

UNDERSTANDING LEARNER'S PERCEPTION IN OPEN AND DISTANCE LEARNING: A SYSTEMATIC REVIEW AND SYNTHESIS

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ABSTRACT

Open and Distance Learning has evolved from traditional correspondence to the central means of educational delivery, driven by digital innovation, evolving instructional practices, the COVID-driven shift in education, and advances in assessment, evaluation, and quality assurance mechanisms. Individual factors shape the perception in a distinct way. But there are limited consolidated proofs of the varied perceptions among the stakeholders. This study aims to provide evidence for understanding the learner's perception in different dimensions. Using the PRISMA framework, 382 articles were retrieved from the Scopus database, of which 112 peer-reviewed articles met the inclusion and exclusion criteria. Tools such as R Studio and Vos viewer were used to analyse the publication trends and conceptual structure of the perception-related research studies. From these, 72 articles were selected for review. The synthesis shows that perceptions in ODL are multidimensional, which is influenced by technology acceptance, learner support, instructional design, pedagogical practices, utility and equity. This review consolidates existing evidence to provide a comprehensive understanding of perceptions in the ODL and to propose directions for future research.

KEYWORDS: Open and Distance Learning (ODL); Learner Perception; Online Learning; Learner Support Systems; Quality Assurance in Education

INTRODUCTION

ODL broadens access to education, supports lifelong learning and contributes to the development of a skilled workforce for sustainable economic development (Zhu & Chikwa, 2021). ODL has transitioned from correspondence education to blended systems due to rapid digital advancement, which enhances learning opportunities (Bozkurt, A, 2019). Despite its many achievements, ODL still faces 'distance education deficit', as success rates are generally lower than in conventional education (Paniagua, A., & Simpson, O, 2018). Therefore, digital innovation improves student satisfaction by enabling flexibility, fostering personalised learning, and enhancing interactive engagement (Paliwal, D, 2019). Digital platforms streamline administration through integrated content delivery, assessment, and communication, enabling faculty to focus on teaching and learner engagement (Ossiannilsson, E, 2024; Shage, T, 2021). The COVID-19 pandemic transformed the use of digital tools from supplementary to essential for dispersed learners (Gnawali, Y. P, et al., 2022). Learners hold diverse perceptions, which are shaped by the programme's quality and relevance in supporting higher education and professional development (Upadhyaya, P. R, et al., 2021). Quality Assurance is a dynamic mechanism that can be used for continuous enhancement and improvement of ODL programmes (Zuhairi, et al., 2020). For achieving equity and inclusion (Sanwal, A, 2024), the design of online teaching-learning tools must consider the needs of the marginalised groups, integrating learner support as a key component of the curriculum design (Ossiannilsson, E et al., 2015).

Despite increasing studies, consolidated literature on technological, instructional, quality and equity dimensions in ODL remains limited. Publication trends over the past decade are insufficiently synthesised. Understanding how perception studies evolved can explain ODL's transition from an emergency learning mode to a stable, innovation and quality-focused system. Therefore, this study systematically reviews the perception-related research in ODL by analysing publication trends and synthesising findings across technological, instructional, quality and equity dimensions, identifying future research areas.

OBJECTIVES

1. To examine the evolution and publication trends of studies related to perception in Open and Distance Learning.

2. To systematically synthesise the perception studies across technological, instructional, quality and equity dimensions that shape the perceptions in Open and Distance Learning.
3. To examine the existing research gap and to suggest future research directions in studies focusing on learner's perceptions in Open and Distance Learning.

METHODOLOGY

This study adopted a mixed-method approach combining bibliometric analysis and a Systematic literature Review to examine the learner's perceptions in Open and Distance Learning. Scopus was used as the primary database for retrieving peer-reviewed articles, while the PRISMA approach guided the review process. Using the Boolean search strategy, 382 articles were identified. The PRISMA process included identification, screening, eligibility and inclusion stages. After applying the inclusion and exclusion criteria, 124 articles remained and 112 relevant articles were selected through the title, abstract and keyword screening. These articles were analysed bibliometrically to identify publication patterns, major contributions and keyword co-occurrences using R Studio and VOS Viewer. A full-text evaluation based on relevance, conceptual depth and methodological quality resulted in 72 articles being selected for qualitative synthesis.

Table 1. The Combination of keywords and the total number of articles identified

Database	Search Terms	Number of articles
Scopus	"Perception" OR "Awareness" OR "opinion" OR "understanding" "Open and distance learning" OR "ODL"	382

Table 2. The inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Year	2015-2025	<2015
Document Name	Article	Conference papers, Book chapters, review
Publication Stage	Final	In Press
Source Type	Journal	Trade Journal
Language	English	Non-English
Open Access	All open access	Restricted access
Subject Area	Social Science, Agricultural Science	All other Subject Area
Screening		
Title and Abstract	Existence of predefined keywords in the title and the abstract was included	
Full Text	Article that contained the predefined keywords was included	

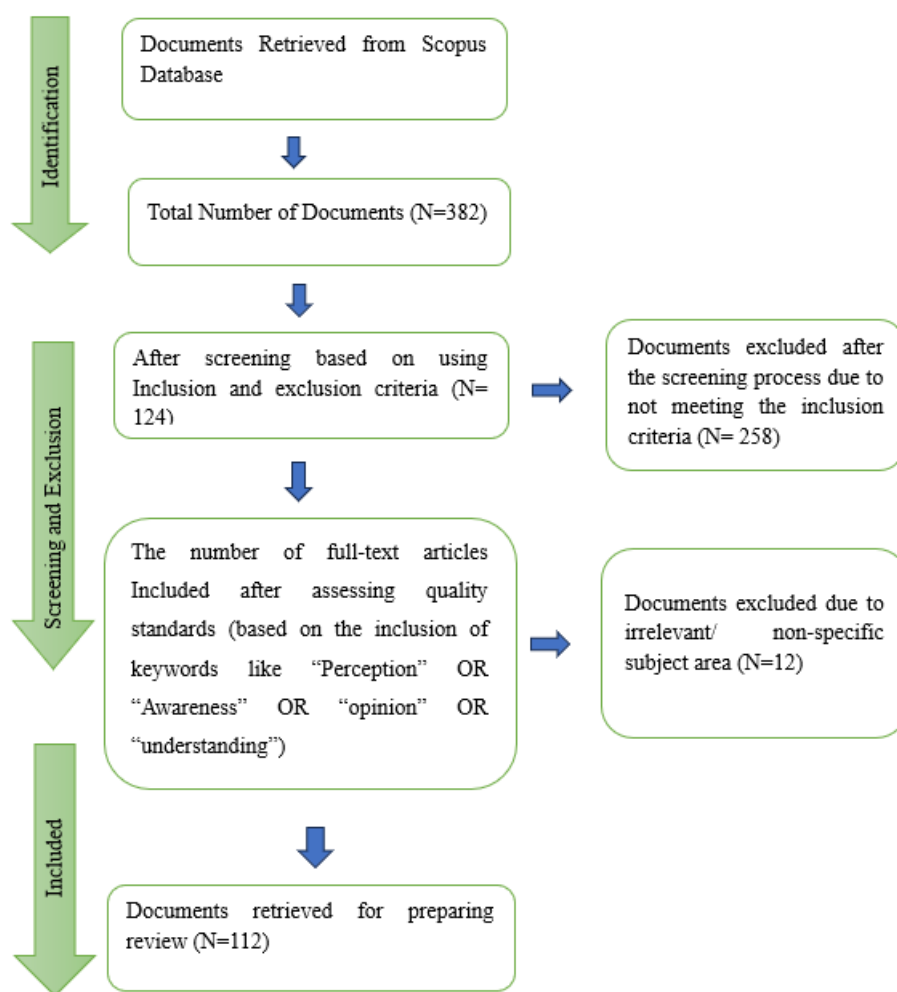


Fig. 1. PRISMA flowchart depicting the search of the literature for a systematic review of the perception of learners towards the open and distance learning.

RESULTS AND DISCUSSION

1. The evolution and publication trends of studies related to perception in Open and Distance Learning

1.1. Countries' Production

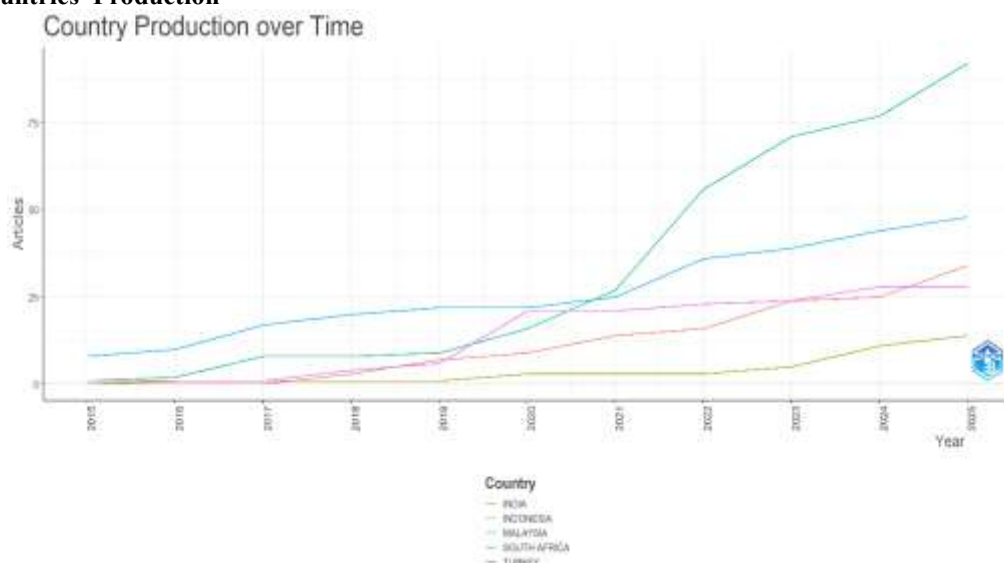


Fig. 2 Countries' production over the years

The trend indicates a gradual rise in perception studies over time. Malaysia holds a leading position, producing the highest number of studies between 2015 and 2025. In the past five years, it has shown a sharp upward trend, emerging as a regional leader, reflecting strong investment in perception-related papers. India demonstrates a steady and consistent output, indicating stable growth in the research production. Turkey initially shows slow progress but experiences a clear surge in the mid-decade. By 2024, it aligns with other leading countries in research output, although a slight slowdown is observed towards late 2024 and early 2025. Indonesia, when compared to other countries, produces a smaller number of articles, but still the curve is upward, which indicates that the country's constant contribution to the field of study. Indonesia produces fewer studies compared to others, but maintains a steady upward trend, reflecting continuous contribution. It led in output until 2020, after which it reached parity with Malaysia. In the later years, Indonesia sustained a moderate yet consistent level of publications, highlighting its ongoing engagement in the field, was leading till the end of 2020. But by the end of 2020, Indonesia had reached parity with Malaysia in publication outputs. Later part of 2020, Indonesia maintains a gradual yet significant number of papers underscoring its continued engagement in the field.

1.2 Most Relevant Affiliation

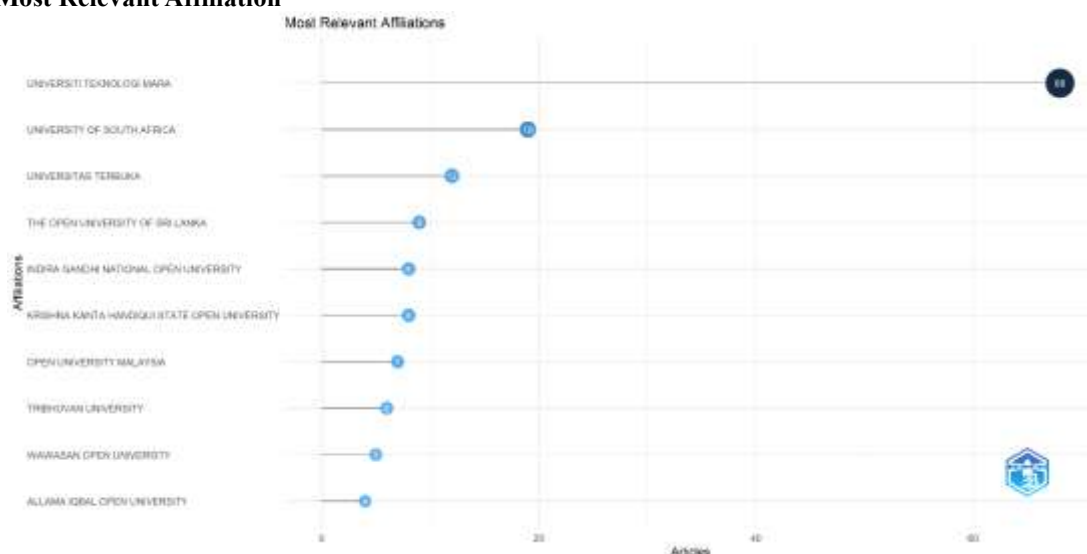


Fig. 3 Most relevant affiliations

University of Teknologi MARA leads among open and distance education universities, contributing the highest number of papers from 2015 to 2025 with around 69 publications. This reflects a strong and well-established research network in the field. The University of South Africa ranks second, showing consistent scholarly engagement over the decade. It is followed by the Universitas Terbuka with 12 publications, indicating growing research interest and presence. Indira Gandhi National Open University and Krishna Kanta Handiqui State Open University, despite their large-scale involvement in ODL programmes, remain moderate yet steady contributors with 8 publications each. Open University Malaysia, Tribhuvan University, Wawasan Open University and Allama Iqbal Open University show smaller but gradually increasing research output. Overall, the figure highlights that both established Institutions and emerging institutions contribute to perception studies in ODL.

1.2. Most Relevant Sources

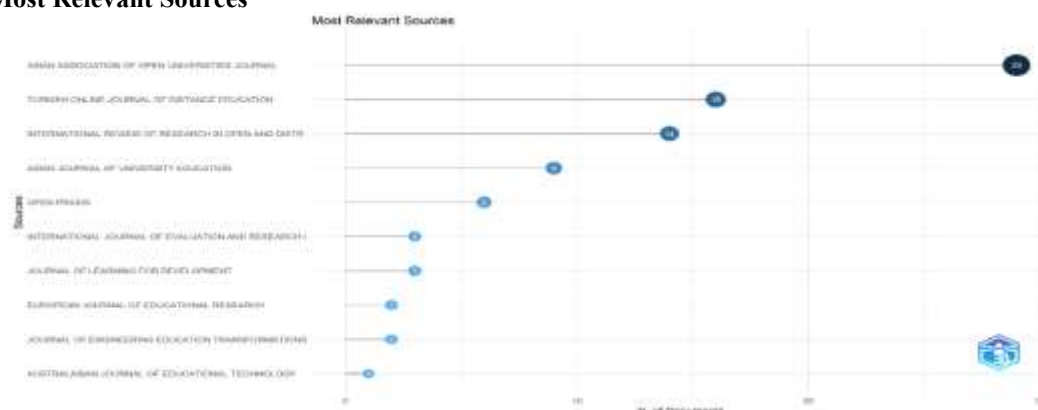
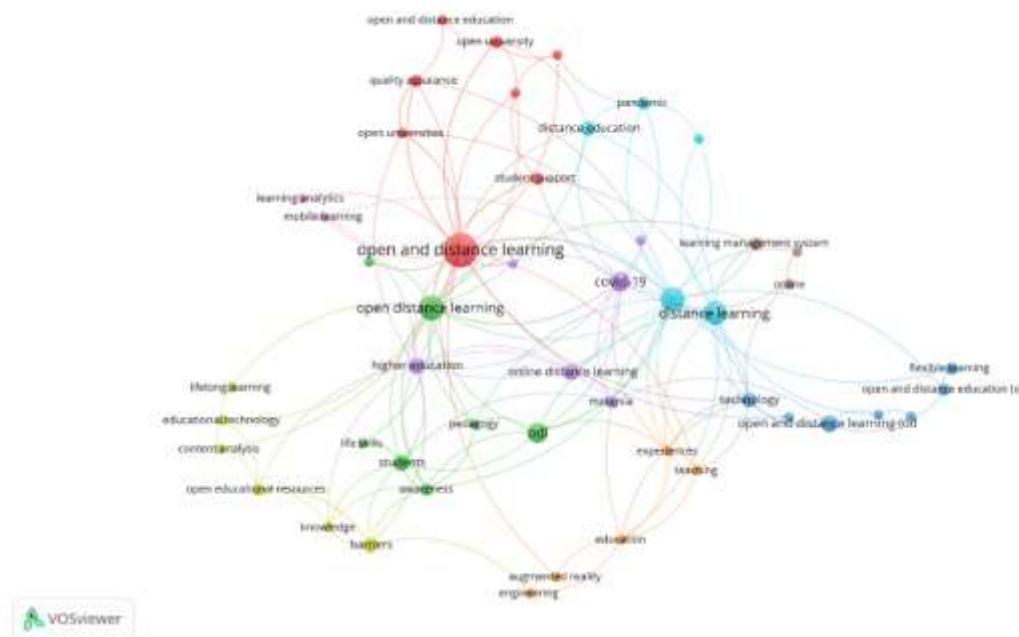


Fig. 4 Most Relevant Sources

The Asian Association of Open Universities Journal is emerging as a leading outlet in perception studies, contributing the highest number of publications with 29 over the decade. The Turkish online Journal of Distance Education and the International Review of Research also make steady and moderate contributions to the field. Journals such as the Asian Journal of University Education and Open Praxis show notable involvement in perception studies. Meanwhile, the International Journal of Evaluation and Research, Journal of Learning for development, Journal of Learning for Development, European Journal of Educational Research and Australasian Journal of Educational Technology contribute fewer publications but still maintain a visible presence in this area.



The keywords co-occurrence network reveals how the different key components are interconnected. From the above network, we understand that the keywords “Open and Distance learning”, “Online learning”, “COVID” and “Pandemic” form a strong cluster, emphasising the importance of an online platform during emergencies. This indicates a clear pandemic-driven shift in perception-related research. The network also shows a transition from traditional “Open and Distance learning” towards “online learning” and “mobile learning”, suggesting that learners increasingly view ODL as engaging and skill-oriented learning. Keywords like “learning management system”, “learning analytics”, “augmented reality”, and “flexible system” are less connected in the network and are placed in the peripheral area since they are emerging, and most of the perception studies have not included them in their literature. We can also find certain words like “pedagogy”, “student support”, “quality assurance”, which explain that perception is influenced by the instructional medium and the student-centred factors. Overall, the network demonstrates that the perception studies in ODL are multidimensional, combining technological, contextual and experimental perspectives.

2.1. Learner's Perceptions on Technology Acceptance, Digital Tools, and Innovation in ODL

positively perceived, supporting peer interaction and improved academic performance (Khor, E. T., 2015). Although ICT-based Open Educational Resources enhance perceived employability, differences in functional literacy influence how effectively learners use these tools (Chib, A., & Wardoyo, R. J., 2018). Regarding innovation, learners demonstrate cautious optimism toward emerging technologies. Artificial Intelligence is positively perceived for promoting autonomy, though challenges remain in digital literacy and content personalisation (Khan, A. et al., 2025). Learner-centred approaches like inquiry-based digital learning are valued for enhancing critical thinking and deeper engagement (Sapriati, A., 2024). However, traditional evaluation models may not fully reflect learner success in ODL, as learner intentions often differ from completion-based metrics (Celik, B., & Cagiltay, K., 2024). Increasing use of digital devices highlights the importance of mobile learning and analytics, with positive perceptions towards personalised feedback systems (Atasoy, E. et al., 2020). At the same time, concerns about privacy and data ethics create hesitation, indicating the need for critical awareness and stronger institutional support (Prinsloo, P. et al., 2015). Immersive technologies like Augmented Reality are positively perceived for improving visualisation and practical understanding (Md Enzai et al., 2021). Innovations such as the Internet of Things are seen as promising but are constrained by infrastructure and security concerns (Altınpulluk, H. et al., 2019). Effective use of digital tools depends on learner interest and cognitive engagement aligned with digital environments, reinforcing positive perceptions towards innovation (Amin, H., & Mirza, M. S., 2020).

Overall, learner perceptions in ODL are shaped not just by technological novelty, but by perceived usefulness, accessibility across diverse learner groups, personalisation, institutional support and alignment with learning needs.

2.2. Pedagogical Practices, Instructor Presence, and Academic Facilitation

Across ODL contexts, studies highlight factors shaping learner perceptions, including pedagogical design, instructor presence and academic facilitation (Harrison, R. et al., 2017). Research from developing countries suggests combining printed materials, face-to-face tutorials and virtual platform supports blended learning, improving flexibility, communication and curriculum effectiveness (Darojat, O., 2016). Structured self-instructional materials, multimedia integration and organised fieldwork supervision enhance professional competence. However, gaps such as the absence of field work manuals and inadequate multimedia support persist, leading to negative perceptions (Dash, B. M., 2019; Dash, B. M., & Botcha, R., 2018; Guin, S., 2019).

Instructor presence remains a decisive factor in learner engagement. Although e-tutors serve as primary academic contacts, their roles are often limited to administrative functions, with less focus on reflective and social facilitation, affecting perceptions (De Metz, N., & Bezuidenhout, A., 2018). Effective coordination between lectures and tutors is essential; weak collaboration reduces teaching effectiveness (Shange, T., 2021). In practical courses, limited guidance and opportunities highlight the need for stronger instructor involvement (Basantia, T. K., 2018). Despite communication and administrative inefficiencies, learners still maintain positive perceptions towards engagement through orientation and counselling programmes. However, poor facilitation quality and low attendance expectations reduce consistent participation (Candemir, O., & Ozkanal, B., 2024; Saumya, S., & Singh, T., 2020).

Academic facilitation and supervision must evolve with technology. Structured support systems address distance-related challenges, particularly in practical learning. Innovations such as augmented reality-supported workshops improve supervision quality and learner responsiveness (Gasa, V., & Gumbo, M., 2021). Alongside learner training, facilitator training is equally important. Inadequate facilitator preparation leads to weak pedagogical alignment and limited instructional tools, highlighting the need for structured training within curricula (Kalima, R. et al., 2025). Innovative pedagogical strategies and well-structured course design contribute to positive perceptions. Inquiry-based learning enhances critical thinking and problem-solving through guided interaction and feedback (Sapriati, A. et al., 2024). In assessment, tools like rubrics improve clarity, reduce evaluation time, and strengthen feedback (Mariapan, R., 2019). Well-aligned assessment modules encourage autonomy, though continuous content refinement is needed (Fahrughazi, S. et al., 2022). Despite positive views on e-learning, weaknesses in textbooks and evaluation methods can reduce satisfaction (Donmez, H. M., & Hakan, A., 2019). Overall, ODL effectiveness depends on well-designed pedagogy, strong instructor presence, structured supervision, and institutional facilitation. Without clear coordination, consistent guidance and integrated instructional support, learner engagement and teaching effectiveness remain limited, leading to negative perceptions.

2.3. Learner's experience, Satisfaction, engagement and support system.

Literature highlights that institutional support strongly shapes learner's perception. Academic and administrative systems influence the learner's experience, while inconsistent staff behaviour, fragmented communication and limited mentor guidance often create feelings of neglect and isolation. Interactive platforms such as WhatsApp, Facebook Live and YouTube support collaborative curriculum engagement, although demographic factors like age and digital familiarity and connectivity create uneven participation (Chakravarty, R. et al., 2025). Educational technology providers and organisations like ICDE or SEAMOLEC should promote adaptive learning, faculty capacity-building and a learner-centred support system (Yunus, M. et al., 2025). Responsive communication, efficient knowledge sharing and strong digital infrastructure enhance engagement and satisfaction (Sharipudin, M. N. S., et al., 2024). Online student communities contribute to a positive perception by enabling interaction,

knowledge exchange, belongingness, and emotional support, reducing isolation (Candemir, O., & Ozkanal, B., 2024).

ODL promotes inclusivity through managerial, pedagogical, social, technical, and vocational support systems. However, limited awareness and accessibility barriers negatively affect learner satisfaction and progression (Genc, H., & Kocdar, S., 2020). Learner support, including advising, counselling, feedback, and communication, sustain motivation and persistence (Zuhairi, A. et al., 2020). ODL expands access to higher education, improves self-confidence, enhances job prospects and social mobility, contributing to long-term satisfaction (Kan Kilinc, B. et al., 2020). Its flexibility enables learners to balance education with work and personal responsibilities, regardless of gender. Still, infrastructure issues like poor internet access affect perceptions (Paliwal, D, 2019). Diversified learning materials, efficient administration, and multi-channel support reduce information gaps and the digital divide, promoting equity and lifelong learning (Bozkurt, A, 2019). The neo-institutionalist model reveals gaps due to limited resources and institutional capacity, insisting that institutional quality assurance affects satisfaction (Kanwar, A. et al., 2019).

Self-regulated learning is crucial in ODL, where independent study dominates. Skills like goal setting, help-seeking, peer-interaction and study management support sustained engagement (Kocdar, S. et al., 2018). Although learners view ODL as flexible and student-centred, many lack clarity about their independent learning role. Therefore, structured orientation and counselling at entry are essential to guide learners on self-learning, teaching methods and assessment practices (Kuruppuarachchi, K. A. J. M., & Karunanayake, K. O. L. C, 2017). Since ODL functions as a service system, its quality must be assessed from learner's perspective where gaps in reliability, responsiveness and support can reduce motivation and lead to disengagement (Nsamba, A., & Makoe, M, 2017). Proper orientation about course completion time helps overcome institutional, personal and psychological barriers- such as limited facilities, counselling and motivation- preventing negative perceptions (Aluwihare, S., & De Silva, S, 2016). Instructor presence, timely feedback, peer collaboration and digital access strongly influence self-efficacy, engagement and satisfaction, especially in developing nations (Queiros, D. R., & De Villiers, M. R, 2016).

2.4. Contextual, Institutional, Quality Assurance, and Equity Dimensions

The reviewed literature demonstrates that complex contextual environments within ODL shape the design, scalability, and effectiveness. In many Global South settings, weak infrastructure, unstable funding, policy gaps, technological disparities and socio-economic inequalities shape learner's perceptions. Limited financial sustainability and uneven digital systems in Tanzania Open Universities restricted internationalisation, reflecting broader inequalities (Ngalomba et al., 2025). Nepal Open Universities exposed governance inefficiencies, weak instructional design and poor technological readiness (Gnawali, Y. et al., 2022). These findings highlight the importance of institutional preparedness during crises. International collaborations, such as partnerships between China and African nations, strengthen the ODL delivery and support geopolitical developmental goals (Zhu, X., & Chikwa, G, 2021). Literature focusing on distinct sectors- such as teacher training (Parvin, I. 2017), disaster management (Ahmad, S., & Numan, S. Md. 2015), vocational rehabilitation (Majid, S., & Razzak, A, 2015), and value education (Deveci, H, 2015) demonstrates that contextual features, which can be geographic, environmental, professional, or moral, can be viewed as both a constraint and a catalyst for any innovations, actively shaping the configuration of institutional responses and reform priorities.

At the national level, the higher education system differs in governance, regulation and ODL integration, including formalising quality assurance systems, improving recruitment standards, curriculum revision and stakeholder engagement (Ferdousi, F. et al., 2022). Internal quality assurance units, accreditation systems, and audit mechanisms build accountability (Kanwar, A. et al., 2019; Zuhairi, A. et al., 2020). Regional networks and capacity-building partnerships strengthen institutional resilience and technology integration, especially in the underserved regions (Perris, K., & McGreal, R, 2021). As institutions expand, they must diversify entry systems, assessment methods, learner support and governance structures to address digital divides and information gaps (Bozkurt, A. 2019). Inclusive models, such as disability-responsive frameworks, support differently abled learners through standardised curricula and training. (Majid, S., & Razzak, A, 2015).

Quality assurance in ODL is increasingly viewed as a dynamic, multidimensional process connecting curriculum relevance, instructional consistency, assessment integrity, technological updates and employability. Strong internal audits, reviews and improvement cycles enhance institutional credibility (Kanwar, A. et al., 2019; Zuhairi, A. et al., 2020). However, tensions between traditional audit models and evolving pedagogies require context-sensitive quality frameworks. Weak OER integration, delays in feedback and poor assessment management reduce consistency in online delivery and contribute to negative perceptions (Kanwar, A. et al., 2019; Karipi, E. et al., 2022; Gnawali, Y. P., et al., 2022). Internationally co-designed curricula and co-ordinated monitoring maintain academic standards in cross-border ODL programmes (Zhu, X., & Chikwa, G, 2021). Different pedagogical approaches- communicative approach, skill-based approach and interactive teacher training approaches, competency screening, phased workplace assessment approach, structured semester-wise curricula with tutorial evaluation- based approach, reflective and discussion-based pedagogical approaches influences the learners perception regarding the usefulness, interaction, satisfaction and skill enhancement (Ahmad, S., & Numan, S. Md. (2015); Deveci, H. (2015); Majid, S., & Razzak, A. 2015); Parvin, I. (2017).

Equity is a core but challenging element in ODL. Expanding access through decentralised study centres enhances support and perceptions of ODL (Paliwal, D, 2019). Participation of women and adults enhances socio-economic mobility, income enhancement and professional advancement (Kan Kilinc, B. et al., 2020). Inclusive ODL models positively support differently abled and imprisoned populations (Bozkurt, A. 2019). However, the financial and infrastructural barriers limit equitable participation (Ngalomba, S. et al., 2025). Equity requires aligned strategies, inclusive technology, financial support and strong social commitment (Villanueva, L. S., et al., 2018). Thus, equity is achieved through access expansion rather than expansion alone.

Overall, the literature highlights a strong interdependence among contextual, institutional, quality assurance and equity dimensions, shaping the perceptions.

2.5. COVID-19 - Induced Shifts in Learner Perception toward ODL

The COVID-19 pandemic reshaped the learner perceptions by accelerating the shift from the online education, transforming ODL from a supplementary option into an emergency mode of learning. While ODL ensured educational continuity, learners from marginalised backgrounds experienced limited access to suitable devices and unreliable internet, leading to frustration, dissatisfaction, and a sense of exclusion, reinforcing the view of ODL as an emergency response rather than a well-prepared alternative (Sanwal, A. 2024).

Simultaneously, some learners developed a positive perception due to the flexibility of studying from home and the ability to continue education during uncertainty. However, emotional strain, reduced interaction with lectures, unstable connectivity and financial burdens related to mobile data weakened learner's sense of belonging (Ghazali, F. M. 2021). Although ODL was accepted as a practical and health-conscious solution, factors such as isolation, prolonged screen exposure and limited peer integration led many learners to perceive it as a temporary substitute rather than a full replacement for face-to-face learning (Sehat, N. S. B., et al., 2022).

Learner perception was strongly influenced by readiness to adapt. When learners possessed adequate technological skills, resources and psychological preparedness, their perception of ODL tended to be more positive, leading to better understanding and learning outcomes. However, the abrupt transition during the pandemic limited these readiness factors, resulting in negative perceptions among many learners (Sarkam, N. A., et al., 2022). Inequalities in access to technology further shaped the perception, as learners with better institutional support and adaptability reported more favourable experiences, while those facing infrastructural barriers and technological disruptions contributed to a negative perception. Connectivity issues in remote areas, home-based distractions and mental and physical unpreparedness- especially for subjects involving calculations- further contributed to unfavourable perceptions (Mazlan, N. A., et al., 2021).

The pandemic also created opportunities for pedagogical innovation. It served as a catalyst, extending learning beyond the classroom by introducing innovations through interactive materials, asynchronous tools, and creative instructional methods (Mathew, V., & Chung, E., 2021). The physically isolated situation highlighted the need for Institutional responsiveness, including internal review policy related to Open Educational Resources. Despite a positive view, the perception is affected due to the inadequate structural quality and prevailing equity gaps (Karipi, E. et al., 2022).

During the COVID-19 pandemic, the Learning Management System and related technologies required fine-tuning and resources to make the learning process more accessible and flexible. Both faculty and the learner are unsatisfied with the digital infrastructure, resulting in mixed perceptions, where positive regarding free availability of the learning materials and still, digital infrastructure limitations hinder the perception towards ODL (Akindele, A. T., et al., 2021).

Overall, the pandemic marked a complex shift in learner perceptions, positioning ODL as an essential for continuing education. Perception was shaped by learner's readiness, institutional support, technological access, pedagogical design and the socio-economic background of the learners. Thus, the crisis reframed the view of learners on ODL as a supplementary mode to the central mode of learning to support a robust instructional and quality-assurance framework.

3. Existing research gap and future research directions in studies focusing on learner's perceptions in Open and Distance Learning.

3.1. Research Gaps

Many studies report that there is limited evidence on psychological mediators of the perception among the learners (Rafiq, N., & Ahmad, M, 2025; Yunus, M. et al., 2025). Though few studies attempt to study the perception factors, multidimensional studies of perception factors are limited (Amin, H., & Mirza, M. S, 2020; Karipi, E. et al., 2022; Upadhayaya, P. R., et al., 2021). Most of the studies provide self-reported assessments from the stakeholders that ultimately lead to minor bias in the results (Chakravarty, R. et al., 2025; Khan, A. et al., 2025; Zulkifli, A. F., & Danis, A, 2022). Most of the studies are confined to a specific location and a specific duration of time, hence generalisation of perception cannot be done (Celik, B., & Cagiltay, K, 2024; Chan, J. I. L., et al., 2025; Khan, A. et al., 2025; Ngalomba, S. et al., 2025). The literature reveals that there is limited empirical and quantitative evidence on the perception studies in supporting the learner's perception towards the interventions made in the ODL environment (Akindele, A. T., et al., 2021). There are very few studies focusing on relating perception in equity and inclusivity dimensions (Ahmad, S., & Numan, S. Md., 2015). Therefore, despite expansions in the ODL that are evident globally, the perception aspects remain underexplored. In particular, perception studies in

relation to the learner management system, teaching methodologies, and the impact of Open and Distance Learning programmes remain researchable.

3.2. Future Research Directions

Future studies can focus on developing multidimensional empirical frameworks to assess the perception in technological, psychological and pedagogical contexts. Longitudinal and cross-sectional studies to understand the evolution of perception on acceptance of a technology and any advancement made in the ODL context. The perception studies on equity and inclusivity dimensions of learners from diverse backgrounds can be included to strengthen the effectiveness and sustainability of the ODL institutions.

CONCLUSION

The systematic review identifies the evolution in the perception of Open and Distance Learning with the advancement in technology, pedagogical designs, quality assurance and support systems available in the ODL institutions. The synthesis of literature indicates that the perception is multidimensional and it is shaped by many factors like technology acceptance, learner's readiness, socio-economic context, instructional design and learning support systems. The sudden outbreak of the COVID-19 pandemic found a shift in perception on ODL from supplementary to a central mode of instruction. While there is an optimistic view towards the ODL, some limitations like inadequate practical exposure, limited interaction with the faculty, inefficient support systems, sense of isolation among the learners significantly affect the perception.

REFERENCES

1. Ahmad, S., & Numan, S. Md. (2015). Potentiality of Disaster Management Education through Open and Distance Learning System in Bangladesh Open University. *Turkish Online Journal of Distance Education*, 16(1). <https://doi.org/10.17718/tojde.24161>
2. Akindele, A. T., Akande, N. O., Fajobi, M. O., Olagoke, H. B., Ajagbe, O. A., & Badmus, T. A. (2021). Assessing learners' perceptions and experiences in distance education: A case study of LAUTECH Open and Distance Learning Centre (LODLC). *International Journal of Information and Education Technology*, 11(10), 479–485. <https://doi.org/10.18178/ijiet.2021.11.10.1553>
3. Altınpulluk, H., Kesim, M., & Kurubacak, G. (2019). The Usability of Augmented Reality in Open and Distance Learning Systems: A Qualitative Delphi Study. *Open Praxis*, 12(2), 283. <https://doi.org/10.5944/openpraxis.12.2.1017>
4. Altınpulluk, H., & Kilinc, H. (2022). The Opinions of Field Experts on the Usability of Internet-of-Things Technology in Open and Distance Learning Environments: *International Journal of Information and Communication Technology Education*, 18(1), 1–17. <https://doi.org/10.4018/IJICTE.294582>
5. Aluwihare, S., & De Silva, S. (2016). Prolonged time taken to complete the degree programmes at the Faculty of Engineering Technology of the Open University of Sri Lanka: Barriers and remedies. *Asian Association of Open Universities Journal*, 11(2), 136–148. <https://doi.org/10.1108/AAOUJ-09-2016-0027>
6. Amin, H., & Mirza, M. S. (2020). Comparative study of knowledge and use of Bloom's digital taxonomy by teachers and students in virtual and conventional universities. *Asian Association of Open Universities Journal*, 15(2), 223–238. <https://doi.org/10.1108/AAOUJ-01-2020-0005>
7. Atasoy, E., Bozma, H., Sönmez, A., Aydın Akkurt, A., Tuna Büyükköse, G., & Fırat, M. (2020). Active learning analytics in mobile: Visions from PhD students. *Asian Association of Open Universities Journal*, 15(2), 145–166. <https://doi.org/10.1108/AAOUJ-11-2019-0055>
8. Basantia, T. K. (2018). Implementing Practical Based Courses Under Open and Distance Learning System: A Study of The Perception of Learners and Counsellors. *Turkish Online Journal of Distance Education*, 19(2), 201–214. <https://doi.org/10.17718/tojde.415838>
9. Bozkurt, A. (2019). The Historical Development and Adaptation of Open Universities in Turkish Context. *The International Review of Research in Open and Distributed Learning*, 20(4). <https://doi.org/10.19173/irrodl.v20i4.4086>
10. Candemir, O., & Ozkanal, B. (2024). An examination of perceptions regarding online student communities: a metaphorical analysis for learners and graduates of open education systems. *Turkish Online Journal of Distance Education*, 25(4), 109–128. <https://doi.org/10.17718/tojde.1375625>
11. Celik, B., & Cagiltay, K. (2024). Uncovering MOOC Completion: A Comparative Study of Completion Rates from Different Perspectives. *Open Praxis*, 16(3), 445–456. <https://doi.org/10.55982/openpraxis.16.3.606>
12. Chakravarty, R., Baruah, A., & Sarma, N. N. (2025). Breaking the isolation: How influential is co-creation in open and distance learning on the use of new media? *Asian Association of Open Universities Journal*, 20(1), 17–26. <https://doi.org/10.1108/AAOUJ-08-2023-0096>
13. Chan, J. I. L., Tan, S. F., & Chew, M. C. (2025). Examining GenAI readiness and behavioural intention of adult learners: A PLS-SEM and IPMA approach. *International Journal of Evaluation and Research in Education (IJERE)*, 14(2), 1065. <https://doi.org/10.11591/ijere.v14i2.31839>
14. Chiam, C. C., Woo, T. K., Chung, H. T., & K.P. Nair, P. R. K. (2017). The behavioural intention to use video lectures in an ODL institution: Insights from learners' perspectives. *Asian Association of Open Universities Journal*, 12(2), 206–217. <https://doi.org/10.1108/AAOUJ-09-2017-0030>

15. Chib, A., & Wardoyo, R. J. (2018). Differential OER Impacts of Formal and Informal ICTs: Employability of Female Migrant Workers. *The International Review of Research in Open and Distributed Learning*, 19(3). <https://doi.org/10.19173/irrodl.v19i3.3538>
16. Chirume, S., & Dick, M. T. (2019). The quality of orientation in ODL: A correlational and content analysis of ZOU sessions held in the Midlands Regional Campus. *Asian Association of Open Universities Journal*, 14(1), 50–63. <https://doi.org/10.1108/AAOUJ-02-2019-0012>
17. Darojat, O. (2016). Improving curriculum through blended learning pedagogy. *Turkish Online Journal of Distance Education*, 0(0). <https://doi.org/10.17718/tojde.72654>
18. Dash, B. M. (2019). Perception towards quality and effectiveness of social work education through open and distance learning: A study in Delhi. *Asian Association of Open Universities Journal*, 14(1), 64–83. <https://doi.org/10.1108/AAOUJ-06-2019-0023>
19. Dash, B. M., & Botcha, R. (2018). Social Work Education through Open and Distance Learning: An Indian Perspective. *Turkish Online Journal of Distance Education*, 19(2), 149–165. <https://doi.org/10.17718/tojde.415829>
20. Datt, G., & Singh, G. (2021). Learners' Satisfaction With the Website Performance of an Open and Distance Learning Institution: A Case Study. *The International Review of Research in Open and Distributed Learning*, 22(1), 1–20. <https://doi.org/10.19173/irrodl.v22i1.5097>
21. De Metz, N., & Bezuidenhout, A. (2018). An importance–competence analysis of the roles and competencies of e-tutors at an open distance learning institution. *Australasian Journal of Educational Technology*, 34(5). <https://doi.org/10.14742/ajet.3364>
22. Deveci, H. (2015). Value Education Through Distance Learning: Opinions of Students who already Completed Value Education. *Turkish Online Journal of Distance Education*, 16(1). <https://doi.org/10.17718/tojde.89079>
23. Donmez, H. M., & Hakan, A. (2019). Evaluation of an Associate Degree Distance Program Based on Students' Perceptions of the Program Components. *Turkish Online Journal of Distance Education*, 20(4), 160–184. <https://doi.org/10.17718/tojde.640576>
24. Fahrughazi, S., Omar, H., & Mohamad, M. (2022). Perceptions of Postgraduates Majoring in English Education on Speaking Assessment Module for Online Distance Learning (ODL). *Theory and Practice in Language Studies*, 13(1), 78–88. <https://doi.org/10.17507/tpls.1301.10>
25. Ferdousi, F., Ahmed, A., & Momen, M. A. (2022). Evolution of quality assurance practices in enhancing the quality of open and distance education in a developing nation: A case study. *Asian Association of Open Universities Journal*, 17(2), 147–160. <https://doi.org/10.1108/AAOUJ-02-2022-0025>
26. Gasa, V., & Gumbo, M. (2021). Supervisory Support for Ethiopian Doctoral Students Enrolled in an Open and Distance Learning Institution. *International Journal of Doctoral Studies*, 16, 047–069. <https://doi.org/10.28945/4676>
27. Genç, H., & Koçdar, S. (2020). Determining needs and priorities of learners with special needs for support services in an open and distance learning context in Turkey. *Open Praxis*, 12(3), 359. <https://doi.org/10.5944/openpraxis.12.3.1102>
28. Ghazali, F. M. (2021). Online and Distance Learning (ODL) and Hybrid Learning in COVID-19 era: The Effects of Pandemic to Undergraduate Students. *International Journal of Learning and Development*, 11(2), 175. <https://doi.org/10.5296/ijld.v11i2.18666>
29. Gnawali, Y. P., Upadhayaya, P. R., Sharma, B., & Belbase, S. (2022). Access, Efficiency, Inconvenience, and Scarcity as Issues of Online and Distance Learning in Higher Education. *European Journal of Educational Research*, volume–11–2022(volume–11–issue–2–april–2022), 1115–1131. <https://doi.org/10.12973/eu-er.11.2.1115>
30. Guin, S. (2019). Field work supervision through open and distance learning: An Indian perspective. *Asian Association of Open Universities Journal*, 14(2), 107–121. <https://doi.org/10.1108/AAOUJ-08-2019-0031>
31. Harrison, R., Hutt, I., Thomas-Varcoe, C., Motteram, G., Else, K., Rawlings, B., & Gemmell, I. (2017). A cross-sectional study to describe academics' confidence, attitudes, and experience of online distance learning in higher education. *Journal of Educators Online*, 14(2). <https://doi.org/10.9743/jeo.2017.14.2.3>
32. Kalima, R., Grant, C., Clarence, S., & McKenna, S. (2025). Critiquing the Role of Field Facilitation in Open and Distance Learning Within a Resource-Constrained Environment in the Global South. *The International Review of Research in Open and Distributed Learning*, 26(2), 227–242. <https://doi.org/10.19173/irrodl.v26i2.7915>
33. Kan Kilinc, B., Yazici, B., Gunsoy, B., & Gunsoy, G. (2020). Perceptions and Opinions of Graduates about the Effects of Open and Distance Learning in Turkey. *Turkish Online Journal of Distance Education*, 21(1), 121–132. <https://doi.org/10.17718/tojde.690369>
34. Kanwar, A., Mohee, R., Carr, A., Ortlieb, K., & Sukon, K. (n.d.). A Neo-Institutionalist Approach to Understanding Drivers of Quality Assurance in ODL: The Case of the Open University of Mauritius.
35. Karipi, E., Mawela, A. S., & Van-Wyk, M. M. (2022). Exploring Faculty Members' Views on the Use of Open Education Resources: A Case of the Namibian Open Distance Learning Institutions. *International Journal of Educational Methodology*, 8(1), 107–116. <https://doi.org/10.12973/ijem.8.1.107>

36. Khan, A., Afridi, A. H., Khan, M. K., & Ahmad, P. (2025). Examining predictors of perceived usefulness of learning management system from the perspectives of distance learning students: An application of the information success model. *Asian Association of Open Universities Journal*, 20(1), 54–67. <https://doi.org/10.1108/AAOUJ-01-2024-0009>
37. Khor, E. T. (2015). Virtual Collaborative Learning Using Wiki for Adult ODL Learners: The Case of Wawasan Open University. *Asian Association of Open Universities Journal*, 10(2), 1–12. <https://doi.org/10.1108/AAOUJ-10-02-2015-B002>
38. Khumalo, S. S. (2022). Academic Perspectives on the Acquisition of Task-Fit Digital Devices in an Open Distance Learning University: Challenges, Constraints and Hassles. *Journal of Educational and Social Research*, 12(6), 147. <https://doi.org/10.36941/jesr-2022-0151>
39. Kocdar, S., Karadeniz, A., Bozkurt, A., & Buyuk, K. (2018). Measuring Self-Regulation in Self-Paced Open and Distance Learning Environments. *The International Review of Research in Open and Distributed Learning*, 19(1). <https://doi.org/10.19173/irrodl.v19i1.3255>
40. Kurupparachchi, K. A. J. M., & Karunanayake, K. O. L. C. (2017). Student characteristics and knowledge on ODL concepts at first registration: A case study from OUSL. *Asian Association of Open Universities Journal*, 12(1), 41–51. <https://doi.org/10.1108/AAOUJ-11-2016-0004>
41. Majid, S., & Razzak, A. (2015). Designing A Model of Vocational Training Programs for Disables through ODL. *Turkish Online Journal of Distance Education*, 16(1). <https://doi.org/10.17718/tojde.53238>
42. Mariapan, R. (2019). Innovative assignment rubrics for ODL courses: Design, implementation and impact. *Asian Association of Open Universities Journal*, 13(2), 117–129. <https://doi.org/10.1108/AAOUJ-01-2018-0009>
43. Mathew, V., & Chung, E. (2021). University Students' Perspectives on Open and Distance Learning (ODL) Implementation Amidst COVID-19. *Asian Journal of University Education*, 16(4), 152. <https://doi.org/10.24191/ajue.v16i4.11964>
44. Mazlan, N. A., Zolkapli, N. M., Ismail, W. M. W., Norwahi, N. A., & Mohd Saad, M. F. (2021). The impact of COVID-19 lockdown on UiTM Melaka Students' learning session. *Journal of Language and Linguistic Studies*, 17(2), 1045–1057. <https://doi.org/10.52462/jlls.73>
- 45.
46. Md Enzai, N. I., Ahmad, N., Ab. Ghani, M. A. H., Rais, S. S., & Mohamed, S. (2021). Development of Augmented Reality (AR) for Innovative Teaching and Learning in Engineering Education. *Asian Journal of University Education*, 16(4), 99. <https://doi.org/10.24191/ajue.v16i4.11954>
47. Ngalomba, S., Mkwanzzi, F., & Mukwambo, P. (2025). Internationalization at a distance via virtual mobility in the Global South: Advances and challenges. *British Journal of Educational Technology*, 56(2), 927–946. <https://doi.org/10.1111/bjet.13557>
48. Nsamba, A., & Makoe, M. (2017). Evaluating Quality of Students' Support Services in Open Distance Learning. *Turkish Online Journal of Distance Education*, 91–103. <https://doi.org/10.17718/tojde.340391>
49. Ossianilsson, E. (2024). Open online learning and well-being: Ecosystem of open online, blended digital learning. *Social Education*, 61(1), 22–35. <https://doi.org/10.15823/su.2024.61.2>
50. Othman, M. Z., Ismail, I., & Hasan, H. F. A. (2022). Factors influencing student engagement in open distance learning (ODL). *International Journal of Academic Research in Business and Social Sciences*, 12(1), 1234–1245. <https://doi.org/10.6007/IJARBS/v12-i1/17222>
51. Paliwal, D. (2019). Reaching the unreachable through open and distance learning in India: With special reference to Kumaun region of Uttarakhand. *Asian Association of Open Universities Journal*, 14(1), 39–49. <https://doi.org/10.1108/AAOUJ-01-2019-0005>
52. Panda, S. (2022). Book review: Reimagining digital learning for sustainable development: How can open and distance learning contribute? *International Review of Research in Open and Distributed Learning*, 23(3). <https://doi.org/10.19173/irrodl.v23i3.6881>
53. Parvin, I. (2017). A conceptual framework of virtual interactive teacher training through open and distance learning for the remote areas English teachers of Bangladesh. *Turkish Online Journal of Distance Education*, 18(1), 157–157. <https://doi.org/10.17718/tojde.285813>
54. Perris, K., & McGreal, R. (2021). Developing Partnerships to Acquire Impact: The Role of Three Regional Centres' Capacity Building Efforts for ODL Adoption in the Emerging World. *Journal of Learning for Development*, 8(2), 346–363. <https://doi.org/10.56059/jl4d.v8i2.507>
55. Prinsloo, P., Archer, E., Barnes, G., Chetty, Y., & Van Zyl, D. (2015). Big(ger) data as better data in open distance learning. *The International Review of Research in Open and Distributed Learning*, 16(1). <https://doi.org/10.19173/irrodl.v16i1.1948>
56. Queiros, D. R., & De Villiers, M. R. (2016). Online Learning in a South African Higher Education Institution: Determining the Right Connections for the Student. *The International Review of Research in Open and Distributed Learning*, 17(5). <https://doi.org/10.19173/irrodl.v17i5.2552>
57. Rafiq, N., & Ahmad, M. (2025). Impact of artificial intelligence on students' creativity in open and distance learning: The mediating role of happiness. *Asian Association of Open Universities Journal*. <https://doi.org/10.1108/AAOUJ-01-2025-0010>

58. Sánchez-Elvira Paniagua, A., & Simpson, O. (2018). Developing Student Support for Open and Distance Learning: The EMPOWER Project. *Journal of Interactive Media in Education*, 2018(1), 9. <https://doi.org/10.5334/jime.470>
59. Sanwal, A. (2024). Marginalization, technology access, and study approaches of undergraduate distance learners during the COVID-19 pandemic in India. *International Review of Research in Open and Distributed Learning*, 25(2), 1–19. <https://doi.org/10.19173/irrodl.v25i2.7637>
60. Sapriati, A., Rahayu, U., Sausan, I., Sekarwinahyu, M., & Anam, R. S. (2024). The Impact of Inquiry-Based Learning on Students' Critical Thinking in Biology Education Programs within Open and Distance Learning Systems. *Jurnal Pendidikan IPA Indonesia*, 13(3). <https://doi.org/10.15294/7sty9026>
61. Sarkam, N. A., Nasrudin, N. H., Razi, N. F. M., & Junid, R. A. (2022). Student readiness factors for online distance learning among Malaysian public universities during COVID-19: A conceptual model. *Asian Journal of University Education*, 18(4), 1048–1060. <https://doi.org/10.24191/ajue.v18i4.20014>
62. Saumya, S., & Singh, T. (2020). Open and distance learning in social work programme: A study of MSW learners of India. *Asian Association of Open Universities Journal*, 15(3), 371–393. <https://doi.org/10.1108/AAOUJ-07-2020-0050>
63. Sehat, N. S. B., Daud, S. R. B., Jogeran, J. B., & Suhaime, I. L. B. (2022). Student's Perceptions Towards Open and Distance Learning (ODL) During Covid-19 Pandemic. *International Journal of Academic Research in Business and Social Sciences*, 12(2), Pages 450-463. <https://doi.org/10.6007/IJARBS/v12-i2/12201>
64. Shange, T. (2021). Fostering Symbiosis Between E-tutors and Lecturers of an English Studies Module at an Open Distance Learning University in South Africa. *Open Praxis*, 13(3), 253. <https://doi.org/10.5944/openpraxis.13.3.135>
65. Sharipudin, M.-N. S., Rejab, M. M., Tugiman, N., Indiyati, D., & Andriani, A. D. (2024). The influence of digital communication technology on university branding: An understanding of open and distance learning (ODL) from students' perspectives. *Jurnal Komunikasi: Malaysian Journal of Communication*, 40(1), 408–428. <https://doi.org/10.17576/JKMJC-2024-4001-23>
66. Upadhayaya, P. R., Sharma, B., Gnawali, Y. P., & Belbase, S. (2021). Factors influencing graduate students' perception of online and distance learning in Nepal. *Turkish Online Journal of Distance Education*, 236–269. <https://doi.org/10.17718/tojde.961844>
67. Villanueva, L. S., Dolom, M. A. C., & Belen, J. S. (2018). Genre analysis of the “About Us” sections of Asian Association of Open Universities websites. *Asian Association of Open Universities Journal*, 13(1), 37–59. <https://doi.org/10.1108/AAOUJ-01-2018-0002>
68. Yunus, M., Yuliana, E., & Kurniawati, H. (2025). Student Preferences for Educational Services in Open and Distance Learning: A Structural Equation Modeling Approach of Indonesia's Open University (Universitas Terbuka). *Educational Process International Journal*, 16(1). <https://doi.org/10.22521/edupij.2025.16.229>
69. Zhu, X., & Chikwa, G. (2021). An Exploration of China-Africa Cooperation in Higher Education: Opportunities and Challenges in Open Distance Learning. *Open Praxis*, 13(1), 7. <https://doi.org/10.5944/openpraxis.13.1.1154>
70. Zuhairi, A., Karthikeyan, N., & Priyadarshana, S. T. (2020). Supporting students to succeed in open and distance learning in the Open University of Sri Lanka and Universitas Terbuka Indonesia. *Asian Association of Open Universities Journal*, 15(1), 13–35. <https://doi.org/10.1108/AAOUJ-09-2019-0038>
71. Zuhairi, A., Raymundo, M. R. D. R., & Mir, K. (2020). Implementing quality assurance system for open and distance learning in three Asian open universities: the Philippines, Indonesia and Pakistan. *Asian Association of Open Universities Journal*, 15(3), 297–320. <https://doi.org/10.1108/AAOUJ-05-2020-0034>
72. Zulkifli, A. F., & Danis, A. (2022). Does exergame help improve pre-service teachers' perceptions, knowledge and motivation to engage in physical activity? *Journal of Sustainability Science and Management*, 17(12), 144–155. <https://doi.org/10.46754/jssm.2022.12.013>