Forum for Education Studies 2025, 3(3), 2922.
https://doi.org/10.59400/fes2922

Article

Evaluating the key factors influencing the effectiveness of Activity-Based Teaching and Learning in IB Economics for Grade 11 and 12

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CITATION

Joshi A, Marthen WD, Megasari N. Evaluating the key factors influencing the effectiveness of Activity-Based Teaching and Learning in IB Economics for Grade 11 and 12. Forum for Education Studies. 2025; 3(3): 2922. https://doi.org/10.59400/fes2922

ARTICLE INFO

Received: 10 March 2025
Revised: 21 May 2025
Accepted: 26 May 2025
Available online: 23 June 2025

Abstract: Education systems worldwide are undergoing a paradigm shift from traditional lecture-based teaching to more student-centered, activity-driven learning methodologies. In this context, Activity-Based Teaching and Learning (ABTL) has emerged as a transformative pedagogical approach that actively involves students in the learning process, promoting critical thinking, problem-solving, and real-world application. The International Baccalaureate (IB) Economics curriculum, which is designed to develop students' analytical and evaluative skills, aligns well with the principles of ABTL. This study employs the Interpretative Phenomenological Analysis (IPA) technique to explore the lived experiences of IB Economics students and teachers regarding ABTL. Using qualitative methods such as semi-structured interviews, reflective journals, focus group discussions, classroom observations, and thematic analysis of student work, the study seeks to evaluate the effectiveness of ABTL in enhancing students' understanding and application of economic concepts. The research design includes purposive sampling of IB Economics students and teachers from multiple IB schools, ensuring diverse perspectives. Additionally, reliability and validity measures such as triangulation and member checking are employed to enhance the credibility of findings. The study finds that ABTL significantly enhances student engagement, comprehension, and the ability to apply economic theories to real-world scenarios. Students report higher levels of motivation and deeper conceptual understanding through interactive activities such as simulations, debates, and inquiry-based projects. Teachers emphasize that ABTL fosters independent learning and analytical thinking, which are crucial for success in IB assessments. However, challenges such as time constraints, resource limitations, and varying student adaptability to ABTL methodologies are also noted. The findings have practical implications for IB educators, curriculum designers, and policymakers, emphasizing the need for professional development programs that equip teachers with ABTL strategies. Furthermore, the study highlights the necessity of institutional support to integrate ABTL effectively, ensuring that students benefit from a dynamic and engaging learning experience in IB Economics.

Keywords: Activity-Based Teaching and Learning (ABTL); International Baccalaureate (IB); Economics; Interpretative Phenomenological Analysis (IPA); thematic analysis; reflective journals; experiential learning

1. Introduction

Education systems worldwide are undergoing a significant paradigm shift from traditional lecture-based instruction to more student-centered, activity-driven learning methodologies. This transformation is rooted in constructivist learning theories, which argue that knowledge is actively constructed by learners rather than passively received [1,2]. In this context, Activity-Based Teaching and Learning (ABTL) has emerged as a transformative pedagogical approach that engages students in meaningful activities,

fostering critical thinking, problem-solving, collaboration, and real-world application of theoretical knowledge [3]. The growing disillusionment with passive, lecture-heavy methods stems from the recognition that such approaches do not adequately equip students with the skills necessary for addressing the dynamic, interdisciplinary challenges of the 21st century [4]. ABTL addresses this gap by emphasizing experiential learning, where students are encouraged to actively engage with content through simulations, role plays, debates, case studies, and inquiry-based projects. These methods not only improve conceptual understanding and retention but also promote higher-order cognitive skills such as analysis, synthesis, and evaluation [5]. The International Baccalaureate (IB) Economics curriculum, with its focus on developing analytical and evaluative capabilities in students, is naturally aligned with ABTL principles. Designed to cultivate internationally minded thinkers, the curriculum stresses inquiry-based instruction, interdisciplinary learning, and the development of independent, reflective learners. BTL reinforces these goals by integrating active strategies such as economic experiments, real-world data analysis, and student-led investigations. For example, simulations of market behavior allow students to experience supply and demand dynamics, while debates on fiscal policy help them explore diverse economic perspectives and hone their argumentative skills [6]. Similarly, inquiry-based macroeconomic projects require learners to interpret actual economic indicators and make policy recommendations—an authentic application of classroom theory. Traditional didactic approaches, although efficient for content coverage, often fail to provide the depth of understanding and critical engagement required by IB Economics, especially in tasks such as the Internal Assessment (IA), the Extended Essay (EE), and externally assessed papers. These assessments demand not only comprehension of economic theory but also the ability to evaluate real-world phenomena using economic models. Research indicates that activity-based methods foster greater learner autonomy and improve the transfer of knowledge across contexts, which is essential for success in such assessments [7]. Furthermore, ABTL supports the cultivation of 21st-century competencies—including collaboration, creativity, and digital literacy—by promoting peer learning and technology integration in classrooms [8]. The use of tools such as spreadsheet modeling, economic simulation platforms, and data visualization applications deepens learners' insights into economic issues while preparing them for the analytical demands of higher education and professional environments [9]. As such, ABTL does not merely enhance content understanding; it transforms the overall learning experience, empowering students to become confident, competent, and critical economic thinkers.

This study contributes to the growing field of Economics education research by exploring the implementation and outcomes of ABTL in IB Economics classrooms. It investigates how ABTL influences student engagement, conceptual understanding, and assessment performance while also identifying institutional, pedagogical, and logistical challenges. By documenting the lived experiences of IB students and teachers, the research aims to provide actionable insights for IB educators, curriculum developers, and school leaders, offering practical recommendations for integrating ABTL without compromising syllabus coverage or exam preparedness. Moreover, the

study outlines the support systems and resources necessary to sustain effective activity-based instruction in the IB framework.

The remainder of this paper is structured as follows. Section 2 presents a comprehensive review of literature related to ABTL, constructivist learning theory, and their relevance in Economics education. Section 3 outlines the methodology, including the rationale for employing Interpretative Phenomenological Analysis (IPA), participant selection, data collection tools, and credibility measures. Section 4 discusses the research findings, thematically organized to reflect student and teacher perspectives. Section 5 interprets these findings considering existing literature and discusses pedagogical implications. Finally, Section 6 concludes the paper by summarizing key insights, acknowledging limitations, and offering recommendations for future research and instructional practice.

2. Literature review

2.1. Activity-Based Teaching and Learning (ABTL) in Economics education

Activity-Based Teaching and Learning (ABTL) is a student-centered instructional approach that encourages learners to engage with content through experiential and interactive learning techniques. Rooted in constructivist learning theories, ABTL aligns with the idea that students learn best when they actively construct knowledge rather than passively receive information [10]. This method has been widely recognized as an effective way to enhance student engagement, critical thinking, and real-world application of knowledge [11]. In the context of Economics education, ABTL methods such as simulations, problem-based learning (PBL), case studies, and classroom experiments have been shown to improve conceptual understanding and student motivation [12]. For example, research by Emerson and English [13] found that students who participated in interactive simulations of market behavior and government interventions performed better in economic analysis than those taught using traditional lecture methods. Similarly, Goffe and Kauper [14] highlighted that active learning strategies, including role-playing exercises and data analysis projects, foster deeper comprehension of economic concepts by encouraging students to apply theories to real-world scenarios. Moreover, classroom experiments have been widely used to teach microeconomic and macroeconomic principles, providing students with firsthand experience of market forces, consumer behavior, and policy implications [15]. A meta-analysis by Crouch and Mazur [16] found that peer instruction and discussion-based approaches led to significant gains in student understanding compared to traditional lecture-based teaching in Economics.

2.2. Effectiveness of ABTL in the IB curriculum

The International Baccalaureate (IB) Economics curriculum emphasizes inquiry-based learning, interdisciplinary thinking, and the application of theoretical knowledge to real-world contexts [17]. This aligns well with ABTL methodologies, which encourage students to engage in inquiry-driven projects, case studies, and interactive problem-solving activities [18]. The IB Diploma Program (DP) requires students to

develop analytical and evaluative skills for assessments such as the Internal Assessment (IA), Extended Essay (EE), and external examinations. Research suggests that ABTL enhances students' ability to meet these IB assessment criteria by fostering independent learning and higher-order thinking skills [19]. A study by Marburger [20] found that IB Economics students who engaged in collaborative learning activities such as policy debates and economic simulations showed improved retention, problem-solving skills, and application of economic concepts compared to those in lecture-based courses. Similarly, Prince [21] reviewed multiple studies on active learning and concluded that interactive learning environments significantly improve student engagement, exam performance, and conceptual retention in subjects requiring analytical and quantitative skills such as Economics. Another study by Mayer [22] examined the impact of inquiry-based learning in IB classrooms and found that students who actively constructed knowledge through real-world economic investigations demonstrated higher levels of conceptual understanding than those who passively received information. Additionally, integrating technology-based tools, such as economic data visualization platforms and digital simulations, has been found to enhance IB students' engagement, analytical skills, and ability to interpret complex economic data [23–28].

Activity-Based Teaching and Learning (ABTL) has increasingly become a focal point in contemporary pedagogy for Grades 11 and 12, particularly as education systems shift toward skill-based, experiential, and competency-driven models. At this advanced stage of secondary education, students are expected not just to retain information, but to critically engage with content, apply concepts to real-world situations, and prepare for higher education and future careers. ABTL is instrumental in supporting these objectives, as it shifts the classroom dynamic from passive knowledge transmission to active, student-centered learning experiences. Rooted in constructivist theories of education, ABTL emphasizes learning as a process of meaning-making through doing, exploring, and reflecting [29–32]. In Science subjects such as Biology, Chemistry, and Physics, ABTL is realized through hands-on experiments, collaborative investigations, and fieldwork. Rather than merely learning about Newton's laws or photosynthesis through lectures, students actively engage with experiments that demonstrate these principles in action. This type of engagement leads to improved comprehension and retention, as students are involved in observing phenomena, collecting data, drawing inferences, and communicating results—skills aligned with scientific inquiry and the Next Generation Science Standards (NGSS) [33–36]. Similarly, in Mathematics, abstract concepts such as calculus or probability are often perceived as difficult or disconnected from daily life. ABTL bridges this gap through real-world problem-solving activities, mathematical modeling tasks (e.g., optimizing resources or analyzing population growth), and technology-integrated learning using graphing calculators or dynamic geometry software. According to Boaler, when students are given authentic, open-ended tasks that require mathematical reasoning, they develop deeper conceptual understanding and are more motivated to learn [37–40].

In the Humanities, ABTL transforms learning into an immersive experience. For instance, in History, students can participate in mock trials of historical figures, create documentary videos on historical events, or simulate diplomatic negotiations from past

conflicts [41–44]. These activities not only build historical empathy but also foster critical thinking and evaluative writing. In Political Science or Civics, simulations of parliamentary debates, constitution-making processes, or model United Nations assemblies encourage students to understand governance structures, political ideologies, and international relations through role-play and collaboration [45–48]. Even in geography, students benefit from activity-based tasks such as field mapping, urban planning models, or climate data analysis, which promote geospatial thinking and the ability to synthesize physical and human factors influencing development [49–52]. Language and Literature classes also leverage ABTL for enhanced engagement. Instead of traditional grammar drills or rote literary analysis, students might participate in drama enactments, reader's theatre, creative writing journals, or multimedia storytelling projects. These activities not only build linguistic competence but also enhance interpretive, expressive, and collaborative skills [53]. Peer review and editing circles in writing activities also promote metacognitive awareness, as students learn to critique their work and that of others constructively [54].

Beyond academic content, ABTL is instrumental in cultivating 21st-century competencies, including teamwork, adaptability, digital literacy, and creativity [55]. For instance, interdisciplinary projects—such as designing a sustainable community (integrating environmental science, Economics, and geography)—require students to draw from multiple subject areas, encouraging holistic thinking and collaboration. Technology plays a key role in this process; tools such as virtual labs, simulations, learning management systems, and data visualization platforms deepen engagement and cater to diverse learning styles [56]. These experiences also mirror real-world professional environments, helping students bridge the gap between academic knowledge and future career skills [57].

However, successful implementation of ABTL in Grade 11 and 12 classrooms requires thoughtful planning and institutional support. Teachers must be equipped with professional development opportunities to design meaningful activities aligned with learning outcomes. Additionally, curriculum frameworks must allow flexibility for activity-based modules, and assessment systems should evolve to value process-based learning over purely summative evaluation [58]. Time constraints, especially in exam-oriented systems, and lack of access to resources can be significant challenges. Nonetheless, when implemented effectively, ABTL leads to higher student motivation, deeper understanding, and improved long-term academic achievement [59]. ABTL offers a robust and dynamic framework for transforming senior secondary education across subjects. By emphasizing active engagement, real-world relevance, and interdisciplinary thinking, it not only enhances academic outcomes but also fosters personal growth, autonomy, and readiness for the complex demands of the 21st-century world [60].

3. Problem statement

Despite growing recognition of its pedagogical value, the effectiveness of Activity-Based Teaching and Learning (ABTL) in International Baccalaureate (IB) Economics for Grades 11 and 12 remains inconsistent across various learning contexts. This variability underscores the need to examine the underlying factors that

influence its success. The degree to which ABTL positively impacts student learning outcomes is shaped by a range of interconnected elements, including teacher proficiency in designing inquiry-based tasks, alignment with IB assessment criteria, and the capacity to create engaging, contextually relevant activities. Additionally, students' readiness for self-directed learning, cognitive engagement, learning preferences, and their ability to connect abstract economic theories with real-world applications are equally influential [61].

Institutional factors such as the availability of technological infrastructure (e.g., simulation tools, collaborative digital platforms), classroom resources, and ongoing professional development opportunities further determine the feasibility and effectiveness of ABTL integration. The comprehensive nature of the IB Economics syllabus—requiring a delicate balance between conceptual understanding, analytical skill-building, and exam readiness—adds to the challenge. If not carefully structured, ABTL can result in time management issues or misalignment with assessment expectations, potentially undermining its intended benefits.

While literature supports the broader merits of constructivist and student-centered approaches, there is a scarcity of empirical research specifically examining which factors most significantly affect the effectiveness of ABTL within the IB Economics context. Therefore, this study aims not only to explore the impact of ABTL on student learning outcomes but also to identify and analyze the key pedagogical, institutional, and learner-specific factors that facilitate or hinder its successful implementation. Such insights are essential for developing evidence-based strategies to optimize teaching methodologies, enhance curriculum delivery, and ultimately improve student achievement and engagement in Economics education.

4. Research objectives

The primary aim of this study is to investigate the effectiveness of Activity-Based Teaching and Learning (ABTL) in enhancing the quality of teaching and learning in IB Economics for Grades 11 and 12. To achieve this overarching goal, the study sets out to:

- Evaluate the impact of ABTL on students' analytical and evaluative skills, particularly in the context of IB Economics assessments such as the Internal Assessment (IA), Extended Essay (EE), and external examinations.
- Assess the extent to which ABTL fosters independent learning, critical thinking, and deeper conceptual understanding among students.
- Examine student engagement, motivation, and participation within ABTL-oriented learning environments, including interactive activities such as simulations, debates, and inquiry-based projects.
- Identify the key pedagogical, learner-centered, and institutional factors—such as teacher expertise, student readiness, resource availability, and curricular alignment—that influence the effectiveness of ABTL in IB Economics classrooms.

By addressing these objectives, the research bridges the gap between theory and practice, providing a comprehensive understanding of how ABTL can be strategically implemented to maximize its impact. The findings aim to inform educators,

curriculum developers, and policymakers about the conditions under which ABTL is most effective, thereby contributing to more dynamic, student-centered, and outcome-oriented teaching practices in senior secondary Economics education.

5. Methodology

This study adopted a qualitative research design grounded in the Interpretative Phenomenological Analysis (IPA) framework to explore the lived experiences of IB Economics students and teachers with Activity-Based Teaching and Learning (ABTL). Given the research aim to identify key factors affecting the effectiveness of ABTL and evaluate its impact on student engagement, analytical skills, and academic performance, the study combined IPA with a quasi-comparative approach to enhance contextual understanding.

5.1. Study context and participants

The research was conducted during the 2023–2024 academic year across four IB-accredited schools representing diverse geographical and socio-economic contexts. The schools were purposively selected to include both well-resourced institutions (with access to digital tools, simulation software, and institutional professional development programs) and moderately resourced schools to ensure a wide representation of learning environments.

The final sample included 40 IB Economics students (20 exposed to ABTL and 20 who followed traditional lecture-based instruction) and 6 IB Economics teachers. Students were from both High Learning (HL) and Standard Learning (SL) streams and selected using purposive sampling based on their exposure to ABTL strategies. Participants provided informed consent and were briefed on the study objectives and ethical considerations.

5.2. Pilot study

A pilot study was conducted with 2 teachers and 4 students to test the clarity and appropriateness of the interview protocols and focus group discussion guides. Feedback from the pilot led to refinement in the wording of questions and the inclusion of probes to explore specific ABTL strategies and student reflections more deeply [62].

5.3. Data collection methods

5.3.1. Semi-structured interviews

In-depth interviews were conducted with all 6 teachers and 20 students from the ABTL-exposed group. Interview guides focused on perceptions of ABTL's effectiveness, challenges in implementation, and changes in student outcomes (Appendix). A control group of 20 students who experienced traditional instruction was also interviewed to allow comparative narrative analysis [63].

5.3.2. Focus group discussions

Three focus group discussions (FGDs) were conducted with students from the ABTL group to explore shared interpretations and collective insights on classroom

engagement and critical thinking. FGDs included both HL and SL students to reflect varied perspectives [62].

5.3.3. Reflective journals

Students in the ABTL group maintained reflective journals throughout the academic term. They were instructed on how to document their lived experiences, perceived challenges, engagement levels, and understanding of economic concepts. The journals were reviewed at three intervals: After the first month, mid-term, and end of term.

5.3.4. Academic performance data

A qualitative review of students' performance in Internal Assessments (IAs), classroom tests, and reflective journals was undertaken to identify differences in concept retention, application, and reasoning skills. These comparisons were made across ABTL and non-ABTL student cohorts. However, no statistical analysis was performed due to the qualitative design.

5.3.5. Institutional support analysis

Structured observations and informal interviews with school administrators were conducted to assess the extent of institutional support for ABTL, such as provision of training, infrastructure, and curriculum planning time. This justified the inclusion of administrator perspectives in the results [64].

5.4. Data analysis

All interviews, FGDs, and journal entries were transcribed verbatim and analyzed using thematic analysis in NVivo software. The IPA approach guided interpretation of the data by focusing on how participants made sense of their experiences. Themes were validated through member checking and inter-coder reliability procedures.

6. Findings and analysis

The effectiveness of Activity-Based Teaching and Learning (ABTL) in IB Economics is influenced by multiple interrelated factors, including student engagement, teacher preparedness, resource availability, and institutional backing. Data collected through semi-structured interviews, focus groups, reflective journals, and classroom observations were analyzed using IPA to gain insights into the nuanced and lived experiences of students and teachers. The findings are organized into two sections: Key Influencing Factors and Expected Outcomes.

6.1. Key influencing factors

6.1.1. Student engagement and motivation

Student engagement emerged as a central theme in evaluating the impact of Activity-Based Teaching and Learning (ABTL) in IB Economics classrooms. The qualitative data, derived from interviews, focus group discussions, and reflective journals, consistently revealed that students responded more positively and with greater enthusiasm when ABTL strategies—such as simulations, role-playing, economic debates, and real-world case studies—were incorporated into daily instruction. Unlike traditional lecture-based pedagogy, which often led to passive

reception of information, ABTL created an interactive and participatory environment where students could take ownership of their learning. Many students articulated that they felt a stronger personal connection to the subject matter when it was contextualized through real-life scenarios and hands-on activities. One student stated, "I feel more connected to the subject when we do real-world applications instead of just memorizing theories", highlighting the importance of experiential learning in fostering deeper cognitive and emotional investment.

This increase in engagement was also reflected in students' sustained interest throughout the term. Reflective journals revealed that activities such as creating economic models, participating in simulations of market behavior, and engaging in classroom debates allowed students to view Economics not as abstract theory, but as a practical, dynamic discipline. These activities were seen to increase concentration during lessons, with students frequently reporting that the lessons felt "more alive" and "less monotonous". Moreover, the practice of maintaining reflective journals significantly contributed to the metacognitive aspect of student learning. Students were encouraged to critically analyze their own learning processes, recognize patterns in their understanding, and identify areas for improvement. One student noted, "Writing about my learning experiences helped me see my progress and gaps in understanding". This practice not only reinforced engagement but also cultivated a sense of academic self-awareness and personal responsibility. Importantly, students from both HL and SL streams expressed that ABTL helped reduce feelings of academic anxiety, especially when dealing with complex topics like international trade, macroeconomic equilibrium, and policy evaluation. The opportunity to discuss and collaborate with peers in a less formal and more exploratory environment was cited as particularly helpful. Activities that involved group problem-solving and role-based decision-making were also reported to enhance social engagement, which in turn contributed to a more supportive and stimulating learning environment.

Overall, the findings underscore that ABTL acts as a catalyst for intrinsic motivation by making economic concepts more accessible, relatable, and engaging. This shift in engagement is not superficial; it represents a deeper, more sustained cognitive and emotional investment in learning Economics—one that is essential for success in the inquiry-driven and concept-heavy IB curriculum.

6.1.2. Teacher expertise and instructional strategies

The successful integration of Activity-Based Teaching and Learning (ABTL) in IB Economics is closely tied to the expertise, adaptability, and instructional strategies employed by teachers. While ABTL offers a student-centered, inquiry-driven approach that enhances engagement and critical thinking, its effectiveness hinges on teachers' ability to skillfully design and facilitate learning experiences that meet both the dynamic nature of ABTL and the structured requirements of the IB curriculum. Teachers participating in the study emphasized the dual challenge of maintaining academic rigor while fostering a more exploratory learning environment. Several reported that while ABTL deepened students' conceptual understanding and engagement, it demanded significantly more time and effort in terms of lesson planning, resource preparation, and continuous assessment. One teacher explained, "ABTL works well, but it requires a lot of preparation to align with IB assessment

criteria". Teachers had to meticulously ensure that activities such as simulations, role-plays, and debates were not only engaging but also directly connected to the IB command terms, assessment objectives, and examination expectations.

Scaffolding emerged as a critical instructional strategy, particularly in helping students gradually develop the skills needed to navigate complex economic content and apply higher-order thinking. Teachers often used pre-activity prompts, guiding questions, and post-activity reflections to reinforce learning outcomes and ensure alignment with IB standards. Adaptive instruction was equally vital teachers needed to respond flexibly to diverse learning needs, modify activities in real-time, and create differentiated pathways to support both HL and SL students effectively. Collaborative planning among teachers also played a pivotal role. In schools where ABTL was successfully embedded, educators worked together to design interdisciplinary projects, co-create assessment rubrics, and share best practices. This not only enhanced consistency and quality but also fostered a professional learning community that supported innovation and continuous improvement. Importantly, several teachers noted that their ability to implement ABTL was shaped by their own professional development and prior exposure to constructivist pedagogies. Those with training in inquiry-based learning or experience with IB's Theory of Knowledge (TOK) framework were more confident in designing tasks that encouraged analysis, evaluation, and synthesis—key skills emphasized in both ABTL and IB assessments.

In essence, ABTL implementation is not merely a shift in classroom activities but a transformation in pedagogical philosophy, requiring teachers to assume the role of facilitators, designers, and reflective practitioners. The findings highlight that ongoing professional development, peer collaboration, and institutional recognition of teacher efforts are essential for sustaining ABTL as a meaningful and rigorous instructional approach in IB Economics.

6.1.3. Resource availability and institutional support

Resource access played a pivotal role in determining ABTL effectiveness. Students in digitally equipped classrooms with access to simulations, datasets, and economic modeling software reported enhanced comprehension. One student commented, "Using online simulations made complex economic models much easier to understand". In contrast, schools with limited resources faced implementation challenges. Institutional support—such as provision of ABTL training, planning time, and infrastructure—emerged as a key enabler of successful integration. The IPA analysis underscored that the success of Activity-Based Teaching and Learning (ABTL) in IB Economics is deeply embedded within the institutional ecosystem. Key institutional factors—such as leadership commitment, infrastructure availability, and ongoing staff development—emerged as crucial enablers of ABTL implementation and sustainability. Schools with a clear leadership vision that prioritized student-centered learning and innovation created environments more conducive to adopting ABTL practices. Administrators in these schools actively supported teachers through dedicated planning time, structured collaboration opportunities, and clear policies that encouraged pedagogical experimentation. Teachers from such institutions noted a greater sense of empowerment and autonomy to redesign their instructional strategies around ABTL principles. Infrastructure also played a vital role. Classrooms equipped

with digital tools, economic modeling software, access to real-time data sources, and flexible learning spaces allowed for more seamless integration of ABTL strategies. Teachers reported that these resources enhanced their ability to deliver complex economic concepts through simulations, visualizations, and interactive case studies, making learning more tangible and meaningful for students.

Professional development emerged as a particularly influential factor. Institutions that invested in targeted training sessions, workshops, and peer-sharing forums enabled teachers to build competence and confidence in delivering ABTL. One school administrator remarked, "Providing teachers with professional development opportunities in ABTL has transformed our Economics department into a more dynamic and engaging learning environment". These professional learning communities fostered a culture of reflective practice, continuous improvement, and collaborative innovation, all of which reinforced the long-term viability of ABTL.

Conversely, in schools where institutional support was limited—either due to budget constraints, rigid administrative policies, or lack of training—teachers faced significant barriers. These included time pressures, limited access to resources, and hesitancy to deviate from traditional teaching methods due to concerns about exam preparedness. In such contexts, ABTL was often perceived as an additional burden rather than an integrated instructional shift, leading to partial or inconsistent implementation.

6.2. Outcome of ABTL (IPA approach)

6.2.1. Enhanced student engagement and motivation

The Interpretative Phenomenological Analysis (IPA) of student narratives revealed a significant transformation in how learners engaged with Economics through the implementation of Activity-Based Teaching and Learning (ABTL). Students repeatedly emphasized that ABTL transformed their role from passive recipients of information to active participants in the construction of knowledge. This active involvement led to a deeper emotional and intellectual connection with the subject.

Multiple students described how ABTL strategies—such as economic simulations, real-world case analyses, project-based inquiries, and role-plays—sparked a sense of curiosity and relevance. One student reflected, *"When I engage in real-world discussions and problem-solving tasks, I feel a sense of purpose in learning Economics"*. This comment exemplifies how ABTL shifted the focus from rote memorization to meaningful exploration, thereby nurturing a stronger sense of purpose, autonomy, and personal relevance. Emotional engagement was also seen to increase. Students reported that ABTL activities made them look forward to Economics lessons, with many highlighting that they no longer viewed the subject as abstract or intimidating. Instead, they began to perceive it as an evolving, applicable discipline that affects everyday decisions and global issues. This emotional resonance appeared to translate into heightened motivation, perseverance, and willingness to engage with challenging material.

Furthermore, the structured use of reflective journaling played a critical role in sustaining motivation and engagement. Students documented their evolving understanding, reactions to ABTL activities, and feelings of progress or struggle. This

reflective practice not only helped them monitor their academic development but also encouraged metacognition—deep thinking about how they learn. One student noted, *"Journaling helped me understand how my thinking has changed week by week. It made me realize that I'm actually learning more than I thought".* Such reflections demonstrated a shift toward a growth mindset, where challenges were no longer perceived as failures but as integral to the learning journey. Social engagement was another dimension enhanced by ABTL. Group-based problem-solving tasks, debates, and peer feedback sessions helped students develop stronger interpersonal and collaborative skills, which further reinforced their emotional commitment to the subject. Students spoke positively about the sense of community and shared learning that ABTL fostered, which stood in stark contrast to the more isolating experience of traditional lecture-based instruction.

Collectively, the findings indicate that ABTL facilitated a multi-dimensional engagement—emotional, cognitive, and social—that extended beyond the classroom. Students reported that they were more likely to discuss economic issues outside of class, draw connections between current events and theoretical models, and pursue independent research, all of which signal a meaningful and self-sustained investment in Economics.

In summary, ABTL enhanced student engagement and motivation by embedding learning in real-world contexts, encouraging reflective thinking, and fostering collaborative classroom cultures. These shifts not only enriched the academic experience but also contributed to long-term interest and deeper learning in Economics.

6.2.2. Improvement in critical thinking and analytical skills

The Interpretative Phenomenological Analysis (IPA) of student and teacher reflections revealed that Activity-Based Teaching and Learning (ABTL) significantly enhanced learners' critical thinking and analytical capabilities in IB Economics. This was evident not only in classroom discussions but also in the structure, reasoning, and depth of students' written work—particularly in their Internal Assessments (IAs).

Students consistently described a shift from superficial understanding to deeper, more analytical engagement with economic concepts. Prior to exposure to ABTL, many students viewed economic theories as abstract frameworks to be memorized. However, interactive activities such as data analysis, policy simulations, case study deconstructions, and role-based decision-making allowed them to contextualize and interrogate those theories. One student captured this evolution, stating, *"Before, I struggled to apply economic theories. Now, I can analyze policies critically and understand their real-world implications".* This reflects a cognitive leap from simple recall to higher-order reasoning—consistent with the upper levels of Bloom's Taxonomy, such as analysis, synthesis, and evaluation.

Teachers also noted that students participating in ABTL demonstrated stronger argumentation, logical reasoning, and a capacity to weigh alternative perspectives. Their IA submissions featured more nuanced arguments supported by relevant examples, empirical evidence, and critical evaluation of economic outcomes. For instance, one teacher remarked that ABTL students "no longer defaulted to textbook explanations but began constructing their own analytical frameworks tailored to the

case at hand". The ABTL framework also facilitated peer interaction and collaborative inquiry, both of which were instrumental in developing students' analytical skills. Group discussions and debates required students to defend their views, consider opposing arguments, and refine their reasoning based on peer feedback. These experiences deepened their understanding of economic interdependencies and trade-offs, key skills in the IB Economics curriculum.

Reflective journals offered additional insight into how students internalized these critical thinking habits. Entries revealed that students increasingly questioned assumptions, explored alternative solutions to economic problems, and evaluated the limitations of theoretical models. One student wrote, *"I've started looking at policy issues from multiple angles. I used to think there was just one correct answer, but now I see the importance of context and unintended consequences"*. This illustrates the development of intellectual humility and open-mindedness—traits closely associated with critical thinking. Moreover, ABTL prompted students to engage in real-time economic reasoning by responding to contemporary global events, such as inflation trends, trade disputes, or environmental policies. By linking classroom content with current affairs, students practiced applying theoretical models to unpredictable and dynamic real-world scenarios, thereby reinforcing analytical transfer and adaptability.

In summary, the IPA findings confirm that ABTL not only improves students' ability to understand and apply economic theory but also cultivates critical thinking as a habit of mind. This cognitive growth is essential for success in the IB Economics program, where students are expected to independently construct well-reasoned arguments, critique policy implications, and demonstrate evaluative thinking in both written and oral assessments.

6.2.3. Better concept retention and application

Interpretative Phenomenological Analysis (IPA) of student journals, teacher interviews, and classroom observations highlighted that ABTL significantly improved the retention and real-world application of economic concepts. Compared to traditional lecture-based approaches, ABTL fostered more enduring learning by anchoring abstract theories in experiential, student-centered activities.

Students frequently reported that interactive learning experiences—such as case studies, simulations, economic games, and collaborative projects—helped them internalize concepts in a meaningful and lasting way. One student noted, *"Traditional lectures left me cramming before exams, but with ABTL, I remember concepts long after the lesson is over"*. This suggests that ABTL not only enhances immediate understanding but also facilitates the transition of knowledge from short-term to long-term memory, a critical factor in academic success and exam readiness. The design of ABTL activities encouraged students to apply economic theories to realistic scenarios, deepening their cognitive engagement with the subject matter. For instance, when students role-played as policymakers responding to inflation or supply shocks, they were required to use macroeconomic tools actively rather than passively recalling definitions. This experiential learning approach allowed them to see how economic models function in practice, leading to improved conceptual clarity and retention. Classroom observations corroborated this trend. Teachers reported that students who participated in ABTL-based instruction were more likely to recall and apply

previously taught concepts when encountering new problems. For example, in cumulative assessments or during spontaneous class discussions, these students demonstrated a robust ability to link past lessons with current topics. A teacher reflected, *"Students who engaged with simulations and case analyses were quicker to recall and apply elasticity or market failure frameworks, even weeks after the lesson"*. Additionally, reflective journals revealed that ABTL cultivated metacognitive awareness—students were better able to identify their learning gaps and revisit misunderstood concepts in context. This self-awareness contributed to deeper learning and higher academic independence. One journal entry read, *"I used to mix up demand and supply shifts. After the group project on price controls, it finally clicked because I had to explain it to others and see it play out in a scenario"*. The collaborative and hands-on nature of ABTL also allowed for repeated exposure to key ideas across different contexts. This spiral reinforcement—revisiting the same economic principles in diverse applications—supported durable learning and enabled students to transfer their knowledge to both assessments and real-world issues.

In summary, the IPA findings indicate that ABTL promotes better concept retention and practical application by transforming learning from a passive memorization task into an active, iterative process. By engaging students cognitively, emotionally, and socially, ABTL creates lasting impressions that endure beyond the classroom and into higher-level economic reasoning and academic performance.

6.2.4. Higher academic performance

The IPA analysis illuminated the pivotal role that institutional infrastructure, visionary leadership, and sustained staff development play in the effective implementation of Activity-Based Teaching and Learning (ABTL). Schools that demonstrated a clear commitment to pedagogical innovation—through policy, resource allocation, and strategic planning—created enabling environments where ABTL could flourish.

Educators in these settings reported greater ease in integrating ABTL strategies due to structured professional development, access to digital tools, and administrative flexibility in curriculum planning. One school administrator remarked, *"Providing teachers with professional development opportunities in ABTL has transformed our Economics department into a more dynamic and engaging learning environment"*. This perspective was reinforced by teachers who felt empowered to experiment with innovative approaches because their institutions encouraged risk-taking and reflective teaching practice. Moreover, in schools where leadership articulated a clear vision for student-centered learning, teachers experienced reduced resistance to change and greater peer collaboration. Interdisciplinary planning meetings, investment in digital infrastructure, and a culture of continuous learning were cited as essential enablers. In contrast, educators in resource-constrained environments reported that the absence of such support significantly limited the scope and sustainability of ABTL initiatives. They struggled with large class sizes, limited access to technology, and insufficient time for instructional redesign—factors that directly impacted student outcomes.

The IPA data further revealed that institutional support was not merely logistical but cultural. Schools that embraced ABTL often had leadership teams that actively promoted inquiry-based instruction, celebrated pedagogical experimentation, and

allocated time for reflective teaching cycles. This culture fostered collective teacher efficacy, reduced burnout, and improved student-teacher dynamics.

These findings underscore that ABTL is not simply a classroom-level innovation but a systemic shift that requires alignment across policy, infrastructure, and professional practice. When institutional conditions are favorable, ABTL transitions from an experimental technique to an embedded pedagogical model, leading to richer student engagement and stronger academic outcomes.

6.2.5. Increased teacher effectiveness and instructional innovation

Teachers acknowledged that Activity-Based Teaching and Learning (ABTL) played a significant role in enhancing their instructional effectiveness and promoting continuous professional growth. The implementation of ABTL strategies—such as inquiry-based tasks, role-playing, collaborative projects, and the use of economic simulations—challenged teachers to rethink traditional methods and adopt more student-centered approaches. This pedagogical shift required not only a deeper understanding of economic content but also the development of new facilitation skills, classroom management techniques, and assessment strategies.

While the transition to ABTL demanded considerable time for planning and resource adaptation, teachers reported that the effort was intellectually and professionally rewarding. One teacher shared, “This approach pushes me to innovate my teaching, but it also demands more planning to ensure alignment with IB assessments”. Others noted that ABTL encouraged them to engage in reflective teaching, experiment with instructional techniques, and collaborate with colleagues to design cross-curricular and interdisciplinary units that maintained academic rigor while increasing relevance.

Moreover, ABTL contributed to improved teacher-student relationships and more dynamic classroom environments. Teachers observed that students became more responsive, inquisitive, and invested in their learning, which in turn prompted educators to tailor their teaching more effectively. The shift from one-way content delivery to interactive and dialogic engagement fostered mutual respect, increased feedback loops, and a more inclusive atmosphere where diverse perspectives were welcomed and explored.

In schools where institutional support was strong, teachers had access to professional development opportunities focused on ABTL implementation. These sessions further enabled instructional innovation by providing practical tools, sharing best practices, and reinforcing the alignment of ABTL with IB Economics assessment objectives. As a result, teachers not only felt more empowered in their roles but also reported higher levels of job satisfaction and a renewed passion for teaching (**Figure 1**).

6.3. Conceptual model of ABTL in IB Economics

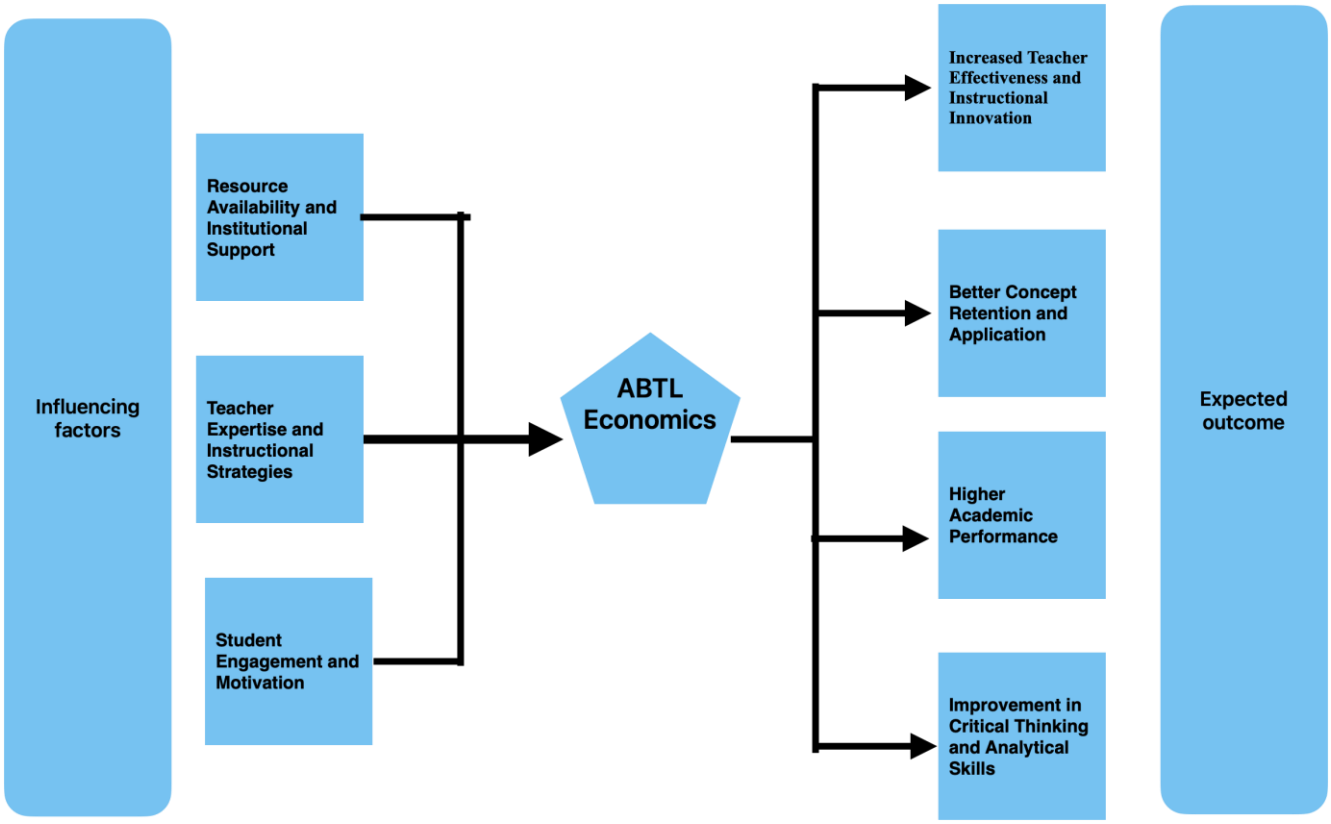

Figure 1. Conceptual model of ABTL in IB Economics.

7. Discussion

The findings of this study underscore the effectiveness of Activity-Based Teaching and Learning (ABTL) in enhancing students' comprehension, engagement, and analytical skills in IB Economics. The interpretative analysis of participant responses reveals several key themes that highlight both the strengths and challenges of ABTL in the IB curriculum. Firstly, students consistently reported that ABTL increased their engagement and interest in Economics [65]. The interactive nature of simulations, debates, and inquiry-based projects made abstract economic concepts more tangible. One student stated, "Applying theories in real-world scenarios helped me understand complex topics like market structures and government policies much better than just reading textbooks".

Secondly, teachers emphasized that ABTL fosters critical thinking and independent learning, essential skills for IB Economics assessments such as Internal Assessments (IA), Extended Essays (EE), and external examinations [66]. A teacher noted, "When students actively engage in discussions and case studies, they develop a deeper analytical approach rather than just memorizing models". However, challenges in implementing ABTL were also highlighted. Some teachers expressed concerns about the time required to design and facilitate activity-driven lessons while ensuring alignment with IB assessment criteria [67]. Furthermore, resource availability played a crucial role in determining the success of ABTL. Schools with access to economic databases, case study repositories, and digital simulations reported

smoother integration of ABTL into their curriculum. Overall, this study highlights that while ABTL significantly enhances conceptual understanding and analytical skills, its effectiveness depends on teacher preparedness, institutional support, and student adaptability [68]. Future research could explore how ABTL can be further optimized to support different learning preferences and IB assessment requirements.

8. Conclusion

The study concludes that Activity-Based Teaching and Learning (ABTL) is a highly effective pedagogical approach for IB Economics, significantly enhancing student engagement, conceptual understanding, and analytical skills. The interpretative analysis highlights that students benefit from interactive, real-world applications of economic theories, fostering critical thinking essential for IB assessments. However, successful implementation requires institutional support, teacher preparedness, and resource availability. Addressing these challenges can further optimize ABTL's effectiveness, making it a valuable strategy for improving economic education in IB schools. Future research should explore scalable models to integrate ABTL more effectively within diverse educational contexts.

9. Limitations of the study

Despite the strengths of this study, several limitations must be acknowledged. Firstly, the study relies on qualitative data, which, while rich in detail, may not be generalizable to all IB schools due to variations in teaching styles, institutional resources, and student demographics. Secondly, the relatively small sample size, inherent to IPA studies, may limit the ability to draw broad conclusions about the effectiveness of ABTL in IB Economics education. Thirdly, the reliance on self-reported data through interviews and reflective journals may introduce bias, as participants may provide socially desirable responses rather than fully candid reflections. Additionally, logistical challenges such as time constraints and school scheduling limitations may impact the depth of data collection and classroom observation frequency. Future research could address these limitations by incorporating a mixed-methods approach with quantitative data to complement qualitative insights and enhance the generalizability of findings.

10. Practical implications

The findings of this study have significant implications for educators, curriculum designers, and policymakers in IB Economics education. Firstly, the study highlights the importance of ABTL in fostering deeper conceptual understanding and critical thinking among students, which aligns with the IB curriculum's emphasis on inquiry-based learning. Teachers can use the study's insights to incorporate more interactive methodologies such as case studies, debates, and simulations, ensuring that students actively engage with economic theories rather than passively absorbing content.

Secondly, the study provides empirical support for the integration of ABTL strategies into professional development programs for IB educators. Training sessions can focus on equipping teachers with innovative pedagogical tools to enhance student

engagement and improve assessment outcomes. Additionally, IB schools can leverage the study's findings to justify increased investment in classroom resources, digital tools, and collaborative learning environments that facilitate ABTL approaches.

Lastly, policymakers can use the research to advocate for curriculum reforms that emphasize experiential learning in Economics education. By shifting towards student-centered teaching methodologies, educational institutions can bridge the gap between theoretical knowledge and real-world economic applications, better preparing students for higher education and professional careers.

Author contributions: Conceptualization, AJ and NM; methodology, WDM; software, AJ; validation, AJ, WDM and NM; formal analysis, WDM; investigation, NM; resources, AJ; data curation, AJ; writing—original draft preparation, NM; writing—review and editing, AJ; visualization, AJ; supervision, WDM; project administration, AJ; funding acquisition, NM. All authors have read and agreed to the published version of the manuscript.

Institutional review board statement: Not applicable.

Informed consent statement: Not applicable.

Conflict of interest: The authors declare no conflict of interest.

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Appendix

I. Semi structured interview questions

i. For Economics teachers (ABTL-exposed group)

1. Perceptions of ABTL's effectiveness in Economics

- How has ABTL influenced your approach to teaching abstract or theoretical Economics concepts (e.g., supply and demand, inflation, market structures)?
- Have students responded differently to core topics when taught using ABTL? Can you share examples?
- In your opinion, how well does ABTL foster deeper economic thinking or application of economic models?

2. Challenges in implementation

- What specific challenges have you faced while designing or conducting ABTL activities in Economics?
- How do you balance syllabus coverage with the time-intensive nature of activity-based learning?
- Are there particular Economics topics that are more difficult to adapt to ABTL methods?

3. Observed changes in student outcomes

- Have you noticed improvements in students' ability to apply economic theories to real-world situations?
- How has ABTL influenced student performance in internal assessments, exams, or class discussions?
- Have there been improvements in students' use of diagrams, evaluative thinking, or critical analysis?

ii. For Economics students (ABTL-exposed group)

1. Perceptions of ABTL in Economics

- How do you feel about learning Economics through activities rather than lectures?
- Which ABTL-based Economics activity helped you the most, and why?
- Do you think ABTL made topics like elasticity, market failure, or fiscal policy easier to understand?

2. Challenges and experiences

- Were there any activities that confused you or felt too complex? What made them difficult?
- How comfortable were you working in groups or solving real-world Economics problems during ABTL sessions?
- What kind of support did your teacher provide during these activities?

3. Perceived impact on learning

- Do you feel more confident in explaining economic concepts now?
- Have you found it easier to draw and interpret economic diagrams after ABTL lessons?
- How has ABTL changed the way you prepare for tests or internal assessments?