


## Teachers' Strategies in Utilizing Digital Based Instructional Materials to Enhance Students' Learning Motivation in Akhlak Courses at an Indonesian Islamic Boarding School

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<p><b>Article history:</b>                      Received 08-04-2021                      Revised 25-06-2021                      Accepted 06-08-2021                      Published 29-09-2021</p> <p><b>How to cite:</b> Victoria, M., Sabli, M., Andryadi, Narti, W., &amp; Adilla, U. (2021). Teachers' Strategies in Utilizing Digital Based Instructional Materials to Enhance Students' Learning Motivation in Akhlak Courses at an Indonesian Islamic Boarding School. <i>Edcomtech: Jurnal Kajian Teknologi Pendidikan</i>, 6(2), 310–321.  <a href="https://doi.org/10.17977/um039v6i12021p310">https://doi.org/10.17977/um039v6i12021p310</a></p> <p>© The Author(s)                        This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License</p>	<p><i>Penelitian ini mengkaji strategi guru Akidah Akhlak dalam merancang dan menerapkan bahan ajar berbasis digital untuk meningkatkan motivasi belajar santri di lingkungan pesantren tradisional Indonesia. Menggunakan pendekatan kualitatif dengan desain studi kasus di Pondok Pesantren Darul Ulum Rimbo Bujang, Provinsi Jambi, penelitian dilakukan selama dua belas minggu melalui observasi partisipatif, wawancara semi terstruktur dengan dua guru Akidah Akhlak, empat santri kelas XI, dan satu pimpinan pesantren, serta telaah dokumen rencana pembelajaran dan artefak digital. Data dianalisis dengan model interaktif Miles, Huberman, dan Saldaña, dengan kredibilitas dijaga melalui triangulasi sumber dan metode, perpanjangan pengamatan, serta member checking. Hasil penelitian mengungkap tiga temuan yang saling terkait. Pertama, motivasi awal santri rendah akibat kombinasi metode ceramah satu arah, rendahnya relevansi yang dipersepsi, kelelahan akibat jadwal pesantren yang padat, dan keterbatasan infrastruktur digital. Kedua, guru menanggapi tantangan ini dengan membangun Technological Pedagogical Content Knowledge secara bertahap melalui pembelajaran mandiri dan kolaborasi sejawat, lalu merancang ulang materi Akhlak menjadi video pendek, narasi animasi tokoh nabi, dan e modul berbasis kasus yang dibagikan melalui saluran terkontrol. Ketiga, pengaturan flipped blended yang disertai kuis formatif dan jurnal refleksi menghasilkan perubahan nyata pada kehadiran, partisipasi kelas, dan kemampuan santri menghubungkan konsep etika Islam dengan dilema kehidupan. Studi ini menyimpulkan bahwa bahan ajar digital baru efektif memotivasi santri ketika kompetensi guru, desain konten, dan adaptasi institusional bergerak bersama.</i></p> <p><b>Kata Kunci:</b> Bahan Ajar Digital; Akidah Akhlak; Motivasi Belajar; Pesantren; TPACK.</p> <p><b>Abstract</b>                      This study examines how Akhlak teachers design and enact strategies for using digital instructional materials to raise student learning motivation in a traditional Indonesian pesantren setting. Employing a qualitative case study design at Pondok Pesantren Darul Ulum Rimbo</p>

	<p>Bujang in Jambi Province, the research drew on participatory observation across twelve weeks of instruction, semi structured interviews with two Akhlak teachers, four eleventh grade students, and one pesantren administrator, and a documentary review of lesson plans and digital teaching artifacts. Data were analyzed through the Miles, Huberman, and Saldaña interactive model, with credibility established through source and method triangulation, prolonged engagement, and member checking. The analysis surfaces three interlocking findings. First, baseline motivation was depressed by a combination of one way lecturing, low perceived relevance, fatigue from a dense pesantren timetable, and constrained digital infrastructure. Second, teachers responded by gradually building Technological Pedagogical Content Knowledge through self directed learning and peer collaboration, then redesigning Akhlak content into short videos, animated narratives of prophetic exemplars, and case based e modules circulated through a controlled channel. Third, a flipped blended arrangement, paired with formative quizzes and reflective journals, produced observable shifts in attendance, classroom participation, and the students' capacity to connect Islamic ethical concepts to lived dilemmas. The study argues that digital materials become motivationally effective in pesantren only when teacher competence, content design, and institutional adaptation move together.</p>
	<p><b>Keywords:</b> <i>Digital Instructional Materials; Akhlak; Learning Motivation; Pesantren; TPACK.</i></p>

## INTRODUCTION

Indonesian pesantren, the Islamic boarding schools rooted in the salaf tradition of Qur'anic and classical text study, face an awkward demand. They are expected to retain a centuries old transmission model anchored in kiai authority and kitab kuning, the classical Arabic texts, while preparing graduates for a labor market and civic life saturated with digital media (Isbah, 2020; Mujahid, 2021). The pull of modernization is no longer a scholarly debate; it is now embedded in regulatory expectations, parental aspirations, and the daily phone use of the students themselves (Shofiyah et al., 2019). Within this institutional pressure, the Akidah Akhlak subject occupies a particularly sensitive position. It carries the doctrinal and ethical core of Islamic schooling, yet it is often the subject most resistant to pedagogical innovation, taught through memorization and one way exposition that students perceive as remote from the moral choices they actually face.

A growing body of empirical work in Indonesian Islamic education shows that this perception translates into measurable motivation problems. Sulaeman (2021) found that the use of even simple digital media such as Microsoft PowerPoint correlated with stronger learning motivation in Islamic religious education at junior secondary level. Wajdi et al. (2021) reported similar gains using interactive multimedia, and Winarto et al. (2020) documented the effectiveness of audiovisual media in raising achievement and engagement in PAI classrooms. Fahmi et al. (2021) developed an e module for vocational secondary students that experts and teachers rated as highly suitable, while Affandi et al. (2021) extended these findings to higher education through a thematic Digital Quran model. Yusoff et al. (2020) demonstrated the motivational pull of digital game based learning for Islamic history. Beyond the religious education literature, the broader evidence on flipped and blended designs (Fisher et al., 2018; van Alten et al., 2019; Cevikbas & Kaiser, 2021), interactive multimedia courseware (Septiani

et al., 2020; Komalasari & Saripudin, 2019), and value based digital storytelling (Saripudin et al., 2021) converges on a consistent claim: digital materials can lift motivation when the design is interactive, when content connects to learners' lived concerns, and when teachers carry the technological pedagogical competence to use the tools well (Ryan & Deci, 2020; Guay, 2021).

What this literature does not yet address is the specific institutional grammar of the pesantren. Almost all of the studies cited above were conducted in formal day schools, madrasahs, or universities. The pesantren differs in ways that matter for any digital pedagogy intervention: a residential timetable that compresses formal class hours between dawn worship, halaqah sessions, and night time recitation; deliberate restrictions on personal device use as a moral and managerial choice rather than an oversight; and a teaching authority structured around the ustadz and student relationship rather than around the curriculum document. Research on pesantren modernization tends to focus on institutional governance and curriculum reform (Zarkasyi, 2020; Heriyudanta & Khojir, 2021; Abidin, 2020) rather than on the day to day work of a single teacher trying to make Akhlak content move on a screen. The gap is not whether digital materials work in Islamic education, since that is fairly well established, but how a teacher actually constructs a workable strategy under pesantren constraints, and how that strategy changes student motivation over a sustained period.

This study addresses that gap through a case study of Pondok Pesantren Darul Ulum Rimbo Bujang in Tebo Regency, Jambi. Initial classroom observation flagged the same symptoms reported elsewhere: passive students, a non trivial rate of in class sleep, persistent absenteeism in the Akhlak subject, and a teacher reliant on textbook and talk delivery. The Akhlak teachers, the pesantren leadership, and the researchers agreed that something had to change, but the question of what could be done, given limited bandwidth, scarce devices, and a daily schedule already at capacity, remained open. The research therefore set three objectives: to describe the baseline state of student motivation and the structural constraints that produced it; to document how teachers designed and enacted a digital materials strategy under those constraints; and to analyze how that strategy related to changes in students' motivational and participatory behavior over a single semester. The unit of analysis is the teacher's instructional practice as it intersects with student response, situated within the pesantren as an institution.

The remainder of the article is organized as follows. Section 2 sets out the qualitative case study method, including researcher positionality, informant selection, instrumentation, and the procedures used to establish trustworthiness. Section 3 reports the findings across three thematic clusters. Section 4 interprets those findings against the wider TPACK and self determination literatures and argues for an integrated model of pesantren suited digital pedagogy. Section 5 concludes with implications and limitations.

## **METHOD**

The study used a qualitative approach with a single site instrumental case study design (Creswell & Poth, 2018), chosen because the research question concerns a teacher's situated practice rather than a generalizable causal effect, and because the institutional context of a residential pesantren with strong internal norms is itself part of the phenomenon of interest. A case study allows the researcher to keep teacher action, student response, and institutional setting in a single analytic frame.

The site is Pondok Pesantren Darul Ulum Rimbo Bujang, located in Meranti Subdistrict, Tebo Regency, Jambi Province. The pesantren operates a six year integrated madrasah curriculum alongside its classical kitab program and serves approximately six hundred resident

students. The school was selected purposively for two reasons. First, it had openly identified low motivation in the Akhlak subject as a recurring concern in its internal evaluations, which gave the research a clear practical entry point. Second, the leadership had recently begun small scale infrastructural investment, namely a single multimedia room, intermittent wi fi in the teachers' quarters, and a permission scheme allowing limited classroom use of the Akhlak teachers' personal devices, which made a digital materials intervention feasible without violating the pesantren's general restriction on student smartphone access. Fieldwork ran for twelve weeks during the second semester of the 2023–2024 academic year, covering a complete cycle of unit teaching, formative assessment, and semester evaluation in the Akhlak subject.

Researcher presence in the field followed an explicit positionality protocol. The lead author had no prior employment relationship with the pesantren and entered as an external researcher under a written cooperation agreement with the foundation board. The co authors contributed through collaborative analysis sessions but did not collect primary data on site. The lead author attended classes as a non participant observer for the first three weeks to allow the routine to settle. During weeks four through ten she shifted to a participant role, occasionally co facilitating short reflective discussions at the teachers' invitation, while continuing to record field notes. Weeks eleven and twelve were used for member checking and exit interviews. This staged presence reduced the reactivity that a continuous outsider observer would otherwise produce in a pesantren classroom.

Informants were selected purposively, with the goal of triangulating the same teaching episodes from multiple vantage points rather than achieving statistical representativeness. The seven informants comprised two Akhlak teachers, coded T1 and T2, who together taught all eleventh grade Akhlak sections; four eleventh grade students, coded S1 through S4, who were nominated by their classmates and the teachers as articulate informants representing the spread of motivation observed in the classroom (two with consistently high engagement, two with a recent pattern of disengagement); and the head of the pesantren's curriculum division, coded P1, who held authority over scheduling and infrastructure decisions relevant to the intervention.

Three data collection techniques were used in combination. Participatory observation took place in twenty four lesson sessions across the twelve weeks. Field notes recorded teacher moves, student verbal and non verbal responses, technical incidents, and contextual events such as inter class noise or device failures, using a structured observation guide adapted from Spradley's nine dimensions. Semi structured interviews followed a topical guide built around the three research objectives, with each informant interviewed at least twice (once in week six and once in week eleven) for sessions ranging from forty five to eighty minutes. Interviews were recorded with consent and transcribed verbatim. Documentary materials included lesson plans, the teachers' digital artifacts (slide decks, short videos produced in Canva and CapCut, a Liveworksheets bank, and an initial e module draft), screenshots of the class communication channel, students' reflective journal entries, and quiz score logs.

Data analysis followed the interactive model of Miles, Huberman, and Saldaña (2014), running concurrently with data collection rather than as a final stage. Transcripts and field notes were first condensed through open coding, with codes drawn from the data rather than imposed from a pre set framework. A second cycle grouped these into thematic categories oriented around the three research objectives. Displays, primarily case ordered matrices crossing teacher action against student response, were used to identify patterns across

lessons and informants. Conclusion drawing was conducted in three rounds, each tested against fresh data and against rival explanations.

Trustworthiness was addressed through four procedures. Source triangulation cross checked each substantive claim against teacher, student, and administrator accounts. Method triangulation matched interview claims against observed behavior and documentary evidence. In two cases, claimed teacher practices were not visible in observation, and the discrepancy was resolved through follow up interviews that revised the original claim. Prolonged engagement across twelve weeks reduced the risk of single incident inference. Member checking was conducted with all seven informants in week eleven, using a one page summary of preliminary findings; three substantive corrections from informants were incorporated into the final analysis. Ethical clearance was obtained from the Institut Agama Islam Yasni Bungo research committee, and all student informants provided assent in addition to parental and pesantren consent.

## RESULTS

The findings are organized in three subsections that follow the research objectives: the baseline motivational state and its structural drivers, the strategies that the Akhlak teachers developed in response, and the changes in student behavior observed across the semester.

### Baseline Motivation and Its Structural Drivers

Observation in the first three weeks confirmed the picture that the pesantren's internal evaluations had already painted. Across the eight Akhlak sessions observed in this period, an average of four students per class of twenty eight either slept or rested their head on the desk for at least ten consecutive minutes, two to three students were engaged in side conversations during teacher exposition, and active verbal participation, defined as a student speaking on topic without being directly named, averaged 1.6 turns per forty minute session. Attendance records over the previous semester showed Akhlak as the subject with the second highest unexcused absence rate among the eleventh grade subjects, behind only the Arabic language course taught at the same morning slot.

Interviews surfaced four distinguishable but interacting drivers of this state. The first concerned the format of instruction. Students described Akhlak lessons as predictable in a way that produced disengagement rather than confidence: "*Bukan susah, Bu, tapi sama terus. Buka buku, baca, tulis, ditanya, jawab, ya sudah*" (S2, week 6). The second concerned perceived relevance. Three of the four student informants stated that they did not see how the textbook treatment of classical ethical categories connected to the choices they actually made, particularly around social media use, friendship, and family conflict during their occasional visits home. The third concerned fatigue. The pesantren timetable scheduled Akhlak in either the first morning slot, immediately after Subuh prayer and Qur'an recitation, or in the slot following the early afternoon meal, both periods during which student physiological alertness was low and during which T1 himself acknowledged that "*kalau ceramah saja jam segini, memang berat*" (T1, week 6). The fourth concerned material constraints. The pesantren's wi fi covered only the staff area and one meeting room; student personal devices were locked away on intake; the multimedia room was shared across all subjects and required booking five days in advance; and the two Akhlak teachers had to use their own laptops and projectors when those rooms were unavailable.

These drivers did not act in isolation. The administrator P1 framed the relationship explicitly: the predictable lecture format was itself a rational response to the constraints, since

attempting interactive or media based teaching without reliable infrastructure produced its own classroom disruptions, which then reinforced the safer choice of the lecture. Earlier reform attempts, including a one off teacher workshop in 2022 and a short lived class messaging group in 2023, had stalled in part because they treated the technology as an add on rather than as something to be integrated into the actual rhythm of pesantren life.

### **The Teachers' Emergent Strategy**

Across weeks four through ten, T1 and T2, working partly in coordination and partly independently, converged on a four strand strategy. The four strands are reported here as analytically distinct, though in practice they unfolded together and reinforced one another.

The first strand was a deliberate, self directed expansion of their own technological pedagogical competence. Neither teacher had previous formal training in instructional technology beyond a brief module during their pre service program. Both began by working through free online tutorials on Canva and CapCut during evening hours, then experimented with simple Liveworksheets exercises before attempting to build a complete digital lesson. They explicitly framed this as content driven learning. T1 explained that he chose tools by starting from the Akhlak topic he wanted to teach next and asking which tool would let him represent that topic better, rather than starting from a tool and looking for content to fill it.

The second strand was the redesign of the Akhlak content itself into multimodal forms. By week eight, the teachers had produced a working bank of materials covering the unit on *akhlak terhadap diri sendiri dan sesama*: short Canva built explainer slides on each ethical concept; two to three minute animated narratives of prophetic and companion exemplars produced through CapCut; case scenarios drawn from contemporary student life, including a fabricated group chat conflict, a short video of a public transport scenario, and a peer pressure vignette, followed by structured reflection prompts; and an initial draft e module that compiled these elements into a single navigable document. Two design principles ran through this redesign. The first was *chunking*: each digital segment was deliberately kept short, so that segments could be inserted into the existing class period without consuming it whole. The second was *contextual binding*: every abstract ethical concept was paired with at least one concrete contemporary scenario before any classical reference was introduced, reversing the conventional order of textbook treatment.

The third strand was a flipped blended classroom arrangement, adapted carefully to pesantren constraints. Rather than asking students to access digital materials on personal devices, which the pesantren's policy did not permit, the teachers used a controlled access channel: the digital segments were preloaded onto a small set of class tablets that were distributed at the start of an Akhlak block, used in pairs during the first portion of the lesson, and collected at the end. For lessons that required pre class engagement, students received printed transcripts of the digital segment that they could read during their evening *muthala'ah* hour, with the corresponding video shown at the beginning of the next class as activation. This partial flip arrangement worked within the pesantren's device policy rather than against it.

The fourth strand was a layered formative assessment loop. Short Liveworksheets quizzes were used at the end of each unit segment to surface misconceptions. Brief reflective journal entries, handwritten and two to four sentences long, asked students to record one Akhlak concept they had encountered that week and one situation in their life it connected to. The teachers held a fifteen minute weekly debrief in which they reviewed the journals, adjusted the next week's material, and identified students who needed individual conversation. This loop made the strategy responsive rather than fixed.

### Observed Changes in Student Engagement and Motivation

By the end of the twelve week period, observable indicators had shifted in a consistent direction, though the changes were uneven across students and the strategy had not produced uniform transformation.

Attendance in the eleventh grade Akhlak classes during weeks nine through twelve recovered to a level comparable with the most well attended subjects in the same cohort, with unexcused absences in the observation classes falling from a pre intervention rate of approximately 14 percent to approximately 5 percent. In class sleeping behavior, which had averaged four students per class in the baseline observations, averaged just under one student per class across the final four weeks of observation. Active verbal participation rose from the baseline of 1.6 turns per session to between 4.2 and 5.8 turns across the final observation window, with the increase concentrated in case discussion segments rather than concept introduction segments.

The qualitative texture of participation shifted as well. In early semester observations, student contributions were almost entirely retrieval of textbook content in response to teacher questions. By the end of the semester, contributions included unsolicited extension of cases (students bringing their own examples, occasionally pushing back on the teacher's framing) and a recognizable register of moral reflection in their journal entries. S1, who had been a baseline engaged student, described the change as one of "*belajarnya bukan lagi soal jawaban yang benar, tapi soal apa yang akan saya lakukan*" (S1, week 11). S3, who had been one of the disengaged informants, framed it more pragmatically: "*Sekarang ada videonya, ada ceritanya, jadi saya bisa ikut. Kalau cuma ngomong saja, saya tidur*" (S3, week 11).

Two countercurrents are worth recording. First, a small subset of students, three of the twenty eight in T1's section, showed limited response to the strategy and continued patterns of disengagement. T1's interpretation, supported by P1's account, was that these students faced concerns outside the classroom that the strategy could not reach. Second, the strategy depended on T1 and T2 as individuals to a degree that raised sustainability questions. The pesantren's other Akhlak teacher, who served the lower grades and was not part of the intervention, did not adopt the materials, and the teachers themselves identified workload pressure as the main barrier to scale.

### DISCUSSION

The findings answer the three research questions and connect, in a fairly direct way, to four overlapping bodies of literature: TPACK as a framework for teacher knowledge, self determination theory as a framework for student motivation, the broader empirical literature on flipped and blended designs, and the institutional literature on pesantren modernization. Read against these literatures, the case study makes three contributions worth setting out explicitly.

The first contribution is to the TPACK literature. The teachers in this case did not arrive at the strategy by working through the seven TPACK domains as conceptual categories; they arrived at it by repeatedly asking how a particular Akhlak concept could be represented better. This bottom up construction of TPACK matches what Tondeur et al. (2019) and Tseng et al. (2020) describe as the most durable route to integrated technological pedagogical competence: design by doing, supported by collegial reflection, rather than top down framework training. It also aligns with Falloon's (2020) argument that teacher digital competence is most usefully understood as a holistic capacity rather than as a stack of separate skills. The Indonesian context adds a specific observation. In resource constrained

settings without strong institutional professional development, teachers' self directed TPACK development under content pressure may be the realistic path, a pattern consistent with findings reported by Akram et al. (2021) for Pakistani higher education and by Adipat (2021) for Thai pre service teachers. What this case adds is the demonstration that the pattern holds even in a strongly traditionalist institutional setting: pesantren teachers are capable of the same self directed competence building when the institutional ecosystem allows it.

The second contribution is to the motivation literature. The shifts observed in the students, including declining absenteeism, declining in class withdrawal, rising participation, and the move from retrieval to reflection in journal entries, are not best read as a simple effect of "interesting media." Read through self determination theory (Ryan & Deci, 2020; Howard et al., 2021), the strategy worked because it addressed the three basic psychological needs that the baseline situation had been frustrating. *Competence* was supported by the chunked, scaffolded design that allowed students to succeed in short steps and by formative quizzes that gave rapid feedback. *Autonomy* was supported by the case based discussion format that invited the students' own interpretations, by the journal that asked them to identify their own connections, and by the absence of the recitation only register. *Relatedness* was supported by the contemporary scenarios that recognized the actual moral life the students were leading and by the teachers' weekly debrief, which made the response to student input visible. The empirical literature on personalized and online learning environments (Hsu et al., 2019; Alamri et al., 2020) reports the same mechanism at work in different settings. Where this case extends the SDT account is in showing that all three needs can be addressed simultaneously through a single coordinated digital materials strategy in a pesantren, a context where each need is, by default, structurally constrained.

The third contribution is to the literature on flipped and blended learning, particularly to the question of how to adapt those models in resource poor or device restricted environments. The meta analytic evidence (van Alten et al., 2019) and individual studies in secondary settings (Florence & Kolski, 2021; Cevikbas & Kaiser, 2021; Talan & Gulsecen, 2019; Attard & Holmes, 2020) consistently report that flipped and blended designs raise engagement when the pre class component is genuinely engaged with by students and when class time is repurposed for higher order activity. The pesantren case is informative because the conventional version of flipping, in which students access videos at home, was unavailable, and yet the underlying pedagogical logic was preserved through a partial flip with printed transcripts and tablet distributed segments. The case suggests that the active ingredient in flipped blended designs is not the device through which students access the pre class content but the structural shift of class time toward discussion and case work; if that structural shift can be achieved, the device question is secondary. This is a useful corrective to the assumption that flipped learning requires one to one student device access.

Beyond these three contributions, two design principles emerge from the case that the literature supports but that are worth stating in a form that other pesantren teachers could adapt. The first is the principle of contextual binding before classical reference. The teachers found that introducing a contemporary case before the classical category produced more engaged discussion than the conventional inverse, and the literature on value based digital media (Saripudin et al., 2021; Komalasari & Saripudin, 2019; Septiani et al., 2020) is consistent on this point. The second is the principle of infrastructure fit design. The strategy succeeded because the teachers calibrated each design choice to the actual constraints of the pesantren rather than designing as if those constraints did not exist. Earlier reform attempts at the same pesantren, on P1's account, had foundered precisely because they treated the constraints as

obstacles to be overcome by exhortation rather than as parameters to be designed within. This echoes a pattern that Kerkhoff and Makubuya (2021), Quicoe and Pata (2020), and Sánchez Cruzado et al. (2021) report from other resource constrained contexts: digital pedagogy in such settings advances through structural fit, not through the importation of designs developed elsewhere.

The case has limitations worth naming. The single site design limits transferability; the twelve week window does not test whether the gains hold over a longer arc; and the strategy's dependence on two committed teachers raises the standard sustainability question that any teacher driven innovation must answer. The findings should be read as a worked example of a strategy that fit its setting, not as a generalizable causal model. Future research could productively follow this case in two directions: longitudinal tracking of whether the motivational shifts translate into sustained ethical reflection over the full pesantren career, and comparative case work across multiple pesantren to test which elements of the strategy travel and which are site specific.

## **CONCLUSION**

This study set out to understand how Akhlak teachers in an Indonesian pesantren design and enact strategies for using digital instructional materials to raise student motivation, and how those strategies relate to observable changes in student behavior. The findings can be summarized in five points.

First, baseline motivation in the Akhlak subject was low at the study site, but the cause was not student disinterest in religious content. It was a recognizable interaction among lecture only delivery, weak perceived relevance, fatigue from the pesantren timetable, and constrained digital infrastructure. Reform that addresses only one of these drivers should not be expected to produce durable motivational change.

Second, two Akhlak teachers, working largely without external professional development, built a coherent four strand strategy that combined self directed TPACK growth, multimodal redesign of content with chunking and contextual binding, a partial flip blended classroom adapted to the pesantren's device policy, and a layered formative assessment loop.

Third, the strategy was associated with consistent, though uneven, shifts in observable student behavior: lower absenteeism, less in class withdrawal, higher and qualitatively richer participation, and a recognizable move from retrieval to reflection in students' journal writing.

Fourth, the case extends the TPACK, self determination, and flipped blended literatures by showing how their main mechanisms can operate together in a strongly traditional institutional setting, and how the active ingredient in flipped blended designs survives the absence of one to one student device access.

Fifth, the durability of the strategy depends on the pesantren ecosystem as much as on the teachers themselves. For Akhlak teachers and other PAI staff, the case suggests that competence building should start from a concrete content problem rather than from a tool, that classical references work better as a second move than as the opening move, and that pre class engagement can be achieved without requiring student device access. For pesantren leaders, the case suggests that infrastructural investment, even modest investment such as a small bank of class tablets, a multimedia booking system that does not require five day lead time, and scheduled time for teacher peer learning, produces disproportionate returns when it is designed to fit the institution rather than to imitate non pesantren models. For researchers, the open questions are longitudinal durability, cross site transferability, and the

specific mechanisms by which contextual binding raises both motivation and the quality of moral reflection in faith based curricula.

The wider claim is straightforward. Digital instructional materials are not, in themselves, a solution to motivation problems in pesantren Akhlak classrooms. They become a solution when teachers carry the technological pedagogical competence to design them well, when the design is bound to the actual moral life that students are leading, and when the institution adapts its rhythms enough to let that design breathe.

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