



DETERMINING THE SATISFACTION LEVEL OF ACADEMIC STAFF ON CURRICULUM SUPPORT DURING ONLINE MODULE DEVELOPMENT IN THE FOURTH INDUSTRIAL REVOLUTION ERA

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Abstract

Curriculum support for academic staff is imperative to ensure the effective development of study materials in an open distance learning (ODL) institution in fourth industrial revolution (4IR) era. The purpose of this research was to determine the level of satisfaction among academic staff regarding the curriculum support they received from instructional designers during online module development. The quantitative research method was adopted to address the research objective. An online questionnaire was used to gather the primary data from academic staff involved in module development. A descriptive data analysis method was employed to analyse the data. The results of this research revealed that academic staff were generally satisfied with the support they received from curriculum specialists; however, they expressed extreme dissatisfaction with the workload and deadlines assigned for completing module development. This research offers recommendations to key stakeholders in ODL context, as well as future research directions on curriculum development.

Keywords: academic staff, curriculum design, curriculum support, module development, satisfaction

1 INTRODUCTION

The evaluation of the service rendered in curriculum design and development can lead to quality study materials and learning experiences. Quality evaluation of the process of curriculum development plays a crucial role in improving the final output, such as study materials and online module sites. In addition, evaluation of the quality of the curriculum development process has the potential to drive students to the desired direction towards the achievement of national objectives and improve student learning, promote academic excellence and achieve national objectives. The curriculum development process also undergoes transformation because of developments in education, so its evaluation keeps it valid, reliable and moving in the right direction. Instructional designers and academic staff require digital competency to ensure effective curriculum development. The term “digital competence” has been a pertinent component of curriculum development, educational policy and research in the last decade (Erstad & Voogt, 2018). However, these developments are faced with uncertainty and tensions concerning conceptual clarity, how digital competence relates to technological developments, what role research has in defining policy and practice, and the broader implications of this new curriculum development (Erstad, Kjällander & Järvelä, 2021). Technological advancements contribute towards the migration of learning from traditional classrooms to virtual learning management systems (LMS) (Qu, 2018).



This is supported by Almeida, Robson, Morosini and Baranzeli (2018) indicating that the rapid development of communication technologies has bridged the gap for students in different geographic regions and has impacted learning. Technology-based educational materials are diverse and can be personalised by the academic staff member/learning provider to suit the needs of the students (Doubet & Hockett, 2018). Technologies, such as email, videoconferencing, and Web-based learner management systems, offer low-cost and efficient methods to initiate student contact and have become increasingly important curriculum and pedagogical tools (Duffy, Stone Townsend & Cathey, 2020). Therefore, the curriculum development process should be steered in such a way that it prepares students for higher education and promotes gradueness. The goals of education can be attained only through a reliable curriculum and proper evaluation of the process for updating and fulfilling required social needs. Bakhmat et al. (2019) alleged that online modules that are developed using innovative information technology strategies improve students' learning and increase pedagogical knowledge, independent work skills and professional motivation. The application of technology in student learning evaluation has emerged as an innovative approach transforming traditional assessment methods into digital formats, with the e-portfolio serving as an example (Tikka & Oinas-Kukkonen, 2019).

2 LITERATURE REVIEW

Cognitive-structural theory focuses on individual reasoning/thinking processes to describe changes experienced at the individual level (Evans, 2008). According to its proponents, intellectual development is influenced by heredity and environmental factors. In other words, the individual must have some innate capability to deal with challenges, including universities' curriculum development and transformation. In the context of this paper, this aspect is related to the satisfaction of academic staff regarding the curriculum support they receive from the Directorate: Curriculum Development and Transformation (DCDT) in helping them to be competent in module development.

This study's theoretical foundation was active learning theory, which involves student engagement – according to Bonwell & Eison (1991) – and curriculum transformation issues, which include an infusion of culture, customs, practices and languages into curriculum design and implementation (Nakabugo & Siebörger, 2001). Akor and Akajiri (2022) viewed the curriculum as a tool used to assist learners or students to discover and to develop themselves to take an advantage of the training opportunities in order to become better and useful in the society. This particular definition presents the curriculum as a refining aid used in turning on the potentials in a person to make such become useful to self and invariably create a favourable society comfortable for himself and others to live in. McCarthy (2020) added that the content and development of modules in curriculum design is a critical determinant of learning. However, to effect module development and facilitate learning, the curriculum development specialist – commonly known as an educational consultant – plays a supportive role to academic staff, specifically in higher education (HE) institutions. Msila and Gumbo (2016) postulated that the infusion of indigenous African epistemologies into the curriculum will enable academic staff and students to gain confidence and a sense of pride in what they do, especially in contexts with a colonial past, such as South Africa.



A review of relevant literature indicated that higher education institutions, especially open distance learning (ODL) institutions, have commonly adopted this approach and use a highly skilled team, consisting of members with different areas of expertise, to design and develop curriculum and learning materials (Abdous, 2009; Bawa & Watson, 2017; Butcher & Wilson-Strydom, 2013; Holsombach-Ebner, 2013). They typically follow a process consisting of distinctive phases, such as planning, curriculum development, learning design, generation of materials and media, production, and evaluation (Cruz, Ricalde & Closa, 2021; Bawa & Watson, 2017; Kalantzi & Cope, 2016; Holsombach-Ebner, 2013). During this process, several quality mechanisms are usually involved. The mechanisms identified in the literature can be clustered into different categories, namely (i) management and resource allocation processes, (ii) good practice guidelines and (iii) evaluation processes. Management and resource allocation processes, which refer to the institutional allocation of sufficient resources to ensure the quality of courseware design and development, are generally highlighted as essential (Hansson, 2008; Butcher & Wilson-Strydom, 2013; Sankey, 2014). Furthermore, the organised and systematic nature of project management, typically consisting of five phases – (i) initiation, (ii) planning, (iii) execution, (iv) monitoring and control, and (v) closure – is seen as promoting quality through its inbuilt emphasis on monitoring, control and meaningful collaboration (Da Silva, Diana & Catapan 2015; Bawa & Wilson, 2017). A clear delineation of the various team members' roles and responsibilities during the early stages of a project ensures that everyone understands what is expected and supports the efficient implementation of the process (Abdous, 2009; Puzziferro & Shelton, 2008).

Oktariyana and Oktariyani (2020) alluded that needs analysis is important in determining how to write a module that meets the learning demands of the students. In online learning environments where staff need to update their knowledge and strategies systematically (Lenart-Gansiniec, 2021). However, Beasley and Beck (2017) asserted that the barrier to the implementation of distance education and blended learning is the lack of training and the need for educators to be effective in the online learning platform. Cruz et al. (2021) indicated that the greatest challenges during module development are the complete revision of the syllabus and work overload. Therefore, it is imperative to evaluate the satisfaction level of participants in the process of curriculum design for online platforms to identify areas that need improvement. Hence, this researcher in this study aimed to determine the satisfaction of academic staff regarding the curriculum support they received from the Directorate: Curriculum Development and Transformation in terms of module development during the 2023 academic year.

Vygotsky's sociocultural theory

The researcher adopted two theories in this study, namely Bronfenbrenner's ecological systems theory and Vygotsky's sociocultural theory. As this study took place in a higher education institution, the most relevant level to focus on was the micro-level. Bronfenbrenner's theory is focused on the quality and context of individuals' lives as viewed through developmental phases that occur within the context of complex interconnected systems (Bronfenbrenner, 2013). Vygotsky's sociocultural theory was adopted to emphasise the importance of social interactions in the acquisition of skills and knowledge (Schunk, 2008). According to Vygotsky's theory, learning



is an active process of constructing knowledge (Marginson & Dang, 2017). For Vygotsky, constructed knowledge or meaning is closely related to social, historical and cultural contexts. Therefore, based on what is highlighted above, the researcher believed that Bronfenbrenner's ecological systems theory was pertinent for this study because it allowed him to explore the satisfaction levels of academic staff regarding the support provided by education consultants/curriculum designers during online module development for the students.

3 PURPOSE OF THE STUDY

The purpose of this research was to determine the satisfaction of academic staff regarding the curriculum support they received from the Directorate: Curriculum Development and Transformation (DCDT) in terms of online module development during the 2023 academic year.

4 CONTRIBUTION OF THE STUDY

This research makes a significant contribution to curriculum design studies by determining the satisfaction level of team members, in this case academic staff, in identifying areas that require improvement. This paper offers recommendations to key stakeholders in ODL institutions on how to improve their practices in curriculum design processes. It also provides recommendations for future research on curriculum design in ODL contexts both locally and in other parts of the world.

5 RESEARCH METHODOLOGY

The quantitative research method was adopted to address the research objective. An online questionnaire was used to gather the primary data from academic staff involved in module development. A purposive sampling method was used in this research, with an inclusion criterion for all academic staff that were involved in the development of modules in all the colleges of the University of South Africa (Unisa). Unisa operates as an ODL higher education institution in the Republic of South Africa. A target sample size of 160 academic staff was used, and 145 questionnaires were completed, indicating a 91% response rate. A descriptive data analysis method was employed to analyse the data. The online questionnaire on module design and development consisted of 10 questions. Ethical considerations were observed in conducting the study and ethical clearance certificate applied for and granted by the University of South Africa with reference number 0514/2023.

6 DISCUSSION OF RESULTS

The results of the survey related to programme development are presented and discussed in this section.

Item 1 was related to the college to which the respondents were employed. 145 responses were generated collectively for the two main sections of the questionnaire. The distribution of responses between the two sections is shown in Table 1.

Table 1: Number of responses to the main sections of the questionnaire

Programme design	Module design and development	Total
49	96	145

Table 1 depicts that 49 respondents were involved in programme development in the 2023 academic year and 96 respondents were involved in module development.



Item 2 related to the initial team meeting with the DCDT Deputy Director and other staff members, where the overall module and programme development process was explained.

The results reflected that the initial team meeting, which was an event organised to inform primarily academics about the role, function and application of the framework for a team approach (FTA), was largely deemed useful by the respondents.

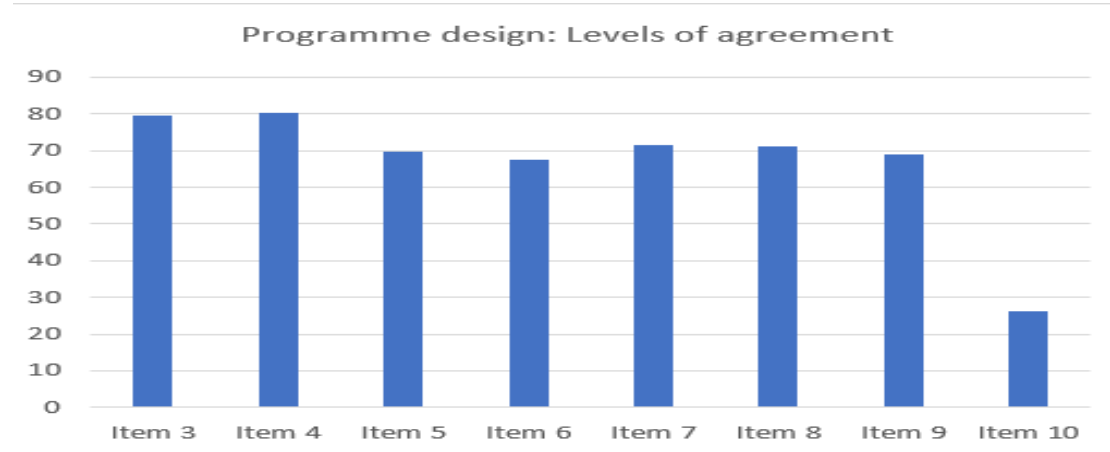


Figure 1: Level of satisfaction regarding programme development/design

Figure 1 summarises the “agree” and “disagree” responses related to the satisfaction level regarding programme design or development.

Responses to items 3 and 4 indicated that most respondents in this survey (79.6% and 80.4%, respectively) agreed that a programme design workshop was held during the programme development process, and that the DCDT representatives facilitated it. Some respondents (10.2%) indicated that no programme design workshop was held. These may be cases where the academic department went ahead with programme design without involving the DCDT in design workshops, or where the respondents themselves were not aware of the workshops.

In responding to item 5, most respondents in this survey (69.6%) agreed that the assistance of the DCDT staff during programme design workshops enabled them to formulate appropriate purpose statements, exit-level outcomes and assessment criteria for the programme documentation, whereas 4.3% disagreed. Other respondents selected neither agree nor disagree (15.2%) or not applicable (10.9%). Responses to item 6 similarly showed that the programme documentation in general was completed effectively, according to most respondents (67.4%).

For item 7, most respondents in this survey (71.7%) confirmed that, with the assistance of the DCDT staff, they were able to develop module forms aligned with the programme registration forms. In responding to item 8, most of the respondents (71.1%) agreed that the DCDT staff were knowledgeable on HEQSF, DHET, CHE and SAQA requirements, while 4.4% of the respondents disagreed. For item 9, most of respondents (68,9%) agreed that the DCDT Deputy Directors were supportive in the progress of programme design, while 6.7% of respondents disagreed, and 17.8% indicated that they neither agreed nor disagreed. For item 10, most respondents in this survey (58,7%) disagreed that workload allowed them sufficient time to undertake and complete the design of the new programme effectively, while 26.1% of respondents agreed.

On overall, most respondents (around 70%) thus agreed that programme design was conducted effectively and that they received good support from the DCDT. Disagreement ranged from 2% to



7%. Most respondents indicated that they do not have sufficient time for programme design and development as they must perform other tuition tasks. Most respondents in this survey (58,7%) disagreed that workload allowed them sufficient time to undertake and complete the design of the new programme effectively, while only 26.1% of respondents agreed. This result corroborates the finding of the study by Cruz et al. (2021), which identified excessive workload as a challenge in module development.

7 CONCLUSION

From the results of the study, institutions in open distance learning have numerous concerns to work on the field of online education and module development. It is implicated that the college academic staff have inadequate background on how to implement learning through technology. The general concerns of the academic staff in module development for online learning is work overload, and time required to facilitate learning online. By extending timeframes, reducing workload, enhancing training opportunities, providing practical support, and properly timing developmental workshops, online module development can significantly improve the support and interventions available to lecturers. These changes will not only facilitate the development of high-quality modules but also ensure a more supportive and productive environment for faculty involved in educational development.

8. FUTURE RESEARCH DIRECTION

Future research should focus on how online modules are facilitated to students by academic staff. In addition, should explore how effective is online modules and its contribution towards student pass rate and qualifications completion rate. In addition, similar study should be extended in other parts of the world institutions on how academic staff can be support through training on online teaching strategies and various types of online assessments. Moreover, future research should explore on how to promote and maintain academic integrity and honesty in modules developed to be taught online.

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