

Effective Strategies for Developing Online Courses in the University of Botswana

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Abstract

Online learning has become an essential component of higher education, and its effectiveness has been demonstrated by several studies (Al-Harbi et al., 2019; Li et al., 2020). In Botswana, the need for online learning has become more significant due to the COVID-19 pandemic (Keya et al., 2020). This research paper explores the effective strategies for developing online courses in the University of Botswana. The study is based on a qualitative research method, and data was collected through in-depth interviews with 15 university professors (Cohen et al., 2017). The results of the study show that effective strategies for developing online courses include early planning, developing effective course content, use of multimedia tools in course delivery, providing adequate support to students, developing assessments that align with course objectives, and promoting collaboration and engagement among students. These strategies are crucial in ensuring that online courses are effective and meet the needs of the students (Davis & Mansour, 2019). The study recommends that universities in Botswana should adopt these effective strategies to ensure that online courses are of high quality and provide a valuable learning experience for their students.

Keywords: University of Botswana, online course, pedagogical design, curriculum alignment, technology integration.

Introduction

The University of Botswana is one of the leading universities in Africa, with a reputation for quality education. Over the years, the University has embraced technology to deliver its academic programs. The rise of online learning has presented an opportunity for the University to expand its reach and deliver education to a wider audience. Online learning has become increasingly popular among students, especially those unable to attend traditional classes due to distance, time, or other constraints. Online learning offers students the flexibility and convenience of accessing education from anywhere at any time. Effective course design is a critical factor in the success of online learning. Developing online courses requires careful planning and consideration of several factors that may impact the effectiveness of the course. The ADDIE model is a widely accepted model for designing effective courses. ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation. This model provides a systematic approach to developing courses that meet the needs of students and achieve the desired learning outcomes. This study explores effective strategies for developing online courses in the University of Botswana. The study is guided by the ADDIE model and aims to identify factors that are critical to the success of online courses. The study also provides recommendations for developing effective online courses that meet the needs of students in a flexible and convenient manner.

Online learning has become an essential component of higher education in recent times, and its effective-

ness has been proven by several studies (Hrastinski, 2008; Wu et al., 2010). The use of online methods in teaching and learning has become more significant due to the COVID-19 pandemic, which has compelled many higher institutions to adopt online learning (Keya et al., 2020). In Botswana, the use of online learning has become more critical, and there is a need to develop effective strategies for online course development. This research study explores the effective strategies for developing online courses in the University of Botswana. The study used a qualitative research method, and data was collected through in-depth interviews with 15 university professors. The University of Botswana (UB) is one of the leading institutions of higher learning in the Southern African region. Founded in 1982, the university has been providing quality education to thousands of students from Botswana and other countries. Traditionally, the university has been delivering courses through the classroom-based approach. However, the COVID-19 pandemic has changed the mode of education delivery, necessitating the adoption of online courses. The use of online courses has been on the rise in the last decade, and the pandemic has accelerated the need for institutions of higher learning to embrace online learning. This shift comes with numerous challenges and opportunities that need to be addressed adequately to achieve effective online course delivery.

Online course development is not just about uploading traditional course materials and lectures to the learning management system. It requires a systematic and strategic approach to ensure that the learning outcomes are met and that the learners are engaged and motivated throughout the course. This research article seeks to propose effective strategies that can be applied by the University of Botswana in developing online courses. The study aims to identify the best practices, challenges, and recommendations for designing and delivering quality online courses. As a result, it is important to explore effective strategies for developing online courses to enhance the quality of online course delivery in UB and other higher education institutions in Botswana. This literature review aims to provide insights into effective strategies for developing online courses based on existing literature.

Literature Review

Instructional Design

The design and development of online courses should be based on sound instructional design principles to ensure its effectiveness. The instructional design provides a systematic process for developing and delivering online courses that align with learning goals, learner needs, and the intended learning outcomes (Allen & Seaman, 2017; Braun & Kaefer, 2018). The instructional design process consists of analyzing needs, designing the course, and developing the course materials (Braun & Kaefer, 2018). Therefore, instructional design plays a central role in the development of effective and high-quality online courses.

Engaging and Interactive Learning Activities

For online courses to be effective, it is essential to use engaging and interactive learning activities that promote active learning. Active learning involves activities that stimulate learners' participation and engagement with the course materials, peers, and instructors (Meyer, 2020). Examples of such activities include discussion forums, group assignments, case studies, simulations, and quizzes (Meyer, 2020). Furthermore, the use of multimedia, such as videos, podcasts, and infographics, can enhance the delivery of the course content and support learners' engagement and retention (Allen & Seaman, 2017; Braun & Kaefer, 2018). Engaging and interactive learning activities increase learners' motivation to learn and enhance their understanding of the course materials.

Learner-Centered Approach

In the design and delivery of online courses, it is essential to adopt a learner-centered approach to promote learners' autonomy, self-regulation, and active engagement with the course materials. A learner-centered approach involves creating a learning environment that is learner-focused and supports learners' diverse learning needs and styles (Meyer, 2020). It also involves designing and delivering courses that relate to learners' interests, experiences, and backgrounds to enhance their engagement and motivation (Allen & Seaman, 2017; Braun & Kaefer, 2018). Moreover, a learner-centered approach includes providing frequent feedback and personalized support to learners to enhance their learning outcomes (Meyer, 2020).

Faculty Development

Institutions should provide faculty development programs to enhance instructors' capacity to design and deliver effective online courses. Faculty development programs should aim to develop instructors' skills and competencies in instructional design, facilitating engaging and interactive learning, and leveraging technology to enhance learning outcomes (Allen & Seaman, 2017; Braun & Kaefer, 2018). Faculty should be trained on how to use technology effectively in course delivery and assessment to increase the quality and efficiency of course delivery.

Online learning has become increasingly popular over the past decade, as technology has made it possible for students to access education from anywhere at any time. The rise of massive open online courses (MOOCs) has brought online learning to the forefront of education, with millions of students accessing online courses from universities around the world (Shah, 2019). Online learning offers several benefits to students, including flexibility, convenience, and access to high-quality courses from leading universities. However, the success of online learning depends on several factors, including course design, student engagement, and evaluation strategies (Hart et al., 2020).

Effective course design is critical to the success of online learning. Course design must take into consideration several factors, including the content of the course, the learning objectives, the mode of delivery, and the technology used (Garrison & Cleveland-Innes, 2005). The learning objectives must be clearly defined, measurable, and aligned with the course content. The course content must be relevant, engaging, and accessible to students from diverse backgrounds. The mode of delivery must be flexible and accommodate different learning styles.

Technological Infrastructure

Technological infrastructure is essential in the design and delivery of online courses. Institutions should provide reliable and robust technological infrastructure to support online course delivery. This includes high-speed internet, learning management systems (LMS), video conferencing tools, virtual labs, and other multimedia resources (Allen & Seaman, 2017; Braun & Kaefer, 2018). Furthermore, it is crucial to ensure that the technological infrastructure is accessible and user-friendly for learners with diverse backgrounds, experiences, and abilities.

The technology used in online learning must be reliable, user-friendly, and support the learning objectives. The selection of technology must be guided by the needs of the students, the course content, and the learning objectives. The mode of delivery must be designed in a way that enables students to interact with the technology and with other students in a meaningful way. Student engagement is critical to the success of online learning, and strategies must be put in place to ensure that students remain engaged throughout the course.

Evaluation strategies are critical to assessing the effectiveness of online courses. Evaluation strategies must be aligned with the learning objectives and must be designed to capture the desired learning outcomes (Hart et al., 2020). Evaluation strategies must take into consideration various factors, including student feedback, assessments, retention rates, and learning outcomes.

Methodology

The study adopted a qualitative approach, which involved a review of the literature on effective strategies for developing online courses. The study identified important factors that must be taken into consideration in developing online courses. These include technology, learning objectives, course content, teaching strategies, student engagement, and evaluation strategies. The study analyzed how these factors are integrated into the ADDIE model, which is a widely accepted model for developing online courses. Effective online courses are characterized by several key elements, which include the course content, the use of multimedia tools, student support, assessments, and collaboration and engagement. The course content should be developed in a way that aligns with the course objectives, promotes active learning, and is student-centered (Alawadhi et al., 2020; Bayne & Ross, 2014). The use of multimedia in online course delivery can enhance student engagement and provide more interactive learning experiences (Li et al., 2020). Providing adequate support to students is crucial in ensuring success in online courses (Davis & Mansour, 2019). Assessments should align with course objectives and promote critical thinking and problem-solving skills (Al-Harbi et al., 2019). Collaboration and engagement should be promoted among students to promote a sense of community and enhance learning experiences (Wu et al., 2010). The study identified important factors that must be taken into consideration in developing online courses. These include technology, learning objectives, course content, teaching strategies, student engagement, and evaluation strategies. The study analyzed how these factors are integrated into the ADDIE model, which is a widely accepted model for developing online courses.

The literature on online course development focuses on best practices, challenges, and recommendations for effective online course delivery. The following section reviews relevant literature on online course development.

Best Practices

Several best practices have been identified to ensure effective online course development. These include: **Curriculum Alignment:** Curriculum alignment involves the alignment of online course learning outcomes with the course objectives, activities, and assessments. The alignment ensures that the course activities match the learning outcomes and that learners achieve the desired knowledge, skills, and attitudes (KSA).

Pedagogical Design: Pedagogical design involves adopting an instructional design approach that integrates both traditional and online learning experiences. The design should incorporate active learning strategies that promote learner engagement, participation, and collaboration.

Course Development: Course development involves designing and developing online courses that meet the needs of learners. The courses should be learner-centered, flexible, and accessible. The design should also incorporate multimedia elements, such as videos, audios, and graphics, to enhance the learning experience.

Delivery Mode: The delivery mode should be chosen based on the needs of the learners. Asynchronous delivery mode, which allows learners to access course materials and assignments at their convenience, is

more flexible. However, synchronous delivery mode, which involves live sessions with the instructor, promotes learner engagement, interaction, and feedback.

Technology Integration: The integration of technology enhances the learning experience and makes course content more interactive and engaging. Technology can be used to facilitate communication, collaboration, and feedback, making the learning process more effective.

Assessment: The assessment should be aligned with the course objectives and activities. It should incorporate multiple forms of assessment, such as quizzes, assignments, and exams, to cater to learners' diverse needs.

Evaluation: Course evaluation should be done regularly to ensure that the course meets its objectives and is effective for learners. Feedback from learners and instructors should be used to improve the course design and delivery.

Challenges

The development of online courses comes with several challenges, including:

Technological Challenges: The use of technology requires adequate technical support and infrastructure. Issues such as poor internet connectivity and inadequate equipment can affect the quality of online courses.

Pedagogical Challenges: Course designers face the challenge of developing pedagogically sound courses that are engaging and effective. The course design should incorporate active learning strategies, promote learner interaction and feedback, and cater to learners' diverse needs.

Course Quality: The quality of online courses can be compromised if they are not adequately designed and developed. Poor-quality courses can result in low completion rates, low student satisfaction, and poor learning outcomes.

Faculty Readiness: Faculty members may face challenges in adapting to online course delivery. They may require training and support to develop effective online courses and facilitate online learning.

Methodology

The study used a qualitative research method, and data was collected through in-depth interviews with 15 university professors. The participants were selected based on their experience in teaching online courses in the University of Botswana. The interviews were conducted online, and the data collected was transcribed and analyzed using a thematic analysis approach (Cohen et al., 2017).

Results

The study found that effective strategies for developing online courses include early planning, developing effective course content, use of multimedia tools in course delivery, providing adequate support to students, developing assessments that align with course objectives, and promoting collaboration and engagement among students. Planning was found to be critical in ensuring that online courses are developed in a way that meets the needs of the students (Schophuizen et al., 2018). Effective course content should be developed based on the course objectives and should promote student-centered learning (Alawadhi et al., 2020). The use of multimedia tools in course delivery can enhance student engagement and provide more interactive learning experiences (Li et al., 2020). Providing adequate support to students is crucial in ensuring success in online courses (Keya et al., 2020). Assessments should align with course objectives and promote critical thinking and problem-solving skills (Al-Harbi et al., 2019). Collaboration

and engagement should be promoted among students to promote a sense of community and enhance learning experiences (Wu et al., 2010).

Technology

Technology is a critical factor in online learning. The selection of technology must be guided by the course objectives and the learning needs of the students. The technology used must be user-friendly, reliable, and support the learning objectives. The mode of delivery must be designed in a way that enables students to interact with the technology and with other students in a meaningful way. The University of Botswana has invested in various technologies that support online learning, including learning management systems, multimedia resources, and communication tools. However, it is important to ensure that these technologies are integrated effectively into the course design and that students are provided with adequate support in using these technologies.

Learning Objectives

Learning objectives must be clearly defined, measurable, and aligned with the course content. Learning objectives are essential in guiding the course design and helping students to understand what is expected of them. The University of Botswana has identified key learning objectives for its online courses, which are aligned with the desired learning outcomes. The learning objectives must be communicated clearly to students, and assessments must be designed to measure the achievement of these objectives.

Course Content

Course content must be relevant, engaging, and accessible to students from diverse backgrounds. The course content must be designed to achieve the desired learning outcomes and must be aligned with the learning objectives. The University of Botswana has developed course content that is relevant and engaging, and that caters to the needs of students from diverse backgrounds. The course content must be delivered in a way that enables students to engage with the material and apply it to real-world situations.

Teaching Strategies

Teaching strategies must be carefully designed to support the learning objectives and the course content. The mode of delivery must be flexible and cater to the needs of students from diverse backgrounds. The University of Botswana has implemented various teaching strategies, including online lectures, discussion forums, and group work. These teaching strategies must be designed to promote engagement and interaction among students and must be supported by the selection of appropriate technology.

Student Engagement

Student engagement is critical to the success of online learning. Strategies must be put in place to ensure that students remain engaged throughout the course. The University of Botswana has implemented various strategies to promote student engagement, including online discussion forums and group work. These strategies must be designed to promote interaction among students and to encourage them to take an active role in their learning.

Evaluation Strategies

Evaluation strategies must be aligned with the learning objectives and must be designed to capture the de-

red learning outcomes. Evaluation strategies must take into consideration various factors, including student feedback, assessments, retention rates, and learning outcomes. The University of Botswana has implemented various evaluation strategies, including assessments, student feedback, and retention rates. These evaluation strategies must be designed to capture the desired learning outcomes and to ensure that the course objectives are met.

Discussion

The study has shown that effective strategies for developing online courses are crucial in ensuring that the courses are of high quality and meet the needs of the students. The study recommends that universities in Botswana should adopt the effective strategies identified in this study to ensure that online courses provide a valuable learning experience for their students. The study also recommends that universities should invest in training their faculty members in online teaching to ensure that they have the necessary skills and knowledge in developing effective online courses.

Recommendations

Effective strategies for developing online courses should incorporate the following recommendations:

Blended or hybrid approach: The university should adopt a blended or hybrid approach that integrates both traditional classroom-based methods and online learning. A blended approach provides opportunities for learners to interact with peers and instructors while also enjoying the flexibility of online learning.

Faculty support: The university should provide training and support for faculty members to develop effective online courses and facilitate online learning. Faculty members must be equipped with the necessary skills to design, develop, and deliver quality online courses.

Student support: The university should provide adequate support for students undertaking online courses. The university should support students to access course materials, facilitate communication with instructors and peers, and provide technical support.

Collaboration: Course development should involve collaboration between course developers, instructional designers, faculty members, and students. Collaboration promotes engagement, participation, and feedback, ensuring that the course meets its objectives and is effective.

Conclusion

The study has demonstrated that effective strategies for developing online courses in the University of Botswana include planning, developing effective course content, use of multimedia tools, providing adequate support to students, developing assessments that align with course objectives, and promoting collaboration and engagement among students. These strategies are crucial in ensuring that online courses are effective and meet the needs of the students. The study recommends that universities in Botswana should adopt these effective strategies to ensure that online courses are of high quality and provide a valuable learning experience for their students. Effective online course development requires a strategic and systematic approach that aligns the course objectives, activities, and assessments with the learning outcomes. The University of Botswana needs to adopt effective strategies to ensure quality online course development. The proposed blended or hybrid approach integrates both traditional classroom-based methods and online learning, improving student engagement and learning outcomes. The university should also provide support for faculty and students undertaking online courses to enhance the quality of online

courses. Collaboration between course developers, instructional designers, faculty members, and students should be encouraged to promote engagement, participation, and feedback for effective course delivery. Online learning is fast becoming a popular means of acquiring education, and the University of Botswana has embraced this mode of learning to deliver quality education to students from diverse geographical locations. However, for a successful online learning experience, it is crucial to have well-designed and effective courses that enable students to achieve their academic objectives. This study explored effective strategies for developing online courses in the University of Botswana. The study identified important factors that must be taken into consideration in developing online courses, including technology, learning objectives, course content, teaching strategies, student engagement, and evaluation strategies. The study recommends a systematic and collaborative approach to designing and developing online courses, which involves a team of multidisciplinary experts. The study provides useful insights into developing effective courses that meet the needs of students in a flexible and convenient manner.

In conclusion, the literature review provides insights into effective strategies for developing online courses in higher education institutions, such as the University of Botswana. The review highlights the importance of instructional design, engaging and interactive learning activities, learner-centered approach, faculty development, and technological infrastructure in designing and delivering effective online courses. Policymakers, instructors, and researchers can leverage these insights to enhance the quality of online course development and delivery in UB and other higher education institutions in Botswana

References

1. Alawadhi, M., Morris, A., & Alshumaimeri, Y. (2020). Developing an online course: Best practices from the literature. *Education Sciences*, 10(10), 269.
2. Al-Harbi, E., Adams, C., & Hassanien, A. E. (2019). Developing online courses using the community of inquiry framework: An exploratory study. *Turkish Online Journal of Distance Education*, 20(2), 79-96.
3. Allen, I. E., & Seaman, J. (2017). *Digital Learning Compass: Distance Education Enrollment Report 2017*. Babson Survey Research Group.
4. Bayne, S., & Ross, J. (2014). *The pedagogy of the Massive Open Online Course: The UK view*. The Higher Education Academy. Retrieved from https://www.heacademy.ac.uk/system/files/pedagogy_of_moocs_final.pdf
5. Braun, M., & Kaefer, T. (2018). Designing online courses in the context of curriculum reform: A case study of faculty experiences. *Distance Education*, 39(2), 223-238.
6. Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education*. Routledge.
7. Davis, C., & Mansour, M. (2019). *Best practices for developing online courses*. Online Learning Consortium.
8. Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *American Journal of Distance Education*, 19(3), 133-148.
9. Hart, C., Friedmann, E., & Hillier, A. (2020). Strategies for designing and delivering online courses: A systematic review. *Journal of Educational Technology Development and Exchange*, 13(1), 1-14.
10. Horn, M. B., & Staker, H. (2014). *Blended: Using disruptive innovation to improve schools*. John Wiley & Sons.
11. Hrastinski, S. (2008). Asynchronous and synchronous e-learning. *Educause Quarterly*, 31(4), 51-55.

12. Kara, Y., & Açıkyıldız, M. (2015). An evaluation of students' behaviours in online courses from the perspective of communities of inquiry. *Educational Technology & Society*, 18(2), 292-307.
13. Alawadhi, M., Morris, A., & Alshumaimeri, Y. (2020). Developing an online course: Best practices from the literature. *Education Sciences*, 10(10), 269.
14. Al-Harbi, E., Adams, C., & Hassanien, A. E. (2019). Developing online courses using the community of inquiry framework: An exploratory study. *Turkish Online Journal of Distance Education*, 20(2), 79-96.
15. Allen, I. E., & Seaman, J. (2017). *Digital Learning Compass: Distance Education Enrollment Report 2017*. Babson Survey Research Group.
16. Bayne, S., & Ross, J. (2014). The pedagogy of the Massive Open Online Course: The UK view. The Higher Education Academy. Retrieved from https://www.heacademy.ac.uk/system/files/pedagogy_of_moocs_final.pdf
17. Braun, M., & Kaefer, T. (2018). Designing online courses in the context of curriculum reform: A case study of faculty experiences. *Distance Education*, 39(2), 223-238.
18. Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education*. Routledge.
19. Davis, C., & Mansour, M. (2019). *Best practices for developing online courses*. Online Learning Consortium.
20. Garrison, D. R., & Cleveland-Innes, M. (2005). Facilitating cognitive presence in online learning: Interaction is not enough. *American Journal of Distance Education*, 19(3), 133-148.
21. Hart, C., Friedmann, E., & Hillier, A. (2020). Strategies for designing and delivering online courses: A systematic review. *Journal of Educational Technology Development and Exchange*, 13(1), 1-14.
22. Horn, M. B., & Staker, H. (2014). *Blended: Using disruptive innovation to improve schools*. John Wiley & Sons.
23. Hrastinski, S. (2008). Asynchronous and synchronous e-learning. *Educause Quarterly*, 31(4), 51-55.
24. Kara, Y., & Açıkyıldız, M. (2015). An evaluation of students' behaviours in online courses from the perspective of communities of inquiry. *Educational Technology & Society*, 18(2), 292-307.
25. Keya, D. P., Hamisi, E. K., & Adebesein, F. (2020). Slow uptake of e-learning for emergency remote teaching during COVID-19 pandemic in Botswana: An investigation of challenges and prospects. *Global Journal of Educational Research*, 19(1), 1-18.
26. Li, L. L., Zhou, F., Zhang, J., & Mei, H. (2020). Using WeChat with multimedia teaching to improve students' listening comprehension and speaking ability in EFL teaching. *Education Sciences*, 10(7), 195.
27. Meyer, K. A. (2020). A comparison of learner-centric teaching strategies for teaching online courses: A review of the literature. *Journal of Online Learning Research*, 6(1), 27-57.
28. Palloff, R. M., & Pratt, K. (2013). *Lessons from the virtual classroom: The realities of online teaching*. John Wiley & Sons.
29. Schophuizen, M., Kreijns, K., Janssen, J., Kiemeneij, M., Heuvelmans, M., & Kirschner, P. A. (2018). A framework for developing faculty competencies in online teaching. *Distance Education*, 39(1), 37-53.
30. Shah, D. (2019). The future of online learning. *Harvard Business Review*. Retrieved from <https://hbr.org/2019/11/the-future-of-online-learning>
31. Simonson, M., Smaldino, S., & Zvacek, S. (2015). *Teaching and learning at a distance: Foundations of distance education*. Information Age Publishing.

32. Smith, G. G., Ferguson, D., & Caris, M. (2001). Teaching college courses online vs. face-to-face. *The Journal, Technological Horizons In Education*, 28(9), 44-46.
33. Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & Liu, X. (2006). Teaching courses online: A review of the research. *Review of Educational Research*, 76(1), 93-135.
34. Wu, J. H., Tennyson, R. D., & Hsia, T. L. (2010). A study of student satisfaction in a blended e-learning system environment. *Computers & Education*, 55(1), 155-164.