

Strengthening Higher-Order Thinking Skills (HOTS) in Economics Education: A Systematic Review of Innovative Learning Models

Abdurrahim¹

¹.STIT Palapa Nusantara Lombok, Indonesia

Email: rafassyailhami@gmail.com¹

ABSTRACT

Strengthening Higher-Order Thinking Skills (HOTS) has become a fundamental priority in twenty-first-century education and should be systematically fostered through economics education. HOTS plays a crucial role in enhancing students' critical, analytical, evaluative, and creative thinking abilities, enabling them to understand and solve complex economic problems. This study aims to analyze the development of research on strengthening HOTS in economics education, identify the innovative instructional models employed, and examine their effectiveness in enhancing students' higher-order thinking skills. The study adopted a qualitative approach using the Systematic Literature Review (SLR) method based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. The data were collected from scholarly articles published in Google Scholar, Scopus, and the Directory of Open Access Journals (DOAJ) between 2020 and 2026. A total of 30 articles that met the inclusion criteria were selected and analyzed using descriptive qualitative analysis. The findings indicate that Problem-Based Learning (PBL), Project-Based Learning (PjBL), Inquiry Learning, Case-Based Learning (CBL), Discovery Learning, and Blended Learning are effective instructional models for developing students' higher-order thinking skills. These pedagogical approaches consistently promote critical analysis, problem-solving, decision-making, and reflective thinking within authentic economic contexts. The study concludes that strengthening HOTS in economics education requires the systematic integration of innovative, student-centered instructional models to support the development of twenty-first-century competencies and to create more adaptive, contextualized, and meaningful learning experiences.

INTRODUCTION

Twenty-first-century education requires students not only to acquire conceptual knowledge but also to develop Higher-Order Thinking Skills (HOTS), encompassing critical thinking, creativity, problem-solving, and decision-making abilities. HOTS has become one of the core

ARTICLE INFO

Article history:

Received: July 24, 2026

Revised: July 27, 2026

Accepted: July 29, 2026

Published: July 31, 2026

Keywords:

Higher-Order Thinking Skills (HOTS), Economics Education, Innovative Learning Models, Systematic Literature Review.

Correspondance Author:

Abdurrahim

Program Studi Manajemen Pendidikan Islam Sekolah Tinggi Ilmu Tarbiyah Palapa Nusantara Jln Palapa No. 01 Selebung Keruak, Lombok Timur, NTB, Indonesia.

competencies required to address the challenges of the Fourth Industrial Revolution (Industry 4.0) and Society 5.0, both of which are characterized by rapid advancements in science and technology as well as increasingly complex global issues. Within the context of economics education, HOTS plays a particularly strategic role because economics instruction is intended not merely to foster students' conceptual understanding of economic phenomena but also to develop their ability to analyze economic problems, evaluate alternative decisions, and generate innovative solutions to economic issues encountered in everyday life (Saptono et al., 2020).

Economics education is inherently connected to real-world issues that require higher-order thinking. Students are expected to critically and comprehensively analyze topics such as inflation, unemployment, consumer behavior, entrepreneurship, financial literacy, and the dynamics of the digital economy (Afandi & Sukirno, 2025). Nevertheless, numerous studies indicate that the implementation of HOTS-oriented instruction continues to face substantial challenges. These include the predominance of conventional teaching approaches, teachers' limited capacity to design HOTS-based learning activities, and the insufficient development of assessment instruments capable of accurately measuring students' higher-order thinking abilities (Febriana et al., 2026). Consequently, economics instruction remains predominantly focused on students' ability to remember and understand concepts—commonly referred to as Lower-Order Thinking Skills (LOTS)—rather than fostering higher levels of analysis, evaluation, and creation.

In line with the implementation of the Merdeka Curriculum in Indonesia, strengthening HOTS has become a major priority in educational reform. The Merdeka Curriculum provides broader opportunities for students to develop critical, creative, collaborative, and communicative competencies through student-centered learning approaches (Ginting & Sulasmi, 2026). Accordingly, economics education is expected to integrate various innovative instructional models that effectively promote HOTS, including Problem-Based Learning (PBL), Project-Based Learning (PjBL), Inquiry-Based Learning, Case-Based Learning (CBL), Discovery Learning (Erwana, 2026), and technology-enhanced learning approaches that encourage active student engagement throughout the learning process (Abdurrahim, 2025).

Previous studies have extensively investigated the development of HOTS through the implementation of innovative instructional models across various academic disciplines. Research conducted by Saptono (2020) and Mari'a and Ismono (2021) demonstrated that HOTS in economics education is influenced by multiple factors, including the learning environment, instructional models, and student characteristics. Likewise, Watik (2023), through a Systematic Literature Review (SLR), found that HOTS-oriented instruction positively affects students' learning outcomes when supported by appropriate pedagogical strategies. Furthermore, Jamlludin et al. (2022) reported that Problem-Based Learning (PBL) consistently enhances students' higher-order thinking through authentic problem-solving activities. Similarly, Purnamasari (2022) revealed that inquiry-based and problem-solving instructional approaches are highly effective in fostering HOTS across different educational levels.

Despite these findings, most existing studies have concentrated on the implementation of specific instructional models within individual disciplines, such as mathematics, science, and primary education. Studies that comprehensively integrate multiple innovative instructional models within the context of economics education to strengthen HOTS remain relatively limited. Moreover, previous research has generally examined the effectiveness of instructional models independently, providing only fragmented evidence rather than a comprehensive understanding of current research trends, the dominant instructional approaches employed, and their implications

for strengthening HOTS in economics education. Consequently, a significant research gap exists due to the absence of a systematic synthesis of the literature concerning the integration of innovative instructional models for enhancing HOTS within economics education.

Addressing this gap, the present study offers a novel contribution by providing a comprehensive synthesis of innovative instructional models used to strengthen HOTS in economics education through a Systematic Literature Review (SLR). Unlike previous studies that primarily evaluate the effectiveness of individual instructional approaches, this review identifies the most frequently adopted innovative learning models, examines their implementation characteristics, analyzes emerging research trends, and explores their implications for developing economics instruction aligned with the demands of twenty-first-century education. Accordingly, this study is expected to make both theoretical and practical contributions by enriching the body of knowledge on HOTS in economics education and providing evidence-based recommendations for educators in designing more innovative, meaningful, and student-centered learning environments.

Based on these considerations, this study addresses the following research questions: (1) How has research on strengthening HOTS in economics education evolved over the past several years? (2) What innovative instructional models have been implemented to strengthen HOTS in economics education? (3) How effective are these innovative instructional models in enhancing students' higher-order thinking skills in economics education? and (4) What are the implications of these findings for the future development of HOTS-oriented economics education?

Accordingly, this study aims to analyze the development of research on HOTS in economics education, identify the innovative instructional models employed to strengthen HOTS, evaluate the effectiveness of their implementation, and formulate implications for developing economics education that aligns with twenty-first-century competency demands. The findings are expected to contribute to the academic discourse by expanding the literature on HOTS-based economics education while providing practical guidance for teachers, lecturers, researchers, and educational policymakers in designing adaptive, innovative, and learner-centered instructional strategies that effectively foster higher-order thinking skills.

METHODS

This study employed a qualitative approach using the Systematic Literature Review (SLR) method to identify, analyze, and synthesize existing research on strengthening Higher-Order Thinking Skills (HOTS) in economics education through the implementation of innovative instructional models. The SLR approach was selected because it provides a systematic, comprehensive, and objective synthesis of the existing body of knowledge, thereby enabling the identification of research trends, methodological characteristics, and empirical findings within the field. The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, which consist of four sequential phases: identification, screening, eligibility assessment, and inclusion of studies. These procedures were implemented systematically to ensure that all selected articles met the predetermined inclusion criteria and contributed meaningfully to the objectives of the review.

The data sources comprised scholarly articles published in accredited national journals and internationally reputable journals indexed in Google Scholar, Scopus, and the Directory of Open Access Journals (DOAJ). The literature search was conducted using the following keywords: Higher-Order Thinking Skills, HOTS, Economics Education, Pendidikan Ekonomi, Innovative Learning Models, Problem-Based Learning, Project-Based Learning, Inquiry Learning, and Case-

Based Learning. Boolean operators (AND and OR) were employed to optimize the search strategy and refine the retrieval of relevant studies. The inclusion criteria consisted of articles that (1) investigated HOTS within the context of economics education, (2) were published between 2020 and 2026, (3) were available in full-text format, and (4) examined the implementation of innovative instructional models. The exclusion criteria included studies that were not directly relevant to the research objectives, unpublished scholarly works, conference abstracts, theses or dissertations, and articles that lacked sufficient methodological information.

The sample consisted of peer-reviewed journal articles that satisfied all inclusion criteria and successfully passed the PRISMA selection process. Article selection involved several stages, including the identification and removal of duplicate records, title and abstract screening, and full-text eligibility assessment to determine the suitability of each study. Articles that fulfilled all selection requirements were subsequently included as the final sample and served as the primary sources for data analysis. A purposive sampling strategy was employed to ensure that all selected studies were directly relevant to the enhancement of HOTS through innovative instructional models in economics education.

The research instruments included a data extraction form and an article quality assessment checklist. The data extraction form was designed to systematically collect essential information from each selected study, including the authors, year of publication, research design, instructional model employed, educational level, HOTS variables measured, major findings, and educational implications. Data collection was conducted through a structured process consisting of literature searching, duplicate removal, article screening, eligibility assessment, quality appraisal, and final study selection.

Data were analyzed using descriptive qualitative analysis, involving data reduction, categorization, thematic synthesis, and conclusion drawing. The analysis focused on identifying trends in HOTS research within economics education, examining the innovative instructional models implemented, evaluating their effectiveness in enhancing students' higher-order thinking skills, and exploring their implications for the development of twenty-first-century economics education. The findings are presented through descriptive narratives, literature synthesis tables, and a PRISMA flow diagram to provide a systematic and comprehensive overview of the current state of research on strengthening Higher-Order Thinking Skills in economics education.

RESULTS

1. Evolution of Research on Strengthening HOTS in Economics Education

The literature search conducted through Google Scholar, Scopus, and the Directory of Open Access Journals (DOAJ) initially identified 126 articles that matched the predefined search keywords. After the removal of 21 duplicate records, 105 articles remained for title and abstract screening. During this stage, 52 articles were excluded because they did not align with the objectives of the review. The remaining 53 articles underwent a full-text eligibility assessment, resulting in the exclusion of 23 articles that either did not specifically address the enhancement of Higher-Order Thinking Skills (HOTS) in economics education or failed to provide sufficient information regarding the instructional models employed. Consequently, 30 articles satisfied all inclusion criteria and were included in the final qualitative synthesis.

The distribution of the selected studies demonstrates that research on strengthening HOTS in economics education experienced relatively consistent growth throughout the 2020–2026 period. The largest number of publications appeared in 2023 (six studies), followed by 2022 and 2024, each contributing five studies. In terms of educational context, 18 studies were conducted in senior secondary schools, nine studies focused on higher education, and three studies examined

junior secondary education. Across these studies, the most frequently investigated themes included critical thinking, economic problem-solving, economic decision-making, financial literacy, and students' creativity. These findings indicate an increasing scholarly emphasis on integrating higher-order cognitive skills into economics education across multiple educational levels.

The results of the literature selection and publication mapping are presented in Figure 1. The figure summarizes the PRISMA-based article selection process and illustrates the research trends on strengthening Higher-Order Thinking Skills (HOTS) in economics education from 2020 to 2026.

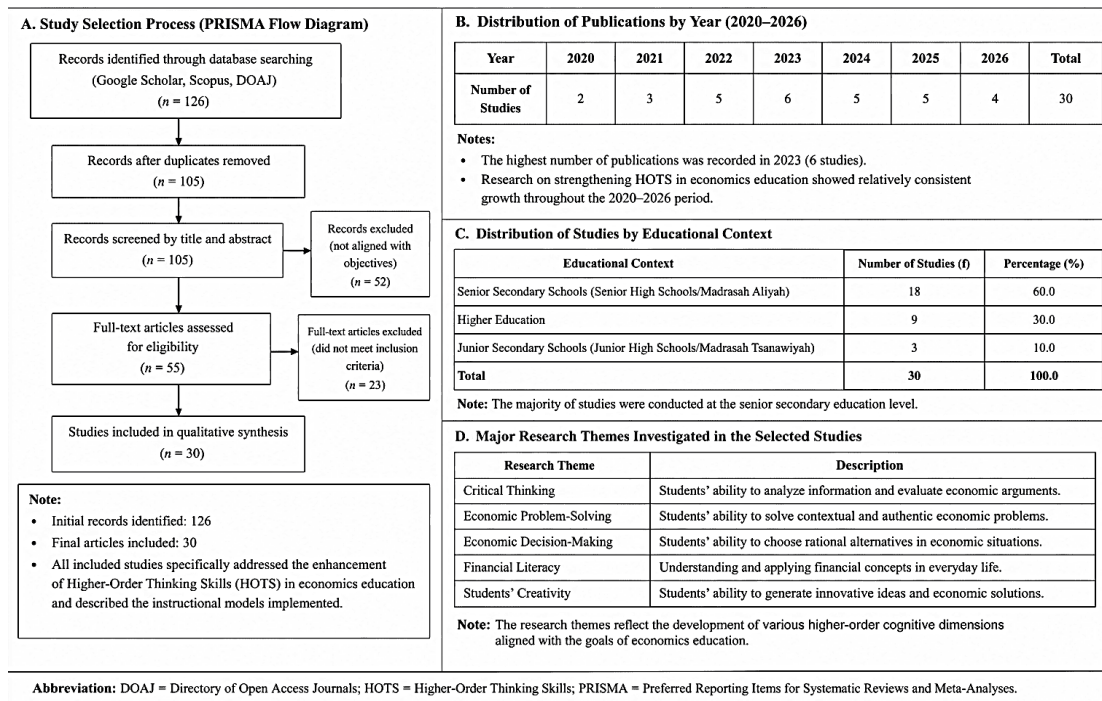


Figure 1. Overview of Study Selection and Characteristics of Research on Strengthening HOTS in Economics Education (2020-2026)

Figure 1 demonstrates that the systematic review followed a rigorous and transparent article selection process, resulting in the inclusion of 30 eligible studies from an initial pool of 126 identified records. The figure also highlights the steady growth of HOTS-related research in economics education, with the highest publication output recorded in 2023. Furthermore, the reviewed studies were predominantly conducted at the senior secondary school level, followed by higher education and junior secondary education. The principal research themes included critical thinking, economic problem-solving, economic decision-making, financial literacy, and creativity, reflecting an increasing academic emphasis on integrating higher-order cognitive skills into economics education. Overall, the figure indicates that research on HOTS has expanded consistently across educational contexts and has become an important focus in promoting twenty-first-century competencies through economics learning.

2. Innovative Instructional Models for Strengthening HOTS in Economics Education

The synthesis identified six dominant innovative instructional models employed to strengthen HOTS in economics education: Problem-Based Learning (PBL), Project-Based

Learning (PjBL), Inquiry Learning, Case-Based Learning (CBL), Discovery Learning, and Blended Learning.

Among these instructional approaches, Problem-Based Learning emerged as the most frequently implemented model, appearing in nine studies, followed by Project-Based Learning (seven studies), Inquiry Learning (five studies), Case-Based Learning (four studies), Discovery Learning (three studies), and Blended Learning (two studies).

These instructional models were implemented through a variety of learner-centered activities, including authentic economic case analysis, contextual problem-solving, entrepreneurship project development, collaborative group discussions, economic simulations, and the integration of digital technologies into classroom learning. Collectively, these approaches emphasize active student participation, inquiry, collaboration, and experiential learning, thereby creating learning environments that support the development of higher-order thinking skills.

Table 1 presents the distribution of the innovative instructional models identified in the selected studies.

Table 1. Distribution of Innovative Instructional Models for Strengthening Higher-Order Thinking Skills (HOTS) in Economics Education

Innovative Instructional Model	Number of Studies (n = 30)	Representative Learning Activities
Problem-Based Learning (PBL)	9	Authentic economic case analysis, contextual problem-solving
Project-Based Learning (PjBL)	7	Entrepreneurship project development, collaborative project work
Inquiry Learning	5	Investigation, questioning, evidence-based inquiry
Case-Based Learning (CBL)	4	Economic case discussion, decision-making, contextual analysis
Discovery Learning	3	Independent exploration, concept discovery, reflective learning
Blended Learning	2	Technology-integrated instruction, online and face-to-face learning
Total	30	Learner-centered approaches emphasizing inquiry, collaboration, experiential learning, and digital technology integration

As shown in Table 1, Problem-Based Learning (PBL) was the most frequently implemented instructional model, appearing in nine studies, followed by Project-Based Learning (PjBL) with seven studies, Inquiry Learning with five studies, Case-Based Learning (CBL) with four studies, Discovery Learning with three studies, and Blended Learning with two studies. Despite differences in instructional design, all models emphasized learner-centered activities, including authentic economic case analysis, contextual problem-solving, entrepreneurship projects, collaborative learning, inquiry-based investigation, and digital technology integration. These findings indicate that innovative instructional models consistently promote active learning, collaboration, and experiential learning, thereby providing meaningful opportunities for students to develop critical thinking, analytical reasoning, creativity, and problem-solving skills as fundamental components of Higher-Order Thinking Skills (HOTS) in economics education.

3. Effectiveness of Innovative Instructional Models in Enhancing Students' Higher-Order Thinking Skills

The synthesis of the selected studies demonstrates that all innovative instructional models produced positive outcomes in improving students' higher-order thinking skills across various cognitive dimensions. Of the 30 reviewed studies, 14 studies classified the instructional models as highly effective, 12 studies reported them as effective, and four studies categorized them as moderately effective in strengthening HOTS. Importantly, none of the reviewed studies concluded that innovative instructional models failed to improve students' higher-order thinking abilities.

The findings further indicate that different instructional models contribute to different aspects of HOTS. Problem-Based Learning and Project-Based Learning were predominantly associated with improvements in students' analytical, evaluative, and creative thinking abilities. In contrast, Inquiry Learning and Case-Based Learning were more frequently employed to foster critical thinking, economic reasoning, and contextual problem-solving. Meanwhile, Discovery Learning and Blended Learning contributed to students' independent learning, conceptual understanding, and reflective thinking through technology-supported and exploratory learning experiences. Overall, the reviewed evidence consistently suggests that innovative instructional models are effective pedagogical approaches for promoting higher-order cognitive development in economics education.

Table 2, and 3 summarizes the effectiveness of the innovative instructional models identified in the selected studies. It presents both the overall effectiveness categories and the specific Higher-Order Thinking Skills (HOTS) dimensions enhanced by each instructional model.

Table 2. Effectiveness of Innovative Instructional Models in Enhancing Higher-Order Thinking Skills (HOTS)

Instructional Model	Primary HOTS Dimensions Enhanced	Overall Effectiveness
Problem-Based Learning (PBL)	Analytical thinking, evaluative thinking, creative thinking	Highly Effective
Project-Based Learning (PjBL)	Analytical thinking, creativity, problem-solving	Highly Effective
Inquiry Learning	Critical thinking, economic reasoning, inquiry skills	Effective
Case-Based Learning (CBL)	Critical thinking, contextual problem-solving, decision-making	Effective
Discovery Learning	Independent learning, conceptual understanding, reflective thinking	Moderately Effective
Blended Learning	Reflective thinking, technology-supported learning, conceptual understanding	Moderately Effective

Table 3. Overall Effectiveness of the Reviewed Studies (n = 30)

Effectiveness Category	Number of Studies	Percentage (%)
Highly Effective	14	46.7
Effective	12	40.0
Moderately Effective	4	13.3
Not Effective	0	0.0
Total	30	100.0

As presented in Table 2, and 3, all innovative instructional models demonstrated positive contributions to the development of students' Higher-Order Thinking Skills (HOTS). Among the 30 reviewed studies, 14 studies (46.7%) classified the instructional models as highly effective, 12 studies (40.0%) reported them as effective, and 4 studies (13.3%) categorized them as moderately effective, while none reported ineffective outcomes. The findings further indicate that Problem-Based Learning (PBL) and Project-Based Learning (PjBL) primarily enhanced analytical, evaluative, creative, and problem-solving skills. In contrast, Inquiry Learning and Case-Based Learning (CBL) were particularly effective in fostering critical thinking, economic reasoning, and contextual decision-making, whereas Discovery Learning and Blended Learning promoted independent

learning, conceptual understanding, and reflective thinking. Overall, the evidence suggests that innovative instructional models provide effective pedagogical approaches for strengthening multiple dimensions of HOTS and supporting higher-order cognitive development in economics education.

4. Implications for the Future Development of HOTS-Oriented Economics Education

The findings suggest several important implications for the future development of HOTS-oriented economics education. First, the consistent effectiveness of innovative instructional models highlights the importance of adopting student-centered learning approaches that actively engage learners in authentic economic inquiry and decision-making processes. Rather than emphasizing memorization of economic concepts, future instructional practices should prioritize activities requiring analysis, evaluation, creativity, and problem-solving.

Second, the widespread implementation of Problem-Based Learning, Project-Based Learning, Inquiry Learning, and Case-Based Learning indicates that economics instruction should increasingly integrate authentic economic cases, contextual problem-solving, entrepreneurship projects, collaborative learning, and digital technologies into classroom practice. Such learning experiences provide meaningful opportunities for students to develop twenty-first-century competencies alongside disciplinary knowledge.

Finally, the overall research trend demonstrates that strengthening HOTS should become an integral component of curriculum development, instructional design, and assessment in economics education. Future educational practices should therefore promote instructional environments that encourage critical inquiry, creativity, evidence-based decision-making, and lifelong learning, enabling students to respond effectively to increasingly complex economic and societal challenges.

The educational implications derived from the systematic review are presented in Figure 2. The figure illustrates the conceptual framework for the future development of HOTS-oriented economics education based on the synthesis of the reviewed studies.

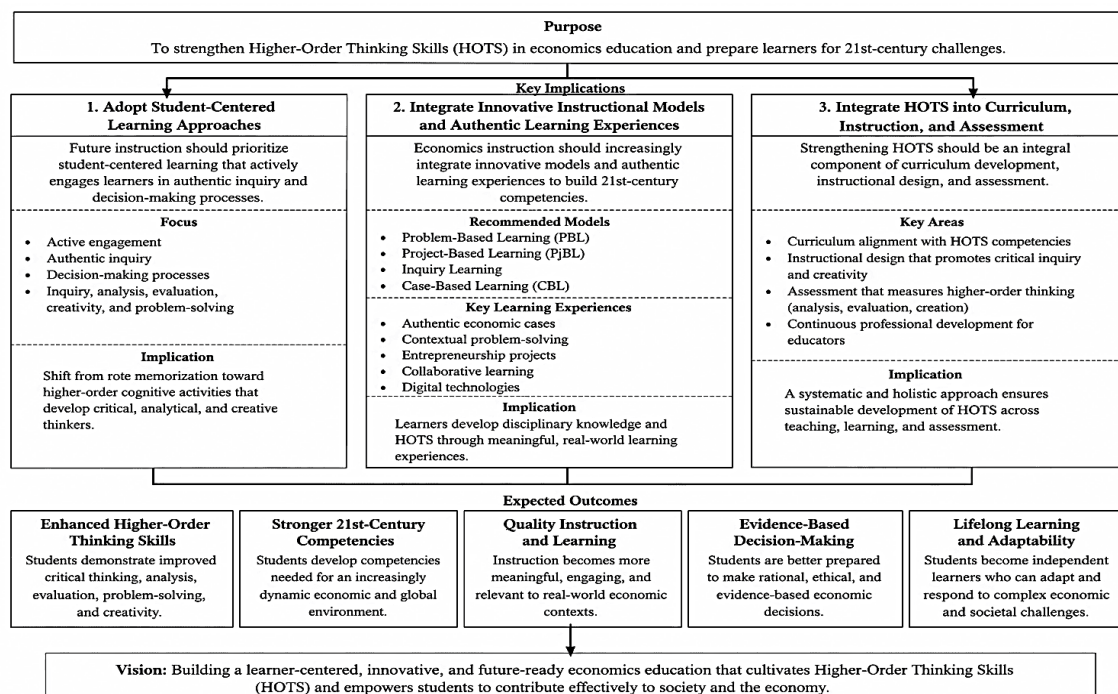


Figure 2. Implications for the Future Development of HOTS-Oriented Economics Education

Figure 2 demonstrates that the future development of economics education should be centered on the systematic integration of student-centered instructional approaches, innovative learning models, and authentic learning experiences to strengthen students' Higher-Order Thinking Skills (HOTS). The figure emphasizes that instructional practices should move beyond knowledge transmission toward learning environments that foster critical inquiry, analytical reasoning, creativity, problem-solving, and evidence-based decision-making. It also highlights the importance of incorporating authentic economic cases, entrepreneurship projects, collaborative learning, and digital technologies into curriculum design and classroom practice. Collectively, these elements contribute to the development of twenty-first-century competencies, enabling students to become adaptive, reflective, and responsible decision-makers capable of addressing increasingly complex economic and societal challenges.

In addition, the synthesis indicates that the implementation of HOTS in economics education predominantly adopted student-centered learning approaches. Ten studies incorporated the analysis of authentic economic case studies into the instructional process, eight studies implemented problem-based learning strategies centered on real-world economic issues, five studies employed entrepreneurship projects as learning media, three studies emphasized collaborative discussion activities, and four studies integrated economic simulations and digital technologies into classroom learning. Collectively, these findings suggest that strengthening HOTS in economics education is achieved through diverse innovative instructional models and pedagogical strategies that actively engage students in analytical, evaluative, and creative thinking processes, thereby supporting the development of competencies required for twenty-first-century learning.

DISCUSSION

The findings of this study indicate that the development of Higher-Order Thinking Skills (HOTS) in economics education has progressed considerably during the 2020–2026 period. This trend suggests that HOTS has become one of the primary priorities in the advancement of economics instruction across various educational levels. The increasing number of published studies reflects a pedagogical shift from traditional concept-oriented instruction toward learning approaches that emphasize students' critical, analytical, evaluative, and creative thinking abilities. This transformation is consistent with the demands of twenty-first-century education, which require learners to solve complex problems and make rational decisions in response to increasingly dynamic economic phenomena. Within the context of economics education, strengthening HOTS is particularly essential because students are expected not only to understand economic theories but also to apply those concepts in analyzing and addressing real-world economic issues encountered in their daily lives (Tasrif, 2022).

The literature synthesis further reveals that Problem-Based Learning (PBL) and Project-Based Learning (PjBL) are the two most frequently implemented innovative instructional models for strengthening HOTS in economics education. This finding suggests that student-centered learning approaches are widely preferred because they provide learners with meaningful opportunities to develop analytical, evaluative, and creative thinking skills (Sholeh et al., 2025). Problem-Based Learning enables students to identify authentic economic problems, formulate alternative solutions, and evaluate multiple decision options based on available evidence. Likewise, Project-Based Learning encourages students to produce contextual products or solutions through inquiry, investigation, and collaborative learning processes. These findings are consistent with

constructivist learning theory, which posits that knowledge is actively constructed through meaningful learning experiences rather than passively transmitted by instructors. Therefore, strengthening HOTS in economics education requires instructional designs that encourage students to engage in deep reflection, critical inquiry, and higher-level cognitive processing while examining economic phenomena.

When compared with previous studies, the findings of the present review demonstrate consistent evidence that innovative instructional models make significant contributions to the development of students' higher-order thinking skills. Earlier studies have consistently reported that the implementation of Problem-Based Learning, Project-Based Learning, and Inquiry Learning effectively enhances students' critical thinking and problem-solving abilities across a wide range of academic disciplines. Saptono (2020) argued that the development of HOTS in economics education is strongly influenced by the instructional strategies employed by educators. Similarly, Mari'a and Ismono (2021) found that the implementation of HOTS-oriented instructional models positively affects students' learning outcomes. The present study extends these findings by demonstrating that the effectiveness of innovative instructional approaches is not limited to a single pedagogical model but is evident across multiple learner-centered approaches that provide authentic and meaningful learning experiences. In other words, strengthening HOTS in economics education depends not only on the selection of appropriate instructional models but also on educators' ability to design contextualized, engaging, and intellectually challenging learning activities.

The findings also reveal that the implementation of HOTS in economics education is predominantly achieved through authentic economic case analysis, contextual problem-solving activities, entrepreneurship projects, collaborative discussions, and the integration of digital technologies into classroom instruction. These findings highlight the inherent relevance of economics education for cultivating higher-order thinking because economics is closely connected to real-life economic phenomena. The analysis of authentic economic cases provides students with opportunities to examine causal relationships underlying economic events (Yun Ismi Wulandari et al., 2015), whereas entrepreneurship projects encourage learners to develop creative solutions to contemporary economic challenges (Nur Janna & Naili El Muna, 2025). Furthermore, the integration of digital technologies expands students' access to diverse learning resources while promoting independent exploration and self-directed learning (Lulu' Anwariyah et al., 2025). Consequently, integrating HOTS into economics education should extend beyond conceptual mastery and focus on developing students' capacity to make rational, evidence-based, and socially responsible economic decisions.

The findings of this review have important theoretical and practical implications for the advancement of economics education. From a theoretical perspective, this study contributes to the growing body of knowledge on HOTS in economics education by providing a comprehensive synthesis of innovative instructional models that have demonstrated effectiveness in promoting higher-order thinking skills. From a practical perspective, the findings offer valuable guidance for teachers and university instructors in selecting instructional approaches that align with curriculum objectives, learning outcomes, and student characteristics. Furthermore, the study has implications for curriculum development by emphasizing the systematic integration of problem-based learning, project-based activities, collaborative inquiry, and digital technologies to better address the demands of twenty-first-century education. Accordingly, strengthening HOTS in economics education contributes not only to improving students' academic achievement but also to fostering

the competencies required for academic success, lifelong learning, professional development, and responsible participation in society.

Despite these contributions, several limitations should be acknowledged. First, the review included only studies published between 2020 and 2026, which may have excluded relevant research published outside this time frame. Second, the literature search was restricted to articles indexed in Google Scholar, Scopus, and the Directory of Open Access Journals (DOAJ); therefore, the synthesis does not encompass all available publications related to HOTS in economics education. Third, as a Systematic Literature Review, the findings are inherently dependent on the methodological quality of the selected studies. In addition, this review did not employ a meta-analysis to quantify the magnitude of the effects associated with each instructional model. Future research is therefore encouraged to incorporate broader literature sources and apply meta-analytic techniques to provide a more comprehensive and statistically robust understanding of the effectiveness of innovative instructional models in strengthening HOTS within economics education.

CONCLUSION

This study demonstrates that research on strengthening Higher-Order Thinking Skills (HOTS) in economics education has shown positive and sustained development throughout the 2020–2026 period. The findings of the Systematic Literature Review indicate that several innovative instructional models—including Problem-Based Learning (PBL), Project-Based Learning (PjBL), Inquiry Learning, Case-Based Learning, Discovery Learning, and Blended Learning—are effective in promoting students' higher-order thinking skills. These instructional approaches are generally implemented through student-centered learning environments that integrate authentic economic case analysis, contextual problem-solving, entrepreneurship projects, collaborative discussions, and the meaningful use of digital technologies. The findings suggest that strengthening HOTS depends not only on selecting appropriate instructional models but also on designing authentic, engaging, and meaningful learning experiences that actively involve students in higher-level cognitive processes.

From a theoretical perspective, this study contributes to the advancement of HOTS scholarship in economics education by synthesizing empirical evidence regarding innovative instructional models that support the development of twenty-first-century competencies. From a practical perspective, the findings provide evidence-based recommendations for educators and curriculum developers in designing economics instruction that is adaptive, contextualized, learner-centered, and oriented toward the cultivation of higher-order thinking skills. Future research is recommended to expand the scope of literature sources and employ meta-analysis to quantify the effectiveness of individual instructional models. In addition, further investigations should explore the integration of HOTS with digital technology, financial literacy, and entrepreneurship education to support more innovative, relevant, and sustainable economics education capable of addressing the challenges of the twenty-first century.

REFERENCES

- Abdurrahim. (2025). Digital Literacy As a Fundamental Skill in Modern Economic Education: a Literature Review. *Indonesian Journal of Education and Science*, 1(3), 111–118. <https://doi.org/10.67028/ijes.v1i3.102>

- Afandi, M. R., & Sukirno. (2025). Tinjauan Literatur Sistematis tentang Literasi Ekonomi Digital Sebagai Kompetensi Abad 21 dalam Pendidikan Ekonomi. *Jurnal Sosialita*, 20(2), 1–22. <https://doi.org/10.31316/js.v20i2.8691>
- Erwana, M. R. (2026). Efektivitas Metode Pembelajaran Aktif dalam Meningkatkan Kemampuan Berpikir Kritis Siswa Sekolah Dasar: A Systematic Literature Review. *IHSAN: Jurnal Pendidikan Islam*, 4(3), 95–109. <https://doi.org/10.61104/ihsan.v4i3.5684>
- Febriana, F. N., Fauzi, N. A., & Azzahra, R. N. (2026). Pengembangan Evaluasi Berbasis Higher Order Thinking Skills Dalam Pendidikan Agama Islam : Analisis Konseptual Dan Tantangan Implementasi. *Indonesian Journal of Innovation Multidisipliner Research*, 4(3), 2748–2758. <https://doi.org/10.69693/ijim.v4i3.1552>
- Ginting, F. Y. A., & Sulasmi, E. (2026). Pembelajaran Berbasis Proyek (PJBL) Dalam Kurikulum Merdeka : Tinjauan Konseptual Penguatan Keterampilan Abad Ke-21. *Jurnal Ilmiah Aquinas*, 9(1), 53–59. <https://ejournal.ust.ac.id/index.php/Aquinas/article/view/5971>
- Jamludin, Muddakir, I., & Wahyuni, S. (2022). Jurnal Pendidikan MIPA. *Jurnal Pendidikan MIPA*, 12(2019), 265–269. <https://doi.org/10.37630/jpm.v16i1.3625>
- Lulu' Anwarayah, Nur Ali Yasin, & Isnaini. (2025). Transformasi Pembelajaran di Era Digital: Pemanfaatan Internet sebagai Sumber Belajar yang Inovatif. *Jurnal Kajian Dan Inovasi Ilmu (JKII)*, 1(1), 18–26. <https://doi.org/10.64123/jkii.v1i1.4>
- Mari'a, H., & Ismono. (2021). Pengaruh Implementasi Model Pembelajaran Problem Solving Dipadukan Dengan Keterampilan Hots Terhadap Hasil the Effect Implementation of Problem Solving Learning Models Combined With Hots Skills on Student Learning Outcome. *Of Chemical Education*, 10(1), 10–19.
- Nur Janna, S. A., & Naili El Muna. (2025). Pengembangan Jiwa Entrepreneurship Pada Siswa Menengah Kejuruan Melalui Proyek Based Learning di SMKN 2 Jombang. *Jurnal QOSIM: Jurnal Pendidikan Sosial & Humaniora*, 3(3), 1081–1090. <https://doi.org/10.61104/jq.v3i3.1877>
- Purnamasari, S., Wardah, R., & Diah, T. (2022). Efektivitas Implementasi Pembelajaran Inkuiri Berbasis Kearifan Lokal terhadap Hasil Belajar Siswa. *Jurnal PGSD UNIGA*, 3(1), 1689–1699. <https://doi.org/10.52434/jpgsd.v1i2.2047>
- Saptono, L., Soetjipto, B. E., Wahjoedi, & Wahyono, H. (2020). Role-playing model: Is it effective to improve students' accounting learning motivation and learning achievements? *Cakrawala Pendidikan*, 39(1), 133–143. <https://doi.org/10.21831/cp.v39i1.24781>
- Sholeh, M. I., Habibulloh, M., Sokip, S., Syafi'i, A., Sahri, S., Nashihuddin, M., 'Azah, N., Al Farisy, F., & Sulistyorini, S. (2025). Implementasi Evaluasi Pembelajaran Pendidikan Agama Islam Berbasis Higher Order Thinking Skills (Hots). *Al'Ulum Jurnal Pendidikan Islam*, 5(1), 12–26. <https://doi.org/10.54090/alulum.639>
- Tasrif, T. (2022). Higher Order Thinking Skills (HOTS) dalam pembelajaran social studies di sekolah menengah atas. *Jurnal Pembangunan Pendidikan: Fondasi Dan Aplikasi*, 10(1), 50–61. <https://doi.org/10.21831/jppfa.v10i1.29490>
- Watik, Y. S., Nasution, N., & Jacky, M. (2023). Penerapan Model Pembelajaran Berbasis HOTS terhadap Hasil Belajar IPS Sekolah Dasar. *Journal of Education Research*, 4(2), 864–872. <https://doi.org/10.37985/jer.v4i2.289>
- Yun Ismi Wulandari, Sunarto, & Totalia, S. A. (2015). Implementasi Model Discovery Learning Dengan Pendekatan Saintifik Untuk Meningkatkan Kemampuan Berfikir Kritis Dan Hasil

Belajar Siswa Mata Pelajaran Ekonomi Kelas XI IIS I SMA Negeri 6 Surakarta. *BISE: Jurnal Pendidikan Bisnis Dan Ekonomi*, 1(2), 1–21. <https://doi.org/10.20961/bise.v1i2.17972>