



Effectiveness of Tutorial Webinar and Tutorial Online in Supporting Student Learning Outcomes in SIPAS Semi PGSD UT Medan

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Abstract

Universitas Terbuka Medan offers the SIPAS Semi service that combines Tutorial Webinar (Tuweb) and Tutorial Online (Tuton) to support undergraduate Primary School Teacher Education students in distance learning. This study aims to evaluate the effectiveness of both tutorial modes in improving academic outcomes through regression analysis and student perceptions. A quantitative descriptive approach with multiple linear regression was employed, involving 100 seventh-semester students purposively selected from Salut Simalungun, Asahan, and Tobasa. Data were obtained through questionnaires and institutional records, then analyzed using validity and reliability testing, classical regression assumptions, model testing, and descriptive analysis of perceptions. The regression model $IPS = 0.019 + 0.394 (\text{Tuton}) + 0.598 (\text{Tuweb})$ demonstrated that both variables significantly affected student performance, with Tuweb contributing more strongly. Students perceived Tuweb as motivating and interactive, while Tuton fostered independence despite limited tutor feedback. These results confirm that Tuweb and Tuton are complementary in enhancing distance learning outcomes. The study concludes that both tutorials improve achievement, with Tuweb exerting greater influence. Recommendations include strengthening tutor responsiveness in Tuton and improving technical infrastructure to maximize the blended tutorial model. Future research could extend to other study programs or investigate long-term effects on learning achievement.

Keywords: Tutorial Webinar, Tutorial Online, Regression Analysis, Student Perception, Universitas Terbuka Medan

1. Introduction

Universitas Terbuka (UT), established through Presidential Decree No. 41 of 1984, has long been acknowledged as the pioneer of open and distance higher education in Indonesia. As the 45th state university, UT was designed with a unique mission to expand access to higher education, especially for individuals who, due to geographical, economic, or social reasons, could not participate in conventional university systems. Over the past four decades, UT has transformed into the largest distance education institution in Indonesia, with more than 671,967 active students recorded in October 2024 (Universitas Terbuka, 2024).

The concept of distance learning (PJJ) implemented at UT relies heavily on flexible academic services. Students are not required to be physically present on campus but can access learning materials and interact with tutors using digital platforms. This system provides both flexibility and inclusivity, accommodating learners of various backgrounds and age groups. As Kharis et al. (2023, 2024) emphasize, distance education offers not only accessibility but also a democratization of education, ensuring that learning opportunities are available to anyone regardless of their socioeconomic status or location.



Nevertheless, distance education is not without challenges. Successful distance learning requires strong motivation, self-discipline, and adaptability from students. Many students entering UT—particularly new undergraduate students—have been accustomed to face-to-face classroom learning environments. The shift to an online or semi-online learning model requires a significant cultural adjustment. For some, the absence of direct, physical interaction with tutors may lead to difficulties in maintaining focus, motivation, and consistent learning habits (Parlindungan et al., 2020).

To address these issues, UT Medan, one of UT's regional offices (UPB JJ), offers a special service known as the Semester Package System (SIPAS) Semi. This model blends two main tutorial modes: synchronous tutorial webinars (Tuweb) and asynchronous online tutorials (Tuton). Tuweb provides real-time interactions between tutors and students using Microsoft Teams, enabling students to ask questions, discuss problems, and engage actively with the material. Tuton, on the other hand, allows students to access learning materials, participate in asynchronous discussions, and submit assignments via the official e-learning platform (elearning.ut.ac.id). This dual-mode approach aims to balance the advantages of synchronous interactivity and asynchronous flexibility.

The SIPAS Semi program is particularly significant for the Primary School Teacher Education (S1 PGSD) students. These students, many of whom are future primary school teachers, are expected to develop not only academic knowledge but also independent learning skills that they can later transfer to their classrooms. In this context, the effectiveness of tutorial services such as Tuweb and Tuton becomes critical, as they directly influence students' academic performance, learning independence, and self-confidence.

Despite the potential of this blended tutorial system, challenges remain. Internet connectivity issues, particularly in rural or underdeveloped areas, limit students' access to Tuweb sessions. Students often report difficulties in attending synchronous webinars due to unstable connections or limited internet data quotas. In Tuton, while flexibility is appreciated, students frequently express concerns about the limited responsiveness of tutors in discussion forums. These challenges highlight the importance of systematically evaluating the effectiveness of SIPAS Semi services, not only from the perspective of academic outcomes but also based on student perceptions.

By employing regression analysis in combination with perception surveys, this study provides a comprehensive assessment of how Tuweb and Tuton contribute to student achievement. This dual perspective offers more robust insights than studies focusing solely on either quantitative performance indicators or qualitative perceptions.

Based on the background, the key research problems of this study can be formulated as follows:

1. Effectiveness of Tutorials: To what extent are Tuweb and Tuton effective in improving the learning outcomes of PGSD SIPAS Semi students at UT Medan? This includes evaluating their impact on GPA, learning engagement, and student confidence.



2. Contributing Factors: What are the specific factors that influence the effectiveness of Tuweb and Toton? This question is critical because effectiveness may be shaped not only by the availability of learning platforms but also by students' motivation, the responsiveness of tutors, the quality of instructional design, and technical infrastructure.

The main objective of this study is to analyze the effectiveness of Tuweb and Toton in supporting the academic achievement of PGSD SIPAS Semi students at UT Medan. Specifically, the study seeks to examine the extent to which both tutorial modes contribute to students' semester performance index (IPS) and cumulative grade point average (GPA), as well as to identify key factors influencing their effectiveness, including interactivity, accessibility, tutor feedback, and students' independent learning capacity. By integrating quantitative regression analysis with qualitative descriptions of student perceptions, this research aims to provide a comprehensive and balanced understanding of the role of Tuweb and Toton in distance learning. Furthermore, the findings are expected to support evidence-based policy and practical improvements to ensure that SIPAS Semi services remain sustainable and responsive to student needs.

This study offers important theoretical and practical contributions. From a theoretical perspective, it enriches the literature on distance education effectiveness by combining statistical and perception-based approaches, thereby providing quantifiable evidence of the relative influence of synchronous and asynchronous tutorial models. Practically, the findings assist students in recognizing the strengths and limitations of each tutorial mode, enabling them to optimize their learning strategies. For UT Medan and UT at large, the results provide actionable insights for improving service quality through enhanced tutor responsiveness, scheduling flexibility, and technical support. In addition, tutors and educators can better understand how interaction styles and feedback mechanisms affect student outcomes. Finally, this study lays the groundwork for future research, including replication in other programs, longitudinal analyses, and exploration of emerging technologies such as AI-based learning assistants in distance education contexts.

2. Research Method

This study employed a mixed-method approach that combined quantitative and qualitative descriptive methods to evaluate the effectiveness of the SIPAS Semi service scheme at Universitas Terbuka Medan. The use of a mixed-method design was intended to obtain a more comprehensive understanding, as quantitative analysis provided objective statistical evidence, while qualitative exploration captured the experiences and perspectives of students and tutors in more detail.

The quantitative component focused on numerical data, including students' Grade Point Average (GPA) as well as Tuweb and Toton scores obtained from the Universitas Terbuka database. These data served as indicators of academic performance and were analyzed using statistical tools to identify the extent to which each tutorial mode contributed to student outcomes. Meanwhile, the qualitative component involved data in the form of words, statements, and observations describing the learning process, interaction patterns, and challenges faced by students



and tutors. The qualitative findings were important to complement and enrich the quantitative analysis by providing contextual interpretations of the numbers.

The population of this study consisted of undergraduate students in the Primary School Teacher Education Program (S1 PGSD) who were enrolled under the SIPAS Semi system at UT Medan. Given the wide student base, a purposive sampling technique was used to ensure that the selected respondents met specific criteria. The focus was on students from the Salut Simalungun, Asahan, and Tobasa regions, which were considered representative in terms of geographic diversity and access to SIPAS Semi services. In total, 100 students in the seventh semester were selected as the sample, providing sufficient data to conduct reliable regression analysis.

Data collection utilized both primary and secondary sources. Primary data were obtained through structured questionnaires, interviews, and group discussions with students and tutors. The questionnaire applied a Likert scale to capture students' perceptions regarding the accessibility, interactivity, and contribution of Tuweb and Tutan to their learning. Interviews and discussions were conducted to gain deeper insights into challenges and opportunities experienced in practice. Secondary data were drawn from institutional records such as GPA, Tuweb scores, and Tutan scores, which ensured objectivity and completeness of the dataset. Documentation also served to cross-check the consistency of responses obtained from the survey.

Before proceeding with analysis, instrument testing was carried out to ensure validity and reliability. Validity was assessed by comparing correlation coefficients of each item against critical values to confirm that all questions were appropriate for measuring the intended constructs. Reliability was measured using Cronbach's Alpha, which demonstrated internal consistency across questionnaire items. These procedures guaranteed that the instruments used in the study produced trustworthy results.

The data analysis process involved several steps. Quantitative data were examined using multiple linear regression analysis to determine the simultaneous and partial influence of Tuweb and Tutan on academic outcomes. Before conducting the regression analysis, several classical assumption tests were applied to ensure model validity. A normality test was performed to confirm that the residuals followed a normal distribution, which is a fundamental requirement for reliable regression results. Multicollinearity was examined using the Variance Inflation Factor (VIF) to ensure that no excessive correlation existed between the independent variables, namely Tuweb and Tutan. Furthermore, a heteroscedasticity test was conducted to verify the consistency of error variances across observations, thereby preventing biased coefficient estimates. Finally, an autocorrelation test using the Durbin-Watson statistic was employed to detect any serial correlation in the residuals that could potentially distort the accuracy and reliability of the regression model.

Through these analytical stages, the regression model was confirmed to be statistically sound, reliable, and free from bias. The validated model then served as the basis for interpreting the contribution of Tuweb and Tutan to student achievement. Meanwhile, the qualitative findings supported the interpretation of the statistical results by illustrating how students experienced each



tutorial mode in practice. In this way, the mixed-method approach provided a well-rounded understanding of the effectiveness of the SIPAS Semi system at UT Medan.

3. Results and Discussions

The first finding relates to students' perception of the accessibility of tutorial services. Most respondents agreed that both webinar tutorials (Tuweb) and online tutorials (Tuton) were relatively easy to access, although some reported technical challenges such as unstable internet connections and limited data quotas. Despite these constraints, students still considered the platforms practical and convenient for distance learning.

Table 1. Students' Perception of Access and Interaction in Tutorial Services

Aspect	Mean Score	Category
Webinar tutorials are easy to access	4.04	Agree
Online tutorial platform is easy to use	4.02	Agree
No difficulty in following webinars	3.77	Agree
No difficulty in following online tutorials	3.83	Agree
Direct interaction in webinars increases motivation	3.99	Agree
Tutors provide opportunities to ask questions	4.34	Strongly Agree

The second finding emphasizes the interaction dimension of Tuweb. Students highly valued the opportunity to ask questions directly during synchronous sessions, which significantly contributed to their learning motivation. However, they expressed that scheduling was sometimes not fully aligned with their availability. Overall, the results confirmed that synchronous learning through Tuweb provides stronger engagement compared to asynchronous modes, consistent with prior studies on the role of interactivity in distance education. The third finding highlights the contribution of Tuton and Tuweb to students' learning outcomes. Students agreed that online tutorials encouraged them to study independently, actively participate in discussions, and better prepare for exams. They also acknowledged that both tutorial modes contributed positively to GPA achievement and boosted their confidence in assessments, although feedback from tutors in Tuton was perceived as not always optimal.

Table 2. Students' Perception of Contribution to Learning Outcomes

Aspect	Mean Score	Category
Online tutorials help understanding of materials	3.81	Agree
Discussion topics are relevant to course modules	3.94	Agree
Tutors provide feedback in discussions	3.81	Agree
Online tutorials encourage independent learning	4.04	Agree
Active participation in discussions and assignments	4.11	Agree
Tutorials support preparation for final exams (UAS)	4.02	Agree
Tutorials contribute to GPA achievement	3.94	Agree
Tutorials increase students' confidence in assessments	3.94	Agree



These results indicate that Tuweb has a more dominant effect on direct engagement, while Tuton strengthens independent learning skills. Both approaches are complementary, together providing significant contributions to students' academic success. This confirms that the SIPAS Semi model effectively integrates synchronous and asynchronous tutorials to meet diverse learning needs.

The findings indicate that most students perceived both Tuweb and Tuton as relatively easy to access. The average perception scores fell within the "agree" category, suggesting that students were fairly comfortable using these platforms to support their learning activities. Nevertheless, technical barriers such as unstable internet connections and limited data quotas remained significant challenges, particularly for students living in areas with weak digital infrastructure. This is consistent with the broader literature on distance education, which often emphasizes that the availability of internet infrastructure is a critical determinant of online learning effectiveness. However, this study provides contextual evidence at UT Medan, showing that despite infrastructural limitations, students still considered Microsoft Teams for Tuweb and elearning.ut.ac.id for Tuton to be practical and helpful. This indicates a relatively high level of technology acceptance among SIPAS Semi students, even under less than ideal conditions.

Interaction also emerged as a significant finding, with students rating Tuweb more highly in providing opportunities for direct engagement with tutors. The highest mean score was recorded for the item "tutors provide opportunities to ask questions," which was rated "strongly agree." This shows that students greatly valued the synchronous environment of Tuweb, which allowed them to communicate with tutors in real time—something that asynchronous Tuton forums could not fully replicate. The strength of Tuweb lies in its ability to create classroom dynamics that resemble face-to-face learning, where students can listen to explanations, ask questions, and actively participate in discussions. These factors proved to enhance motivation and align with theories of interactivity in distance education, which suggest that higher-quality interaction increases both cognitive and affective engagement. Nonetheless, several students reported that Tuweb schedules sometimes conflicted with their availability, indicating that flexibility remains an important issue. Even so, Tuweb was generally perceived as an effective mode for building active engagement.

In contrast, Tuton was more strongly associated with fostering independent learning. Students agreed that it encouraged them to be more self-disciplined and actively engaged in forum discussions and assignments. Indicators such as "Tuton encourages independent learning" and "active participation in discussions and tasks" were consistently rated from "agree" to "strongly agree." This reflects the nature of asynchronous learning, which allows students flexibility in managing their study pace. Within UT's open and distance learning system, independent learning skills are critical for academic success, and this study confirms that Tuton played its role effectively. However, students also reported that tutor feedback in Tuton was not always optimal, with limited responsiveness posing a challenge for those requiring clarification or additional encouragement. While Tuton effectively promoted independence, the quality of asynchronous interaction still needs improvement to fully support students' learning processes.



Beyond perceptions, regression analysis revealed that both Tuweb and Tutan significantly contributed to students' academic achievement. The coefficients indicated that Tuweb had a stronger effect than Tutan, which aligns with students' perceptions that Tuweb was more interactive and motivating. Nevertheless, Tutan remained essential because it complemented Tuweb by strengthening independent study skills and offering flexibility. Together, the regression findings and student perceptions reinforced each other, confirming that the two tutorial modes are equally important and mutually complementary.

Compared with previous research, these findings both confirm and extend the literature. Past studies have often highlighted the roles of motivation, interactivity, and technology in distance education. This study is consistent with those results, especially in emphasizing the importance of synchronous interaction for improving student engagement and motivation. Its novelty lies in its dual methodological approach, combining regression analysis to measure quantitative contributions to GPA with student surveys capturing subjective perceptions. Such a combination is rarely applied in similar studies, offering a more comprehensive understanding. In addition, the study is contextually significant because it focuses on undergraduate PGSD students at UT Medan. As future elementary school teachers, these students need strong independent learning competencies and interaction skills, which makes the findings relevant not only to academic achievement but also to professional development.

The novelty of this research can therefore be summarized in several aspects: first, the dual methodological approach integrating regression analysis and student perceptions; second, empirical confirmation that Tuweb has greater impact on direct engagement while Tutan enhances independence; and third, its contextual contribution by providing specific insights into the SIPAS Semi model at UT Medan, which has rarely been studied in depth. These contributions are both theoretical and practical. Theoretically, the research enriches distance education literature by emphasizing the integration of synchronous and asynchronous modes. Practically, it provides concrete input for Universitas Terbuka to improve tutorial services, particularly by enhancing tutor responsiveness and technical support.

Based on the findings, several practical implications can be highlighted. For students, optimal use of both tutorial modes can improve confidence, participation, and academic performance. For tutors, there is a need to enhance the quality of interaction in both Tuweb and Tutan, especially by providing timely and relevant feedback. For the institution, UT Medan should strengthen technical support by, for example, offering internet assistance or training on platform usage. Continuous evaluation of the SIPAS Semi model is also recommended, alongside the exploration of new technologies to optimize the learning experience.

Overall, the discussion affirms that integrating Tuweb and Tutan within the SIPAS Semi framework is an effective strategy for addressing diverse student learning needs. The two modes complement one another: Tuweb enhances interaction and motivation, while Tutan develops independence and discipline. This research not only provides empirical evidence but also contributes theoretically and practically to the development of distance education in Indonesia.



In addition to the main findings described earlier, this study also revealed interesting variations in the accessibility dimension. The mean score for the indicator “ease of accessing the Tuweb platform” reached 4.04, while the indicator “ease of using the Toton platform” scored 4.02. These values indicate that more than 80% of students agreed or strongly agreed with the statements regarding accessibility. However, the indicator “no difficulty in attending webinars” only obtained an average of 3.77, suggesting that a subset of students still experienced technical barriers. Practically, this demonstrates that internet connectivity problems are not merely individual cases but rather systemic issues that require institutional attention.

On the interaction dimension, the aspect “tutors provide opportunities to ask questions” recorded the highest score of 4.34, categorized as “strongly agree.” This reinforces the idea that direct interaction is the most valued factor for students. Thus, the quality of tutor involvement becomes a critical determinant of Tuweb’s success. This aligns with the theory of social presence in online learning, which posits that the perception of tutor presence significantly enhances student satisfaction. Meanwhile, the flexibility inherent in Toton remains appreciated, even though its interactivity is relatively lower. In other words, students perceived that Tuweb and Toton cannot substitute for one another but must work in tandem.

The regression analysis provided quantitative reinforcement. The model obtained, $GPA = 0.019 + 0.394(\text{Toton}) + 0.598(\text{Tuweb})$, showed that every one-unit increase in the Toton perception score contributed to a 0.394 increase in GPA, while every one-unit increase in the Tuweb perception score contributed to a 0.598 increase. The significant coefficient of determination confirmed the model’s adequacy in explaining variation in academic achievement. In other words, Tuweb’s role in enhancing motivation and comprehension proved to be more dominant, but Toton still played an important role, particularly in promoting independent study.

Comparisons with previous research further enriched the findings. Martin et al. (2020) reported that web-conferencing tutorials significantly enhanced student engagement in the United States, while Anderson (2004) highlighted the importance of asynchronous forums for deep reflection. The results at UT Medan are consistent with these global patterns but add a contextual contribution by providing evidence from Indonesia, where digital disparities remain a major challenge. Therefore, this study not only confirms existing theories but also adds relevant local nuance.

The practical implications of these findings are considerable. For students, understanding that both tutorial modes complement each other may encourage a more balanced learning strategy: leveraging Tuweb to strengthen immediate comprehension and Toton to sharpen independence. For tutors, the results highlight the importance of managing time and interaction effectively, by facilitating question-and-answer opportunities in Tuweb and providing constructive feedback in Toton. For the institution, policy priorities should focus on strengthening infrastructure, such as providing internet subsidies or collaborating with service providers so that students in remote areas are not left behind.



Furthermore, this research emphasizes the urgency of pedagogical innovation in distance education. Universitas Terbuka could develop more adaptive hybrid models, for example, by providing interactive recordings of Tuweb sessions that can be accessed asynchronously by students who face scheduling conflicts. In this way, asynchronous flexibility is maintained without sacrificing the value of synchronous interaction.

Finally, from a policy perspective, these findings provide an empirical foundation for strengthening SIPAS Semi as a strategic service model for PGSD students. In the long run, improving the quality of tutorial services will directly contribute to the readiness of students as future teachers who are capable of both independent learning and active collaboration. Thus, this study is relevant not only for the academic context but also for improving the quality of primary education in Indonesia.

4. Conclusion

This study set out to analyze the effectiveness of Tutorial Webinar (Tuweb) and Tutorial Online (Tuton) in supporting the academic achievement of undergraduate students in the Primary School Teacher Education Program (S1 PGSD) under the SIPAS Semi system at Universitas Terbuka Medan. Based on the research objectives, which were to determine the effectiveness of Tuweb and Tuton in the learning process and to identify the factors influencing their contribution to student outcomes, several clear conclusions can be drawn.

First, the findings confirm that both Tuweb and Tuton make significant contributions to students' academic performance. Tuweb, as a synchronous tutorial, demonstrated a stronger effect in enhancing student engagement and comprehension of learning materials. Through live interaction with tutors, students were able to ask questions directly, receive immediate clarification, and participate actively in real-time discussions. This synchronous dynamic encouraged a sense of presence, motivation, and interaction that closely resembled traditional classroom learning. The stronger regression coefficient for Tuweb further reinforces that it plays a more influential role compared to Tuton in shaping students' semester performance.

Second, while Tuton was not as dominant as Tuweb in terms of direct interaction, it provided substantial support in cultivating independent learning skills. By enabling flexible access to materials and allowing students to engage with tasks at their own pace, Tuton fostered habits of discipline, self-regulation, and consistent study practices. These qualities are crucial for distance learners, especially new students transitioning from conventional face-to-face learning systems to an open and distance education model. The contribution of Tuton, though smaller in the regression results, remains essential because it addresses the dimensions of learning autonomy and persistence that cannot be fully achieved through synchronous tutorials alone.

Third, the integration of Tuweb and Tuton within the SIPAS Semi service proves to be an effective and complementary system. Rather than functioning as separate alternatives, the two tutorial modes reinforce each other by meeting different but equally important needs of students. Tuweb meets the demand for interaction, motivation, and immediate feedback, while Tuton



accommodates flexibility, independent learning, and sustained engagement outside synchronous sessions. Together, they form a balanced tutorial model that supports both cognitive and affective dimensions of learning. This synergy explains why students reported improvements not only in their GPA but also in their confidence, active participation, and readiness for exams.

Fourth, students' perceptions confirmed the statistical findings. Most respondents expressed that Tuweb motivated them to engage actively and improved their understanding of course materials. At the same time, they acknowledged that Toton encouraged independence, helped them manage their study schedules, and supported exam preparation. Although some challenges such as unstable internet connections and limited tutor feedback in Toton were noted, these did not fundamentally undermine the overall effectiveness of the SIPAS Semi system. Instead, they represent practical areas for future improvement without diminishing the core effectiveness of both tutorial modes.

Fifth, in relation to the research objectives, the study has successfully provided answers. The first objective, which was to determine the effectiveness of webinar and online tutorials, has been met by showing that both modes significantly contribute to academic achievement. The second objective, to identify factors influencing effectiveness, has also been achieved by clarifying that Tuweb's strength lies in synchronous interaction and motivation, while Toton's strength lies in flexibility and the promotion of independent learning. These conclusions validate the SIPAS Semi model as an effective blended tutorial strategy in the context of distance and open education.

Sixth, the broader implication of these findings is that distance education requires not only reliable technology but also pedagogical strategies that combine different modes to address diverse learning needs. The success of SIPAS Semi demonstrates that a well-integrated model of synchronous and asynchronous tutorials can overcome challenges commonly associated with distance learning, such as lack of interaction, reduced motivation, and difficulty in adapting to independent study. In this sense, the conclusions of this research go beyond confirming effectiveness; they also illustrate a practical model for managing blended tutorials in higher education distance learning.

Seventh, the study highlights that while both tutorials are effective, continuous improvement is needed. Students' feedback suggests that tutor responsiveness in Toton should be enhanced to provide more timely and constructive input. Similarly, technical issues such as internet instability must be addressed to ensure that all students have equal opportunities to benefit from tutorial services. These are not new findings but logical extensions of the results, emphasizing areas where the SIPAS Semi system can evolve to become more sustainable and inclusive.

In conclusion, the integration of Tuweb and Toton has proven to be a relevant and effective response to the challenges of distance education. The combination of synchronous and asynchronous tutorials strengthens both the academic and personal development of students. Tuweb fosters motivation, interaction, and comprehension, while Toton nurtures independence, flexibility, and continuity of learning. Together, they contribute to higher GPA achievement, increased confidence, and better adaptation to the open and distance learning environment.



The objectives of this study have therefore been achieved. The research has provided empirical evidence that both tutorial modes are effective, identified their respective strengths, and confirmed that their integration within SIPAS Semi offers a comprehensive solution to support diverse student needs. While challenges remain, they do not diminish the overall conclusion that Tuweb and Tutan are complementary pillars of distance education at Universitas Terbuka Medan. The results affirm that the SIPAS Semi model is a valid and sustainable approach for improving learning outcomes in an open and distance education context, thereby contributing to the continuous development of accessible and quality higher education.

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