

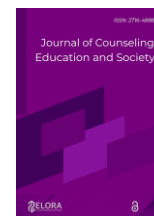


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Alignment between learning preparation and competency assessment in indonesia's teacher certification program: perspectives of geography teachers

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ABSTRACT

This study investigated the alignment between online learning modules and the Uji Kompetensi Peserta PPG (UKPPPG) for Geography teachers in Indonesia's Pendidikan Profesi Guru (PPG) program. Using a descriptive phenomenological approach with nine teacher alumni and two instructors from Universitas Negeri Medan, data were gathered through interviews, a focus group discussion, and document analysis. Thematic analysis revealed partial alignment: while general pedagogy and performance assessments matched well, a significant structural gap emerged between the preparation provided and the cognitive demands of the Pedagogical Content Knowledge (PCK) test, which predominantly featured generic rather than subject-specific items. Additional challenges included balancing professional duties, surface-learning strategies, and limited Geography-specific pedagogical integration. Participants recommended a two-tier curriculum combining general and subject-specific modules to improve instructional coherence and assessment validity under Permendikbudristek No. 19/2024.



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Introduction

Teacher certification programs worldwide serve as critical gatekeepers for ensuring the quality of professional educators entering classrooms. However, a persistent challenge confronting these programs is the degree of alignment between what teachers learn during preparation and what they are ultimately assessed on during certification examinations. Alignment, defined as the coherence between curricular content, instructional processes, and assessment demands, has been widely recognized as a fundamental condition for effective educational programs (Cohen, 1987; Webb, 1997). When misalignment exists, participants may complete a program having acquired knowledge and skills that do not correspond to the competencies being evaluated, (Darling-Hammond et al., 2017). This concern is particularly acute in programs that operate in online, self-paced environments, where the absence of direct instructional scaffolding places greater demands on participants to independently bridge the gap between learning content and assessment expectations. Research on online teacher professional development has consistently shown that challenges such as time constraints, cognitive overload,

and limited interaction can undermine deep engagement with program content, particularly for in-service teachers who simultaneously manage active classroom responsibilities (Lailatussaadah et al., 2020; Poderi et al., 2024). As countries across the Asia-Pacific region continue to reform their teacher certification systems, questions about the coherence and effectiveness of these programs remain critically underexplored, particularly from the perspectives of teachers in specific subject disciplines.

In Indonesia, the professional certification of teachers is governed through the *Pendidikan Profesi Guru* (PPG) program, mandated under Law No. 14 of 2005 on Teachers and Lecturers, which stipulates that all professional teachers must hold a valid teaching certificate obtainable only through PPG (Kemdikbudristek, 2024). For in-service teachers designated as *PPG Guru Tertentu*, the program is delivered primarily through an online Learning Management System (LMS), requiring participants to complete structured modules independently while simultaneously fulfilling their classroom teaching obligations. Upon completion of the learning phase, participants must sit for the *Uji Kompetensi Peserta Pendidikan Profesi Guru* (UKPPPG), a comprehensive national competency examination that serves as the terminal gateway to certification. The UKPPPG encompasses multiple assessment components: an objective written test covering Pedagogical Content Knowledge (PCK) and Situational Judgement Test (SJT), a reflective case study essay, and a Performance Assessment (*Ujian Kinerja*) requiring submission of a self-produced real classroom teaching video and accompanying learning documentation. Research on PPG implementation has confirmed both its institutional reach and persistent implementation challenges. Rodgers & Abdulrahman (2025) found that while PPG participants demonstrated improvements in technology integration and student-centered approaches following the program, the complexity and diversity of teaching contexts complicated the transfer of learning. Similarly, Dwikurnaningsih et al. (2025), evaluating online PPG using Kirkpatrick's model, noted that although participants rated the instructional aspects positively, effective program implementation required complementary face-to-face components, highlighting a structural tension that remains unresolved in the current fully online format. These findings point to a fundamental design question: whether the online learning experience within PPG Guru Tertentu is sufficiently coherent with the multidimensional demands of UKPPPG.

Despite the centrality of PPG to Indonesia's teacher quality agenda, empirical research examining the alignment between the program's learning design and its terminal assessment remains sparse. Existing studies have primarily focused on discrete aspects of implementation, such as participant satisfaction, platform usability, and graduation rates, without systematically examining whether the learning experiences provided during the program correspond to the competencies assessed in the UKPPPG. Yuniawatika et al. (2022), examining Moodle-based PPG at Universitas Negeri Malang, found the online platform generally functional but did not address the substantive question of content-assessment alignment. Aulia et al. (2026), evaluating LMS-based PPG at UIN Alauddin Makassar, noted LMS-based learning effectively improved pedagogical competence but simultaneously identified a persistent challenge of high learning load within compressed timeframes. Crucially, the majority of available studies adopt quantitative or program-evaluation approaches that, while useful for measuring outcomes at scale, are limited in their capacity to capture the subjective, meaning-laden experiences of participants as they navigate the program and subsequently confront the UKPPPG. A phenomenological approach which foregrounds lived experience as the primary unit of inquiry has been demonstrated as particularly well-suited for understanding the nuanced dimensions of teacher professional development that aggregate metrics cannot adequately surface (Demir & Qureshi, 2019; Philipsen et al., 2019). This methodological gap, combined with the substantive absence of alignment-focused inquiry in the PPG literature, represents a significant opportunity for contribution. Unlike prior studies that evaluate PPG through satisfaction surveys, LMS completion rates, or graduation metrics (Dwikurnaningsih et al., 2025; Yuniawatika et al., 2022; Aulia et al., 2026), this study is the first to employ phenomenological inquiry to examine alignment specifically from a *subject-discipline perspective*, concentrating on Geography, a discipline whose PCK distinctiveness makes the generic-curriculum problem structurally visible in ways that cross-disciplinary evaluations obscure.

Geography teachers present a particularly illuminating case for examining alignment within PPG. As a discipline that integrates spatial reasoning, environmental literacy, and geospatial thinking, competencies that are both theoretically distinctive and pedagogically demanding, Geography requires a subject-specific form of PCK that cannot be adequately developed through generic instructional modules (Smit et al., 2023, 2024). A systematic review of geography teachers' PCK by Smit et al. (2023) confirmed that PCK in geography is strongly content-dependent, emphasizing the necessity of geographical knowledge and disciplinary teaching experience as foundations for quality teaching. These attributes require purposeful, subject-focused cultivation rather than exposure to generalized pedagogical frameworks. Yet the PPG curriculum, as currently structured, does not differentiate learning content by subject discipline; all participants, regardless of teaching subject, engage with the same standardized modules emphasizing broad pedagogical approaches such as differentiated learning, social-emotional learning, and reflective practice. While these are valuable generic competencies, their undifferentiated framing may inadequately prepare Geography teachers for the subject-specific PCK demands

embedded in the UKPPPG. Furthermore, Jeschke et al. (2021) demonstrated in a comparative study that teachers' ability to apply subject-specific knowledge in instructional settings is domain-specific and does not transfer readily across subjects. This finding has direct implications for the adequacy of generic PPG modules in developing Geography-specific teaching competence. Understanding how Geography teachers experience this potential misalignment provides a disciplinary-specific lens through which the broader structural tensions of PPG Guru Tertentu can be examined and critiqued.

This study investigates the alignment between learning preparation and competency assessment in Indonesia's Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu) from the perspectives of Geography teachers at Universitas Negeri Medan (UNIMED), North Sumatra. Employing a phenomenological inquiry approach (Moustakas, 1994), this study seeks to understand the lived experiences of participants as they navigate the learning phase of PPG and subsequently confront the demands of UKPPPG. Specifically, the study addresses three research questions: (1) How do Geography teachers experience the learning preparation phase of Indonesia's PPG Guru Tertentu program? (2) How do Geography teachers perceive the alignment between their PPG learning experiences and the UKPPPG competency assessment? (3) What factors contribute to perceived misalignment, and what improvements do participants recommend? The significance of this study is threefold. Theoretically, it extends Cohen's (1987) instructional alignment framework to the context of online teacher certification in a developing country, contributing to a growing body of literature on the effectiveness of technology-mediated teacher professional development. Methodologically, it demonstrates the value of phenomenological inquiry, a mode of investigation that has proven effective in surfacing experiential dimensions of professional development programs invisible to quantitative approaches (Philipsen et al., 2019), in the context of Indonesian teacher certification. Practically, its findings offer evidence-based recommendations for the Directorate of Teacher Professional Education, LPTK program designers, and curriculum developers seeking to strengthen the coherence and effectiveness of PPG for subject-specific teacher preparation, particularly in disciplines such as Geography where PCK is demonstrably content-dependent (Smit et al., 2023).

Method

Research Design

This study employs a qualitative research design grounded in descriptive phenomenology, following the philosophical tradition of Husserl (1970) and the methodological framework established by Moustakas (1994). Phenomenology is concerned with understanding the structure and essence of lived experience, what it means for individuals to have undergone a particular phenomenon, making it epistemologically suited to the central focus of this study: how Geography teachers experience the learning preparation phase of PPG Guru Tertentu and perceive its alignment with the demands of UKPPPG. Unlike evaluative or outcome-focused approaches that measure program effectiveness through aggregated metrics, phenomenological inquiry foregrounds the subjective, meaning-making dimensions of participants' encounters with the program, yielding insights into the experiential gap between intended design and lived reality that quantitative approaches cannot adequately surface (Demir & Qureshi, 2019; Philipsen et al., 2019). Descriptive phenomenology, specifically, seeks to describe the phenomenon as experienced without imposing interpretive theoretical frameworks in advance, allowing the structure of participants' experiences to emerge directly from the data (Creswell & Poth, 2016). The overall research design framework, encompassing the philosophical foundation, methodological approach, participant structure, data collection methods, analysis procedures, and expected outputs, is presented in Figure 1.

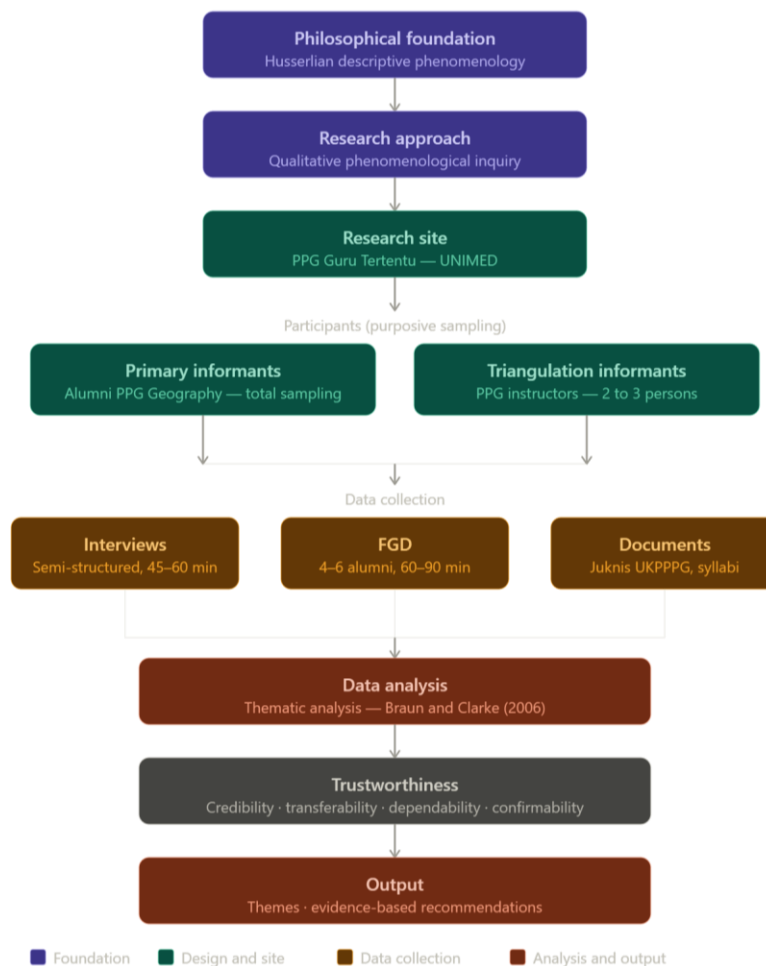


Figure 1. Overview of the research design framework adopted in this study.

The choice of phenomenology over other qualitative traditions such as grounded theory or case study is justified on two grounds. First, the research questions explicitly ask *how* participants experience and perceive specific phenomena (the learning preparation phase and its alignment with UKPPPG), foregrounding experience and perception as the primary objects of inquiry. Second, the retrospective nature of participant accounts, alumni reflecting on a completed program, is particularly well-suited to phenomenological methods, which are designed to recover and describe the essential structure of past lived experience through systematic reflection (Bean, 2018).

Research Setting and Participant Selection

The study was situated within the Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu) at Universitas Negeri Medan (UNIMED), North Sumatra, Indonesia. UNIMED is one of Indonesia's designated Teacher Education Institutions (LPTKs) authorized by the Ministry of Education to implement the PPG program. The university was selected as the research site through purposive institutional sampling because it has an established Department of Geography Education and offers the PPG program in the Geography subject area. This institutional context provided a bounded setting in which the experiences of Geography teachers participating in the program could be examined in depth.

Participants were recruited using purposive sampling to ensure that they possessed direct and relevant experience with the phenomenon under investigation. The primary informants consisted of Geography teachers who had completed the Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu) at UNIMED through the online Learning Management System (LMS), were currently employed as Geography teachers in schools, had undertaken the Teacher Professional Education Competency Examination (UKPPPG) regardless of the examination outcome, and voluntarily agreed to participate by providing informed consent.

To enhance the credibility of the findings through data triangulation, instructor participants were also included. These participants were selected because they were currently serving or had previously served as PPG instructors or academic supervisors for Geography participants at UNIMED. In addition, they had direct

involvement in facilitating online learning activities or conducting participant assessments during the PPG program and voluntarily consented to participate in the study.

Purposive sampling was employed rather than random or convenience sampling because the study required participants who could speak authoritatively about the specific phenomenon under investigation, namely the experience of PPG learning and UKPPPG preparation as Geography teachers, rather than provide a statistically representative cross-section of the population (Creswell & Poth, 2016). In phenomenological research, the quality and depth of participants' lived experiences are considered more methodologically valuable than sample size (Moustakas, 1994).

Given the small population of Geography alumni from the Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu) at UNIMED, total sampling was employed for the primary informant group, with all eligible alumni who met the inclusion criteria invited to participate. For the instructor group, purposive sampling was used to recruit two to three instructors who had direct involvement in facilitating the Geography PPG program. Data collection continued until theoretical saturation was reached, defined as the point at which no new themes or substantively different accounts emerged from additional interviews (Braun & Clarke, 2021).

Data collection continued until theoretical saturation was reached, operationally defined as the point at which no new themes or substantively different accounts emerged from additional interviews (Braun & Clarke, 2021). Saturation was achieved after the ninth alumni interview (A9); the two instructor interviews subsequently provided methodological triangulation rather than additional thematic content. This saturation point is consistent with information-power framework recommendations for purposively sampled, thematically focused phenomenological studies with a homogeneous participant group (Malterud et al., 2016). The combination of nine primary informants and two triangulation informants yields an information-power level appropriate for the study's specific phenomenon, narrow sample characteristics, and established theoretical framework (Malterud et al., 2016).

Data Collection

Three complementary data collection methods were employed to generate rich, triangulated data:

In-depth Semi-structured Interviews

The primary data source consisted of in-depth semi-structured interviews conducted individually with each participant. Interview questions were organized into thematic blocks addressing: (1) background and context; (2) experiences of the PPG online learning process; (3) experiences of UKPPPG preparation and execution; (4) perceived impact on teaching practice; and (5) recommendations for program improvement. A bilingual interview guide (Bahasa Indonesia for delivery; English for reporting) was developed and pilot-tested with one informant prior to full data collection to assess question clarity, sequencing, and approximate duration. Each interview was conducted in Bahasa Indonesia, lasting approximately 45 to 60 minutes, and was conducted via face-to-face meeting or video call (Zoom or WhatsApp Video) according to participant preference. All interviews were audio-recorded with explicit consent and subsequently transcribed verbatim.

Focus Group Discussion

A single Focus Group Discussion (FGD) was conducted with four to six alumni participants following the completion of individual interviews. The FGD served two methodological purposes: to facilitate collective reflection on shared experiences that individual interviews may not have fully surfaced, and to provide a member-checking function by presenting emerging themes from initial analysis for participant validation (Lincoln, 1985). The FGD was conducted in Bahasa Indonesia, lasted approximately 60 to 90 minutes, and was audio-recorded with participant consent.

Document Analysis

Documentary data were collected to provide contextual triangulation for interview findings. Documents analyzed included: the Juknis UKPPPG Guru Tertentu 2025 (the official technical guidelines governing assessment procedures and competency frameworks); the Permendikbudristek No. 19 Tahun 2024 (the regulatory basis for PPG); and available PPG module syllabi and learning activity outlines for the Geography subject area at UNIMED. Document analysis followed the framework of Bowen (2009), using the documents primarily to corroborate and contextualize data from interviews rather than as primary analytical data.

Data Analysis

This study adopts descriptive phenomenology as its epistemological orientation, grounding the inquiry in Husserl's (1970) concern with lived experience and Moustakas's (1994) commitment to eidetic description, while employing reflexive thematic analysis (Braun & Clarke, 2021) as the data analysis procedure. This combination is methodologically coherent: descriptive phenomenology provides the philosophical framework and analytical stance (attending to the structure of lived experience, bracketing prior interpretive commitments), while reflexive

thematic analysis provides a systematic procedure for identifying, developing, and reporting patterns of shared meaning across the dataset. The use of thematic analysis within phenomenologically oriented qualitative research is explicitly endorsed in the qualitative research literature (Nowell et al., 2017; Braun & Clarke, 2021) and is distinct from research traditions such as interpretative phenomenological analysis (IPA) or Colaizzi's method that prescribe tighter procedural integration between the phenomenological philosophy and the analytic steps. Throughout the six phases described below, the researcher maintained a phenomenological orientation by foregrounding participants' experiential language and resisting premature theoretical imposition, in accordance with descriptive phenomenological principles.

Data were analyzed using Thematic Analysis following the six-phase framework established by Braun & Clarke (2021), adapted for phenomenological purposes to foreground participants' experiential accounts as the primary analytic focus. Figure 2 provides a schematic overview of the six phases as applied in this study, from initial data familiarization through to the production of the written report. Each phase is described in detail below.



Figure 2. The six-phase thematic analysis process applied in data analysis (adapted from Braun & Clarke (2006)).

The first phase involved familiarization with the data. All interview transcripts and focus group discussion (FGD) recordings were read and reread multiple times by the primary researcher to achieve an in-depth understanding of the participants' experiences. During this process, initial impressions, recurring ideas, and potentially significant excerpts were documented in reflective memos to support subsequent analysis.

In the second phase, initial codes were generated by systematically assigning both semantic and latent codes to meaningful segments across the dataset. Coding followed an inductive approach, allowing codes to emerge from the data rather than being constrained by predetermined theoretical categories. This approach was adopted to preserve the authenticity of participants' experiential accounts.

The third phase focused on searching for themes by organizing related codes into candidate themes that represented broader patterns of shared meaning across participants. Mind maps were developed to visualize the relationships among codes and to facilitate the identification of coherent thematic structures.

During the fourth phase, the candidate themes were reviewed against the entire dataset to evaluate their internal coherence, consistency, and distinctiveness. Themes were refined through an iterative process in which

they were merged, separated, or redefined whenever necessary to ensure that they accurately represented the participants' accounts.

The fifth phase involved defining and naming the final themes. Each theme was carefully conceptualized and labeled to capture its central meaning as precisely as possible. Whenever appropriate, theme definitions were formulated using terminology that closely reflected the language and expressions used by participants in describing their experiences.

The final phase consisted of producing the research report by developing a coherent narrative that integrated the identified themes with supporting evidence from participants' verbatim quotations. Interview excerpts were translated from Bahasa Indonesia into English by the primary researcher and subsequently verified through back-translation to ensure semantic equivalence and minimize translation bias.

All interview transcripts were analyzed in Bahasa Indonesia to preserve the full semantic richness of participants' accounts. Only selected quotations were translated into English for reporting purposes. Throughout the analytical process, the primary researcher maintained a reflexivity journal to document methodological decisions, monitor the development of interpretations, and critically examine potential influences arising from the researcher's institutional role, as discussed in following section.

Trustworthiness

The trustworthiness of this study was established through four criteria adapted from Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability.

Credibility was addressed through three complementary strategies. First, *bracketing* (epoché): prior to data collection, the primary researcher documented and suspended prior assumptions about PPG through written reflective memos, in accordance with Moustakas's (1994) prescriptions for descriptive phenomenological inquiry. These memos were maintained throughout data collection and reviewed before each interview to prevent progressive re-contamination. Second, *member checking*: emerging themes and representative quotations were shared with six alumni participants at the close of analysis; all confirmed that the themes accurately reflected their experiences, with two participants suggesting minor clarifications in phrasing that were incorporated into final theme definitions. Third, *peer debriefing*: the thematic analysis was reviewed by a colleague external to the PPG program who provided independent scrutiny of the analytic process.

It should be noted that inter-rater reliability coding (e.g., Cohen's kappa) was not employed. This decision is epistemologically grounded: in reflexive thematic analysis, analytical judgment is located in the researcher's active interpretive engagement with the data rather than in code-count agreement between independent raters. As Braun and Clarke (2021, p. 46) explicitly state, inter-rater reliability is "epistemologically inconsistent" with reflexive thematic analysis because it presupposes that codes carry singular, stable meanings independently of the researcher's interpretive position, an assumption incompatible with the constructivist epistemology this study adopts. Credibility is therefore established through the member-checking and peer-debriefing strategies described above, not through inter-rater metrics.

Transferability was addressed through *thick description* — providing sufficiently detailed accounts of the research context, participant characteristics, program structure, and data collection procedures to allow readers to assess the applicability of findings to other settings. The deliberate limitation of the study to one LPTK and one subject discipline enhances contextual depth at the expense of breadth, a trade-off consistent with the phenomenological aim of essentialist description (Moustakas, 1994).

Dependability was addressed through the maintenance of a detailed audit trail, including all raw transcripts, coded data files, thematic maps, and analytical memos, allowing the analytical process to be traced and evaluated by an external reader.

Confirmability was addressed through reflexivity practices described in §2.6, which made the researcher's positional influences explicit and documented strategies for managing their effects.

Reflexivity and Ethical Considerations

Researcher Positionality

The primary researcher occupies the role of Head of the Geography Education Department at UNIMED, the same institutional setting within which the PPG program operates and participants were enrolled. This insider position carries both methodological advantage and risk. Advantage lies in established rapport and contextual familiarity, which may facilitate more candid participant disclosure. Risk lies in potential positional influence on data generation and interpretation, particularly given the power differential between a departmental head and alumni or instructors. To mitigate this risk, the following strategies were employed: explicit bracketing (epoché) of prior assumptions about PPG at the outset of data collection, as prescribed by descriptive

phenomenological methodology (Moustakas, 1994); reflexive journaling throughout analysis; and member checking as a credibility and confirmability strategy.

Ethical Considerations

The study was conducted in accordance with the ethical principles governing educational research involving human participants. Prior to data collection, all participants received a written participant information sheet explaining the study's purpose, voluntary nature, confidentiality provisions, and the right to withdraw at any time without consequence. Written informed consent was obtained from all participants. Participant identities were anonymized in all transcripts and reported findings, with participants assigned pseudonyms. Audio recordings were stored securely and accessed only by the research team. Given the insider researcher position, particular care was taken to communicate unambiguously that participation or non-participation would have no bearing on any academic, professional, or administrative outcomes.

Results and Discussions

This section presents the findings of the thematic analysis derived from 198 units of response collected from nine Geography teacher alumni (A1–A9) and two PPG instructors (I1–I2) at UNIMED. Following the six-phase thematic analysis procedure (Braun & Clarke, 2006), seven themes emerged that characterize participants' lived experience of the PPG Guru Tertentu learning phase and its alignment with the UKPPPG competency assessment. An overview of theme frequency and distribution across participants is presented in Table 1, Figure 3, and Figure 4, followed by a narrative account of each theme supported by representative verbatim excerpts.

Overview of Themes

Table 1 summarizes the seven themes, their definitions, and the proportion of participants whose accounts contributed to each theme.

Table 1. Summary of Themes, Definitions, and Participant Distribution

Theme	Definition	Participants (n/11)	Representative Codes
Theme 1: Dual Roles (Work-Study Conflict)	Time and energy conflict between full-time teaching duties and PPG learning demands, compounded by school academic calendars and uneven internet infrastructure; extends to psychological strain.	9 (82%)	Dual-role time conflict; Infrastructure-driven stress; Psychological toll
Theme 2:	Tendency to prioritize timely task submission over content mastery, driven by workload and technical anxiety; a counter-pattern (Theme 2b) of deep-learning orientation was also observed.	4 (36%) +2 counter	Task completion under pressure; Deep learning orientation (counter)
Theme 3: The Generic Curriculum Problem	Perception that PPG modules are designed generically across subjects, leaving Geography-specific competencies (spatial thinking, GIS, local hazard context) unaddressed and requiring teachers' own translation effort.	7 (64%)	Self-translation burden; Absence of spatial thinking content; Geospatial skills gap
Theme 4: The Assessment Gap (Cognitive-Depth Misalignment)	Strong perceived alignment at the conceptual level and in the Performance Assessment, but a significant gap in the higher-order analytical demands of the PCK and SJT tests — confirmed independently by both instructors.	7 (64%)	Conceptual alignment, cognitive-depth gap; Dual gap (instructor view)
Theme 5: PCK Label vs Generic Content	Specific critique that the PCK test, despite its name, predominantly assesses generic pedagogical reasoning rather than Geography content-specific teaching knowledge.	4 (36%)	PCK label vs actual content mismatch
Theme 6: Voices for Structural Change	Convergent recommendations from alumni and instructors for a tiered curriculum design (general pedagogy +	7 (64%)	Two-tier design proposal; Three-way integration model

Theme	Definition	Participants (n/11)	Representative Codes
Theme 7: Failure and Recognition	subject-specific module + embedded UKPPPG-equivalent practice). An underexamined human dimension: UKPPPG failure as a productive learning moment, the durable value of informal peer community, and calls for prior teaching experience to be recognized as a legitimate learning resource.	4 (36%)	Failure-triggered reappraisal; Peer community as hidden benefit

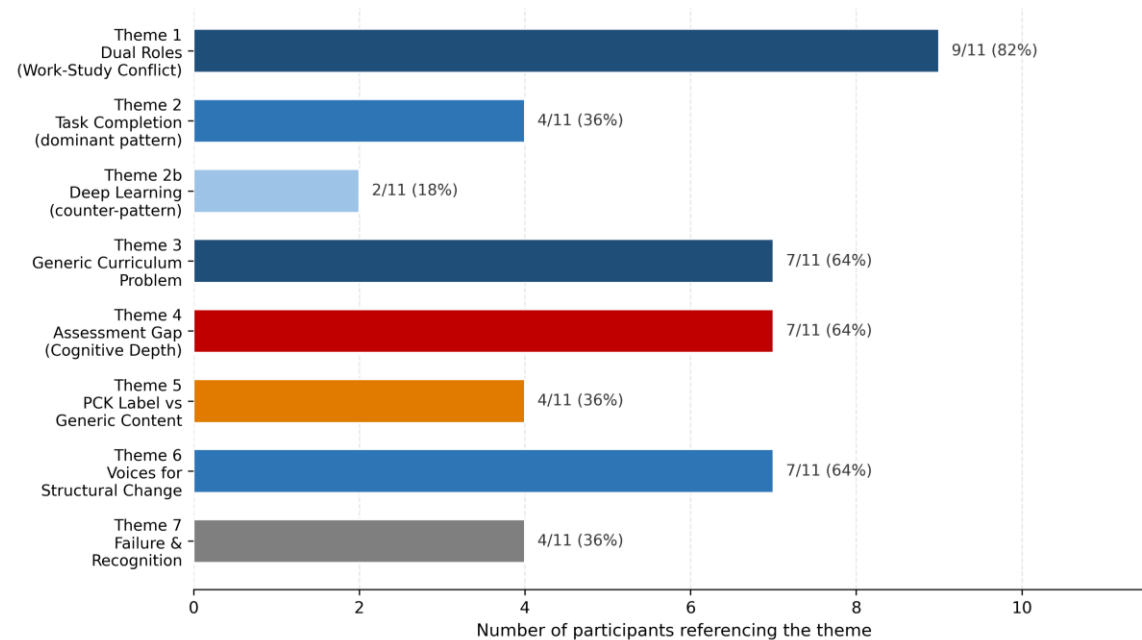


Figure 3. Frequency of Themes across Participants (N = 11).

As shown in Figure 3, Theme 1 (Dual Roles) was the most pervasive, referenced by 82% of participants, underscoring the structural reality that nearly all participants experienced PPG as a program undertaken alongside, rather than instead of, full teaching duties. Themes 3, 4, and 6 each appeared in 64% of accounts, indicating that perceptions of generic curriculum content, the cognitive-depth assessment gap, and calls for structural reform were not isolated complaints but shared, recurring concerns across the majority of the sample.

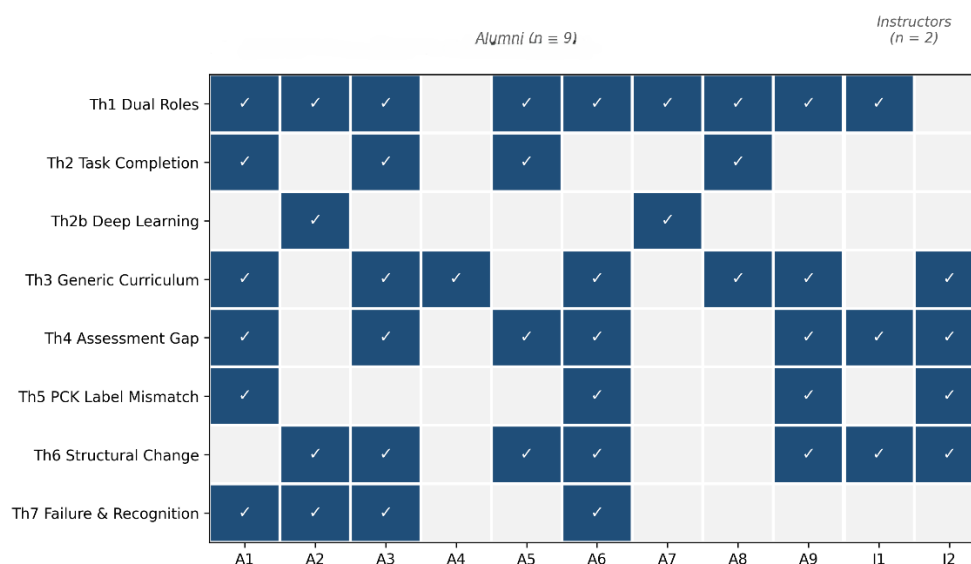


Figure 4. Theme-by-Participant Matrix.

Figure 4 visualizes the distribution of themes across individual participants, distinguishing alumni (A1–A9) from instructors (I1–I2). Notably, Theme 4 (Assessment Gap) was the only theme endorsed by both instructors independently of alumni accounts, providing methodological triangulation for what might otherwise be dismissed as a one-sided participant perception. Conversely, Theme 7 (Failure and Recognition) was confined entirely to alumni, suggesting this experiential dimension is visible primarily to those who underwent the assessment process themselves.

Theme 1: The Burden of Dual Roles

Nearly all alumni participants described PPG Guru Tertentu as a program experienced under conditions of structural time scarcity. As an in-service teacher with two decades of experience, A1 recalled how task deadlines collided directly with the school administrative calendar:

“...there were several weeks that felt very heavy, especially when the PPG assignment deadlines coincided with report card distribution and exam preparation at school. During that period, I often slept much later than usual.”

For participants in areas with limited internet infrastructure, this burden was compounded by connectivity anxiety. A5, teaching in Serdang Bedagai, described searching for stronger signal locations after school hours, while A8 in Karo regularly downloaded materials in advance to study offline. Instructor I1 independently confirmed this pattern from the facilitation side, observing that “the difficulty that most often arises is actually not in understanding pedagogical concepts, but in time management.” Beyond logistics, A1 raised an underexamined psychological dimension in the program’s evaluation: “a good program should be able to challenge participants to grow without making them lose the balance between work and personal life.”

Theme 2:(and Its Counter-Pattern)

A1 and A8 were explicit that, under workload pressure, “my priority was often making sure the task was finished on time,” a pattern A3 later regretted: “after experiencing difficulty in the first UKPPPG attempt, I realized that approach was not quite right.” Notably, two participants (A2, A7) described a contrasting orientation. A2 stated plainly: “I try to understand the material first before doing the assignment... the goal of joining PPG is not only to get a certificate.” This counter-pattern suggests that task-completion orientation is not a uniform response to PPG’s design but may instead interact with individual motivation and prior dispositions toward reflective practice, a nuance explored further in the Discussion.

Theme 3: The Generic Curriculum Problem

Seven participants described PPG modules as pedagogically sound but disciplinarily generic. A3 articulated this directly: “I hope there will be discussion on how to develop spatial thinking skills or the use of maps as a learning tool... such material is not widely found.” A9, the participant most vocal on this theme, repeated the concern across multiple questions, specifically naming GIS, spatial analysis, and map interpretation as absent from the curriculum. For A8, teaching in a volcanically active region, the gap was contextual rather than purely conceptual: “geography material that could actually be linked to local environmental conditions... unfortunately I did not find many examples that connect [to this].” Instructor I2 corroborated this from the facilitation perspective, noting that “Geography PCK has fairly unique characteristics... these aspects require a different pedagogical approach compared to many other subjects.”

Theme 4: The Assessment Gap (Cognitive-Depth Misalignment)

This theme directly addresses the study’s central alignment question. Participants consistently described a two-tier pattern: strong alignment at the conceptual level and within the Performance Assessment, paired with a pronounced gap in the analytical depth required by the PCK test. A1 summarized this precisely: “there is a connection at the concept level, but not always at the level of complexity faced during the exam.” A6, a senior teacher, localized the gap explicitly: “the gap I feel most is in PCK.” Critically, this was not merely an alumni perception. Instructor I1 confirmed: “I see fairly strong alignment in the Performance Assessment... the gap appears more often in the analytical ability required in PCK.” I2 went further, identifying a compound gap: “a gap in the level of cognitive demand... [and] a gap in the specificity of the Geography discipline.” This independent instructor confirmation substantially strengthens the credibility of the alignment gap as a structural feature of the program rather than an artifact of individual unpreparedness.

Theme 5: PCK Label versus Generic Content

A sharper critique, voiced by four participants, concerned the PCK test’s name rather than merely its difficulty. A6 stated bluntly: “if the test is called PCK, I expect a more genuine assessment of how teachers teach Geography-specific concepts... many questions could be answered by teachers from other fields.” This was independently echoed by I2, who argued the current design under-tests “the development of spatial thinking, the use of maps and GIS as learning tools.”

Theme 6: Voices for Structural Change

Seven participants converged on remarkably similar structural solutions without apparent coordination. A2 proposed a two-layer module design consisting of general pedagogy followed by subject-specific application examples, a proposal echoed almost verbatim by instructor I2, who stated, "I imagine a more layered PPG design." The first stage still contains the general pedagogical competencies needed by all teachers. But the next stage needs to focus on the characteristics of the Geography discipline." A9 extended this into a three-way integration model combining general pedagogy, Geography-specific PCK, and embedded UKPPPG-style practice within a single module sequence.

Theme 7: Failure and Recognition — The Human Dimension

A smaller but distinct theme captured dimensions of the PPG experience rarely visible in formal program evaluation. A3, who failed her first UKPPPG attempt, reframed the experience constructively: "I was disappointed and questioned my own ability. But after going through that process, I actually learned more than before." A2 highlighted an unanticipated benefit: the peer community formed during PPG "sometimes lasts longer than the material studied in the module." A6, reflecting as a teacher with two decades of experience, called for the program to recognize accumulated teaching experience as a legitimate input to learning, rather than treating all participants as blank-slate recipients of standardized content, a critique with direct implications for the program's andragogical design.

Summary of Findings

Taken together, the seven themes depict a program that succeeds in cultivating general pedagogical reflection and aligns reasonably well with the Performance Assessment component of UKPPPG, while exhibiting a structural gap in two specific dimensions: the cognitive depth demanded by the PCK and SJT tests, and the disciplinary specificity expected of a genuinely subject-specific PCK measure. Crucially, both gaps were independently corroborated by instructor accounts (Theme 4, Theme 5), strengthening the credibility of these findings beyond alumni self-report. The counter-pattern in Theme 2 and the human dimension captured in Theme 7 further suggest that participants' experiences of PPG were not monolithic, but shaped by individual disposition, prior experience, and infrastructural context, an issue discussed further in the following section.

Framing the Findings: Alignment Theory as an Interpretive Lens

The seven themes generated by this study converge on a diagnosis that alignment theory helps explain with precision. The Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu), as experienced by Geography teachers at UNIMED, demonstrates only partial alignment. The program is coherent at the conceptual and performance-assessment levels but less well aligned in terms of cognitive complexity and disciplinary specificity. Cohen (1987) conceptualized instructional alignment as the correspondence between instructional experiences and assessment requirements, arguing that misalignment, even in otherwise well-designed programs, can suppress learning outcomes. Webb's (1997) Depth-of-Knowledge (DOK) framework further specifies that standards and assessments are aligned only when "what is elicited from students on the assessment is as demanding cognitively as what students are expected to know and do." Applied to the PPG context, these frameworks reveal a central structural tension. The LMS-based learning modules primarily emphasize DOK Levels 1 and 2, which focus on recall and the application of basic skills, whereas the PCK component of the UKPPPG requires DOK Levels 3 and 4, which demand strategic thinking, analysis of discipline-specific pedagogical problems, and the development of well-reasoned instructional responses. This mismatch was not merely perceived as a general sense of difficulty. Rather, it was explicitly articulated by A1, who observed that "there is a connection at the concept level, but not always at the level of complexity faced during the exam," and independently confirmed by Instructor I1, who stated, "I see fairly strong alignment in the Performance Assessment... the gap appears more often in the analytical ability required in PCK."

The term *partial alignment*, as used in this study, is operationalised against Webb's (1997) four criteria. *Categorical concurrence* refers to the correspondence between the content categories assessed and those addressed in preparation. This criterion is broadly achieved: both the PPG modules and the UKPPPG address pedagogical competence, lesson design, and teacher professionalism. *Range of knowledge* asks whether the breadth of topics in preparation matches the breadth represented in the assessment. This criterion is partially achieved: general pedagogical topics appear in both phases, but Geography-specific content is absent from preparation while implicitly present in the PCK item demands. *Depth-of-knowledge (DOK) consistency*, the criterion most directly at issue, is not achieved: modules operate at DOK Levels 1–2 while the PCK test demands Levels 3–4. *Balance of representation* (whether different content areas receive proportionate emphasis) is not achieved for the Geography-specific disciplinary dimension, which is under-represented in preparation relative to its assessment weight. The alignment problem is therefore a targeted failure at cognitive depth and disciplinary specificity, two dimensions curriculum redesign can most directly address, rather than a wholesale absence of coherence.

Shulman's (1986) PCK developmental trajectory, extended by Grossman (1990), offers an alternative explanation: the assessment gap reflects the developmental stage of teachers' PCK rather than structural curriculum misalignment. From this view, the PCK test's demands may exceed what participants can meet not because preparation fails to scaffold the required competencies, but because PCK development is a longitudinal process shaped by sustained classroom experience that a short-format certification program cannot replicate. This explanation is plausible and compatible with the present findings. Instructional alignment theory is nonetheless adopted as the primary interpretive frame, for two reasons. Alignment refers to the structural correspondence between preparation and assessment, a program-design variable that policy can adjust within a single cohort cycle. Beyond that, both instructors corroborated the alignment gap independently, and instructors design the program rather than merely experiencing it; their corroboration identifies the gap as a feature of program architecture, not a product of individual developmental readiness.

Establishing cognitive-depth misalignment as the primary alignment issue, rather than characterizing the program as fundamentally ineffective, provides an important foundation for the discussion that follows. Each of the seven themes represents a distinct dimension of the broader alignment landscape, encompassing the structural conditions that shape learning (Themes 1 and 2), the disciplinary gaps in curriculum and assessment design (Themes 3–5), and participants' recommendations for improvement together with their broader professional experiences (Themes 6 and 7).

Theme 1. The Burden of Dual Roles: Structural Time Scarcity as a Learning Barrier

The finding that 82% of participants (9/11) experienced PPG under conditions of structural time scarcity is consistent with existing evidence on in-service teacher professional development, but it has important implications for evaluating the program's learning design. A1's account of PPG task deadlines coinciding with report-card distribution and examination preparation, stating that "*during that period, I often slept much later than usual*," illustrates the resource-depletion process described by Conservation of Resources (COR) theory (Hobfoll, 2011). According to this theory, when resources expended in the occupational domain, such as full-time teaching, exhaust individuals' available cognitive and temporal reserves, engagement with concurrent professional learning must inevitably be rationed. Li et al. (2024) documented a similar mechanism in a survey of 2,184 Chinese primary and secondary school teachers, demonstrating that work–family conflict predicted job burnout through depressive symptoms. This pattern closely parallels A1's observation that "*a good program should be able to challenge participants to grow without making them lose the balance between work and personal life*."

For participants in geographically peripheral locations, the burden was further intensified by infrastructure constraints. A5 described searching for a stronger internet signal after school hours in Serdang Bedagai, while A8 downloaded learning materials in advance in Karo to enable offline study. Similar challenges were reported by Karnadi & Istiyani (2024), who found that limited technological proficiency and unstable internet access were central barriers for older participants in Indonesia's online PPG program rather than merely peripheral inconveniences. Although these constraints do not directly indicate instructional misalignment, they have important implications for learning. When sustained and focused attention, the primary cognitive resource required for deep learning, is continually depleted by competing professional responsibilities and concerns about technological access, even well-designed learning activities are unlikely to produce the level of cognitive engagement required for success in a high-stakes assessment.

Instructor I1 independently confirmed this structural challenge by noting that "the difficulty that most often arises is actually not in understanding pedagogical concepts, but in time management." This observation suggests that the issue is recognized not only by participants but also by program facilitators. Consequently, the scheduling, workload, and deadline structure of the PPG program should be calibrated to reflect the documented realities of in-service teachers' professional responsibilities rather than an idealized model of full-time learners.

The surface-learning orientation captured in Theme 2 in which A1 and A8 explicitly prioritized task submission over conceptual engagement under workload pressure has a precise theoretical account in Biggs's (1993) 3P (Presage–Process–Product) model of student learning: when contextual factors (heavy workload, tight deadlines, perceived assessment demands) generate high surface motivation, learners adopt task-reduction strategies that minimize the required cognitive effort. The consequence of this pattern is reflected in A3's retrospective observation that "*after experiencing difficulty in the first UKPPPG attempt, I realized that approach was not quite right*," suggesting that prioritizing short-term task completion may come at the expense of long-term assessment performance. This trajectory is directly supported by Chen et al. (2023), who analyzed 5,064 LMS log records from 415 in-service teachers and found that higher participation frequency was associated with lower participation quality, a pattern attributed to teachers' tendency to adopt shallow participation behaviors that closely resembles the "task completion" orientation described by participants in the present study.

The counter-pattern observed in A2 and A7, both of whom described a deep, meaning-oriented approach to the PPG modules despite experiencing the same structural conditions as other participants, is theoretically important because it represents a minority pattern that contrasts with the dominant trend. A2's statement, *"I try to understand the material first before doing the assignment... the goal of joining PPG is not only to get a certificate,"* identifies intrinsic motivation as the differentiating variable. Stamov Roßnagel et al. (2021) found that among online learners, deep-approach adaptation correlated with both higher motivation and higher perceived stress, suggesting that the counter-pattern is not simply a product of lower workload, but of a different motivational orientation toward the program. This nuance matters for program design: if the goal is to shift more participants toward the A2/A7 orientation, the intervention lever is not solely workload reduction but also the clarity and meaningfulness of the program's learning purpose which, as Theme 3 shows, is partly a function of how relevant participants perceive the curriculum to be.

Theme 3. The Generic Curriculum Problem: Disciplinary Absence in a Discipline-Specific Profession

The critique voiced by 64% of participants, namely that the PPG modules were pedagogically sound but disciplinarily generic, targets a structural feature of the program's design rather than the quality of the individual modules. A3 clearly articulated what participants believed was missing, stating, *"I hope there will be discussion on how to develop spatial thinking skills or the use of maps as a learning tool... such material is not widely found."* A9 further identified the absence of content related to GIS, spatial analysis, and map interpretation, while A8 highlighted the lack of Geography content addressing local environmental hazards. For teachers working in volcanically active regions, this omission represents a significant gap in professionally relevant preparation.

This gap is directly explicable by the foundational work on Pedagogical Content Knowledge (PCK) introduced by Shulman (1986). Shulman distinguished PCK, defined as the integration of subject-matter knowledge with knowledge of how to teach it, from generic pedagogical knowledge. A professional preparation program that addresses only the latter, while omitting the former, produces teachers who can apply generic instructional models but lack the subject-specific pedagogical repertoire that makes Geography teaching distinctive. Smit et al.'s (2023) systematic review, the most comprehensive review of Geography teachers' PCK to date, concluded that geographical content knowledge and teaching experience are fundamental to high-quality Geography PCK and that research on Geography PCK remains considerably less developed than in many other disciplines. From this perspective, the limited attention given to discipline-specific knowledge within Indonesia's PPG modules represents a missed opportunity to cultivate the competencies that distinguish Geography teachers from teachers in other subject areas.

The content-focused professional development literature is equally clear on the cost of this omission. Ehlert & Souvignier (2024), synthesizing this literature, stated plainly that "PD dealing with subject-specific and subject-didactic content is generally more effective than PD on generic pedagogical/psychological content." Darling-Hammond et al. (2017) reached the same conclusion across a broader evidence base, establishing content focus as one of the six core features of effective professional development. The current design of the PPG program reverses this priority by providing a strong foundation in general pedagogy but only limited subject-specific content, an emphasis that contrasts with the recommendations of the professional development literature. Instructor I2 independently confirmed the importance of subject-specific preparation from the perspective of program implementation, observing that *"Geography PCK has fairly unique characteristics... these aspects require a different pedagogical approach compared to many other subjects."* As an instructor directly involved in delivering the PPG program, this perspective provides additional support for the need to strengthen discipline-specific learning.

The Indonesian-specific evidence corroborates this concern. Purwanto et al. (2020), in a study of 600 Indonesian Geography teachers, found that even experienced teachers had *low* implementation ability with geospatial technology, the very domain A9 named as absent from PPG. If experienced Geography teachers are under-equipped in spatial and GIS pedagogy, and the PPG curriculum does not address this gap, then the program cannot be said to be developing the competencies that Geography teaching in contemporary Indonesia most requires.

Theme 4. The Assessment Gap: Cognitive-Depth Misalignment at the Program's Core

Theme 4 is the study's central finding, and it was the only theme independently confirmed by both instructors, providing the strongest evidence for its status as a structural feature rather than an idiosyncratic participant perception. A6's account localized the gap precisely: *"the gap I feel most is in PCK,"* and Instructor I1 confirmed: *"I see fairly strong alignment in the Performance Assessment... the gap appears more often in the analytical ability required in PCK."* Instructor I2 went further, identifying a compound gap: *"a gap in the level of cognitive demand... [and] a gap in the specificity of the Geography discipline."*

The Depth-of-Knowledge (DOK) framework (Webb, 1997) provides a useful lens for characterizing this gap. The written PCK component of the UKPPPG consists of 35 multiple-choice items requiring participants to analyze pedagogical scenarios and is intended to assess strategic and extended thinking about teaching at DOK Levels 3 and 4. The LMS-based preparation phase, by contrast, focuses primarily on lesson-plan development, micro-teaching, and pedagogical concept application (DOK 1–2). Zhao et al. (2023) found an empirically analogous pattern in their alignment analysis of classroom teaching: the cognitive demands of assessments exceeded those of stated learning objectives and teaching activities, and this mismatch, when not addressed deliberately, reliably disadvantages learners who have not independently developed the higher-order reasoning the assessment requires. The PPG participants in this study did not have independent scaffolding for this development; they encountered the cognitive-depth gap at the examination gate.

A critical methodological point is that both instructors independently corroborated the central claim of Theme 4 (Figure 4), namely that the alignment gap lies in the cognitive depth required by the PCK assessment rather than in the overall quality of the program, thereby substantially strengthening the credibility of this finding. In qualitative research, instructor-corroborated themes carry higher evidential weight because they represent a cross-role convergence on the same structural diagnosis. The program succeeds where its design intended (Performance Assessment alignment): A6's "good material for pedagogical theory," the UKin's documented lesson-planning and teaching-video components. It falls short where the assessment demands cognitive operations that the preparation phase never cultivates.

Theme 5. PCK Label versus Generic Content: The Construct Validity Problem

Theme 5 sharpens Theme 4's diagnosis from a cognitive-depth problem into a construct-validity problem. A6's critique was pointed: *"if the test is called PCK, I expect a more genuine assessment of how teachers teach Geography-specific concepts... many questions could be answered by teachers from other fields."* This is not merely a complaint about difficulty; it is a measurement claim that the PCK test does not measure the construct its label promises.

The psychometric literature on Situational Judgment Tests (SJTs), which are used in the UKPPPG's SJT component, also supports this concern. Bardach et al. (2021) demonstrated that text-based SJTs for teacher selection measure primarily generic behavioral and interpersonal judgment rather than subject-specific pedagogical reasoning, and identified significant format effects on score distributions. Chao et al. (2020), in constructing and validating teacher SJTs across 5,039 participants, found reliability coefficients ranging from .19 to .74, an uneven psychometric profile that signals variability in what the items actually measure. Together, these sources support the concern raised by A6 and I2 that a test labeled as "PCK" but operationalized through generic pedagogical scenarios primarily measures behavioral judgment that can be exercised by teachers across subject areas, leaving Geography-specific pedagogical content knowledge largely unassessed.

I2 named the Geography dimensions that the current test omits: *"the development of spatial thinking, the use of maps and GIS as learning tools."* These are not peripheral competencies; they represent what Shulman (1986) identified as the knowledge "most likely to distinguish the understanding of the content specialist from that of the pedagogue", the disciplinary transformation knowledge that defines PCK. A PCK test that does not require this transformation knowledge is, by Shulman's definition, not assessing PCK. Reframing this as a construct validity concern rather than merely a content-coverage gap gives Theme 5 the technical precision needed to constitute a policy-relevant critique.

Theme 6. Voices for Structural Change: Convergent Reform Proposals

The structural reform proposals put forward by 64% of participants (7/11) are noteworthy not because they are novel, as the importance of subject-specific professional development is already well established in the literature, but because they demonstrate a remarkable convergence in their specificity despite the absence of any apparent coordination among participants. A2's two-layer module design (general pedagogy followed by subject-specific application) and I2's almost verbatim echo (*"The first stage still contains the general pedagogical competencies needed by all teachers. But the next stage needs to focus on the characteristics of the Geography discipline"*) represent participants and instructors arriving at the same structural conclusion from their different positions within the program. A9 extended this further into a three-way integration model combining general pedagogy, Geography-specific PCK, and embedded UKPPPG-style practice, a design that closely aligns with recommendations from both the instructional alignment and professional development literature.

The evidence base for a two-tier or layered approach is strong. Jeschke et al. (2021) demonstrated that presenting pedagogical content knowledge (PCK) and general pedagogical knowledge in an integrated rather than sequential manner promoted the simultaneous application of both forms of knowledge among preservice mathematics and economics teachers. This finding provides direct empirical support for A9's proposal to integrate general pedagogy, Geography-specific PCK, and UKPPPG-oriented practice within the PPG curriculum. MacPhail et al. (2023) applied backward-design principles to teacher education programs and

showed that explicitly aligning learning outcomes, assessment formats, and instruction within subject-specific contexts produced stronger alignment outcomes. Darling-Hammond et al. (2017) and Ehler & Souvignier (2024) supply the structural rationale: content-focused PD, embedded in subject-specific application, outperforms generic pedagogical training for improving teaching quality.

A necessary qualification, which strengthens rather than undermines the two-tier proposal, is that generic pedagogy is not without value. Gore & Rosser (2022) randomized controlled trial of Quality Teaching Rounds demonstrated that cross-subject, pedagogically focused professional development can generate genuine professional insight and collegial exchange. The participants' proposals do not advocate eliminating general pedagogy from the PPG program. Rather, they call for complementing it with a subject-specific layer that develops discipline-specific pedagogical content knowledge. This is a nuanced, evidence-congruent reform position, not a wholesale critique of the existing program architecture.

Theme 7. Failure and Recognition: The Human Dimension of Certification

The dimensions of experience captured in Theme 7 are rarely visible in formal program evaluations, yet they carry important implications for how PPG is theorized as a professional development intervention. A3's reflection on her first unsuccessful UKPPPG attempt illustrates what Sinha & Kapur (2021) describes as productive failure, the development of deeper conceptual understanding through an initial experience of unsuccessful problem-solving. As A3 explained, *"I was disappointed and questioned my own ability. But after going through that process, I actually learned more than before."* Sinha & Kapur's (2021) meta-analysis of 53 studies found a significant moderate effect (Hedges' $g = 0.36-0.58$) favoring problem-solving-before-instruction designs, particularly in conditions where the initial failure prompted effortful exploration. A3's retrospective account is a naturalistic instantiation of this mechanism: the examination failure created the conditions for deeper engagement that the preparation phase alone had not produced.

A2's observation that the peer community formed during PPG *"sometimes lasts longer than the material studied in the module"* points to a second undertheorized benefit of the program: the formation of informal communities of professional practice. Macià & García (2016), in a systematic review of 52 studies, found that informal online communities are a valuable and distinct source of teacher professional development. However, this resource remains underutilized in many formal professional development programs. Van Lankveld et al. (2016) documented the processes through which informal communities support not only professional knowledge but also professional identity formation. This dimension is particularly relevant for Geography teachers navigating a certification system that does not explicitly address their disciplinary identity. Accordingly, the peer communities that emerge through the PPG program should be recognized as an intentional program outcome rather than an incidental by-product of participation. This could be achieved by strengthening alumni networks, establishing subject-specific teacher communities, and developing structured peer-mentoring arrangements.

A6's call for the program to recognize accumulated teaching experience as a legitimate input to learning, rather than treating all participants as blank-slate recipients of standardized content, reflects the andragogical principle that adult learners' prior experiences constitute a primary resource for learning (Lippitt et al., 1984). The OECD's (2022) Recognition of Prior Learning framework extends this principle to the policy level by emphasizing that competencies acquired through professional experience should be assessed, recognized, and built upon rather than retaught from the ground up. For a program such as the Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu), which serves teachers with years or even decades of classroom experience, this principle should be regarded as a design requirement rather than an optional enhancement. A6's reflection, offered from the perspective of *"a teacher with two decades of experience,"* highlights a fundamental andragogical misalignment: a program originally designed around novice learning needs is delivered to experienced practitioners with little differentiation in content or learning approach.

The UKPPPG's Post-2024 Architecture and This Study's Contribution

A defining context for these findings is the regulatory transition formalized in *Permendikbudristek No. 19 Tahun 2024*, which unified the former UTN and UKMPPG assessment schemes into the new UKPPPG. The *Petunjuk Teknis UKPPPG Guru Tertentu 2025* (Direktorat PPG, 2025) specifies the written test as comprising 35 multiple-choice PCK items and 30 weighted SJT items (scored 1–5), plus a reflective case-study essay, with a separate performance examination assessing lesson-planning documents and an uploaded teaching video. This study's participants were among the earliest cohorts to experience this unified assessment architecture.

Peer-reviewed validation of the UKPPPG's construct coherence and alignment with PPG preparation is, as of this writing, substantively absent from the literature, an expected gap given that the unified format only piloted in 2024–2025. This absence is itself a contribution: the present study provides the first qualitative evidence about how Geography teachers experience alignment within this new framework, generating theoretical claims

(cognitive-depth misalignment, construct-label mismatch in the PCK test, andragogical gaps) that future quantitative and mixed-methods studies can operationalize and test.

Implications

For PPG curriculum designers. The two-tier and three-layer reform proposals articulated by participants and instructors in Theme 6 provide a practitioner-generated blueprint that is directly congruent with the content-focused PD literature. A practical implementation pathway would adopt a three-stage structure: (1) a general pedagogical foundation module, shared across subjects; (2) a subject-specific Geography module addressing spatial thinking pedagogy, GIS integration, map and fieldwork design, and local environmental literacy; and (3) an UKPPPG-aligned practice module where participants complete PCK scenarios and SJT items analogous to those in the examination, thereby closing the cognitive preparation gap left by the current program design.

For UKPPPG assessment designers. The PCK multiple-choice test should be audited using DOK criteria and subject-matter expert judgment to determine the proportion of items that genuinely require Geography-specific PCK (spatial reasoning, disciplinary transformation knowledge) versus items that can be answered by teachers from any field. Items in the latter category should be revised or replaced to achieve construct validity for the Geography teacher population.

For program managers and LPTKs. The dual-role burden (Theme 1) and its downstream effects on learning orientation (Theme 2) are amenable to scheduling interventions: PPG deadline calendars should be mapped against the national school academic calendar to minimize collision with peak occupational demands. Infrastructure support such as offline materials, asynchronous options, hardware access should be addressed proactively for participants in regions with limited connectivity.

For future research. This study establishes qualitative groundwork for several follow-on research directions: cognitive-demand analysis of UKPPPG item banks using DOK rubrics; cross-subject comparative studies examining whether the generic-curriculum problem is experienced differently across disciplines with higher versus lower PCK distinctiveness; and longitudinal research tracking how PPG experiences translate into classroom practice over time.

Limitations

This study's findings are bounded by its design and context. The sample of nine alumni and two instructors at a single LPTK (UNIMED) limits transferability: experiences of Geography teachers at other LPTKs, in other Indonesian provinces, or in different PPG cohort years may differ. The reliance on retrospective self-report, particularly in interviews conducted after UKPPPG completion, introduces the possibility of hindsight reconstruction. This possibility is illustrated by A3's retrospective reinterpretation of the experience following the first unsuccessful UKPPPG attempt. The researcher's institutional role as Head of the Geography Education Department at UNIMED, while carefully managed through reflexivity practices described in Section 2.6, creates an inherent positionality dynamic that cannot be fully neutralized, even with member-checking and peer debriefing.

The study's focus on the PPG Guru Tertentu online modality, implemented during or immediately after the COVID-19 pandemic's reshaping of online infrastructure, means that some findings related to connectivity anxiety and infrastructure barriers may reflect an accelerating improvement curve rather than a permanent structural condition. Finally, as noted above, the UKPPPG's unified architecture is new enough that comparison with prior cohorts' experiences under PLPG or UKMPPG is not directly possible within this study.

Conclusions

This study examined the alignment between learning preparation in Indonesia's Teacher Professional Education Program for In-Service Teachers (PPG Guru Tertentu) and the competency demands of the Unified Teacher Professional Education Competency Examination (UKPPPG) from the perspectives of Geography teachers. Using a descriptive phenomenological approach, seven interrelated themes emerged from the experiences of nine Geography teacher alumni and two PPG instructors. Overall, the findings indicate that the alignment between learning and assessment is partial rather than complete. Participants consistently perceived that the program successfully develops general pedagogical competence and prepares teachers for the Performance Assessment component of the UKPPPG. However, they also identified two major areas of misalignment: the higher-order cognitive demands required in the PCK and SJT examinations, and the limited integration of Geography-specific pedagogical content knowledge within the learning curriculum. The findings further demonstrate that the perceived misalignment is shaped not only by curriculum design but also by the realities of in-service teacher participation. Balancing full-time teaching responsibilities with intensive online learning often encouraged task completion rather than deep engagement with learning materials. At the same time, the

standardized curriculum was widely perceived as emphasizing generic pedagogical concepts while providing insufficient opportunities to develop discipline-specific competencies such as spatial thinking, GIS integration, map interpretation, and contextual environmental learning. Importantly, these concerns were not expressed solely by alumni participants but were independently corroborated by PPG instructors, strengthening the credibility of the identified alignment issues. The study contributes to the growing literature on teacher professional education in three important ways. First, it extends instructional alignment theory to the context of Indonesia's newly implemented UKPPPG system by demonstrating that alignment should be considered across multiple dimensions, including curriculum content, cognitive demand, and disciplinary specificity. Second, it provides one of the earliest qualitative accounts of teachers' lived experiences under the post-2024 UKPPPG assessment framework, offering an evidence base for future evaluation of this recently restructured certification system. Third, it highlights the importance of integrating subject-specific pedagogical content knowledge into professional education programs for disciplines such as Geography, where effective teaching depends on competencies that cannot be fully developed through generic pedagogical instruction alone. These findings suggest several practical implications for future program development. A more differentiated curriculum structure, consisting of a shared general pedagogical foundation followed by subject-specific learning modules and UKPPPG-oriented practice activities, may strengthen the coherence between learning experiences and assessment expectations. Likewise, greater attention to the cognitive demands represented in the written examination and to the authentic assessment of Geography-specific pedagogical content knowledge may enhance both the instructional and assessment quality of the certification program. Finally, the findings should be interpreted within the study's context. As a qualitative phenomenological investigation conducted with participants from a single Teacher Education Institution, the study seeks to provide analytical rather than statistical generalization. Future research employing multi-site qualitative studies, mixed-methods designs, or quantitative validation across different subject disciplines would help determine whether the alignment patterns identified in this study are shared more broadly across Indonesia's Teacher Professional Education Program.

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