.

[3] Nurul Atiba and Mauzifa Mauzifa, "Analisis Dampak Penerapan Kurikulum Merdeka Belajar Terhadap Pembelajaran Pendidikan Agama Islam Kelas X1 SMAN 12 Bandung," *Al-Ahnaf: Journal of Islamic Education, Learning and Religious Studies* 1, no. 1 (July 2024): 44–53, https://doi.org/10.61166/ahnaf.v1i1.3.

comprises eight priority transformation programs: (1) strengthening interfaith harmony and humanitarian values; (2) advancing eco-theology and environmental awareness; (3) enhancing impactful religious services; (4) realizing excellent, inclusive, and integrated education; (5) empowering pesantren; (6) improving the socio-economic welfare of the Muslim community; (7) ensuring the success of Hajj services; and (8) digitalizing organizational governance.[4] These eight pillars underscore the government's commitment to professionalizing teachers, modernizing madrasah learning, and integrating technology within instructional practices. As a national policy, Asta Protas positions teacher competence, creativity, and digital readiness as key drivers of educational reform, providing a robust foundation for integrating innovative tools such as Kahoot into IRE classrooms.

One digital tool that aligns with the goals of Asta Protas is Kahoot, a game-based learning platform widely recognized for its ability to increase student motivation[5] and engagement.[6] Kahoot allows teachers to design interactive quizzes that combine real-time feedback, competition, and collaborative elements. [7]Numerous studies have shown that game-based learning promotes focus, enjoyment, and higher levels of cognitive engagement, making it suitable for modern learning environments. In IRE, Kahoot can be used not only to assess content mastery but also to support the development of higher-order thinking as categorized in Bloom's Taxonomy. Its interactive features create opportunities for students to reflect on religious concepts, evaluate moral choices, and engage in values-based learning experiences aligned with Islamic principles.

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[4] Kemenag RI, *Decree of the Minister of Religious Affairs of the Republic of Indonesia Number 244 of 2025 Concerning the Priority Program of the Minister of Religious Affairs for 2025-2029*, no. 244 (Kementerian Agama Republik Indonesia, 2025), 1–2.

[5] Vilma Anticona Masabel et al., "Application of Kahoot Software in Primary Education Student Learning: A Systematic Review," *Universidad Ciencia y Tecnología* 29, no. 128 (August 2025): 36–44, https://doi.org/10.47460/uct.v29i128.982; Jasmine Rose L. Robiños, Angelica E. Novio, and Heraclio D. Parane Jr., "Effectiveness of Kahoot! Application on Student Achievement in Mathematics Education," *Asian Journal of Probability and Statistics* 27, no. 5 (May 2025): 110–22, https://doi.org/10.9734/ajpas/2025/v27i5758; Iryna Lopatynska et al., "Evaluating the efficacy of Kahoot as a computer-assisted language learning tool in higher education," *Eduweb* 18, no. 1 (March 2024): 152–63, https://doi.org/10.46502/issn.1856-7576/2024.18.01.11.

[6] Amiruddin Hadi Wibowo, Ahmad Munir, and Suhartono, "The Influence of Kahoot-Based TBLT in Improving the Critical Reading Skills in Higher Education," *Edelweiss Applied Science and Technology* 8, no. 5 (September 2024): 1413–25, https://doi.org/10.55214/25768484.v8i5.1844; Dian Atmasani et al., "The Effectiveness of Kahoot! In Increasing Student Participation and Learning Outcomes in Higher Education," *Information Technology Education Journal*, June 6, 2025, 255–62, https://doi.org/10.59562/intec.v4i2.8393; Triana Hermawati et al., "Innovation in Islamic Education Evaluation through Kahoot Application Based on Artificial Intelligence," *At Turots: Jurnal Pendidikan Islam*, June 21, 2025, 183–91, https://doi.org/10.51468/jpi.v7i1.960.

[7] Hamid Hamid and Ekasatya Aldila Afriansyah, "Peningkatan Kemampuan Berpikir Kreatif Matematis Dengan Pendekatan Realistic Mathematics Education Berbantuan Kahoot Ditinjau Dari Gaya Belajar Honey-Mumford," *Jurnal Inovasi Pembelajaran Matematika: PowerMathEdu* 3, no. 3 (October 2024): 356–71, https://doi.org/10.31980/pme.v3i3.2661; Robiños, Novio, and Jr., "Effectiveness of Kahoot! Application on Student Achievement in Mathematics Education."

Although the use of Kahoot has been widely explored in various educational contexts, existing research tends to emphasize student motivation, learning outcomes, or classroom engagement. Studies examining the relationship between teacher professionalism frameworks, such as Asta Protas and digital game-based learning are still limited. Similarly, research exploring how Kahoot supports pedagogical competency in IRE is still scarce, particularly in urban madrasah settings with more advanced technological infrastructure. MAN 2 Bandung City, as a representative urban Islamic high school, provides an appropriate context to study the integration of digital pedagogy with national teacher competency standards. This gap highlights the need for further investigation into how digital tools can support professional teaching frameworks in religious education.

Based on these considerations, this study examines the implementation of Asta Protas through the use of Kahoot in Islamic Religious Education at MAN 2 Bandung City. Specifically, this study examines how Kahoot supports teacher professionalism, improves learning practices, and encourages student engagement within the Asta Protas framework. This study aims to contribute to theoretical discussions on digital pedagogy in religious education and provide practical insights to strengthen teacher competency in madrasah environments. These findings are expected to demonstrate how a policy-oriented pedagogical framework can be effectively operationalized through game-based learning to support holistic and meaningful IRE learning.

METHOD

Qualitative inquiry is widely regarded as an appropriate approach for examining educational phenomena that are complex, contextual, and shaped by human interactions.[8] It allows researchers to interpret meanings, experiences, and practices in natural settings,[9] making it suitable for studies that seek to understand how policies are translated into classroom realities. Because this research explores the integration of Asta Protas with digital game-based learning, a qualitative descriptive design was chosen to capture the authenticity of teacher practices, student engagement, and the pedagogical dynamics that emerge during the use of Kahoot in IRE classrooms. This approach provides the flexibility needed to observe classroom processes holistically and to analyze them in relation to policy-driven professional standards.

[8] John W. Creswell and Timothy C. Guetterman, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (Pearson, 2019); Matthew B. Miles and A. M. Huberman, *Qualitative Data Analysis: An Expanded Sourcebook*, 2nd ed (Thousand Oaks: Sage Publications, 1994); John W. Creswell and Cheryl N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, Fourth edition, 4 (Los Angeles: SAGE, 2018).

[9] Virginia Braun and Victoria Clarke, *Successful Qualitative Research: A Practical Guide for Beginners*, vol. 2, 1 (London: SAGE Publications Ltd, 2013); A. Fischer, "Research Evaluation and Scientific Publications: Quantity or Quality?," *Bulletin de l'Académie Nationale de Médecine* 206, no. 7 (August 2022): 898–901, https://doi.org/10.1016/j.banm.2022.04.021.

This study employed a qualitative descriptive design to explore how Asta Protas is implemented through the use of Kahoot in IRE at MAN 2 Kota Bandung. A qualitative approach was selected because it allows an in-depth examination of teacher practices, student engagement, and the alignment between digital pedagogy and national professionalism standards. This method also enables the researcher to capture natural classroom interactions and interpret participants' perspectives within their authentic learning environment. The descriptive orientation of the study provides a detailed account of how policy, pedagogy, and technology intersect in the context of a modern madrasah.

The research was conducted at MAN 2 Kota Bandung, an urban Islamic senior high school characterized by relatively strong digital infrastructure and diverse student backgrounds. Data were collected during the implementation of Kahoot-based learning activities in IRE classrooms. Participants included one IRE teacher, the vice principal for curriculum, and six students selected purposively based on their involvement in the digital learning sessions. This purposive sampling technique ensured that the participants had direct experience with both Kahoot and the pedagogical expectations of Asta Protas, enabling rich and relevant insights. The school setting provided an appropriate locus for analyzing how teacher development frameworks are operationalized in technologically supported learning environments.

Data were obtained through classroom observations, semi-structured interviews, and documentation analysis.[10] Observations focused on instructional practices, student behaviors, and the integration of Asta Protas competencies within the learning process. Interviews with teachers and students explored their perceptions of Kahoot, its benefits, and its alignment with teacher professionalism. Documentation, such as lesson plans and Kahoot question sets, was used to complement and validate observational data. All data were analyzed using Miles and Huberman's interactive model, which includes data reduction, data display, and conclusion drawing. This analytic model allowed the researcher to identify patterns related to teacher competence, student engagement, and the pedagogical value of game-based learning in IRE.

[10] Leslie S. Baumann et al., "A Validated Questionnaire for Quantifying Skin Oiliness," *Journal of Cosmetics, Dermatological Sciences and Applications* 04, no. 02 (2014): 78–84, https://doi.org/10.4236/jcdsa.2014.42012; Marie-Ève Caron, Nicole Ouellet, and Dave Bergeron, "Context and Impact of Patient-Partner Engagement in Clinical Settings: A Descriptive Qualitative Study," *Education Thérapeutique Du Patient - Therapeutic Patient Education* 16, no. 1 (2024): 10205, https://doi.org/10.1051/tpe/2024018; Shurui Bai, Khe Foon Hew, and Biyun Huang, "Does Gamification Improve Student Learning Outcome? Evidence from a Meta-Analysis and Synthesis of Qualitative Data in Educational Contexts," *Educational Research Review* 30 (June 2020): 100322, https://doi.org/10.1016/j.edurev.2020.100322.

RESULTS AND DISCUSSION

Asta Protas in the Context of Teacher Professionalism

Professionalism is the main factor that a teacher must have.[11] The Asta Protas, launched by the Ministry of Religious Affairs (Kemenag RI), provides a strategic framework aimed at improving the professionalism and quality of teaching of teachers within the madrasah ecosystem. Comprised of eight core pillars, the Asta Protas guides educators in strengthening their pedagogical competencies, classroom management, digital literacy, assessment practices, and innovation capacity. These pillars also emphasize the importance of effective communication, collaborative learning, and adaptability to evolving educational demands. As a national directive, the Asta Protas serves not only as a conceptual guideline but also as a measurable standard that encourages teachers to continuously refine their professional identity and teaching practices.

In the field of IRE, the relevance of the Asta Protas is particularly felt due to its holistic orientation that integrates cognitive, ethical, and spiritual dimensions. IRE teachers are expected to design learning experiences that foster understanding, reflection, and internalization of values, while ensuring alignment with Islamic principles. The Asta Protas pillars support these goals by encouraging the use of innovative pedagogies that encourage active engagement, meaningful interactions, and contextual learning. This orientation helps teachers shift from traditional lecture-centered methods to a more student-centered and dialogic approach that meets the needs of contemporary learners.

The implementation of Asta Protas in IRE also underscores the growing importance of educational technology in enhancing teaching effectiveness. One core component of this framework emphasizes the integration of digital tools that can support creative learning and strengthen student participation. For IRE teachers, this encourages the integration of platforms that facilitate collaborative exploration of religious concepts, formative assessment, and reflective learning processes. The alignment between Asta Protas and digital pedagogy opens up opportunities for teachers to design lessons that are both spiritually meaningful and engaging for digitally oriented students. This integration is particularly relevant in subjects that require reasoning, ethical judgment, and personal reflection.

[11] Muhammad Hasbullah, Mulyawan Safwandy Nugraha, and Ujang Dedih, "Implementasi Kompetensi Profesional Guru Dalam Menerapkan Model Dick and Carey Terhadap Pembelajaran Pendidikan Agama Islam," *Kaipi: Kumpulan Artikel Ilmiah Pendidikan Islam* 1, no. 2 (September 2023): 60–64, https://doi.org/10.62070/kaipi.v1i2.38; Abdul Rojak and Hasbiyallah Hasbiyallah, "Peran Lptk Dalam Menyiapakan Guru Pai Profesional," *EDURELIGIA: Jurnal Pendidikan Agama Islam* 5, no. 2 (2021): 1–12.

At MAN 2 Kota Bandung, Asta Protas serves as a practical reference that shapes teachers' approaches to planning, delivering, and evaluating IRE lessons. Teachers report that this framework motivates them to improve lesson structures, optimize the use of technology in the classroom, and develop innovative methods such as game-based learning to increase student engagement. A school's robust digital infrastructure further facilitates this shift, enabling educators to explore interactive tools like Kahoot as part of their commitment to professional growth. Through this alignment, Asta Protas becomes not only a policy requirement but also a catalyst for meaningful pedagogical transformation that supports improved teaching quality in madrasah environments.

Kahoot as a Digital Game-Based Learning Tool in IRE

Kahoot has emerged as one of the most widely used platforms for digital game-based learning, offering an interactive environment that combines assessment, competition, and engagement.[12] The platform utilizes real-time quizzes with features such as instant feedback, point-based scoring, and visual stimuli,[13] to maintain student attention and motivation. Research on game-based learning indicates that competitive and interactive elements can significantly enhance cognitive engagement and improve retention of lesson material. These characteristics position Kahoot as a powerful tool for facilitating formative assessments and reinforcing understanding in various subjects, including IRE. Its accessibility across devices also makes it suitable for classroom contexts where students are familiar with digital interactions.

In the context of IRE, Kahoot provides opportunities for teachers to adopt pedagogical strategies that move beyond traditional lecture-centered instruction. The platform supports the integration of questioning techniques that stimulate recall,

[12] Mohd. Elmagzoub Eltahir et al., "The Impact of Game-Based Learning (GBL) on Students' Motivation, Engagement and Academic Performance on an Arabic Language Grammar Course in Higher Education," *Education and Information Technologies* 26, no. 3 (May 2021): 3251–78, https://doi.org/10.1007/s10639-020-10396-w; Ivan Garcia et al., "The Effects of Game-based Learning in the Acquisition of 'Soft Skills' on Undergraduate Software Engineering Courses: A Systematic Literature Review," *Computer Applications in Engineering Education* 28, no. 5 (September 2020): 1327–54, https://doi.org/10.1002/cae.22304; Ai-Chu Elisha Ding and Cheng-Han Yu, "Serious Game-Based Learning and Learning by Making Games: Types of Game-Based Pedagogies and Student Gaming Hours Impact Students' Science Learning Outcomes," *Computers & Education* 218 (September 2024): 105075, https://doi.org/10.1016/j.compedu.2024.105075.

[13] Robiños, Novio, and Jr., "Effectiveness of Kahoot! Application on Student Achievement in Mathematics Education"; Yunxiang Zheng et al., "Effects of Digital Game-Based Learning on Students' Digital Etiquette Literacy, Learning Motivations, and Engagement," *Heliyon* 10, no. 1 (January 2024): e23490, https://doi.org/10.1016/j.heliyon.2023.e23490; Jing Chen and Nur Azlina Mohamed Mokmin, "Enhancing Primary School Students' Performance, Flow State, and Cognitive Load in Visual Arts Education through the Integration of Augmented Reality Technology in a Card Game," *Education and Information Technologies*, ahead of print, January 29, 2024, https://doi.org/10.1007/s10639-024-12456-x.

analysis, and reflection, three essential processes in understanding religious concepts. Teachers can design questions that encourage students to revisit Qur'anic verses, evaluate moral dilemmas, or connect Islamic teachings to contemporary social issues. These features enable Kahoot to contribute not only to cognitive learning but also to affective and ethical dimensions, which are central to IRE. By balancing content mastery with interactive exploration, Kahoot helps create a classroom atmosphere that is both engaging and spiritually grounded.

At MAN 2 Kota Bandung, the implementation of Kahoot in IRE has demonstrated its potential to enhance student participation and foster collaborative learning. Observations show that students respond enthusiastically to game elements, which encourage active involvement and reduce hesitation in answering questions. The immediate feedback provided by the platform helps students identify misconceptions quickly, while the competitive aspect motivates them to perform better. For teachers, Kahoot serves as an efficient tool to gauge student understanding and adjust instructional strategies accordingly. Its alignment with the professional expectations outlined in Asta Protas further strengthens its relevance, as teachers are encouraged to adopt digital innovations that enrich learning experiences and support pedagogical effectiveness.

Alignment Between Asta Protas and Kahoot Implementation

The integration of Kahoot within IRE classrooms at MAN 2 Kota Bandung demonstrates a strong alignment with the pedagogical expectations articulated in Asta Protas. One of the central pillars of Asta Protas emphasizes the importance of pedagogical innovation, particularly through the use of digital learning tools that enhance classroom interactivity. Kahoot directly supports this expectation by offering a dynamic platform that transforms traditional assessment practices into engaging, technology-mediated learning experiences.[14] Through its interactive interface, Kahoot embodies the spirit of creativity and digital adaptation encouraged by Asta Protas, enabling teachers to construct lessons that respond to the needs and learning styles of contemporary students.

Another dimension of alignment can be seen in the emphasis on formative assessment practices within Asta Protas. The framework requires teachers to develop assessment strategies that are continuous, diagnostic, and reflective of higher-order

[14] Shahreena Daud et al., "Evaluating the Impact of Usability Components on User Satisfaction in Educational Board Games Using the MEEGA+ Framework," *Information Management and Business Review* 16, no. 2(I) (July 2024): 195–206, https://doi.org/10.22610/imbr.v16i2(I).3821; Rubén Camacho-Sánchez et al., "Game-Based Learning and Gamification in Physical Education: A Systematic Review," *Education Sciences* 13, no. 2 (February 2023): 183, https://doi.org/10.3390/educsci13020183; Maosen Xu et al., "Game-Based Learning in Medical Education," *Frontiers in Public Health* 11 (March 2023): 1113682, https://doi.org/10.3389/fpubh.2023.1113682.

thinking skills. Kahoot, with its real-time feedback features, provides opportunities for teachers to conduct immediate evaluations of student understanding. This allows teachers to identify misconceptions early and to adapt their instructional strategies accordingly. The use of higher-level question formats, such as application or analysis-type prompts, also supports the Asta Protas expectation that teachers design assessments aligned with Bloom's Taxonomy. This demonstrates that Kahoot is not merely a tool for entertainment but a strategic platform for strengthening assessment literacy among teachers.

Asta Protas further stresses the importance of student-centered learning environments that cultivate engagement, collaboration, and responsibility. Kahoot naturally supports this learning orientation by encouraging students to participate actively in the learning process, rather than assuming passive roles. The competitive yet collaborative atmosphere created through Kahoot fosters a sense of involvement and accountability among learners. In IRE classes at MAN 2 Kota Bandung, this has manifested in greater enthusiasm for classroom activities, increased willingness to respond to questions, and improved focus during lessons. These outcomes reflect the alignment between Kahoot's interactive pedagogy and Asta Protas' emphasis on promoting engaging, student-centered education.

The digital competence pillar of Asta Protas also finds clear expression in teachers' utilization of Kahoot. The framework requires teachers to demonstrate proficiency in educational technology and to integrate digital tools meaningfully into their instructional design. The teacher observed in this study demonstrated the ability to design quizzes, structure learning sequences around digital activities, and interpret Kahoot analytics for instructional improvement, all actions that align with the expectations set by Asta Protas. This indicates that teachers who adopt Kahoot are simultaneously strengthening their digital pedagogical competence, one of the key competencies highlighted in Asta Protas. The integration of the platform in lesson delivery also reflects teachers' readiness to adapt to digital transformations in education.

Finally, the use of Kahoot supports the Asta Protas pillar on fostering meaningful learning experiences that connect knowledge with real-life contexts. In IRE, this means helping students internalize Islamic values through engaging and reflective activities. Kahoot provides opportunities for teachers to design questions that prompt students to interpret Qur'anic teachings, analyze ethical dilemmas, and relate religious concepts to everyday situations. This pedagogical alignment ensures that the use of technology does not overshadow the spiritual objectives of IRE but rather reinforces them through interactive learning tasks. The harmony between Kahoot's pedagogical potential and Asta Protas' professionalism standards indicates

that digital game-based learning can serve as a practical and effective medium for operationalizing national education policies within madrasah settings.

Analysis of Student Engagement and Learning Experience in MAN 2 Bandung

Student engagement is a key factor that teachers must emphasize. Effective learning is learning that maximizes student engagement.[15] Student engagement has become a critical indicator of instructional effectiveness in contemporary learning environments, including within IRE. Observations conducted at MAN 2 Kota Bandung show that the introduction of Kahoot significantly enhances students' behavioral, emotional, and cognitive engagement during classroom activities. Students demonstrated greater focus and participation, evidenced by their readiness to answer questions, eagerness to compete, and attentiveness to the progress of each quiz session. The immediacy of feedback and interactive elements contributed to a more dynamic classroom atmosphere, reducing passive learning behaviors that are often observed in conventional lecture-based IRE instruction.

Beyond behavioral engagement, Kahoot also influenced students' emotional engagement, which is essential in supporting their motivation to learn religious content. Many students expressed enjoyment and excitement when participating in the game-based activities, creating a positive emotional climate within the classroom. This enthusiasm helped reduce anxiety associated with answering religious questions, enabling students to participate more confidently and openly. The friendly competition embedded in Kahoot fostered a sense of camaraderie, where students encouraged peers and celebrated collective progress. Such emotional engagement aligns with the goals of IRE, which emphasizes the internalization of values through meaningful and enjoyable learning experiences.

Cognitive engagement was also evident, particularly as students interacted with higher-order questions requiring analysis, reasoning, and interpretation of Islamic concepts. When faced with questions related to Qur'anic verses, ethical dilemmas, or historical narratives in Islam, students demonstrated an ability to connect prior knowledge with new information. Kahoot's rapid-response format encouraged students to think critically and process information efficiently. Moreover,

[15] Hassan A. El-Sabagh, "Adaptive E-Learning Environment Based on Learning Styles and Its Impact on Development Students' Engagement," *International Journal of Educational Technology in Higher Education* 18, no. 1 (December 2021): 53, https://doi.org/10.1186/s41239-021-00289-4; Lisa Shah and Sarah Hillman, "An Action Research Approach to Imposter Participants in Qualitative Research: Implications for Our Practice," *British Journal of General Practice* 75, no. suppl 1 (May 2025): bjgp25X741717, https://doi.org/10.3399/bjgp25X741717; Askar Askar and Djono Djono, "Desain Pembelajaran Dick and Carey Dan Implementasinya Pada Pembelajaran IPA," *Educatio* 20, no. 1 (April 2025): 1–10, https://doi.org/10.29408/edc.v20i1.26530.

the structured challenges allowed teachers to assess students' understanding across different cognitive levels, supporting the development of conceptual depth in IRE.

The overall learning experience at MAN 2 Kota Bandung reflects a positive shift toward more interactive and student-centered IRE instruction. Students reported that Kahoot made lessons more interesting, easier to follow, and more relevant to their everyday lives. The integration of technology aligned well with their digital learning habits, which contributed to a more relatable and accessible learning environment. Teachers also benefited from increased student responsiveness, enabling them to identify areas requiring reinforcement and to adjust their instructional strategies accordingly. This synergy between student engagement and teacher adaptation illustrates the potential of game-based learning to transform the pedagogical landscape of IRE, making it more aligned with the expectations of both Asta Protas and 21st-century learning paradigms.

Bloom's Taxonomy as Analytical Framework for Kahoot Questions

Bloom's Taxonomy provides a structured framework for categorizing cognitive learning objectives, ranging from basic recall to higher-order thinking.[16] Applying this taxonomy to Kahoot questions in IRE enables teachers to design assessments that not only measure factual knowledge but also stimulate comprehension, analysis, and evaluation. In the context of MAN 2 Kota Bandung, the teacher incorporated a variety of question types that aligned with different cognitive levels, beginning with remembering key Islamic concepts, progressing to understanding Qur'anic messages, and extending toward analyzing ethical scenarios. This alignment demonstrates how Kahoot can serve as a dynamic tool for operationalizing Bloom's cognitive hierarchy within a digital learning environment.

At the lower levels of Bloom's Taxonomy, remembering and understanding, Kahoot facilitated students' recall of foundational IRE content, such as definitions, historical facts, and verses related to the topic. These question types helped ensure that students had mastered essential knowledge before moving into deeper forms of inquiry. However, the platform also proved suitable for assessing mid-level cognitive skills, particularly application-level tasks. For instance, students were asked to apply Islamic principles to real-life situations, which required them to translate theoretical understanding into practical reasoning. This progression from recall to application

[16] Richard Heller, "A New Bloom – Adding 'Collaborate' to Bloom's Taxonomy," *Journal of Learning Development in Higher Education*, no. 24 (September 2022), https://doi.org/10.47408/jldhe.vi24.906; Laurita Christina Bonfim Santos et al., "Bloom's Taxonomy and Its Applicability to Collaborative Learning in Distance Learning," in *Academic Education Navigating the Path of Knowledge*, 1st ed. (Seven Editora, 2024), https://doi.org/10.56238/sevened2023.008-016; Philip Sisson and Thomas Mazzuchi, *Bloom's Taxonomy of Educational Objectives - Template for Primary School KM Education* (2019).

reflects a carefully structured pedagogical approach aligned with the developmental logic of Bloom's Taxonomy.

Higher-order thinking skills were also addressed through questions that required analysis, evaluation, and limited forms of creation. Analytical questions prompted students to differentiate between similar concepts, evaluate moral choices, or identify underlying values in Qur'anic narratives. Evaluation-based questions challenged students to determine the most ethical response in particular scenarios, encouraging deeper engagement with Islamic teachings. Although Kahoot's format is concise, the teacher was able to design items that encouraged students to justify their reasoning, either through follow-up discussions or reflective dialogue after the quiz. This use of higher-level questioning underscores Kahoot's potential for supporting critical thinking in religious education.

The integration of Bloom's Taxonomy into Kahoot activities at MAN 2 Kota Bandung demonstrates the teacher's ability to design assessments that are both pedagogically sound and professionally aligned with Asta Protas competencies. By structuring questions across multiple cognitive levels, the teacher fulfilled expectations related to instructional planning, assessment literacy, and the creation of meaningful learning experiences. Students benefited from exposure to varied levels of cognitive challenge, which strengthened their conceptual understanding and reflective capacities. This alignment highlights Kahoot's role not only as a technological tool but also as a medium through which professional teaching standards and pedagogical theories can be effectively implemented within IRE classrooms.

Challenges and Opportunities in Integrating Asta Protas with GBL

1) Limited Teacher Digital Competence

One of the primary challenges in integrating Asta Protas with Game-Based Learning (GBL) is the varying level of digital competence among teachers. Although Asta Protas emphasizes digital adaptability as one of its core pillars, not all teachers have adequate exposure to or training in contemporary educational technologies. This gap affects the consistency of implementation, particularly in schools where professional development opportunities are uneven. In the context of IRE, some teachers may still rely on traditional teaching methods, making it difficult to fully adopt GBL tools such as Kahoot.

Moreover, the need for technical proficiency extends beyond simply using the platform; teachers must also be able to design pedagogically sound digital materials aligned with Bloom's Taxonomy and Asta Protas competencies. This includes designing higher-order questions, managing student data, and integrating game-based assessments into lesson planning. Without adequate training, the integration process can feel burdensome, especially for teachers accustomed to conventional

assessment practices. As a result, strengthening digital competence becomes an urgent requirement for maximizing the synergy between Asta Protas and GBL

2) Infrastructure and Technical Constraints

Another significant challenge relates to infrastructure, including internet stability, device availability, and classroom readiness. While MAN 2 Kota Bandung benefits from relatively strong digital infrastructure, inconsistencies can still arise during peak usage or simultaneous device access. Technical disruptions, such as latency, device incompatibility, or login difficulties, can interrupt the flow of teaching and diminish the interactive potential of Kahoot. In learning contexts that rely heavily on continuity and pacing, such challenges reduce the effectiveness of GBL activities.

Additionally, disparities in device ownership among students present practical concerns. Although many students possess smartphones, not all devices are equally capable of supporting fast-paced digital quizzes. This creates an uneven learning experience, where students with older or slower devices may feel disadvantaged. For Asta Protas to be implemented optimally through GBL, supportive infrastructure and equitable access must be ensured. Schools must therefore sustain investments in digital readiness to maintain teaching quality and ensure inclusive participation.

3) Alignment Between Religious Content and Digital Gamification

Integrating Islamic Religious Education with game-based learning requires careful pedagogical consideration, particularly in balancing engagement with reverence. Religious subjects carry spiritual and ethical dimensions that cannot be trivialized or reduced to simplistic competition. Teachers must therefore be mindful of selecting topics and designing question formats that respect the sanctity of Islamic teachings. Misalignment between content and digital gamification may raise concerns regarding appropriateness, especially when dealing with Qur'anic verses or sensitive theological discussions.

Despite these challenges, the thoughtful design of Kahoot activities can enhance students' reflective engagement with religious values. When crafted with sensitivity, game-based tasks can encourage students to analyze moral dilemmas, understand Qur'anic messages, and make ethical judgments. The key lies in aligning the interactive nature of GBL with the reflective depth required in IRE. This alignment reinforces Asta Protas' emphasis on innovation while safeguarding the integrity of Islamic education. Thus, the challenge also becomes an opportunity to enrich IRE through creative, respectful, and pedagogically sound digital activities.

4) Growing Opportunities for Professional Development

The integration of Asta Protas with GBL also opens substantial opportunities for enhancing teacher professionalism. As teachers engage with Kahoot and other digital platforms, they are naturally driven to expand their digital literacy, instructional design skills, and assessment strategies. This aligns closely with the Asta

Protas pillars on pedagogical innovation and digital competence, encouraging teachers to develop a broader repertoire of teaching techniques. Engagement with digital tools also fosters reflective practice, prompting teachers to continually evaluate their instructional decisions and student responses.

In addition, game-based learning presents opportunities for collaborative professional activities such as lesson study, peer mentoring, and workshops. Teachers can share best practices, co-design questions, and evaluate student learning patterns generated through Kahoot analyt

ics. These collaborative opportunities support the collective growth of madrasah educators and contribute to a stronger professional culture. Consequently, GBL becomes not only a pedagogical tool but also a catalyst for sustained professional development aligned with Asta Protas.

5) Enhanced Student Motivation and Learning Outcomes

One of the primary challenges in integrating Asta Protas with game-based learning (GBL) is the varying level of digital competence among teachers. Although Asta Protas emphasizes digital adaptability as one of its core pillars, not all teachers have adequate exposure to or training in contemporary educational technologies. This gap affects the consistency of implementation, particularly in schools where professional development opportunities are uneven. In the context of IRE, some teachers may still rely on traditional teaching methods, making it difficult to fully adopt GBL tools such as Kahoot.

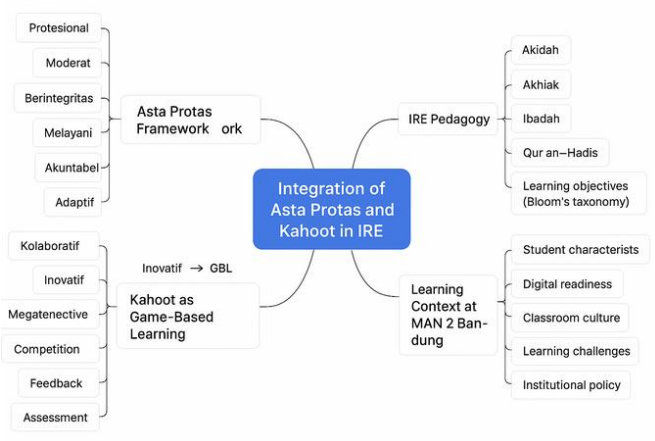

Figure 1. Hierarchical mind mapping illustrating the integration of Asta Protas principles and Kahoot-based learning in Islamic Religious Education at MAN 2 Bandung

CONCLUSION

The integration of Asta Protas with game-based learning through Kahoot in IRE at MAN 2 Kota Bandung demonstrates a strong alignment between national teacher professionalism standards and contemporary digital pedagogies. The study shows that Asta Protas provides a solid framework for guiding teachers toward innovative, student-centered, and technologically informed instructional practices. Kahoot, as a game-based platform, supports these goals by enhancing student engagement, strengthening formative assessment, and facilitating higher-order thinking as framed by Bloom's Taxonomy. The synergy between policy and pedagogy reinforces the potential of digital tools to elevate instructional quality, promote active learning, and enrich students' understanding of Islamic concepts in meaningful ways. The findings affirm that game-based learning is not merely an entertainment tool but a strategic medium for operationalizing core competencies demanded by Asta Protas.

Despite its potential, the integration process also presents several challenges, including limitations in teacher digital competence, infrastructural constraints, and the need to ensure pedagogical sensitivity when gamifying religious content. These obstacles highlight the importance of continuous professional development, equitable technological access, and thoughtful instructional design. Future research may explore broader implementations across multiple *Madrasahs*, compare the effectiveness of various GBL platforms, or investigate long-term impacts on student character development and spiritual internalization. Further studies could also examine how Asta Protas can be integrated with emerging technologies such as adaptive learning systems or AI-based assessment tools. Ultimately, ongoing inquiry is essential for optimizing the role of digital innovation in strengthening Islamic Religious Education in alignment with national educational priorities.

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