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Motivation–Workload Paradox in Practice-Based Distance Learning: A Mixed-Methods Study at Indonesia Open University

Marisa[1(*)], Murni Maulina[2], Muhammad Sulaiman[1], Susy Puspitasari[1], Dedy Aswan[2], Mohamad Adning[3], Johana Nurkhalifah[1]
[1]Universitas Terbuka, Jakarta, Indonesia
[2]Universitas Negeri Makassar, Makassar, Indonesia
[3]Pusdatin Kemdikdasmen, Jakarta, Indonesia

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Abstract

This study comprehensively explores the perceptions, experiences, and challenges faced by students in taking practical courses at the Faculty of Teacher Training and Education (FKIP), Universitas Terbuka (UT). Practical courses are frequently hampered and encounter obstacles in assignment completion. Employing a mixed-methods design with 307 participants from two study programs at Universitas Terbuka (UT), this research collected quantitative data (perceptions) and qualitative data (constraints). Descriptive quantitative results reveal a notable paradox: the majority of students reported high independent learning motivation (68% - 88%) and positive perceptions of lecturer guidance quality (82% - 97%). However, these findings contrast with the operational reality, where students overwhelmingly perceived the workload as high (above 90%). Thematic analysis of qualitative data identified three main constraints: time management due to work conflicts (33.7% in TPEN), technical constraints (internet network and learning platforms), and difficulties bridging theory and practice (47% in PBIN). It is concluded that the success of practical courses in distance learning is heavily influenced by external structural and logistical factors, such as learning environment stability and system design, which hinder the actualization of student motivation and self-regulation. Research implications recommend instructional design flexibility, workload adjustment, digital infrastructure strengthening, and the provision of multimodal materials (demonstration videos) to bridge the theory-practice gap. Theoretically, this study contributes by mapping how external structural limitations in distance education impede student self-regulation mechanisms despite high internal motivation.

Keywords: Practical courses, Distance Learning, Universitas Terbuka

(*) Corresponding Author: icha@ecampus.ut.ac.id

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INTRODUCTION

Distance Education (DE) has experienced rapid development and has become a primary strategy in expanding access to higher education, particularly in countries with vast geographical characteristics such as Indonesia (Leontyeva, 2018; Xiao, 2017). The advancement of digital technology allows DE to function not only as an alternative but also as a primary learning model that supports the

principles of affordability, flexibility, and educational sustainability. In various contexts, DE has proven effective in delivering theory-based material and abstract concepts that do not require direct physical interaction.(Holmberg, 2005; Queiroz et al., 2024; Vlachopoulos & Makri, 2019)However, this effectiveness does not automatically apply to courses that are practical and applicative in nature. Practical courses demand skill demonstration, repetitive practice, direct observation, and intensive formative feedback. When courses with such characteristics are adapted into a DE environment, various challenges arise that are not experienced in face-to-face learning contexts. The high rates of failure and course repetition in practical subjects across various DE programs in Indonesia indicate a misalignment between the applied instructional design and the authentic needs of students in developing technical skills. This phenomenon reflects not only pedagogical issues but also indicates structural gaps in the implementation of practice-based DE(Burgess, 2023; El Azhari et al., 2025; Pareek, 2024).

In international discourse, practice-oriented subjects are identified as practice-based courses—courses focused on integrating theoretical knowledge with real-world skill performance in fields such as nursing, art and design, architecture, and applied engineering. Literature indicates that the migration of practice-based courses to online environments is not straightforward, as the paradigm of practical learning emphasizes the meaningfulness of direct experience, continuous guidance, and multisensory interaction, which are generally difficult to replicate in virtual formats(Gao, 2022; Serednytska, 2025; Zhou & Li, 2024). These challenges escalate when students must manage learning independently without the presence of instructors in a real-time context.

Prior research highlights that student success in practice-based courses is influenced not only by instructional design and material quality but also by internal psychological and cognitive capabilities. To understand these dynamics, this study is grounded in the Social Cognitive Theory of Self-Regulated Learning (SRL), which posits that learning is an active, goal-directed process dependent on the interplay between personal, behavioral, and environmental determinants . Factors such as academic motivation, self-regulation, and metacognitive monitoring play crucial roles in directing how students plan, execute, and evaluate their learning processes (Aldeeb et al., 2024; Enwereji et al., 2023; Pratt et al., 2021; Siddique et al., 2024). These three factors have been proven to correlate with learning persistence, depth of understanding, and success in completing complex practical activities. In the context of DE, these internal capabilities become increasingly crucial as students are required to navigate the challenges of practical learning autonomously. However, this internal capacity is continuously moderated by external environmental factors, such as instructional design, workload, and technological infrastructure. By applying the SRL framework, this study conceptualizes that the perceived effectiveness of practical courses in distance education is the resultant outcome of the interaction between students' internal self-regulatory mechanisms and the external structural realities they encounter.

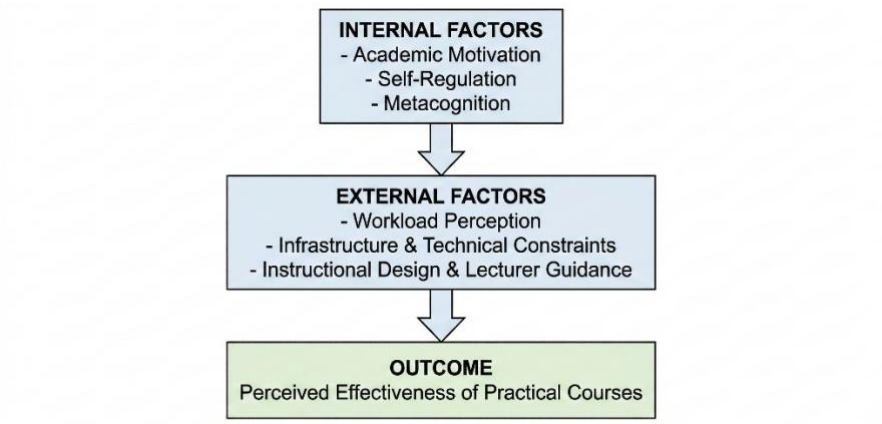

Figure 1. Factors affecting the effectiveness of practice-based distance learning

Nevertheless, most studies regarding practice-based courses remain dominated by face-to-face or blended learning contexts and have not fully represented the unique conditions of DE in Indonesia. Given the high failure rates in practical courses within DE, there is an urgent need to understand how students interpret their learning experiences, what obstacles they face, and how the dynamics of motivation, self-regulation, and technological readiness play a role in this process. This knowledge gap underscores the need for a deeper and more contextual study regarding the implementation of practical courses within the DE system.

Based on this framework, this study aims to comprehensively explore students' perceptions, experiences, and challenges in participating in practice-based courses within DE. This research seeks to provide a theoretical contribution by mapping the factors influencing the success of practical learning in the context of distance education, as well as a practical contribution in the form of recommendations for improving instructional design relevant to DE institutions. Thus, this study is expected to strengthen the understanding of how practical learning can be designed, implemented, and evaluated more effectively within the distance education ecosystem.

METHODS

This study employs a mixed-methods design using a concurrent approach, in which quantitative and qualitative data were collected simultaneously to provide a comprehensive overview of students' experiences in practice-based courses within Distance Education (DE). This approach was selected for its ability to combine the strengths of numerical data representing broad patterns of student perception with qualitative findings that elucidate the context, rationale, and dynamics underlying those perceptions. Specifically, during the interpretation phase, qualitative findings were systematically mapped to the quantitative results to explain the underlying reasons behind the statistical trends. For instance, while quantitative data measured the extent of students' high workload perception, the qualitative themes were used to identify the specific root causes of that workload, such as work-study schedule conflicts and technical infrastructure failures.

The research participants consisted of active students from Universitas Terbuka (UT) who are currently taking or have completed practice-based courses. Participants were selected using a purposive sampling method based on these criteria. The digital questionnaire was distributed openly through student communication networks. Due to this open distribution, an exact response rate cannot be calculated; however, a total of 307 valid responses were successfully collected.

Data collection was conducted using an online questionnaire consisting of both closed-ended and open-ended questions. The first section of the questionnaire collected demographic information, including the students' study programs and UPBJJ locations. The second section contained quantitative questions utilizing Likert-scale items to assess students' perceptions of several aspects of practice-based course implementation, including lecturer guidance quality, effectiveness of learning media, adequacy of course guidelines, independent learning motivation, perceived material difficulty, and perceived workload. Each perception indicator was measured using a single Likert-type item. Responses were recorded using a five-point Likert scale ranging from very low to very high depending on the context of the question. An example item included: "The learning media used in the course supports the implementation of practice-based learning."

The questionnaire items were reviewed by experts in distance education to ensure content validity and clarity of the measurement items. Because each perception indicator was measured using a single item, internal consistency reliability using Cronbach's alpha was not calculated. The third section of the questionnaire consisted of open-ended questions asking students to describe the primary obstacles and challenges they experienced during their participation in practice-based courses.

Data analysis was conducted using two complementary approaches. Quantitative data were analyzed using descriptive statistics to generate frequencies and percentages describing overall student perceptions regarding the implementation of practice-based courses. Meanwhile, qualitative responses were analyzed using thematic analysis. Student responses were read thoroughly, coded, and categorized into key themes representing dominant patterns of challenges, such as time management constraints, internet connectivity issues, difficulties in understanding practical material independently, and technological access problems. The integration of quantitative and qualitative findings was carried out during the interpretation stage to provide a more comprehensive understanding of students' learning experiences in the distance education context.

RESULTS & DISCUSSION

Respondent Distribution

The respondents in this study consisted of active students from the Educational Technology Study Program (TPEN) (N=172) and the Indonesian Language Education Study Program (PBIN) (N=135) spread across various Distance Learning Program Units (UPBJJ) or UT Regional Centers. This broad distribution of respondents provides a representative overview of the condition of

UT students across various regions of Indonesia. Details of the respondent distribution can be seen in the following table:

Table 1. Respondent Distribution by UT Regional Center (Top 5)

UT Regional Center (TPEN)	Frequency	%	UT Regional Center (PBIN)	Frequency	%
UT Jakarta	51	30%	UT Malang	14	10%
UT Bandung	37	22%	UT Purwokerto	13	9%
UT Bogor	23	13%	UT Bandung	12	9%
UT Serang	13	8%	UT Bogor	10	7%
UT Makassar	10	6%	UT Surabaya	8	6%

As seen in Table 1, the majority of TPEN respondents are concentrated in the Greater Jakarta area (Jabodetabek: Jakarta, Bogor) and West Java (Bandung), whereas PBIN respondents have a more even distribution across various cities in Java, such as Malang and Purwokerto.

Quantitative Findings: Student Perceptions

Quantitative data were collected to measure how students assessed various aspects of the implementation of practical courses, ranging from the quality of guidance to the perceived workload. A summary of positive perceptions from both study programs is presented comparatively in the following table to facilitate the analysis of satisfaction patterns and challenges.

Table 2. Summary of Student Perceptions of Practical Course Implementation

Perception Indicator	Positive Category Definition	TPEN (N=172)	PBIN (N=135)
Quality of Lecturer Guidance	Positive assessment of lecturer attention, response, and support	82%	97%
Independent Learning Motivation	Level of internal motivation to learn independently	68%	88%
Effectiveness of Learning Media	Perception of the benefits and clarity of learning media	73%	88%
Adequacy of Course Guidelines	Assessment of the clarity of assignment guidelines and instructions	89%	98%
Activity in Completing Assignments	Frequency and consistency in completing assignments	73%	92%
Perception of Material Difficulty	Assessment that the material feels challenging or difficult	39%	45%
Perception of Workload	Assessment that the volume of assignments is perceived as heavy	93%	91%

Based on Table 2, student perceptions of pedagogical and interactional aspects generally show a very positive picture. In the PBIN study program, almost all respondents (97%) rated the quality of lecturer guidance in the good to very good category. Similarly, in the TPEN study program, the combined respondents who rated it as good reached 82%. This is reinforced by the high level of independent learning motivation reported, namely 88% in PBIN and 68% in TPEN.

However, a sharp contrast is seen in the workload aspect. The absolute majority of students in both study programs (above 90%) perceived the workload as high to quite high. This figure far exceeds the perception of material difficulty (39%-45%), indicating that the main challenge for students is not solely academic content comprehension, but rather the volume of assignments and time management for their completion.

Table 3. Comparison of Workload Perception Between two Programs

Workload Perception	TPEN (n=172)	PBIN (n=135)
Low	7	10
High	71	62
Fairly High	76	41
Very High	18	22
Chi-square (χ^2)		**7.66**
p-value		**0.054**

To further examine whether perceptions differed between study programs, a chi-square test was conducted to compare workload perceptions between students from the TPEN and PBIN programs. As shown in Table X, the majority of students in both programs perceived the workload in practice-based courses as high or fairly high. The chi-square test indicated that the difference between the two programs was not statistically significant ($\chi^2 = 7.66$, $p = 0.054$), suggesting that the perception of heavy workload is experienced consistently across both study programs.

Qualitative Findings: Exploration of Student Challenges

To deepen the quantitative findings, a thematic analysis was conducted on open-ended responses regarding the obstacles faced during lectures. This analysis aimed to identify the root causes behind the high perception of workload.

For the TPEN student group, four main challenge themes were found, as detailed in the table below:

Table 4. Thematic Analysis: Main Challenges of Students (TPEN Study Program)

Challenge Theme	Percentage	Example Quote
Time Management & Workload	33.7%	*"My obstacle is time that sometimes clashes with work."*
Internet Network & Technical Issues	26.2%	*"Internet network is sometimes slow... UT e-learning website is down."*
Understanding Material & Guidelines	18.0%	*"Assignment instructions are less detailed and difficult to understand."*
Lecturer Interaction & Guidance	12.8%	*"Tutors are sometimes slow to respond to questions."*

Data in Table 3 show that for TPEN students, the most dominant obstacle is time management (33.7%), which is closely related to their status as predominantly working students. In addition, technical infrastructure obstacles (26.2%) also serve as significant barriers in the online learning process.

Furthermore, the analysis of PBIN Study Program students shows a grouping of themes that reveals challenges focused more on the theory-practice gap and logistics.

Table 5. Thematic Analysis Results: Student Experiences (PBIN Study Program)

Main Theme	Definition & Findings	Response Distribution
Understanding & Application Challenges	Difficulty bridging theoretical concepts with practical application.	~ 47%
Technical & Logistical Obstacles	Internet infrastructure issues and time management clashing with work.	~ 80%
Appreciation & Hopes	Appreciation for lecturers but hoping for a more flexible schedule.	~ 67%

As seen in Table 4, data from PBIN reinforce findings in TPEN that logistical obstacles (a combination of technical and time issues) are universal challenges felt by around 80% of respondents. Additionally, nearly half of PBIN students (47%) specifically reported cognitive difficulties in applying theory into real practice, indicating a need for material bridges or more concrete case examples in learning modules.

Overall, findings from both methods (quantitative and qualitative) present an interesting yet paradoxical picture. On one hand, students have positive perceptions of the quality of lecturer guidance and high internal motivation to learn. However, on the other hand, the biggest challenges they face are non-academic (logistical and technical), namely time management due to clashes with work schedules and infrastructure (internet network/server). These external challenges have the potential to hinder the actualization of this high motivation and complicate the process of optimally applying course practices.

Discussion

This section discusses the research findings in depth by connecting them to the theoretical framework and previous studies. Overall, the results indicate complex dynamics in the implementation of practical courses in Distance Learning (PJJ), particularly regarding the dualism between students' psychological readiness and the situational barriers they face. These dynamics demonstrate that the success of practical learning is determined not only by internal student factors but is significantly influenced by external conditions and the surrounding learning system design.

The Paradox of High Motivation and Logistical Constraints

The research findings reveal a paradox between students' high motivation and positive guidance quality versus the various logistical constraints they experience. Quantitatively, students in both study programs rated the quality of lecturer guidance and academic interaction in the good to very good category (Bolkan et al., 2016; Mukhlis et al., 2024; Nozari & Siamian, 2015; Puhach, 2025). They also reported high levels of independent learning motivation, indicating psychological readiness and commitment to participate in practice-based courses. Unlike some previous studies suggesting that heavy workload may reduce student motivation in online learning environments (Yu, 2022), the findings of this study

indicate that students can still maintain relatively high intrinsic motivation despite perceiving the workload as demanding.

However, this condition contradicts the operational reality they face daily. Thematic analysis results show that factors such as time management, heavy workloads, and technical constraints in the form of unstable internet connections act as dominant barriers (Budiarto et al., 2026; Fidan, 2023; Huang et al., 2016; Yu, 2022). Consistent with previous research highlighting the importance of technological infrastructure in distance learning (Cronje, 2022; MUSLICHA, 2021; Qin et al., 2022), this study confirms that logistical and technical constraints remain critical barriers affecting students' ability to engage effectively in practice-based online learning. Thus, it is evident that the challenges experienced by students lie not in pedagogical aspects or teaching quality, but in structural barriers that disrupt the learning process. This paradox strengthens the argument that distance learning students in Indonesia face a different situation than students in face-to-face contexts, primarily because most of them are working individuals who must divide their time between employment and study.

Barriers to Self-Regulation

These research findings reinforce theoretical discussions regarding the importance of self-regulation in the success of practical learning. Emphasizes that self-regulation is a key component for students in managing practice-based learning, especially when they are required to work independently(Mamun et al., 2020; Nurmaliyah, 2014; Rini et al., 2022). Consistent with these studies, the findings of this research also indicate that students' ability to regulate their learning plays a critical role in completing practice-based tasks in distance education environments. In the context of this study, although students possess high intrinsic motivation, their self-regulation abilities are often hindered by external factors such as work schedule conflicts, technical glitches on learning platforms, and instructions that are sometimes unclear. This situation indicates that self-regulation is not merely a function of motivation or internal cognitive readiness but is heavily influenced by the stability of the learning environment. When external variables such as unstable internet networks or heavy workloads are beyond student control, their ability to organize time, manage academic stress, and maintain engagement in learning becomes disrupted(Getenet et al., 2024; McKee & Ntokos, 2022; Swanson et al., 2015). Consequently, these findings make an important empirical contribution to the practice-based learning literature by demonstrating how the distance learning context, with its structural limitations, can impede students' self-regulation mechanisms.

Bridging the Gap Between Theory and Practice

The results of this study also reveal significant difficulties in bridging theory to practice, particularly among PBIN Study Program students. Although quantitatively students rated course guidelines as sufficient, qualitative responses indicate that written instructions are often inadequate for explaining complex practical procedures. Students expressed confusion in understanding assignment instructions and an inability to translate theoretical concepts into applied skills(Ismail et al., 2021; Seo et al., 2021; Sugden et al., 2021). These findings

suggest that text-based instructional materials or static modules are not always effective in the context of online practical learning. Consistent with previous studies highlighting the importance of multimodal instructional support in online learning environments(Agus Pribadi et al., 2022; Iwasaki et al., 2019) , this study also indicates that students require more concrete scaffolding to successfully apply theoretical knowledge in practice. Students require more concrete scaffolding, such as demonstration videos, structured assignment examples, or detailed assessment rubrics to help them visualize procedural steps (Iankova et al., 2020; Román-Sánchez et al., 2023). The absence of this visual and procedural support can create a gap between what students learn theoretically and what they must do practically. This condition highlights the importance of reconstructing instructional design to be more multimodal and responsive to independent learning needs.

Implications for Distance Learning Implementation

The findings of this study provide several key implications for the development and implementation of practice-based courses in distance learning. First, flexibility in study time management is a crucial aspect, considering that most students are workers who must arrange study schedules amidst work busyness. Practical learning in such contexts requires a deadline design that is more adaptive and less rigid so that students have adequate space to complete assignments. Second, the stability of digital infrastructure has a direct influence on the success of practical learning. Technical disruptions such as unstable internet networks or unresponsive learning platforms have proven to be major demotivating factors for students. Therefore, improving technical services and investing in more robust e-learning systems are urgent needs. Third, the quality of asynchronous instruction needs to be strengthened to bridge the gap between theory and practice. Students need learning materials that are richer visually and procedurally, such as videos, real-work examples, and step-by-step guides, so they can understand and replicate practical procedures with greater confidence and direction. Thus, refining asynchronous instruction can be a determining factor in reducing confusion and increasing student self-efficacy(Lawson & Comber, 2014; Liu & Elms, 2019; Mokhtar & Othman, 2022; Seo et al., 2021).

Overall, these research results indicate that the success of practical courses in distance learning is determined not only by student motivation or psychological readiness but is significantly influenced by learning designs that are responsive to students' social contexts and the readiness of available infrastructure. A more holistic approach is needed to ensure that practical learning can take place effectively and inclusively, especially in distance learning environments characterized by diverse student characteristics and technical conditions.

CONCLUSION

This study demonstrates that the implementation of practice-based courses in distance learning involves complex dynamics characterized by high levels of student motivation and positive perceptions of lecturer guidance, while simultaneously being constrained by various logistical and structural challenges.

Unlike several previous studies suggesting that student motivation tends to decline under heavy workload conditions in online learning environments, the findings of this study indicate that students can maintain relatively strong intrinsic motivation even when they perceive the workload as demanding. However, the persistence of motivation does not automatically translate into effective learning experiences due to external barriers such as time constraints related to employment, unstable internet connectivity, and limitations of online learning platforms.

The novelty of this research lies in identifying a motivation–workload paradox within practice-based distance learning. The study reveals that high student motivation can coexist with strong perceptions of heavy workload when external structural constraints influence the learning process. This finding contributes to the literature on distance education by demonstrating that the effectiveness of practical learning is shaped not only by internal psychological factors but also by the stability of the learning environment, technological infrastructure, and instructional design.

Based on these findings, several strategic implications emerge for improving the implementation of practice-based courses in distance education. Institutions need to design more flexible and adaptive learning systems that accommodate the realities of working students, including more balanced workloads and more flexible assignment deadlines. In addition, strengthening digital infrastructure is essential to minimize technical disruptions that interfere with students' learning processes. Finally, the quality of asynchronous instructional support should be enhanced through the use of multimodal learning materials such as demonstration videos, structured assignment examples, and clear assessment rubrics. These efforts are expected to help bridge the gap between theory and practice while supporting a more inclusive and sustainable practice-based learning experience in distance education contexts.

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