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Readiness of ICE Institute Courses Based on ICE-I QAT with Quality Assurance Criteria

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Abstract: This study aims to evaluate the readiness of online courses offered by the ICE Institute based on seven quality assurance dimensions developed through ICE-I QAT. These seven dimensions include course information, instructor information, technology and learning tools, learning materials, interaction, assessment, and evaluation. The method used was descriptive quantitative by using instrument quality assurance criteria was developed by ICE-I. Sample of this research were 77 courses and were curated by the partner universities collaborating with the ICE Institute in 2024. The results show variability in the readiness levels of the courses across each dimension. For example, in the course information dimension, only 45 out of 77 courses met the minimum standards, while in the assessment dimension, only 23 courses met the standards. These findings indicate that many courses still need quality improvement, particularly in learning materials, interaction, and assessment. The discussion highlights the importance of providing clear information, effective use of learning technology, and comprehensive instructional materials to enhance student engagement and course completion. The study concludes that improving the quality of online courses is essential to support effective and meaningful distance learning at the ICE Institute.

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Introduction

The continuous advancement of technology significantly impacts education, necessitating a transformation in learning methods. Traditional learning, characterized by direct interaction between teachers and students, is evolving. Learning can now occur without direct interaction, often through distance education. One notable development is the rise of MOOCs (Massive Open Online Courses), aimed at providing comprehensive education and learning formats integrated with information technology (Hood & Littlejohn, 2016; Wang et al., 2019).

MOOCs are no longer new in the education and learning system. Initially introduced in early 2007, MOOCs have grown, with many educational institutions offering MOOC platforms, such as Coursera, EDX, FutureLearn, Swayam, and etc. (Alhazzani, 2020; Bozkurt et al., 2017). Governments and related ministries in various countries also encourage educational institutions, particularly higher education, to develop MOOCs and collaborate to provide course packages or disciplines accessible to the public or cross-university students

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universitas (Alhazzani, 2020; Irwanto et al., 2023; Purbojo & Stefany, 2021). The trend of MOOCs is growing with a variety of subjects and disciplines available to the public.

The Indonesian government and educational institutions have also recognized the importance of distance learning. According to Purbojo & Stefany (2021), in 2021, the Ministry of Research and Technology established ICE-I (Indonesia Cyber Education Institute) to provide online learning. This institution involves fourteen higher education institutions to offer subject packages to the public. Generally, MOOCs aim to enhance community competencies, including professional development related to careers (requiring skill certificates) and learning needs. Often, MOOCs are offered for free and are open to the public (Alhazzani, 2020; Barman et al., 2019), including those provided by universities. This has led to intense competition among MOOC platform providers, such as universities and educational companies, to innovate in course offerings. MOOCs attract many enthusiasts because they are often free, easily accessible, and can be studied anytime and anywhere, with some course credits even transferable to university credits (Li, 2019).

However, the massive number of offered subjects and frequent free offerings as promotional tactics have raised concerns about the quality of MOOCs (Barman et al., 2019; Lowenthal & Hodges, 2015). Skeptical views typically question how MOOCs can support effective and meaningful learning experiences for students. In MOOCs, instructors or facilitators often provide recorded video materials, requiring students to undertake self-directed learning. Consequently, research by Hew & Cheung (2014) found that only 10-20% of students complete MOOCs out of those who enroll. Sue's (2014) findings indicate that the completion rate of MOOC courses is only 5%. Additionally, Forbes reported in 2020 that the completion rate is at most 20%, even from leading universities offering MOOCs (Newton, 2020).

Several factors contribute to the low MOOC completion rates, such as poor time management between watching introductory videos and completing assignments, unengaging instructors, lack of interaction, and poor course design making MOOCs difficult to navigate and use. Therefore, it is necessary to test the readiness and quality assurance of courses as part of quality assurance (Ferreira et al., 2022; Lowenthal & Hodges, 2015). This ensures that the courses are relevant, support students' competencies and learning needs, and increase completion rates among enrolled students.

As a collaborative higher education institution providing MOOCs, the ICE Institute continuously strives to produce and offer courses relevant to the competencies needed in each field of study. Specifically, the ICE Institute has developed a self-curation tool as a quality assurance instrument for courses before offering them to the public. Seven main dimensions guide the curation of courses: course information, instructor/facilitator information, technology and learning resource support, teaching materials, interaction, assessment, and evaluation (Purbojo & Stefany, 2021).

In this study, researchers collected 77 courses developed by ICE Institute's partner universities in 2024. These courses will be independently curated by curators using the curation instrument developed by the ICE Institute as a form of quality assessment. This study uniquely applies a systematic, multi-dimensional assessment that covers course information, instructor details, technology, learning materials, interaction, assessment, and evaluation, highlighting gaps in course quality and readiness. This research thoroughly investigates each dimension of course quality, offering a more granular understanding of MOOCs' readiness in Indonesian higher education contexts.

Research Method

This research utilizes a descriptive quantitative analysis method to evaluate the readiness of online courses offered by the ICE Institute, guided by the ICE-I Quality Assurance Toolkit (ICE-I QAT). The descriptive quantitative approach provides a structured assessment of each course, enabling a systematic examination of quality alignment across a comprehensive set of criteria. To ensure thorough analysis, a saturated sampling technique (census method) was applied, encompassing all 77 courses developed by the ICE Institute's partner universities. This method provides complete data coverage, allowing the study to capture an accurate representation of course readiness across the entire population.

The primary research instrument, the ICE-I QAT, measures course quality across seven dimensions: course information, instructor information, technology and learning tools, learning materials and activities, interaction, assessment, and evaluation. A quality assurance toolkit is essential to produce high-quality courses for MOOCs that adhere to educational principles. Purbojo & Stefany (2021) synthesized and elaborated on various digital and distance learning quality assurance instruments and criteria to create the ICE Institute Quality Assurance Toolkit (ICE-I QA).

Table 1. Dimensions, Indicators, and Percentages in the ICE Institute Quality Assessment Toolkit

No	Dimensions	Indicator
1	Courses Information	1. General identity 2. Weight of courses 3. Overview 4. Syllabus/course outline 5. Additional
2	Instructor Information	1. Instructor 2. Tutor and learning support
3	Technology and Learning Tools	1. List of learning technologies 2. Technology utilization strategy 3. Additional
4	Learning Materials/Content and Activities	1. Course introduction 2. List of activities 3. Materials of each activity 4. Variety of learning materials 5. References and glossary 6. Additional support
5	Interaction	1. Types of interaction 2. Activity readiness and design 3. Reflective writing 4. Project-based learning
6	Assessment	1. Supervision and implementation 2. Types of measurement 3. Grading guideline 4. Plagiarism check 5. Additional
7	Evaluation	1. Evaluation questionnaire 2. Satisfaction rating

Each dimension is assessed through specific indicators, guiding curators in a consistent, standardized review of course quality on table 2. Data collection occurred over a six-month period, from February to June 2024, involving 16 experienced curators from

partner institutions, each evaluating courses within their areas of expertise to ensure reliability in the assessment process.

Table 2. Academic Disciplines of Courses in MOOC ICE Institute

No	Academic Disciplines	Total
1	Physical Sciences and Engineering	23
2	Life Sciences	2
3	Health Sciences	18
4	Social Sciences and Humanities	34
Total Courses		77

For data analysis, quantitative methods were employed to quantify readiness levels across the dimensions, aggregating scores to evaluate courses' alignment with quality benchmarks. This analysis highlighted critical areas for improvement, such as enhancing interactivity, refining learning materials, and standardizing assessment criteria. Based on Table 1, each dimension's percentage is 100%, divided among the indicators within that dimension. Each indicator has specific criteria to meet, allowing it to reach its maximum percentage. The percentage allocation for each indicator varies depending on the number and weight of the criteria in the dimension. The evaluation scale has four criteria: (1) not met at all; (2) partially met; (3) almost fully met; and (4) fully met. Based on the results and development of the ICE-Institute Quality Assessment Toolkit, each dimension has a minimum percentage. If a course dimension is above this minimum percentage, it indicates that the course dimension is average or above, meeting the minimum standards.

Results and Discussion

Course Readiness Based on Dimension 1

Table 3 focuses on describing the tabulation and analysis results of the readiness of 77 courses related to Dimension 1, which is course information. This dimension consists of five indicators: main identity, weight, overview, syllabus/course outline, and additional information, with a minimum score of 70.

Table 3. Tabulation of Course Readiness Data Related to Dimension 1

Academic Discipline	Dimension 1			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	19	4	100%	0%
Health Sciences	7	11	100%	51%
Life Sciences	1	1	93%	61%
Social Sciences & Humanities	18	16	100%	0%
Total	45	32	77	

In the Physical Sciences & Engineering group, 19 courses met the minimum score for Dimension 1, while 4 courses did not meet the standard. Some courses failed to meet any of the dimension's indicators, as indicated by the lowest percentage of 0%. In the Social Sciences & Humanities group, 18 courses met the standard, while 16 courses did not, with the highest percentage being 93%, still below the total 100%. In the Health Sciences group, out of 18 courses, 7 met the minimum readiness score for Dimension 1, but 11 did not meet the minimum standard. In the Life Sciences group, 1 course met the achieved category, while an equal number did not meet the standard.

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Course Readiness Based on Dimension 2

Table 4 describes the tabulation and analysis results of the readiness of 77 courses related to Dimension 2, which is instructor information. This dimension consists of two indicators: instructor information and tutor/learning support, with a minimum score of 60.

Table 4. Tabulation of Course Readiness Data Related to Dimension 2

Academic Discipline	Dimension 2			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	19	4	100%	0%
Health Sciences	7	11	100%	51%
Life Sciences	1	1	93%	61%
Social Sciences & Humanities	18	16	100%	0%
Total	45	32	77	

In the Physical Sciences & Engineering group, 14 courses met the minimum score for Dimension 2, while 9 did not meet the standard. Some courses did not meet any of the dimension's indicators, as shown by the lowest percentage of 0%. In the Social Sciences & Humanities group, 27 courses met the standard, while 7 did not, with the highest percentage being 100%. In the Health Sciences group, only 1 course did not meet the standard, with the lowest percentage being 25%. In the Life Sciences group, all courses met the minimum standard of 60%, but none reached 100%.

Course Readiness Based on Dimension 3

Table 5 describes the tabulation and analysis results of the readiness of 77 courses related to Dimension 3, which is technology and learning tools. This dimension consists of three indicators: a list of learning technology solutions used in teaching, strategies for utilizing learning technology, and additional tools with a minimum score of 50%.

Table 5. Tabulation of Course Readiness Data Related to Dimension 3

Academic Discipline	Dimension 3			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	12	11	100%	0%
Health Sciences	9	9	100%	26%
Life Sciences	1	1	50%	26%
Social Sciences & Humanities	27	7	100%	0%
Total	49	28	77	

In the Physical Sciences & Engineering group, 12 courses met the minimum score and 11 courses did not meet the standard. Some courses failed to meet any of the dimension's indicators, as indicated by the lowest percentage of 0%. In the Social Sciences & Humanities group, 27 courses met the standard, while 7 courses did not, with the highest percentage being 100%, and some courses did not meet any indicators at all. In the Health Sciences group, 9 courses met the minimum standard, but the same number did not meet the standard. In the Life Sciences group, 1 course met the criteria but did not reach 100%, only achieving the minimum score of 50%.

Course Readiness Based on Dimension 4

Table 6 describes the tabulation and analysis results of the readiness of 77 courses related to Dimension 4, which is learning materials or content and learning activities. This dimension consists of six indicators: course introduction, detailed activity list, materials for each

learning activity, variety of learning materials, references and glossary, and additional support with a minimum score of 75.

Table 6. Tabulation of Course Readiness Data Related to Dimension 4

Academic Discipline	Dimension 4			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	8	15	100%	0%
Health Sciences	9	9	93%	45%
Life Sciences	0	2	58%	57%
Social Sciences & Humanities	15	19	100%	0%
Total	32	45	77	

In this dimension, as shown in Table 7, many courses across all groups did not meet the minimum standard. In the Social Sciences & Humanities group, only 15 courses met the minimum score, while 19 courses did not meet the standard, with some courses failing to meet any indicators. In the Health Sciences group, 9 courses met the standard, but the same number did not. None of the courses in this group reached 100%. In the Physical Sciences & Engineering group, out of 33 courses, 15 did not meet the standard, and some failed to meet any indicators. In the Life Sciences group, no courses met the minimum score of 75.

Course Readiness Based on Dimension 5

Table 7 describes the tabulation and analysis results of the readiness of 77 courses related to Dimension 5, which is interaction. This dimension consists of four indicators: forms of interaction, readiness and design of activities, reflective writing, and project-based learning with a minimum score of 75.

Table 7. Tabulation of Course Readiness Data Related to Dimension 5

Academic Discipline	Dimension 5			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	8	15	100%	0%
Health Sciences	5	13	100%	27%
Life Sciences	0	2	43%	34%
Social Sciences & Humanities	5	29	100%	0%
Total	18	59	77	

Similar to Dimension 4, in Dimension 5, only 18 courses from all groups met the minimum score of 75, as shown in Table 8. However, more than three times that number, 59 courses, did not meet the minimum standard. In the Health Sciences group, none of the courses met the standard. In the Physical Sciences & Engineering and Social Sciences & Humanities groups, although some courses reached the maximum score, some failed to meet any indicators, indicated by a score of 0%.

Course Readiness Based on Dimension 6

Table 8 describes the tabulation and analysis results of the readiness of 77 courses related to Dimension 6, which is assessment. This dimension consists of five indicators: monitoring and implementation, forms of measurement, grading guidelines, plagiarism check, and additional tools with a minimum score of 75.

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Table 7. Tabulation of Course Readiness Data Related to Dimension 6

Academic Discipline	Dimension 6			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	7	16	95%	0%
Health Sciences	5	13	94%	34%
Life Sciences	1	1	73%	34%
Social Sciences & Humanities	10	24	93%	0%
Total	23	54		
		77		

Based on the tabulation and analysis of data for Dimension 6 in Table 9, more courses did not meet the standard compared to those that met the minimum score. None of the 77 courses across four groups reached a score of 100%, and some courses failed to meet any indicators. The Social Sciences & Humanities group had the highest number of courses meeting the minimum score, with 10 courses. This group also had 24 courses that did not meet the standard.

Course Readiness Based on Dimension 7

Table 9 describes the tabulation and analysis results of the readiness of 77 courses related to the final dimension, Dimension 7, which is evaluation. This dimension has two indicators: evaluation questionnaire and satisfaction rating with a minimum score of 50.

Table 9. Tabulation of Course Readiness Data Related to Dimension 7

Academic Discipline	Dimension 7			
	Fully Met	Not Met at All	Max Percentage	Min Percentage
Physical Sciences & Engineering	11	12	100%	0%
Health Sciences	7	11	100%	25%
Life Sciences	0	2	40%	25%
Social Sciences & Humanities	13	21	100%	0%
Total	31	46		
		77		

Based on the tabulation and analysis of data for Dimension 7 in Table 10, more courses did not meet the standard compared to those that met the minimum score, similar to Dimensions 4, 5, and 6. A total of 31 courses met the minimum score from the four groups, while 46 did not. Some courses in the Physical Sciences & Engineering, Health Sciences, and Social Sciences & Humanities groups achieved a score of 100%, although some courses failed to meet any indicators, as indicated by a score of 0%. In the Life Sciences group, no courses reached the minimum score of 50, with the highest score being 40 and the lowest 25%, similar to the lowest score in the Health Sciences group.

Discussions

Course Readiness Based on Dimension 1

Effective MOOC development relies on aligning course offerings with students' learning needs, providing clear information that attracts and informs potential learners about course relevance and content (Hew & Cheung, 2014; Hood & Littlejohn, 2016). To establish credibility, transparency, and accountability, MOOCs should include primary details such as workload, learning outcomes, objectives, prerequisites, and study duration, as outlined in quality assurance frameworks like the public information dimension (Ferreira et al., 2022) and methodology dimension (Yepes-Baldó et al., 2016). In this study, while 45 courses successfully incorporated these indicators, 32 still fell short, underscoring a persistent gap in

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MOOC readiness standards and revealing the continued need for improvements in providing essential course information to better attract and support student engagement.

Course Readiness Based on Dimension 2

The open-access nature of MOOCs enables widespread public participation, making transparency and distinctiveness essential for enhancing learning support. Clear information about course developers, providers, and instructors not only aids learners but also supports effective distance learning by ensuring alignment with instructors' expertise and enabling efficient problem-solving during course delivery (Najafi et al., 2015). Instructor credibility and institutional trust are also strengthened when MOOC facilitators are clearly identified, as this transparency promotes confidence in the course's quality and educational value (Ginting et al., 2022). In this study, 60 courses met the minimum standard for providing instructor identities, though prior research indicates that this information alone may not significantly impact student enrollment decisions. Instead, the presence of instructor information is valuable for clarity on the course's teaching team, their background, and contact options, which aids in addressing learners' support needs (Ferreira et al., 2022). Research also shows that students are more influenced by the learning process itself—such as opportunities for active participation and facilitator feedback—than by the simple presence of instructor details (Ross et al., 2014), underscoring a shift toward interactive learning over static information.

Course Readiness Based on Dimension 3

The advancement of MOOCs is intrinsically tied to the integration of technology within education, with MOOCs emerging as a key product of educational technology innovation that actively involves both technological tools and human resources. In this study, the technology dimension emphasizes how innovation addresses specific learning needs and activities in each course, facilitating flexible and successful learning experiences (Wong, 2016) and supports learning strategies to ensure successful learning outcomes (Sanchez-Gordon & Luján-Mora, 2018). Technological support in MOOCs also fosters student autonomy in selecting communication platforms for participation and feedback, while promoting global collaboration and interaction among learners. Of the courses examined, 49 met the standards for technology availability, providing essential tools, strategies for effective usage, and additional resources. This implementation is evident in instructional videos, cloud-based storage for materials, interactive communication channels, and a comprehensive learning management system that defines the MOOC learning environment (Lu et al., 2017). At ICE Institute, the technological setup is tailored to course-specific needs, aligning both content delivery and interaction to optimize the learning experience for students and lecturers.

Course Readiness Based on Dimension 4

The success of learning in MOOCs heavily relies on the availability of sufficient and quality content, as it directly impacts student motivation and completion rates (Hew & Cheung, 2014). Comprehensive learning materials and activities enhance learning outcomes and student engagement (Lu et al., 2017), which is crucial for MOOC organizers and course developers to prioritize. However, in a study of 77 courses, only 32 met the minimum standard for content availability and variation. This highlights the importance of a well-structured course, as noted by Bryson (2017), which includes a clear course outline, activities, and materials. A well-organized structure helps students prepare and plan their learning, and, as emphasized by Brahimi & Sarirete (2015), course developers should be encouraged to meet these standards for high-quality learning experiences at ICE Institute.

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Course Readiness Based on Dimension 5

The successful completion of MOOCs is often hindered by low engagement, excessive workloads, and misalignment with students' needs and competencies (Hew & Cheung, 2014). Beyond simply granting certificates, MOOCs can offer credit replacement for equivalent higher education courses, provided they integrate supportive, interactive technology for class collaboration (Brahimi & Sarirete, 2015). However, technology alone cannot replace facilitators; rather, it should enhance an interactive learning environment. Studies show that student-centered approaches like Problem-Based Learning (PBL), collaborative learning, and flipped learning significantly improve motivation and engagement in MOOCs (Lu et al., 2017; Verstegen et al., 2019). These models highlight that MOOCs should not just replicate traditional learning but leverage digital technology for active learning (Sanchez-Gordon & Luján-Mora, 2018). Currently, ICE Institute needs to develop 59 more courses that meet active learning standards to foster collaborative and participatory learning between facilitators and students.

Course Readiness Based on Dimension 6

Effective assessment in MOOC courses is essential to accurately measure student performance, provide clear grading guidelines, and detect plagiarism. Assessments can enhance learning quality, boost motivation, and uphold academic integrity, as students often adjust their behaviors based on grades—low grades may prompt improvement efforts or reduce motivation (Wang et al., 2019). Fair and accurate evaluation with validated grading guidelines is therefore crucial (Alcarria et al., 2018), and transparent assessment criteria should be communicated to students. Additionally, MOOCs need robust plagiarism detection tools, especially for courses with large, public enrollments, to prevent academic misconduct (Thomas et al., 2016). Currently, only 23 ICE Institute courses meet the standards for assessment, including assessment forms, guidelines, assignments, and plagiarism monitoring.

Course Readiness Based on Dimension 7

Evaluation in MOOC courses, such as through questionnaires and satisfaction ratings, is vital for enhancing teaching quality, student satisfaction, and course sustainability. End-of-course evaluations help pinpoint strengths and areas needing improvement, enabling adjustments in teaching based on student feedback (Cladera, 2021). In MOOCs, evaluations also reflect the quality of the platform's system, information, and services, which supports course quality and sustainability (Albelbisi et al., 2021; Cheng, 2022). At ICE Institute, only 31 out of 77 courses meet evaluation standards, indicating a need for improvement in 46 courses. Strengthening this evaluation dimension aims to elevate the learning experience, course quality, and student satisfaction with ICE Institute's MOOC offerings.

This study emphasizes the need for ICE Institute and similar institutions to continually enhance MOOCs by improving course transparency, establishing clear objectives, and providing detailed course prerequisites and outcomes. Practical recommendations include ensuring instructor profiles are visible to build credibility, integrating user-friendly technologies for interaction and collaboration, and using diverse, interactive learning materials with structured assessments to create an engaging and reliable learning environment, which can improve student enrollment and completion rates. Theoretically, the research highlights the significance of a multi-dimensional approach to MOOC quality assurance, focusing on key factors such as instructor visibility, technological integration, and structured content delivery.

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Conclusion

The results concluded that out of 77 courses evaluated, many do not meet the minimum standards across various assessment dimensions: (1) course information highlights the importance of complete and clear information to attract and support learners; (2) instructor information underscores the importance of transparency regarding instructors and facilitators to support the credibility and quality of learning; (3) technology and learning tools emphasize the significance of proper technology utilization to support effective learning strategies and interactions; (4) learning materials and activities stress the need for content variety and completeness to boost student motivation and learning outcomes; (5) learning interaction highlights the need for more interactive and collaborative learning models to increase student engagement; (6) assessment underscores the importance of accurate, transparent grading and plagiarism monitoring to support academic quality and integrity; and (7) evaluation emphasizes the importance of feedback and evaluation questionnaires to improve course quality and student satisfaction. Overall, this study indicates that many courses at ICE Institute require improvements to meet the ICE-I QAT quality assurance standards. These improvements are essential to ensure that the courses offered can support the competencies and learning needs of students and increase course completion rates.

Recommendation

Based on the above research, it is expected that the courses offered at the ICE-Institute must meet the eligibility criteria. This eligibility affects user engagement with the MOOC system. The quality of MOOC is not only in the appearance of the course, but is comprehensive to the series of learning experiences, including identity, assignments, and completion, including the availability of teachers. Through this research, the recommendations for the policymakers should implement quality assurance frameworks to ensure MOOCs meet standards in transparency, instructor qualifications, and technology use. Investing in interactive, user-friendly technology and continuous instructor training will enhance course effectiveness. Finally, regular monitoring based on student feedback will support ongoing improvements and maintain alignment with educational standards. In the future, every ICE-Institute course must pass the eligibility test and there must be supervision and monitoring related to the sustainability of the course.

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References

Albelbisi, N. A., Al-Adwan, A. S., & Habibi, A. (2021). Impact of Quality Antecedents on Satisfaction Toward MOOC. *Turkish Online Journal of Distance Education*, *22*(2), 164–175. https://doi.org/10.17718/tojde.906843

Alcarria, R., Bordel, B., de Andrés, D. M., & Robles, T. (2018). Enhanced peer assessment in MOOC evaluation through assignment and review analysis. *International Journal of Emerging Technologies in Learning*, *13*(1), 206–219. https://doi.org/10.3991/ijet.v13i01.7461

Alhazzani, N. (2020). MOOC's Impact on Higher Education. *Social Sciences and Humanities Open*, *2*(1), 1–5. https://doi.org/10.1016/j.ssaho.2020.100030

Barman, L., McGrath, C., & Stohr, C. (2019). Higher Education; For Free, For Everyone, For Real? Massive Open Online Courses (MOOCs) and the Responsible University:

History and Enacting Rationalities for MOOC Initiatives at Three Swedish Universities. In M. P. Sørensen, L. Geschwind, J. Kekäle, & R. Pinheiro (Eds.), *The Responsible University (Exploring the Nordic Context and Beyond)* (1st ed., pp. 117–144).

Bozkurt, A., Akgün-özbek, E., & Zawacki-Richter, O. (2017). Trends and Patterns in Massive Open Online Courses: Review and Content Analysis of Research on MOOCs (2008-2015). *International Review of Research in Open and Distance Learning*, *18*(5), 118–147.

Brahimi, T., & Sarirete, A. (2015). Learning outside the classroom through MOOCs. *Computers in Human Behavior*, *51*, 604–609. https://doi.org/10.1016/j.chb.2015.03.013

Bryson, D. (2017). Can MOOCs meet your learning needs? *Journal of Visual Communication in Medicine*, *40*(4), 170–172. https://doi.org/10.1080/17453054.2017.1367253

Cheng, Y. M. (2022). Which Quality Determinants Cause MOOCs Continuance Intention? A Hybrid Extending the Expectation-Confirmation Model with LLearning Engagement and Information Systems Success. *Library Hi Tech*, *41*(6), 1748–1780. https://doi.org/10.1108/LHT-11-2021-0391

Cladera, M. (2021). An Application of Importance-Performance Analysis to Students' Evaluations of Learning Domains. *Educational Assessment, Evaluation and Accountability*, *33*(1), 701–715. https://doi.org/10.18848/2327-7955/CGP/V30I01/31-42

Ferreira, C., Arias, A. R., & Vidal, J. (2022). Quality criteria in MOOC: Comparative and proposed indicators. *PLoS ONE*, *17*(12), 1–11. https://doi.org/10.1371/journal.pone.0278519

Fini, A. (2009). The technological dimension of a massive open online course: The case of the CCK08 course tools. *International Review of Research in Open and Distance Learning*, *10*(5 SPL.ISS.). https://doi.org/10.19173/irrodl.v10i5.643

Ginting, D., Woods, R., Tantri, N. R., Rahayu, P. S., & Asfihana, R. (2022). Portraying the Performance of Indonesian's Massive Open Online Course Facilitators. *SAGE Open*, *12*(3), 1–10. https://doi.org/10.1177/21582440221116601

Hew, K. F., & Cheung, W. S. (2014). Students' and instructors' use of massive open online courses (MOOCs): Motivations and challenges. *Educational Research Review*, *12*(June), 45–58. https://doi.org/10.1016/j.edurev.2014.05.001

Hood, N., & Littlejohn, A. (2016). MOOC Quality: the need for new measures. *Journal of Learning for Development*, *3*(3), 28–42. https://doi.org/10.56059/jl4d.v3i3.165

Irwanto, I., Wahyudiati, D., Saputro, A. D., & Lukman, I. R. (2023). Massive Open Online Courses (MOOCs) in Higher Education: A Bibliometric Analysis (2012-2022). *International Journal of Information and Education Technology*, *13*(2), 223–231. https://doi.org/10.18178/ijiet.2023.13.2.1799

Li, Y. (2019). MOOCs in Higher Education: Opportunities and Challenges. *5th International Conference on Humanities and Social Science Research (ICHSSR)*, *319*, 48–55. https://doi.org/10.2991/ichssr-19.2019.10

Lowenthal, P. R., & Hodges, C. B. (2015). In Search of Quality: Using Quality Matters to Analyze the Quality of Massive, Open, Online Courses (MOOCs). *International Review of Research in Open and Distributed Learning*, *16*(5), 83–101. https://doi.org/10.19173/irrodl.v16i5.2348

Lu, O. H. T., Huang, J. C. H., Huang, A. Y. Q., & Yang, S. J. H. (2017). Applying learning

analytics for improving students engagement and learning outcomes in an MOOCs enabled collaborative programming course. *Interactive Learning Environments*, *25*(2), 220–234. https://doi.org/10.1080/10494820.2016.1278391

Najafi, H., Rolheiser, C., Harrison, L., & Håklev, S. (2015). University of Toronto instructors' experiences with developing MOOCs. *International Review of Research in Open and Distributed Learning*, *16*(3), 233–255. https://doi.org/10.19173/irrodl.v16i3.2073

Newton, D. (2020). *The "Depressing" And "Disheartening" News About MOOCs*. Forbes. https://www.forbes.com/sites/dereknewton/2020/06/21/the-depressing-and-disheartening-news-about-moocs/

Purbojo, R., & Stefany, S. (2021). Distance education quality assurance toolkit: A means to transform open and distance learning culture. *Education Technology in the New Normal: Now and Beyond: Proceedings of the International Symposium on Open, Distance, and E-Learning (ISODEL)*, *21662*, 109–122. https://doi.org/10.1201/9781003353423-12

Ross, J., Sinclair, C., Knox, J., Bayne, S., & Macleod, H. (2014). Teacher Experiences and Academic Identity: The Missing Components of MOOC Pedagogy. *MERLOT Journal of Online Learning and Teaching*, *10*(1), 57–69.

Sanchez-Gordon, S., & Luján-Mora, S. (2018). Technological Innovations in Large-Scale Teaching: Five Roots of Massive Open Online Courses. *Journal of Educational Computing Research*, *56*(5), 623–644. https://doi.org/10.1177/0735633117727597

Sue, A. (2014). *Massive Open Online Courses (MOOCs) and completation rates: are self-directed adult learners the most successful at MOOCs?* Pepperdine University.

Thomas, G., Kumar, A., Bijlani, K., & Aswathy, R. (2016). Phieval: Four-Phase Plagiarism Detection System in Private MOOC. In N. Shetty, N. Prasad, & N. Nalini (Eds.), *Emerging Research in Computing, Information, Communication and Applications* (pp. 511–521). Springer. https://doi.org/10.1007/978-981-10-0287-8

Verstegen, D. M. L., Fonteijn, H. T. H., Dolmans, D. H. J. M., de Rijdt, C. C. E., de Grave, W. S., & van Merriënboer, J. J. G. (2019). An Exploration of Problem-Based Learning in a MOOC. *The Wiley Handbook of Problem-Based Learning*, 667–689. https://doi.org/10.1002/9781119173243.ch29

Wang, L., O'Reilly, U. M., & Hemberg, E. (2019). On the influence of grades on learning behavior of students in MOOCs. *Learning With MOOCs 2019: "Enhancing Workforce Diversity and Inclusion," October*, 122–127. https://doi.org/10.1145/3330430.3333652

Wong, B. T. ming. (2016). Factors leading to effective teaching of MOOCs. *Asian Association of Open Universities Journal*, *11*(1), 105–118. https://doi.org/10.1108/AAOUJ-07-2016-0023

Yepes-Baldó, M., Romeo, M., Martín, C., García, M. Á., Monzó, G., & Besolí, A. (2016). Quality indicators: developing "MOOCs" in the European Higher Education Area. *Educational Media International*, *53*(3), 184–197. https://doi.org/10.1080/09523987.2016.1236998