Students' Perspectives on the Application of Flipped Learning in Learning the Development of Education in Malaysia: Philosophy and Policies

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Abstract

This study investigates undergraduate teacher-education students' perspectives on a seven-week flipped learning implementation in the university course Development of Education in Malaysia: Philosophy and Policies at a Malaysian public university. Fifteen Semester-1 students engaged with pre-class digital materials (YouTube micro-lectures, readings), collaborative online spaces (Padlet, Google Classroom, MyGuru), and in-class activities (debates, policy analyses, simulation tasks, and case-based problem-solving). Post-intervention semi-structured interviews were analysed using Braun and Clarke's (2006) reflexive thematic analysis. Six themes surfaced: (1) Preparatory autonomy as cognitive priming; (2) Dialogic engagement translating policy and philosophy into lived practice; (3) Temporal and digital strains in self-regulation; (4) Instructor as curator-coach; (5) Peer knowledge co-construction and epistemic humility; and (6) Policy literacy for teacher identity formation. Students reported enhanced understanding of historical trajectories and rationales of national education reforms, improved critical discussion skills, and a clearer sense of professional purpose, while also highlighting issues of workload, access, and assessment alignment. The study contributes contextual evidence for flipped pedagogy in non-STEM, policy-philosophy subjects within Malaysian higher education and offers design principles for sustainable adoption.

Keywords: Flipped Learning, Reflexive Thematic Analysis, Education Philosophy and Policies, Malaysia, Teacher Education, Student Perspectives

Introduction

Flipped learning, which relocates content exposure to pre-class settings and utilizes class time for active knowledge construction, has emerged as a transformative pedagogical model in higher education. This approach reflects a paradigm shift from teacher-centred instruction to student-driven engagement, aligning with constructivist principles that emphasize autonomy, interaction, and reflection (Deng & Gao, 2024; Shen & Chang, 2023). Through pre-class materials such as videos and readings, students acquire foundational knowledge at their own pace, while in-class time is devoted to application, analysis, and collaborative problem-

solving. Numerous studies have highlighted flipped learning's capacity to foster deeper engagement, improve academic performance, and promote self-regulated learning (Ateş, 2024; Yoon et al., 2021). However, despite extensive research in science, technology, engineering, and mathematics (STEM) disciplines, its pedagogical value within non-STEM, text-intensive contexts remains underexplored (Gong et al., 2024).

Courses grounded in historical, philosophical, and policy analysis require learners to engage in sustained reading, critical reasoning, and contextual interpretation, which are skills distinct from those typically nurtured in content-based or procedural domains (Burgos-Videla et al., 2025). These disciplines demand an appreciation of abstract concepts, ethical reflection, and the capacity to connect theoretical ideas to real-world educational challenges. In such contexts, conventional lectures may fall short, as passive content delivery often prioritizes memorization over deep understanding (Hontarenko & Kovalenko, 2024). The integration of flipped learning presents a potential solution by encouraging students to grapple with complex ideas through dialogic and participatory learning processes. This approach not only enhances comprehension but also cultivates interpretive and reflective competencies crucial for future educators.

Within the Malaysian teacher education landscape, this pedagogical consideration assumes particular importance. The course Development of Education in Malaysia: Philosophy and Policies is a compulsory subject for all first-semester student teachers, aiming to provide an understanding of the historical evolution, philosophical underpinnings, and policy trajectories of Malaysian education. Traditionally, the course has relied heavily on lectures summarizing key educational documents such as the Barnes Report, Fenn-Wu Report, Razak Report, Rahman Talib Report, and the National Education Philosophy (NEP). While these lectures provide comprehensive coverage, they often limit opportunities for students to interrogate the rationale and implications of educational reforms. As a result, learners may develop only a surface-level understanding of philosophical principles rather than the analytical dispositions necessary for policy interpretation and classroom application.

Recognizing these pedagogical gaps, the present study explores the use of flipped learning as an alternative instructional design in teaching educational philosophy and policy. By relocating foundational learning to pre-class spaces and using in-class time for debate, case analysis, and reflective discussion, flipped learning encourages higher-order thinking and active participation. This study investigates students' perspectives after a seven-week flipped learning implementation in the Development of Education in Malaysia: Philosophy and Policies course. Guided by constructivist and sociocultural theories, and analysed through Braun and Clarke's (2006) reflexive thematic analysis, this paper seeks to answer two central questions: (1) How do students perceive the effectiveness of flipped learning in enhancing their understanding of educational philosophy and policy? and (2) What benefits and challenges do they experience in the process? The study offers a theoretically grounded, context-sensitive contribution to sustainable pedagogical innovation in Malaysian teacher education.

Literature Review
Flipped learning has become an increasingly researched instructional strategy that redefines traditional classroom dynamics by shifting initial content exposure outside of class through

digital means and dedicating class time to active learning and problem-solving (Hasan et al., 2024; Khatoon, 2024). This approach aligns with constructivist and social learning theories, where students engage in meaning-making through interaction, collaboration, and reflection rather than passive reception of information (Gerges, 2025; Pretorius, 2023). Studies indicate that flipped learning encourages learner autonomy, supports differentiation, and fosters engagement through multimodal materials, though challenges such as workload balance and technological access persist (Dieu, 2024; Imam, 2025). The approach therefore holds potential for disciplines that demand critical thinking and contextual understanding, including educational philosophy and policy studies.

In the domain of teacher education, flipped learning has been increasingly integrated to promote reflective practice and self-directed learning among pre-service teachers (Fakhruddin et al., 2024). The transition from traditional lecture-based pedagogy to flipped formats enables students to explore theoretical constructs at their own pace, freeing class time for peer dialogue and application-based exercises (Homsombat, 2025). Research by Larson and Linnell (2023) demonstrated that such a design enhances the quality of in-class discussions, as students arrive prepared with prior exposure to foundational concepts. Moreover, flipped environments cultivate accountability and professional responsibility, which are qualities vital to the teaching profession (Shafiee Rad, 2023; Temiz, 2024). However, these benefits are contingent upon well-structured materials, alignment between pre-class and in-class tasks, and clear expectations communicated by instructors.

The teaching of educational philosophy and policy requires learners to navigate abstract theoretical frameworks and connect them to real-world practice (Hans & Hans, 2025). Traditionally, these courses are content-heavy, relying on lectures to deliver complex ideas about the aims, values, and evolution of education systems. Yet, mere transmission often limits opportunities for critical engagement. Flipped learning provides an avenue for overcoming this challenge by transforming how students encounter philosophical and policy texts. Through pre-class videos and guided readings, learners can absorb factual and conceptual information at their own pace, which prepares them for higher-order activities such as debates, case analyses, and reflective discussions (Gerges, 2025; Talbert & Bergmann, 2023). These strategies create a dialogic learning environment where knowledge is constructed through interaction and reasoning (Paiva et al., 2025).

The Malaysian educational context presents a unique backdrop for exploring flipped learning's relevance. Courses like Development of Education in Malaysia: Philosophy and Policies require students to analyse the historical trajectory of the nation's educational reforms and philosophies, from the Barnes and Fenn-Wu Reports to the Rahman Talib and Cabinet Reports, as well as the implementation of the National Education Philosophy. Understanding these documents demands deep comprehension and interpretive skills. Past research in Malaysia suggests that flipped approaches improve engagement and understanding of policy-related content, especially when combined with discussion-oriented in-class tasks and multimedia scaffolds (Wang, 2023).

Furthermore, the success of flipped learning in teacher education hinges on its pedagogical coherence. Instructors play dual roles as curators of pre-class content and facilitators of inquiry-driven classroom learning (Liu, 2025). Pan (2024) asserted that effective

flipping requires strategic curation of concise and relevant resources, integration of reflective prompts, and facilitation methods that encourage critical questioning and synthesis. Studies emphasize that when teachers shift from delivering content to coaching discourse, students exhibit greater ownership of their learning and deeper conceptual connections (Dikilitas & Fructuoso, 2023). For pre-service teachers, this also models learner-centred pedagogy that they can later adapt in their own teaching contexts.

Overall, the literature underscores that flipped learning can foster deeper understanding, critical reflection, and professional identity formation among student teachers when implemented thoughtfully. Its integration into courses on educational philosophy and policy supports a more active, inquiry-based, and contextualised understanding of Malaysia's education system. Nonetheless, sustainability depends on addressing access inequities, providing digital literacy support, and designing authentic assessment mechanisms that value both preparation and participation. In this regard, the flipped model serves not only as a pedagogical tool but also as a catalyst for transforming how future educators perceive and engage with educational thought and reform.

Methodology
A qualitative exploratory research design was employed to capture rich and detailed accounts of students' learning experiences throughout a seven-week flipped learning intervention conducted in a compulsory undergraduate course at a public university in Malaysia. This approach was chosen for its capacity to explore participants' perspectives in depth and to generate interpretive insights into how they engaged with flipped learning pedagogy (Creswell & Poth, 2018). The study aimed to understand students' perceptions of how the flipped classroom model influenced their engagement, comprehension, and reflection within the course structure.

The context of the study was the course Development of Education in Malaysia: Philosophy and Policies, a core subject required of all first-semester teacher education students across programs. The course emphasizes the historical and philosophical foundations of Malaysian education, the evolution of educational policies, and the interconnections between philosophy, curriculum, and teacher professionalism. Fifteen students aged between 19 and 21, comprising both male and female participants from different education specializations, were purposively selected to ensure that they had completed the full seven-week flipped learning intervention. This sampling approach ensured that participants had adequate exposure to the pedagogical approach being studied, enabling them to offer informed reflections on their experiences.

The flipped learning intervention spanned seven consecutive weeks, integrating both asynchronous and synchronous activities. During the pre-class stage, students engaged with short YouTube micro-lectures, curated readings, and excerpts of historical education reports such as the Barnes, Fenn-Wu, and Rahman Talib Reports. Guiding questions were provided to support comprehension and promote critical reflection. Students also contributed to online discussion platforms such as Padlet and Google Classroom, which served as spaces for collaborative idea generation and peer feedback. In class, students participated in structured academic controversies, policy case clinics, role-play simulations involving multiple educational stakeholders, and mini-debates focused on contemporary policy issues. Learning

tools included MyGuru LMS, Google Classroom, Padlet, and occasional Google Meet sessions. Weekly topics covered a sequential progression of educational concepts, beginning with definitions of education, philosophy, and policy, and moving through Malaysia's educational eras, philosophical foundations of the National Education Philosophy, teachers' standards, ethical codes, educational regulations, and curriculum design models.

Following the completion of the seven-week intervention, individual semi-structured interviews were conducted with all fifteen participants. Each interview lasted between 45 and 60 minutes and was carried out in either English or Malay, depending on participants' preference. Interviews were audio-recorded with consent and transcribed verbatim for analysis. The interview protocol explored several domains: perceived learning effectiveness, engagement with flipped learning components, challenges encountered, perceived transfer of learning to practice, and suggestions for improvement. This data collection strategy allowed for flexibility in probing individual experiences while ensuring consistency across interviews (Kvale & Brinkmann, 2015).

Data were analysed using Braun and Clarke's (2006) reflexive thematic analysis, which emphasizes researcher reflexivity and the active role of interpretation in theme development. The process followed six recursive phases: (1) familiarisation with the data through repeated readings and memo writing; (2) generating initial codes that captured both semantic and latent meanings; (3) constructing candidate themes that represented shared patterns of meaning; (4) reviewing and refining themes to ensure coherence and internal consistency; (5) defining and naming themes with clear boundaries and interpretive focus; and (6) producing the analytic narrative through integration of data extracts and relevant literature. Throughout this process, the researcher maintained a reflexive stance, acknowledging their dual role as course instructor and researcher.

To ensure the trustworthiness of the study, several strategies were implemented following Lincoln and Guba's (1985) framework. First, credibility was established through prolonged engagement with participants and post-hoc member reflections, during which students reviewed and verified the accuracy of the thematic summaries. Next, dependability was maintained by keeping a comprehensive analytic audit trail that documented memos, coding decisions, and the evolution of the codebook. In addition, confirmability was reinforced through peer debriefing with a non-teaching academic colleague and the consistent use of a reflexive journal to minimise researcher bias. Finally, transferability was enhanced by providing a rich and contextualized description of the research setting, participants, and instructional processes, enabling readers to evaluate the relevance of the findings to other educational contexts.

Ethical clearance was obtained from the university's research ethics committee prior to data collection. Participants were fully informed of the study's objectives, voluntary nature, and their right to withdraw at any stage without consequence. All identifying details were anonymised through the use of pseudonyms. Students were assured that participation or non-participation would not influence their course grades or relationships with the instructor. These ethical considerations were vital to maintaining transparency, respect, and integrity throughout the research process.

Findings

This section presents six interrelated themes that encapsulate students' perspectives on the application of flipped learning in understanding the development of education in Malaysia, particularly its philosophical and policy foundations. The themes were developed using reflexive thematic analysis (Braun & Clarke, 2006), with an inductive, experiential orientation and a blend of semantic and latent coding. The researcher played an active, interpretive role in constructing meaning from the dataset. Pseudonymised excerpts are provided to support each theme, with participants labelled as *Respondent 1* to *Respondent 15* to ensure confidentiality.

Theme 1: Preparatory Autonomy as Cognitive Priming

Students consistently reported that the short and focused pre-class resources functioned as effective cognitive primers. These materials helped them manage the conceptual density of education policy documents by offering a clear framing in advance of in-class discussions. Micro-lectures, typically between six to ten minutes, were described as helpful "maps" that oriented their reading of complex texts. Several students noted that guiding questions helped them understand policy intent, prompting them to consider what problems the policy addressed and whose interests it served. Pre-class activities, such as contributing to Padlet boards, activated prior knowledge and seeded peer anticipation. As *Respondent 3* noted, "The videos gave me a 'why' before the details. When we came to class, I was ready to argue, not just listen." Similarly, *Respondent 12* stated, "Saya boleh ulang tengok bahagian sukar… jadi bila bincang, saya tak kosong." [I could rewatch the difficult parts… so during discussion, I wasn't blank.] These insights suggest that flipped preparation promoted student agency and reduced cognitive overload, laying the groundwork for deeper classroom engagement.

Theme 2: Dialogic Engagement Translates Policy and Philosophy into Lived Practice

The second theme illustrates how in-class activities transformed abstract policy and philosophical content into personally and professionally meaningful learning. Students described how structured debates, simulations, and role-plays helped them empathize with multiple stakeholder perspectives. For instance, students role-playing as teachers, parents, or policy makers gained insight into the micro-level consequences of macro-level decisions. Triangulation of primary and secondary sources in classroom discussions was seen to elevate the quality of argumentation. *Respondent 5* reflected, "When I had to defend the policy, I finally understood the reason behind it—even if I didn't agree." In a similar vein, *Respondent 8* shared, "FPK felt idealistic before; after the activities, I saw how it guides classroom decisions." These accounts demonstrate that dialogic and applied pedagogies supported students in translating educational philosophy and policy into tangible practice, enhancing their ability to make informed professional judgments.

Theme 3: Temporal and Digital Strains in Self-Regulation

Despite the benefits, students also articulated significant challenges related to self-regulation. Many cited time management difficulties arising from concurrent flipped assignments across multiple subjects, particularly during high-intensity academic periods. Several students called for clearer scheduling, time estimates, and preparatory checklists. Moreover, technological constraints, such as unstable campus internet and limited data access, hindered some students' ability to engage equitably with pre-class materials. As *Respondent 6* observed, "Sometimes four subjects post videos the same week—it's hard to keep up." *Respondent 9*

echoed this concern, noting, "Internet di kolej tak stabil… saya muat turun awal kalau sempat." [Campus internet is unstable… I download ahead if possible.] These responses underscore the need for structural support in managing the self-directed aspects of flipped learning, particularly to address disparities in digital access and time-related pressures.

Theme 4: Instructor as Curator-Coach
Students emphasized the dual role of the instructor in selecting concise, high-impact content and facilitating critical classroom discourse. High levels of appreciation were expressed for instructors who avoided redundant lecturing and instead used the classroom to probe ideas, ask clarifying questions, and synthesise student contributions through tools like Padlet and whiteboards. The clarity and relevance of pre-class resources were seen as directly affecting the value of in-class learning. Importantly, students requested transparent rubrics to link preparation with classroom engagement and reflective tasks. As *Respondent 1* explained, "The lecturer didn't re-lecture. She pushed us to justify with evidence." Likewise, *Respondent 10* shared, "Rubrik yang jelas buat saya ambil serius tugasan pra kelas." [A clear rubric made me take pre-class tasks seriously.] These reflections highlight how flipped learning is optimally supported when instructors adopt a curatorial and coaching stance, especially in courses that involve dense textual analysis.

Theme 5: Peer Knowledge Co-construction and Epistemic Humility
Collaborative learning tools and activities fostered a culture of mutual accountability and intellectual humility. Students appreciated the opportunity to compare their interpretations with those of peers, often using Padlet as a communal knowledge base. This visibility encouraged revision of initial ideas and promoted a more dialogic stance toward knowledge. Group work further nurtured critical listening and the capacity to respectfully disagree. *Respondent 4* remarked, "Bila nampak jawapan kawan, saya sedar pandangan saya sempit—kena tambah bukti." [Seeing peers' answers, I realised my view was narrow—I needed more evidence.] *Respondent 11* added, "We learned to disagree with reasons, not volume." These experiences suggest that flipped collaboration supported epistemic humility, an essential trait for future educators navigating diverse perspectives and policy complexities.

Theme 6: Policy Literacy for Teacher Identity Formation
A recurring theme in the data was the connection students made between flipped policy learning and their emerging sense of professional identity. Through reflective prompts, students linked their own schooling experiences with contemporary policy rationales and values from the National Education Philosophy and the National Education Policy (NEP). Many articulated how these policy frameworks could inform equitable and future-ready teaching practices. Some reported an increased interest in civic engagement and education reform. *Respondent 13* stated, "Sekarang saya faham mengapa dasar berubah ikut zaman—guru perlu faham konteks, bukan ikut arahan sahaja." [Now I understand why policies shift with the times—teachers must understand context, not just follow orders.] *Respondent 15* expressed a similar sentiment: "It made me feel part of the system, not outside of it." These reflections illustrate how flipped learning served as a vehicle for fostering policy literacy and nurturing informed, ethical teacher agency.

Table 1

Thematic analysis of interview transcripts

No.	Interview Questions	Example	Theme
1	How did you experience preparing with the flipped learning materials (e.g., videos, Padlet, guiding questions)?	R3: "The videos gave me a 'why' before the details. When we came to class, I was ready to argue, not just listen." R12: "Saya boleh ulang tengok bahagian sukar… jadi bila bincang, saya tak kosong."	Preparatory autonomy; Cognitive priming
2	In what ways did the flipped learning activities change how you engaged in class discussions?	R5: "When I had to defend the policy, I finally understood the reason behind it—even if I didn't agree." R8: "FPK felt idealistic before; after the activities, I saw how it guides classroom decisions."	Dialogic engagement; Deepened application
3	How did you feel about participating in simulations, debates, or role-plays related to education policy?	R7: "When we debated the language policy, I had to think from both sides. It wasn't just memorising anymore." R11: "Role-play helped me realise how policy affects different people, not just teachers."	Active learning; Perspective-taking
4	What challenges or difficulties did you face with flipped learning in this course?	R6: "Sometimes four subjects post videos the same week—it's hard to keep up." R9: "Internet di kolej tak stabil… saya muat turun awal kalau sempat."	Self-regulation strain; Digital inequity
5	What role did the instructor play in helping you understand or discuss policy issues?	R1: "The lecturer didn't re-lecture. She pushed us to justify with evidence." R10: "Rubrik yang jelas buat saya ambil serius tugasan pra kelas."	Instructor as coach; Clear scaffolding
6	How did Padlet or peer sharing affect your thinking about the topics?	R4: "Bila nampak jawapan kawan, saya sedar pandangan saya sempit—kena tambah bukti." R11: "We learned to disagree with reasons, not volume."	Peer learning; Epistemic humility
7	How did this flipped learning experience compare to traditional lecture-based classes?	R2: "In normal classes, I just copy notes. Here, I had to think and discuss." R14: "Traditional class is passive. This was more challenging but more real."	Comparison to traditional pedagogy; Engagement
8	Did this course affect how you see education policies or your role as a future teacher?	R13: "Sekarang saya faham mengapa dasar berubah ikut zaman—guru perlu faham konteks, bukan ikut arahan sahaja." R15: "It made me feel part of the system, not outside of it."	Teacher identity; Policy literacy
9	Do you think flipped learning is suitable for other topics in teacher education? Why or why not?	R6: "It works for theory-heavy topics—videos help me understand before class." R5: "Not sure—it depends on the subject and time available."	Conditional usefulness; Topic-dependence

Discussion

The discussion addresses the two research questions guiding this study: (1) How do students perceive the effectiveness of flipped learning in enhancing their understanding of educational philosophy and policies in Malaysia? and (2) What challenges and benefits do students experience during the flipped learning process? Findings demonstrate that flipped learning served as a transformative pedagogical framework rather than a simple inversion of teaching order. By repositioning content delivery to pre-class spaces through micro-lectures and guided readings, students were better prepared for higher-order engagement during class. This preparatory autonomy enabled them to navigate dense historical and policy texts such as the Barnes and Rahman Talib Reports more confidently, aligning with Abeysekera and Dawson's (2015) argument that flipped environments reduce cognitive overload and enhance learner autonomy. Similarly, O'Flaherty and Phillips (2015) found that pre-class scaffolding fosters meaningful in-class learning, echoing this study's finding that preparatory resources primed cognitive readiness for complex policy analysis.

The in-class component of the flipped model, characterized by dialogic and interactive tasks, emerged as a crucial medium for deep learning. Students' engagement in structured debates, simulations, and policy case analyses helped translate theoretical constructs into applied reasoning. These findings parallel Zainuddin and Halili's (2016) observation that flipped classrooms promote collaboration and critical discourse, fostering deeper comprehension of abstract ideas. The Malaysian context, where educational philosophy and policy are embedded in socio-cultural narratives of nation-building and linguistic diversity, further magnifies the value of dialogic engagement. Students' discussions illuminated tensions between policy ideals and classroom realities, developing interpretive stamina and reflective reasoning. This aligns with Vygotsky's (1978) sociocultural theory, which posits that knowledge is constructed through social interaction and scaffolding. Hence, the flipped approach not only enhanced understanding of philosophical and policy dimensions but also nurtured reflective professional discourse among future educators.

However, the flipped model also revealed significant implementation challenges, particularly concerning time management and digital inequity. Students' struggles with self-regulation, overlapping assignments, and unstable internet connectivity reflect broader concerns in technology-mediated pedagogy. Previous studies (Zainuddin & Perera, 2019; Karaca & Ocak, 2017) similarly report that students often experience increased cognitive and logistical demands when adapting to flipped environments. This study corroborates such findings, indicating that equity in digital access and workload pacing are critical determinants of success. Therefore, institutions should provide structured support mechanisms such as clear scheduling, workload coordination across courses, and offline-accessible materials to mitigate these barriers. Addressing these issues is essential to sustain student engagement and ensure inclusivity in blended learning contexts.

Another significant dimension pertains to the instructor's role as a "curator-coach." Effective flipped instruction required not only the curation of relevant, concise pre-class materials but also the facilitation of guided inquiry during class. This aligns with Baepler, Walker, and Driessen's (2014) and Dikilitas and Fructuoso's (2023) assertion that instructors in flipped classrooms act as facilitators who design active learning environments rather than content transmitters. The present study extends this by showing that students valued

instructors who linked preparatory materials directly to in-class discussions, used probing questions to deepen understanding, and maintained analytic rigor. The instructor's reflective stance ensured that the flipped environment remained coherent and intellectually demanding, consistent with the principles of constructive alignment (Biggs & Tang, 2011; Shamsi Lameshkani et al., 2024). Without such intentional scaffolding, flipped classrooms risk devolving into unfocused discussions, undermining their pedagogical potential.

Finally, findings related to teacher identity formation suggest that flipped learning can serve as a powerful medium for cultivating policy literacy and professional self-awareness. Students' reflections revealed that by engaging critically with philosophical and policy documents, they began to see themselves as active agents capable of interpreting and enacting educational reform. This finding resonates with Impedovo (2021) and Shafiee Rad (2023), who argue that reflexive learning processes can promote identity development and professional agency. Similarly, Beauchamp and Thomas (2009) and Pishghadam et al. (2022) emphasized that teacher identity evolves through reflective engagement with contextual and moral dimensions of teaching, while Korthagen (2017) highlighted that authentic learning experiences help bridge theory and practice in teacher education. In the Malaysian context, where future teachers are expected to embody the principles of the National Education Philosophy, the flipped approach provided a dialogic and reflective space for aligning personal values with national educational aims (Ministry of Education Malaysia, 2013). Thus, flipped learning in this study not only enhanced cognitive understanding but also contributed to the moral and professional formation of future educators, affirming its role as a transformative pedagogical tool in teacher education.

Conclusion

The motivation behind this study stemmed from a need to reimagine how educational philosophy and policy are taught in Malaysia's teacher education programmes. By foregrounding students' voices, the study contributes to current flipped learning literature by extending its application beyond STEM contexts and demonstrating its effectiveness in nurturing reflective, policy-literate educators.

This study concludes that the flipped learning approach can serve as a transformative pedagogical model in the teaching of *Development of Education in Malaysia: Philosophy and Policies*, a course that traditionally depends on lecture-based delivery. For first-semester teacher education students, flipped learning supported preparatory autonomy through pre-class scaffolding and fostered deeper conceptual understanding of dense philosophical and policy materials. The integration of micro-lectures, guiding questions, and online collaborative tools effectively primed students for in-class engagement, allowing them to approach national education frameworks and policy discourses with greater confidence. These findings affirm that when implemented thoughtfully, flipped learning transcends its reputation as a technological trend and instead becomes a mechanism for cultivating reflective and critical learners within higher education.

Pedagogically, the study highlights that dialogic engagement and instructor facilitation are crucial to the success of flipped models. The results demonstrate that structured in-class activities such as debates, simulations, and case analyses enable students to translate philosophical and policy theories into lived professional reasoning. The instructor's dual role

as curator and coach was instrumental in maintaining academic rigor, ensuring alignment between preparatory materials and classroom tasks. This has implications for curriculum design in teacher education, suggesting that effective flipped classrooms must be anchored in constructive alignment, equity-minded pacing, and explicit feedback loops. Teacher educators and institutions are encouraged to embed flipped learning systematically into courses emphasizing critical analysis, ethics, and professional identity formation, thereby bridging theoretical knowledge and pedagogical practice.

At the same time, the findings reveal persistent challenges that warrant institutional and pedagogical attention. Students experienced time-management difficulties, overlapping coursework, and uneven access to stable internet connectivity, issues that mirror equity concerns in other technology-integrated pedagogies (Zainuddin & Halili, 2016; O'Flaherty & Phillips, 2015). Addressing these challenges requires intentional design strategies, such as flexible scheduling, downloadable materials, and workload coordination across courses. Institutions should also invest in digital literacy training for both students and instructors to ensure inclusive participation and sustainable implementation. Without such supports, the flipped model risks reinforcing disparities in learning opportunity and engagement.

Future research should build on these insights by exploring flipped learning across broader contexts, cohorts, and disciplines. Comparative or longitudinal studies could examine how sustained exposure to flipped learning influences pre-service teachers' policy literacy, reflective capacity, and classroom practice during practicum. Mixed-methods approaches incorporating learning analytics and performance data would provide richer triangulation of outcomes. Additionally, future inquiries might investigate the intersections between flipped pedagogy, culturally responsive teaching, and digital equity in Southeast Asian contexts. Overall, the present study contributes empirical and conceptual evidence supporting flipped learning as a viable, context-sensitive innovation for higher education, particularly in text-intensive and reflective disciplines such as educational philosophy and policy.

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