

Original Article

Educational Service Quality in Postgraduate Distance Education: Evidence from Indonesia

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Abstract: The post-pandemic expansion of digital learning has intensified competition among open and distance learning (ODL) institutions, making educational service quality essential for enhancing student learning experiences. Despite extensive research on service quality in higher education, limited evidence explains how postgraduate students prioritise service improvements in blended ODL environments. This study identifies the educational service attributes that postgraduate students consider most important, evaluates institutional performance, and prioritises improvement areas at Universitas Terbuka (UT), Indonesia. A cross-sectional survey of 345 postgraduate students assessed 78 indicators across the five SERVQUAL dimensions. Data were analysed using descriptive statistics, importance performance gap analysis, and Importance Performance Analysis (IPA). Results showed that perceived performance ($M = 3.59$) consistently fell below importance ($M = 3.75$), indicating unmet student expectations. Responsiveness exhibited the largest performance gap (0.26), while eight attributes, primarily related to tutor and administrative responsiveness, were identified as priorities for improvement. The largest gaps were found in the timeliness of grading and feedback, demonstrating that IPA quadrants alone may overlook critical service priorities. By combining IPA with ranked gap analysis, this study offers a more robust approach to prioritising service improvements and provides practical guidance for enhancing educational service quality and student learning experiences in postgraduate distance education.

Keywords:

Educational service quality; Student learning experience; Open and distance learning; SERVQUAL; Postgraduate education



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INTRODUCTION

Advances in information and communication technology (ICT) have fundamentally transformed open and distance learning (ODL), enabling higher education institutions to

deliver flexible, learner-centred, and technology-enhanced instruction (Moore & Diehl, 2019). In Indonesia, Universitas Terbuka (UT) has played a pioneering role in this transformation as the country's first public university dedicated to ODL (Belawati *et al.*, 2005). UT introduced online tutorial services in 2005 and progressively expanded them across all academic programmes through its Tutorial Online (Tuton) platform (Zuhairi *et al.*, 2014). Since 2020, the Graduate School has implemented a blended learning model combining asynchronous tutorials, synchronous webinars, and limited face-to-face sessions, reflecting broader institutional efforts to improve learning flexibility and educational quality (Graham *et al.*, 2013; Grynyuk *et al.*, 2022).

This post-2020 learning configuration represents more than an operational adjustment; it has created a distinctive educational service environment whose quality has yet to be comprehensively understood. The rapid expansion of digitally mediated teaching during and after the COVID-19 pandemic accelerated the adoption of hybrid and online learning across higher education, fundamentally reshaping students' expectations of flexibility, responsiveness, and learning support (Crawford *et al.*, 2020; Bond *et al.*, 2021). Consequently, the flexibility that once differentiated open and distance learning (ODL) enabling students to pursue higher education while maintaining professional and personal commitments is no longer unique, as conventional universities increasingly offer comparable hybrid and online learning opportunities. In this increasingly competitive environment, understanding how postgraduate ODL students evaluate educational service quality has become strategically important for sustaining institutional competitiveness, strengthening student learning experiences, and informing continuous quality enhancement rather than serving only routine quality assurance processes (Chauke, 2025; Graham *et al.*, 2013; Theresiawati *et al.*, 2020).

Student satisfaction in postgraduate ODL is best understood through Transactional Distance Theory, which explains how psychological and communication gaps between learners and educational institutions are shaped by the interaction among dialogue, course structure, and learner autonomy (Moore, 1993; Moore & Diehl, 2019). Within this framework, educational service quality extends beyond administrative efficiency to encompass timely academic support, meaningful interaction, and well-structured learning environments that reduce transactional distance and facilitate effective learning. These dimensions are particularly important for postgraduate ODL students, who are typically employed professionals balancing academic study with work and family responsibilities and therefore rely heavily on responsive tutors, accessible support services, and flexible learning structures to sustain engagement and self-regulated learning (Broadbent & Poon, 2015; Martin *et al.*, 2020). Accordingly, student satisfaction reflects the extent to which educational services meet learners' academic expectations and support meaningful learning outcomes (Masalimova *et al.*, 2022). From this perspective, the geographical separation inherent in ODL provides a strong theoretical rationale for expecting responsiveness, reliable academic support, and effective institutional services to exert a greater influence on student learning experiences than in conventional face to face education.

Empirical work consistently links educational service quality to satisfaction and persistence in distance education (Hamdan *et al.*, 2021; Turan *et al.*, 2022; Wei & Chou,

2020). However, much of this literature treats satisfaction as a single global construct, samples conventional or undergraduate cohorts, and confirms the service-quality satisfaction relationship without identifying which specific services should be prioritised when resources are finite. Two gaps follow. First, the specific service-quality priorities in blended postgraduate ODL, including thesis supervision, research support and asynchronous feedback, remain under-examined. Second, although Importance Performance Analysis (IPA) is well-suited to priority-setting, applied studies frequently report importance and performance separately and rely on quadrant membership alone, without computing or ranking the importance performance gaps that reveal true urgency.

Against this background, the present study examines educational service quality in the Graduate School of Universitas Terbuka (UT), Indonesia's Open University, by identifying the educational service attributes that postgraduate students consider most important, evaluating institutional performance across these attributes, and determining priority areas for improvement to enhance student learning experiences. To achieve these objectives, the study integrates Importance Performance Analysis (IPA) with importance performance gap analysis, enabling a more comprehensive and diagnostic evaluation of educational service quality than the use of either method in isolation (Seth *et al.*, 2021; Deng *et al.*, 2022). By combining these complementary analytical approaches, the study extends the application of service quality assessment in postgraduate open and distance learning contexts and strengthens evidence-based decision-making for institutional quality enhancement. In doing so, it contributes to the growing body of literature on educational service quality and student learning experiences in digitally mediated higher education environments (Bond *et al.*, 2021; Bozkurt *et al.*, 2020).

METHOD

This study employed a cross-sectional mixed-methods design, combining a quantitative survey with open-ended items to obtain complementary qualitative insights. The conceptual framework was based on the SERVQUAL model (Gallifa & Batalle, 2010), which structured the instrument into five dimensions: Reliability, Responsiveness, Assurance, Empathy, and Tangibility. Tangibility was adapted to reflect the digital learning environment of open and distance learning (ODL), including e-learning platforms, MS Teams, digital library services, and anti-plagiarism software. The study operationalised service quality as an importance performance configuration analysed using Importance Performance Analysis (IPA), rather than as a causal model linking SERVQUAL dimensions to satisfaction. Accordingly, performance scores were treated as indicator-level proxies of student satisfaction.

The target population comprised postgraduate students (master's and doctoral) enrolled at Universitas Terbuka (UT), Indonesia, during the 2022/2023 academic year who had completed at least one semester. Data were collected through an online questionnaire distributed via programme-based WhatsApp groups covering nine study programmes: Public Administration, Management, Fisheries Management, Primary Education, Mathematics Education, English Language Education, Environmental Studies, Doctoral Public Administration, and Doctoral Management. A total of 345 valid responses were

obtained using a non-probability convenience sampling approach. Since the population frame and response rates are not centrally recorded, these response rate figures are best viewed as a generalization regarding the data's accuracy.

The instrument measured two constructs for each of the 78 indicators: perceived importance and perceived performance, using parallel four-point Likert scales (4 = Very High/Good, 1 = Low/Poor). A forced-choice scale was adopted to minimise central tendency bias, although the absence of a neutral option is acknowledged as a limitation. The instrument also incorporated postgraduate-specific indicators, particularly thesis supervision and research support, alongside expanded digital service components relevant to ODL contexts. Data analysis involved descriptive statistics, calculation of mean importance and performance scores, and computation of importance performance gap scores (importance minus performance), which were ranked to identify priority areas for improvement. IPA was conducted using grand-mean crosshairs (importance = 3.75; performance = 3.59) to classify indicators into four quadrants: Concentrate Here, Keep Up the Good Work, Low Priority, and Possible Overkill. Given potential sensitivity in quadrant classification, gap scores were used alongside IPA results to strengthen interpretation. Open-ended responses were analysed thematically to contextualise quantitative findings, particularly regarding student experiences with thesis supervision and academic support, and are presented as supporting qualitative evidence.

RESULT AND DISCUSSION

Respondent Characteristics

A total of 345 students participated in this study, drawn from six study programmes within the UT Graduate School. Respondents were predominantly female (60%). Nearly half (47%) were aged 31–40, and a further 39% were over 40; 62% resided in Java and Bali, and 75% were in their second or third semester. The programme distribution was highly uneven: 77% were enrolled in the Master of Primary Education programme, 15% in the Master of Management programme, and the remaining 8% were spread across the Doctorate in Public Administration, Doctorate in Management, Master of Public Administration and Master of English Language Education programmes. Consequently, the comparative analysis was limited to the Master of Management and Master of Basic Education programs; however, this served as the optimal focus for the research.

This composition represents a material constraint and is treated as such throughout the analysis. As more than three-quarters of the responses were obtained from a single study programme, the aggregated results are disproportionately weighted towards Master of Primary Education students. This is further compounded by the geographic concentration of respondents in Java and Bali, as well as the predominance of students in the mid-stage of their programmes. Consequently, the sample does not reflect a proportionally balanced institutional population and should not be interpreted as a statistically representative census of Universitas Terbuka postgraduate students. Accordingly, the findings are best understood as an analytically useful but contextually bounded account of the more strongly represented programmes rather than a comprehensive institutional overview. This limitation is acknowledged in the

interpretation of both the importance performance patterns and the prioritisation of service improvements. The implications and recommendations are therefore framed cautiously, with emphasis on transferable insights rather than generalisable claims across all programmes. Future studies should consider stratified or probability-based sampling strategies to improve representativeness across programmes, regions, and study stages.

Table 1 summarises the demographic and programme distribution of the sample.

Table 1. Respondent characteristics (N = 345)

Characteristic	Category	Percentage (%)
Gender	Female	60
	Male	40
Age	31–40 years	47
	Over 40 years	39
	30 years or under	14
Region	Java and Bali	62
	Other regions	38
Semester	Second or third	75
Programme	Master of Primary Education	77
	Master of Management	15
	Other (PA, Mgmt doctorate, MPA, ELE)	8

Perceived Importance of Learning Services and Performance by Dimension

Student perceptions of learning service importance were assessed across the five SERVQUAL dimensions. Tables 2–6 present, for each dimension, the mean importance, mean performance (satisfaction), importance–performance gap scores, and corresponding IPA quadrant classifications for all indicators. Reporting these constructs in an integrated format is methodologically necessary, as prioritisation decisions in Importance–Performance Analysis are derived from the interaction between importance and performance rather than from either measure independently. Across the 78 indicators, importance ratings were consistently high (3.68–3.82), while performance ratings exhibited greater variation (3.32–3.80). The limited dispersion in importance values suggests a ceiling effect associated with the four-point scale, indicating that postgraduate students generally regard all listed services as important, with meaningful differentiation emerging primarily from performance levels and resulting gap scores. Indicators highlighted in shaded rows represent those classified in the “Concentrate Here” quadrant and/or those with comparatively large gaps (≥ 0.24), which is interpreted as a priority area for improvement within higher education learning and educational systems.

The Reliability dimension refers to the institution’s ability to deliver promised educational services consistently, accurately, and in accordance with established academic standards. In the context of open and distance learning (ODL), this dimension is particularly critical as it reflects the extent to which students can depend on institutional processes such as timely provision of learning materials, accurate academic information, and consistent implementation of instructional activities. Table 1 presents respondents’ perceptions of the importance of services within this dimension, highlighting the degree to which students prioritise reliability-related aspects in their learning experience. Building on these importance ratings, Table 2 provides a more comprehensive analysis by

presenting the corresponding performance scores and importance performance gap values, thereby enabling Identify specific areas requiring improvement in the reliability dimension so that they become key indicators of changes in learning.

Table 2. Reliability dimension: Importance, performance and gap

No	Statement	Imp.	Perf.	Gap	Quadrant
1	Supervisors motivate students in preparing the final program assignment (thesis/dissertation).	3.73	3.60	0.13	Q4
2	Tutors present learning material clearly and comprehensibly.	3.76	3.57	0.19	Q1
3	Tutors provide academic guidance tailored to students' needs.	3.73	3.56	0.17	Q3
4	Tutors provide feedback on Discussion activities.	3.70	3.51	0.19	Q3
5	Tutor feedback on Discussion activities enhances student understanding.	3.68	3.49	0.19	Q3
6	Tutors provide feedback on Assignment submissions.	3.70	3.46	0.24	Q3
7	Tutor feedback on Assignments enhances understanding of the course material.	3.70	3.47	0.23	Q3
8	Tutors employ a variety of learning media and instructional tools in the tutorial process.	3.69	3.48	0.21	Q3
9	Tutors utilise learning media that facilitate a deeper understanding of the course material.	3.70	3.48	0.22	Q3
10	The study programme curriculum aligns with students' professional and personal development needs.	3.80	3.71	0.09	Q2
11	The Graduate School (GS)/Study Programme assists students in overcoming registration difficulties.	3.74	3.62	0.12	Q4
12	The GS/Study Programme assists students in obtaining teaching materials.	3.75	3.62	0.13	Q2
13	The GS/Study Programme assists students in resolving difficulties with the implementation of tutorials.	3.75	3.60	0.15	Q2
14	The GS/Study Programme assists students in resolving examination difficulties.	3.76	3.63	0.13	Q2
15	The GS/Study Programme provides the services students require throughout their studies.	3.76	3.63	0.13	Q2
16	GS staff respond appropriately to student complaints and enquiries.	3.77	3.55	0.22	Q1
17	Staff assist students with registration difficulties (e.g., passwords, payment receipts, course selection, registration schedules).	3.78	3.59	0.19	Q2
18	Staff assist students in accessing tutorial and learning services (e.g., Microsoft 365, MS Teams, e-learning platforms, anti-plagiarism software, digital libraries).	3.79	3.55	0.24	Q1
19	Staff assist students in resolving examination-related difficulties (e.g., printing card, accessing examination applications).	3.79	3.62	0.17	Q2
20	Supervisors provide guidance relevant to students' research topics.	3.78	3.61	0.17	Q2
21	The GS/Study Programme assists students with difficulties encountered during supervision.	3.71	3.49	0.22	Q3
	Dimension mean	3.74	3.56	0.18	

As indicated in Table 2, respondents assigned very high importance to services in the Reliability dimension, with a mean score of 3.74 on a four-point scale. The most highly

rated item was the alignment of the study programme curriculum with students' professional and personal development needs (score: 3.80). It reflects the students' strong desire for a curriculum that is practically relevant and responsive to their career aspirations, thereby making their career focus clearer, more directed, and more professional.

Importance and performance ratings within the Responsiveness dimension were consistently high, with a moderate overall gap of 0.18. The most pronounced shortfalls were observed in tutor feedback on assignments and the instructional use of learning media, both of which reflect pedagogical rather than administrative aspects of service delivery. In contrast, curriculum alignment with professional needs was rated highly in both importance and performance, indicating strong perceived effectiveness in this area. Table 3 presents the detailed importance, performance, and importance performance gap values for all indicators within the Responsiveness dimension.

Table 3. Responsiveness dimension: Importance, performance and gap

No	Statement	Imp.	Perf.	Gap	Quadrant
1	Tutors provide timely feedback on Discussion activities.	3.72	3.40	0.32	Q3
2	Tutors provide timely feedback on Assignment submissions.	3.69	3.35	0.34	Q3
3	Tutors record and submit tutorial grades accurately and punctually.	3.70	3.32	0.38	Q3
4	Tutors respond promptly when contacted.	3.75	3.46	0.29	Q1
5	The GS/Study Programme provides learning information in a timely manner.	3.76	3.61	0.15	Q2
6	The Study Programme responds promptly to students' learning difficulties.	3.77	3.54	0.23	Q1
7	The Study Programme responds promptly to student complaints.	3.76	3.50	0.26	Q1
8	Staff serve students promptly and efficiently.	3.76	3.55	0.21	Q1
9	Staff provide clear and accurate information to students.	3.78	3.61	0.17	Q2
10	Supervisors respond promptly to student emails and WhatsApp messages.	3.71	3.43	0.28	Q3
11	Supervisors deliver feedback required by students in a timely manner.	3.73	3.48	0.25	Q3
	Dimension mean	3.74	3.48	0.26	

Respondents rated Responsiveness services as very important, with a mean score of 3.74. Among the eleven items assessed, respondents considered the staff's provision of clear and accurate information to students the most critical service indicator (score: 3.78). Responsiveness recorded the lowest mean performance (3.48) and the largest dimensional gap (0.26) among all dimensions. The three timeliness indicators: grading, assignment feedback and discussion feedback, produced the largest item gaps in the entire study (0.32–0.38). Consistent with transactional-distance theory, the promptness of dialogue is precisely where this postgraduate ODL cohort feels most underserved.

The Assurance dimension refers to the extent to which the institution ensures consistency, accuracy, and integrity in the delivery of academic information, institutional regulations, course schedules, and all promised educational services. In the context of open and distance learning (ODL), this dimension is particularly important as students rely heavily on clear, reliable, and well-structured institutional communication to manage their

independent learning processes effectively. It also reflects the degree of trust students place in the institution's ability to maintain procedural fairness and academic transparency across all service interactions. Table 4 presents the detailed empirical findings for this dimension, including the mean importance and performance scores as well as the resulting importance performance gap values for each indicator, thereby enabling a more comprehensive assessment of perceived institutional assurance quality.

Table 4. Assurance dimension: Importance, performance and gap

No	Statement	Imp.	Perf.	Gap	Quadrant
1	A course programme handbook containing complete information on applicable regulations, provisions, and policies is available.	3.75	3.65	0.10	Q2
2	The academic calendar (including registration, tutorial, and examination schedules) is readily accessible.	3.75	3.69	0.06	Q2
3	A guidance manual for the final programme assignment is available.	3.78	3.67	0.11	Q2
4	Course registration proceeds in accordance with the UT academic calendar.	3.76	3.71	0.05	Q2
5	Tuition fees are commensurate with the services provided by UT.	3.73	3.42	0.31	Q3
6	Teaching materials are received prior to the commencement of tutorials.	3.81	3.77	0.04	Q2
7	Face-to-face tutorials and webinar tutorials are conducted in accordance with the established academic schedule.	3.76	3.68	0.08	Q2
8	Online tutorials are conducted in accordance with the established academic schedule.	3.80	3.72	0.08	Q2
9	UT examinations are held in accordance with the academic calendar.	3.78	3.71	0.07	Q2
10	Grade announcements are made in accordance with the established academic calendar.	3.78	3.67	0.11	Q2
11	Student complaints are addressed with due care and seriousness.	3.77	3.59	0.18	Q2
12	Sanctions are imposed on students who violate established regulations.	3.70	3.59	0.11	Q4
13	Sanctions are applied consistently to all students without exception.	3.72	3.64	0.08	Q4
14	Supervisors are accessible to students.	3.71	3.47	0.24	Q3
15	Supervisors monitor the progress of students' final programme assignments.	3.68	3.42	0.26	Q3
Dimension mean		3.75	3.63	0.13	

Assurance achieved the highest performance mean (3.63) and smallest dimensional gap (0.13). Scheduling reliability and early receipt of teaching materials performed strongly. The exceptions were tuition-value perception and supervisor monitoring of final assignments, both of which combined respectable importance with markedly lower performance. Assurance achieved the highest performance mean (3.63) and the smallest dimensional gap (0.13), indicating relatively strong institutional consistency and reliability in the delivery of academic services. Scheduling reliability and the timely provision of teaching materials were particularly well evaluated by respondents, reflecting effective institutional coordination in key administrative and instructional processes. However, two notable exceptions emerged: perceptions of tuition value and the adequacy of supervisor

monitoring of final assignments. Both indicators combined relatively high importance with comparatively lower performance, suggesting that while procedural and logistical aspects of assurance are well managed, issues related to perceived academic value and supervisory oversight remain areas requiring targeted improvement. These findings highlight a distinction between operational reliability and perceived academic accountability within the assurance dimension.

The Empathy dimension refers to the extent to which the institution demonstrates care, courtesy, and individualised attention in its interactions with students. In open and distance learning (ODL) environments, this dimension is particularly significant, as students often study remotely and depend on institutional actors such as tutors, academic staff, and administrative personnel for timely, respectful, and personalised support. Empathy therefore reflects the quality of relational engagement between the institution and learners, including responsiveness to individual academic needs and sensitivity to students' diverse personal and professional circumstances. Table 5 presents the empirical results for this dimension, reporting the mean importance and performance scores as well as the corresponding importance–performance gap values for each indicator.

Table 5. Empathy dimension: Importance, performance and gap

No	Statement	Imp.	Perf.	Gap	Quadrant
1	Tutors adopt a friendly attitude when serving students.	3.79	3.69	0.10	Q2
2	Tutors communicate with students in a courteous and respectful manner.	3.79	3.74	0.05	Q2
3	Staff adopt a friendly attitude when serving students.	3.79	3.66	0.13	Q2
4	Staff demonstrate genuine concern in assisting students.	3.76	3.59	0.17	Q2
5	Staff communicate with students in a courteous and respectful manner.	3.78	3.65	0.13	Q2
6	Staff respond promptly to student complaints with appropriate suggestions.	3.78	3.56	0.22	Q1
7	Supervisors maintain a friendly and courteous disposition throughout the guidance process.	3.74	3.68	0.06	Q4
8	Supervisors demonstrate genuine concern during the guidance process.	3.68	3.57	0.11	Q3
9	Supervisors motivate students throughout the preparation of the final programme assignment.	3.68	3.60	0.08	Q4
Dimension mean		3.75	3.64	0.12	

Empathy performed well overall, with a low gap score (0.12), indicating positive perceptions of relational and interpersonal quality. While tutor and staff courtesy were highly rated, supervisor concern for student progress and responsiveness to complaints showed lower performance. This reflects a clear distinction between basic courtesy and deeper, individualised academic support. This is crucial, particularly in the context of postgraduate Open and Distance Learning (ODL), and is discussed further in relation to thesis supervision and student support mechanisms both for the present and the future.

The Tangibility dimension refers to the availability and quality of physical and digital facilities, infrastructure, learning technologies, and communication tools. In open

and distance learning (ODL), it extends to digital platforms and online systems that support teaching and learning processes. It reflects how well institutional resources enable effective academic interaction and continuity in technology-mediated education. The presents the importance, Performance results and the gap between importance and performance for each indicator within this dimension can be seen in detail in Table 6.

Table 6. Tangibility dimension: Importance, performance and gap

No	Statement	Imp.	Perf.	Gap	Quadrant
1	The registration application is easy to use.	3.76	3.69	0.07	Q2
2	The New Student Study Orientation for GS students is beneficial.	3.73	3.52	0.21	Q3
3	The course programme handbook is easy for students to understand.	3.74	3.59	0.15	Q4
4	The academic calendar is easy for students to understand.	3.77	3.69	0.08	Q2
5	Courses offered by the study programme are relevant to students' professional work.	3.81	3.78	0.03	Q2
6	The courses offered by the study programme are beneficial to students.	3.82	3.80	0.02	Q2
7	Digital teaching materials are readily accessible.	3.74	3.61	0.13	Q4
8	Primary teaching materials are easy for students to understand.	3.75	3.59	0.16	Q2
9	The online tutorial application (e-learning.ut.ac.id) is readily accessible.	3.78	3.69	0.09	Q2
10	The online tutorial application (e-learning.ut.ac.id) is easy to use.	3.80	3.73	0.07	Q2
11	The MS Teams application is readily accessible.	3.76	3.63	0.13	Q2
12	The MS Teams application is easy to use.	3.79	3.67	0.12	Q2
13	A digital library (including journals, books, and supplementary learning resources) is available to students.	3.78	3.67	0.11	Q2
14	UT's digital library is readily accessible.	3.74	3.52	0.22	Q3
15	An anti-plagiarism application is available for students.	3.68	3.54	0.14	Q3
16	The anti-plagiarism application is accessible to students.	3.68	3.43	0.25	Q3
17	The anti-plagiarism application is easy for students to use.	3.71	3.43	0.28	Q3
18	The examination application is easy to use.	3.76	3.65	0.11	Q2
19	The UT website provides the information students require.	3.80	3.66	0.14	Q2
20	The GS website provides the information students require.	3.77	3.65	0.12	Q2
21	The Contact Centre is easily accessible to students.	3.74	3.50	0.24	Q3
22	The Contact Centre provides services that meet student needs.	3.73	3.51	0.22	Q3
	Dimension mean	3.76	3.62	0.14	

Respondents rated the Tangibility dimension as highly important, recording the highest mean score across all SERVQUAL dimensions (3.76). The most highly rated indicators were the perceived usefulness of study programme courses for students (3.82), the relevance of courses to professional practice (3.81), the ease of use of the online tutorial

application (3.80), and the availability of relevant information on the UT website (3.80). As the largest dimension in the instrument (22 indicators), Tangibility also achieved the highest overall importance mean. Within this dimension, course relevance and usefulness emerged as the strongest-performing items across the entire instrument, indicating consistently positive student evaluations. In contrast, the weakest-performing services were the anti-plagiarism application, particularly in terms of accessibility and ease of use, and the institutional Contact Centre. A conceptual caveat is noted, as items related to course relevance and usefulness more closely reflect curriculum quality rather than tangible service facilities; therefore, their placement within the Tangibility dimension warrants further validation, and confirmatory factor analysis is recommended to examine the underlying factor structure.

The high importance placed on curriculum relevance is corroborated by [Arici et al. \(2025\)](#), who identified the quality of course content as a key factor of student engagement in distance education. Scholars have further argued that curricula should facilitate students' potential development and career aspirations ([Law, 2022](#); [O'Neill & Short, 2025](#)) and that an effective balance between conceptual understanding and practical application is essential ([Finne et al., 2023](#)). The importance attributed to teaching material quality and accessibility aligns with established scholarship: up-to-date, high-quality materials serve as the primary resource for independent learning in ODL contexts and enable students to integrate study with professional and personal commitments ([Garlinska et al., 2023](#); [Kovalenko, 2023](#); [Kozlova & Pikhart, 2021](#); [Segbenya et al., 2022](#)). Similarly, the crucial role of tutors in ODL has been extensively documented; tutors in distance education are expected to provide personalised academic support to students ([Tsang et al., 2021](#)). The importance of reliable, accessible academic information is also well established in the literature. The availability and accuracy of information about learning conditions are key success factors for students in distance education, enabling them to plan and coordinate study activities alongside professional and personal responsibilities ([Alnasraween & Shahadab, 2022](#); [Segbenya et al., 2022](#); [Sibai et al., 2021](#)). To complement information provision, the development of academic mentoring systems has also been recommended to help students navigate challenges encountered during their studies ([Dietrich et al., 2020](#); [Yilmaz & Karatas, 2022](#)).

Ranking all 78 indicators by the magnitude of the importance–performance gap enables the identification of services where institutional performance most significantly falls short of student expectations. Table 7 presents the twelve indicators with the largest gaps. The results show a clear and coherent pattern, as ten of the twelve indicators are concentrated within the Responsiveness and Reliability dimensions. These shortfalls are primarily associated with the timeliness of tutor feedback and assignment grading, the responsiveness of supervisors to student communications, and the overall speed of academic support processes. In addition, two non-interactional indicators also emerge outside this cluster, namely perceived tuition value and the usability of the anti-plagiarism application, suggesting that both perceived cost–benefit considerations and digital infrastructure usability remain areas of concern. Overall, this pattern indicates that the most critical performance deficits are concentrated in time-sensitive academic interactions and

core support services that directly shape students' learning experience in postgraduate open and distance learning contexts.

Table 7. Twelve largest importance–performance gaps

Service indicator	Dimension	Imp.	Perf.	Gap	Quadrant
Timely/accurate tutorial grading	Responsiveness	3.70	3.32	0.38	Q3 Low Priority
Timely feedback on Assignments	Responsiveness	3.69	3.35	0.34	Q3 Low Priority
Timely feedback on the discussion	Responsiveness	3.72	3.40	0.32	Q3 Low Priority
Tuition commensurate w/ services	Assurance	3.73	3.42	0.31	Q3 Low Priority
Tutor responds promptly when contacted	Responsiveness	3.75	3.46	0.29	Q1 Concentrate Here
Supervisor responds to email/WA	Responsiveness	3.71	3.43	0.28	Q3 Low Priority
The anti-plagiarism app is easy to use	Tangibility	3.71	3.43	0.28	Q3 Low Priority
Prompt response to complaints	Responsiveness	3.76	3.50	0.26	Q1 Concentrate Here
Supervisors monitor progress	Assurance	3.68	3.42	0.26	Q3 Low Priority
Supervisor delivers timely feedback	Responsiveness	3.73	3.48	0.25	Q3 Low Priority
Anti-plagiarism app accessible	Tangibility	3.68	3.43	0.25	Q3 Low Priority
Tutor feedback on Assignments	Reliability	3.70	3.46	0.24	Q3 Low Priority

Importance–Performance Analysis: Quadrant Classification

Figure 1 plots all 78 indicators with the crosshairs at the grand means. The distribution across quadrants was as follows: Keep Up the Good Work, 38 indicators; Low Priority, 24; Concentrate Here, 8; Possible Overkill, 8.

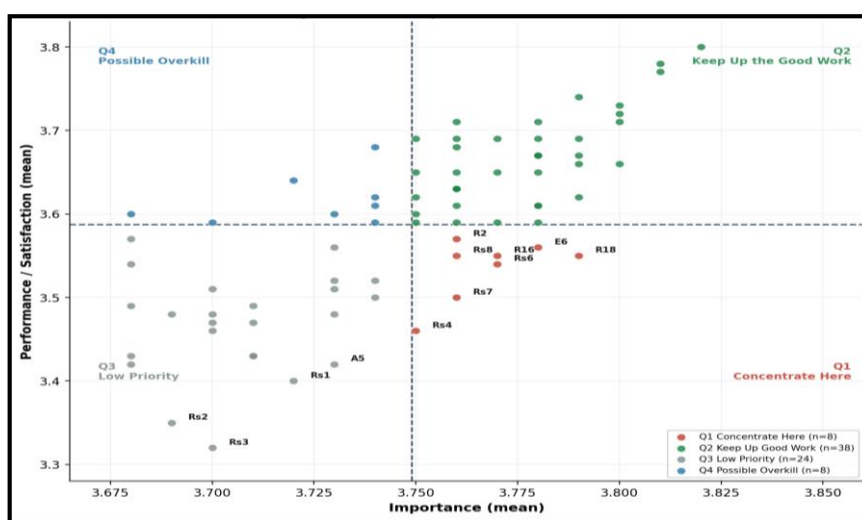


Figure 1. IPA grid of 78 service indicators. Crosshairs at grand-mean importance (3.75) and performance (3.59). Labelled points are the eight concentrate-here indicators and the three largest-gap responsiveness indicators (Rs1–Rs3) that sit just inside low priority.

The eight Concentrate Here (Q1) indicators, with high importance and below-average performance, form the principal improvement agenda. They are overwhelmingly about responsiveness: tutors responding promptly when contacted; the study programme and staff responding promptly to complaints and learning difficulties; staff helping

students access learning services; and tutors' clarity in presenting material. These are the services where raising performance would yield the greatest return in satisfaction.

Two apparent anomalies that prior IPA applications in this dataset left unexplained are resolved by reading the quadrants together with the gaps. First, the three *largest* gaps in the study, timeliness of grading (0.38), assignment feedback (0.34) and discussion feedback (0.32), fall in *Low Priority* rather than *Concentrate Here*. This is not a contradiction: their importance means (3.69–3.72) sit fractionally below the importance centroid (3.75), so the mean-centred rule assigns them to Q3 even though their performance deficits are the most severe in the dataset. Substantively, these timeliness items are urgent priorities; the episode demonstrates precisely why gap ranking must supplement quadrant membership. Second, supervisor-related interpersonal items (friendliness, motivation) appear in *Possible Overkill*, whereas supervisor *responsiveness and monitoring* (email/WhatsApp response, progress monitoring, accessibility, timely feedback) fall under *Low Priority*, with non-trivial gaps (0.24–0.28). The grid thus separates supervisor *warmth*, which is satisfactory, from supervisor *availability*, which is not a distinction that aligns with, rather than contradicts.

Satisfaction with the Supervision Process for Final Programme Assignments

Among students who had engaged in the supervision process for their final programme assignment, the mean satisfaction score was 3.56 out of 4.00. The highest satisfaction was associated with the friendliness and courtesy of supervisors in the guidance process (Empathy dimension, score: 3.70) and with supervisors' motivational support during assignment preparation (score: 3.63). These findings reflect the pivotal role of positive supervisory relationships in facilitating productive thesis supervision students who feel comfortable communicating with their supervisors are more likely to engage actively with the guidance process (Kubikova et al., 2024). The lowest satisfaction scores were recorded for supervisors' monitoring of students' progress on final assignments (Assurance dimension, score: 3.47) and supervisors' responsiveness to student emails and WhatsApp messages (Responsiveness dimension, score: 3.47). These findings point to a pattern of supervisor inaccessibility that may impede academic progress and contribute to delays in thesis completion.

Qualitative data from respondents indicate a strong demand for increased supervision frequency through both synchronous and asynchronous channels, facilitated face-to-face or hybrid meetings with supervisors, and greater certainty regarding proposal seminars and examination schedules. These expectations reflect broader evidence that timely and structured supervisory support is a key determinant of student success and persistence in open and distance learning (ODL) environments (Dietrich et al., 2020; Yilmaz & Karatas, 2022; Tsang et al., 2021). Respondents also emphasised the importance of assigning supervisors who are both academically qualified and practically accessible, and who can provide responsive and non-bureaucratic guidance, consistent with prior findings on the critical role of tutor and supervisor responsiveness in distance education contexts (Arici et al., 2025; Segbenya et al., 2022). Several respondents further suggested that the Independent Study course tutor be assigned as one of the thesis supervisors, a

practice that may support earlier topic alignment and smoother transition from coursework to thesis preparation, aligning with recommendations on integrated academic mentoring systems in higher education (Dietrich *et al.*, 2020). Furthermore, respondents highlighted the need for the institution to clearly communicate supervision procedures and to establish a dedicated team at the Graduate School level to verify and validate research instruments, ensuring greater precision and accuracy, reflecting the importance of structured academic governance and quality assurance mechanisms in postgraduate ODL provision (Kozlova & Pikhart, 2021; Sibai *et al.*, 2021).

Competent tutors and supervisors are widely recognised as foundational to the success of ODL (Sibai *et al.*, 2021; Yilmaz & Karatas, 2022). Tutors in distance education are expected not merely to serve as subject-matter experts but to actively motivate and engage students throughout the learning process (Altmann *et al.*, 2022). Strong teaching competence, motivational capacity, and student engagement skills are thus essential attributes for effective ODL tutors (Burns, 2023). In the context of thesis supervision, supervisors must provide assistance tailored to individual students' needs (Altmann *et al.*, 2022) and possess strong communication and cross-cultural competencies (Altmann *et al.*, 2022; Kubikova *et al.*, 2024). Given the importance of tutor and supervisor quality, institutions should invest in systematic professional development programmes encompassing pedagogy, educational psychology, and ICT integration (Alnasraween & Shahadab, 2022; Kovalenko, 2023; Kubikova *et al.*, 2024; Langesee, 2022).

Teaching materials constitute a foundational component of ODL systems. Students must have access to high-quality, current materials before the learning process commences (Segbenya *et al.*, 2022). Access should extend beyond primary course materials to include supplementary digital learning resources required for coursework and thesis preparation (Altmann *et al.*, 2022; Garlinska *et al.*, 2023). Regarding information provision, educational institutions must supply comprehensive academic and non-academic information to students through accessible channels (Segbenya *et al.*, 2022). With respect to the thesis supervision process, specifically, the institution should take proactive steps to align supervisors' and students' understanding of supervision procedures and schedules, and to disseminate updated policies through UT's regional offices on a periodic basis.

The suggestion that the Independent Study course tutor be designated as a thesis supervisor merits serious institutional consideration. If students enter the Independent Study course with a sufficiently developed research topic, the study programme could align the course tutor's subject expertise with the student's research focus. This would allow the tutor to be formally appointed as a supervisor upon completion of the course, thereby improving efficiency by enabling the thesis proposal to be developed during the tutorial process itself. Supervision frequency and modality should be negotiated between supervisors and students, with the understanding that individual guidance needs, students' readiness levels, and supervisors' availability will naturally vary.

Three findings carry the analytical weight of the study. The first is the universality and direction of the service gap, where importance consistently exceeded performance across all indicators, reinforcing the central premise of service quality theory that perceived expectations in higher education environments are rarely fully met (Parasuraman *et al.*,

1988; Nojavan *et al.*, 2021). This suggests that the key managerial challenge for the Graduate School is not whether improvement is required, but how to prioritise limited institutional resources effectively. The second finding is the concentration of the most severe gaps within the Responsiveness dimension, particularly in the timeliness of tutor feedback, grading processes, and supervisor availability, which aligns with evidence that responsiveness is a critical determinant of student satisfaction and persistence in open and distance learning contexts (Yilmaz & Karataş, 2022; Tsang *et al.*, 2021). The third finding is methodological in nature, highlighting that quadrant membership in Importance–Performance Analysis must be interpreted alongside gap magnitude, as mean-centred IPA grids may obscure critical deficiencies when high-importance items fall just below the centroid threshold, a limitation widely acknowledged in IPA literature (Martilla & James, 1977; Abalo *et al.*, 2007).

Why does responsiveness emerge as the systemic weak point in this context? The blended UT model focuses interaction on asynchronous Tutor sessions that run for one to two weeks, with staggered participation. This structure, while flexible, obscures accountability for turnaround time and makes feedback latency the most visible service failure for autonomous, time-pressured postgraduate students, exactly the population for whom transactional distance theory predicts that *dialogue* is decisive (Moore, 1993). The finding both confirms the established importance of timely feedback in ODL (Altmann *et al.*, 2022; Jaekel *et al.*, 2023; Shikulo & Lekhetso, 2020; Yilmaz & Karatas, 2022) and extends it by locating the deficit institutionally, in the asynchronous delivery architecture, rather than treating it as a generic shortfall.

The supervision findings refine a frequently blurred construct. Empathy, as measured, splits into courteous conduct (well-performed) and attentive availability (under-performed). Recognising this distinction matters because remedies differ. Warmth is a dispositional attribute already present, whereas availability is a workload and process problem amenable to structural intervention; caseload limits, response-time norms and scheduled milestones. Reading the IPA in this light dissolves the apparent paradox whereby supervisor interpersonal items looked like “overkill” while students plainly wanted more supervision: students are satisfied with how supervisors treat them and dissatisfied with how often they can reach them.

Set against the wider literature, the results are partly confirmatory and partly distinctive. The primacy of curriculum relevance echoes work identifying course content as central to engagement (Arici *et al.*, 2025; Law, 2022; O’Neill & Short, 2025; Finne *et al.*, 2023), and the salience of teaching-material quality and information access is consistent with prior ODL findings (Garlinska *et al.*, 2023; Segbenya *et al.*, 2022). What is distinctive is the diagnostic separation the integrated method affords: information provision through the UT and GS websites, often emphasised as a success factor, here sits comfortably in Keep Up the Good Work, so the institutional priority is not general information availability but the targeted, time-sensitive interactions; feedback, grading and supervisor contact, that the gap analysis foregrounds.

The proposal to appoint the Independent Study tutor as a thesis supervisor merits serious, though qualified, consideration. Its appeal is continuity: if students enter

Independent Study with a developed topic, matching the tutor's expertise to that topic would allow the proposal to mature during the course and shorten the path to supervision. The trade-offs, however, are real and should temper any blanket adoption: supervisor workload and allocation equity, the quality of expertise matching when a tutor's specialism only partly fits a topic, and institutional policy on supervisor appointment. The recommendation is therefore advanced as a *pilot to be evaluated*, with supervision frequency and modality negotiated case by case according to student readiness and supervisor capacity, rather than as a finding established by the data.

Collectively, the practical implications are more pointed to isolated fixes than to a shift in service culture toward dependable responsiveness. Concretely, the Graduate School could establish explicit turnaround standards for feedback and grading, structure supervision around scheduled milestones with monitored contact, and invest in tutor and supervisor development that targets timely formative feedback and communication, capacities widely identified as foundational to ODL success (Burns, 2023; Langesee, 2022), while sustaining the curriculum relevance, scheduling reliability and interpersonal courtesy that already perform well.

Several limitations should be considered when interpreting these findings. First, the sample was a self-selected convenience sample obtained via WhatsApp groups, with a strong overrepresentation of Master of Primary Education students (77%) and respondents primarily located in Java and Bali. No response rate or a priori power analysis was available, limiting external generalisability (Etikan *et al.*, 2016; Creswell & Creswell, 2018). Second, measurement validity was constrained by the absence of formal expert-panel validation and factor analysis; reliability was reported only for the overall scale ($\alpha = .98$), and the assumed SERVQUAL structure was not empirically tested, leaving construct validity unconfirmed (Parasuraman *et al.*, 1988; Hair *et al.*, 2019). Third, common method bias cannot be excluded, as importance and performance were self-reported in a single survey without statistical controls (Podsakoff *et al.*, 2003). Fourth, the analysis was descriptive and cross-sectional, with no inferential testing of gaps or subgroup differences, limiting causal interpretation and temporal inference (Bryman, 2016). In addition, the use of grand-mean IPA crosshairs may influence quadrant classification, as IPA results are sensitive to scaling and central tendency assumptions (Martilla & James, 1977; Abalo *et al.*, 2007). Finally, the qualitative responses were analysed thematically in a non-systematic manner, positioning them as supplementary rather than fully rigorous mixed-method evidence, consistent with the limitations of informal qualitative integration in survey-based designs (Creswell & Plano Clark, 2018).

These limitations define a clear research agenda. Priorities include probability or stratified sampling across programmes and regions; instrument validation through exploratory and confirmatory factor analysis to test dimensionality and discriminant validity, supported by dimension-level reliability estimates (Cronbach's α , composite reliability and McDonald's ω); assessment of common method bias through procedural separation and statistical diagnostics; inferential testing of importance performance gaps (paired-samples *t* or Wilcoxon signed-rank tests) together with subgroup comparisons (e.g., *t*-tests, ANOVA or non-parametric equivalents across programme, region, gender

and semester); and multivariate modelling for example structural equation modelling or multigroup analysis to examine how service-quality dimensions relate to satisfaction across student segments. Methodologically, robustness checks using alternative IPA formulations (the importance grid, importance performance map analysis and penalty reward contrast analysis) would test the stability of the priority classifications reported here. Longitudinal designs would clarify whether satisfaction trajectories shift across the study lifecycle, and multi-institutional comparison would establish how far these blended-ODL patterns generalise beyond Universitas Terbuka.

CONCLUSION

Postgraduate students at the UT Graduate School attach the greatest importance to curriculum and courses aligned with professional development, the timely availability and accessibility of teaching materials and learning platforms, adherence to schedules, courteous tutor and staff conduct, and accessible institutional information. They are most satisfied with course relevance and usefulness, the availability of teaching materials, tutor courtesy and the usability of the e-learning platform, and least satisfied with the timeliness of tutor feedback and grading, the perceived value of tuition, and the accessibility of supervisors and of the anti-plagiarism application.

Integrating gap ranking with IPA identifies a coherent priority set centred on responsiveness: improving tutor clarity and promptness, and the responsiveness of the study programme and staff to complaints and difficulties, while treating the largest-gap timeliness items (feedback and grading) and supervisor availability as urgent despite their mean-centred quadrant placement. The study's contribution is primarily diagnostic and methodological rather than theory-building. Conceptually, it applies transactional-distance reasoning to explain why responsiveness is the central concern for autonomous postgraduate ODL learners, and it demonstrates that pairing IPA quadrants with ranked gaps yields a more defensible prioritisation than either device alone, reconciling classification anomalies that quadrant-only analyses leave unexplained. Practically, it converts these diagnostics into targeted actions turnaround standards for feedback and grading, structured and monitored supervision, and focused tutor and supervisor development grounded in tracer studies and periodic curriculum evaluation, and disseminated through diverse channels. These conclusions should be read in light of the single-institution, unbalanced and cross-sectional design, which the proposed research agenda is intended to address.

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