Stakeholder support during the implementation of web-based courses in higher education

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Higher education institutions throughout the world face various challenges in their institutions when they begin to implement technology. Tshwane University of Technology strives to implement web-based courses successfully to solicit the unequivocal support of management of the institution and staff of the institution as a whole. The Partners@Work (P@W) professional development programme in the use of educational technology was established to take care of the e-learning issues of the institution. At Tshwane University of Technology the management has taken a decision to introduce a multimodal teaching and learning strategy. Therefore, managers fully and actively support all those members of staff who are responsible for bringing the educational technology concern to their faculties. Tshwane University of Technology strives to implement web-based courses successfully to plead for the unambiguous support of the management of the institution and the staff of the institution as a whole. All of these people are stakeholders who can either make or break the implementation of web-based courses. The problem is that how can institutions of higher learning offer support for web-based courses to be implemented successfully? This chapter discusses the findings from the qualitative case study about the importance of stakeholders in implementing web-based courses in higher education.

Keywords stakeholders, support, web-based courses, success and higher education

1. Introduction

Higher education institutions throughout the world face various challenges in their institutions when they begin to implement technology. [1] encourage stakeholders to participate in the process of implementing web-base instruction in higher education institutions. The Partners@Work (P@W) professional development programme in the use of educational technology shows that some web-based courses seem to be far more successful than others. At Tshwane University of Technology the management has taken a decision to introduce a multimodal teaching and learning strategy. Therefore, managers should fully actively support all those members of staff who are responsible for bringing the educational technology concern to their faculties.

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This chapter starts with a literature review with regard to various supports from stakeholders during the implementation of web-based courses in different institutions globally. The research methodology that was applied during this research is described later in this chapter. The discussion and explanation of the findings and the lesson learnt of the research on which this chapter is based, is described. The chapter concludes with a conclusion and recommendations.

2. Who are stakeholders?

The stakeholders in this chapter are the managers of the university, that is, deans, directors or heads of department, the partner himself/herself – who is usually a lecturer in an academic department and personnel from academic support departments such as Curriculum Design, Quality Assurance, Human Resource Development, Library and Information Services, Student Development and Support, Research Innovation and Partnership, Information Technology Services as well as Teaching and Learning with Technology (Instructional Designers and Technical Staff) [2: 5]. In this section the author describe and discuss support from all stakeholders as a success indicator of implementing web-based courses in institutions of higher education as indicated in existing literature on the subject.

2.1 Support from stakeholders

The P@W programme was funded by Tshwane University of Technology with support from top management because they want feedback on how the project might have benefited the institution and what the return on investment might be. Because the deans of faculties and heads of department (HODs) administer the selection process, it was their duty to provide partners with the support they need. The partners were responsible for organising periodic stakeholder meetings...
to inform management about the progress that is being made in the programme and what kind of support the programme and they as partners expects from the departments. Instructional Designers from the Teaching and Learning with Technology also supported partners and partners develop friendly relations among themselves [2: 26].

[3] observe that the Durban University of Technology was able to meet the challenges presented by barriers to success by developing strategies in the Pioneers Online programme. The strategies included the development of teamwork to neutralise institutional fragmentation and the creation of communities of practice across disciplines by underwriting online and face-to-face workshops and by encouraging community building. [3] state that each member of the community accepts the primary responsibility for identifying and meeting his or her own learning needs, for helping others to identify and meet their own particular needs, and for offering themselves as flexible resources that can be of help in the community. [4] substantiates Pete and Fregona's strategies and further note that the development and implementation of online courses require a commitment to teamwork and collaboration among academics and professionals.

[1] encourage stakeholders to participate in the process of implementing web-base instruction in higher education institutions and become involved in decisions about planning and design. They also believe that management should always be actively involved in the implementation process and that they should demonstrate visible support for the changes that are taking place. [5] too emphasises the role played by stakeholders and the necessity for key leaders in any institution and faculty to become involved so that they will have a clear understanding of the problems involved in implementing online learning. [5] also notes that it is important for individual instructional designers to consult with staff members and to devise staff development programmes that take student experiences with online courses into account so that they can develop their own online courses. The Department of Telematics, Learning and Educational Innovation at the University of Pretoria offered information communication technology support to doctoral students as stated by [6].

3. Research Methodology

For the purpose of this chapter, qualitative data was collected by means of a case study. According to [7: 182] a case study refers to a number of unit analysis such as individual, a group or institution studied intensively. In this article the case study is defined by the implementation phase of the P@W programme and whether the partners concerned were able to obtain support from all the stakeholders. The unit of analysis is the group of partners who participated in the P@W programme between June 2005 and June 2006. [8: 40] states that in a qualitative case study, qualitative methods should be used and the research method should be located in the interpretive tradition. In this article, qualitative data was collected from fifteen participants who participated in P@W programme using various data collection techniques. In addition, case studies of participants are dealt with in depth in order to answer the research question which reads as follows: How can the institutions of higher learning offer support for web-based courses to be implemented successfully?

The participants comprise of fourteen participants who participated in the P@W programme during June 2005 to June 2006 at Tshwane University of Technology. I applied purposive and convenience sampling in order to select the participants in this investigation. [9] argue that participants are selected in convenience sampling because of their accessibility to the researcher and because there are most readily available for the study. The study partners in the 2005-2006 group was easily accessible to me because I was available to the group as an instructional designer, a facilitator and a guide for the partners. [10: 210] state that purposive sampling allows one to select people or events because they are interesting, relevant and suitable for the research that is contemplated. The sampling is purposive because I selected participants who happened to know more about the subject (namely, these particular partners in the 2005-2006 P@W programme) and not other lecturers at Tshwane University of Technology who also implement technology-enhanced courses.

Data was collected by means of focus group, individual reflections/Bloggers, historical data, personal observations and reflections. In this research data was analysed using computer-assisted qualitative data analysis software (CAQDAS) Atlas.ti™ [8: 127] argues that in qualitative data analysis, data is transcribed from various forms of collected data, text from interviews and observational notes or memos which are typed into word-processing documents. These transcriptions are then analysed either manually or with computer programme such as Atlas.ti™.

4. Findings and discussions

Ten themes related to the category of support as a success indicator were identified based on the analysis of the data that related to the stakeholders, Tshwane University of Technology management, deans, head of department, colleagues, academic departments as a whole, instructional designers, curriculum designers, other lecturers and academic support staff members and computer laboratories technicians. I clustered the text phrases related to support according to four factors in order to give a clear understanding of support as a success indicator during the implementation of web-based teaching and learning materials. These factors include: firstly, institutional factors including those related to the various
stakeholders involved in each participants’ study, Tshwane University of Technology management and computer laboratories technicians; secondly, faculty-related factors for example those related to the deans, head of departments, colleagues and academic departments as a whole; thirdly factors concerning the Department of Teaching and learning with Technology for instance instructional designers and fellow participants; and finally, academic development support such as those related to the curriculum designers. In figure 1 the availability of support during the implementation of web-based courses is illustrated.

Fig. 1  The availability of support during the implementation of web-based courses

4.1 Institutional support
The section reviews the findings that were the result of an analysis of the data relating to support from TUT management, various stakeholders and the computer laboratory technicians.

4.1.1 Tshwane University of Technology management
In past years, Tshwane University of Technology has invested heavily, not only in the empowerment of human resources but also in other resources that have made programmes such as P@W possible. It is widely known that the vice chancellor, the deputy vice chancellors and other top management staff of Tshwane University of Technology fully support the notion of educational technology. Their position is made clear in the Institution Operating Plan [11]. The comprehensive Tshwane University of Technology’s academic development and support strategy for both staff and students – a strategy whose purpose is to increase the throughput and graduation rate of the university. In response to the problem, they identified the necessity for a academic development and support strategy that would increase the throughput and graduation rates of students at Tshwane University of Technology [11]. This document envisages the use of educational technology as one of the most important factors for attaining this goal.

4.1.2 Stakeholders
[12] note that four distinct stakeholders are involved are involved. These include the partner himself/herself; the faculty (deans, directors, HODs and other lecturers); academic support departments (Curriculum Design Services, Library and Information Services, Research and Innovation); the Department of Teaching and Learning with Technology
(Instructional Designers and technical staff). [13: 94] are on the opinion that the involvement of stakeholders in e-learning projects is a necessary condition of successful implementation. [5] also emphasises the useful role played by stakeholders and is of the opinion that certain leadership styles are also a success factor.

The partners saw the necessity of involving their particular stakeholders in the process as they began to modify their pedagogies and integrate technology with their teaching and learning practices. One partner noted that it is important that the institution of higher learning start developing the 21st century model of learning that will involve stakeholders of the institution in the process of modifying pedagogies and innovation to teaching and learning. According to my own observations, compulsory stakeholder participation may be regarded as a success indicator because it raises the level of awareness in institution with regard to the use of educational technology at Tshwane University of Technology.

4.1.3 Computer laboratories technicians

The computer laboratory technicians at Tshwane University of Technology provided technical support on all possible levels to ensure that the technology functioned properly. One of the partners asserted that the implementation practice was very difficult, but interesting, sometimes what he designed, did not work as he wanted it. But he had support from their technicians. [14] noted that the computer laboratory support staff from the Faculty of Technology Lab in his research were responsible for making sure that the infrastructure was sound and in good running order and ready for student use. He also describes how various software applications were available to help students to with their assignments and to improve the quality of their learning experiences. The partners in this study would agree with [5]’s sentiments about the indispensability of computer laboratory technician support because they themselves were deeply appreciative of the input and efforts of the computer laboratory technicians during the implementation component. The support of computer laboratory technicians is therefore one of the success indicators of the successful implementation of the partners’ web-based courses. Their availability during the implementation of the various web-based courses in the computer laboratories helped the partners to overcome whatever technical problems arose.

4.2 Faculty related support

In this section I will discuss what an analysis of the findings said about the contributions of the deans and directors, the HODs, and the partners’ colleagues from their own departments.

4.2.1 Deans and directors

Most of the deans took this brief to heart. They demonstrated this by making various efforts to support the partners from their faculties for the duration of the programme and that they also familiarised themselves with what partners were doing and what kept them busy. One of the partners reported that she did a show-and-tell via a video conferencing which her dean attended. Even though deans and directors are all extremely busy, most of them made an effort to participate in some of the activities in which the partners were engaged. Their participation in the process was practically demonstrated by such actions. Other partners kept communicating with the director by using other forms of communication such as e-mail. One partner revealed:

I had the most rewarding meeting with my Executive Director at the Ga-Rankuwa campus, during which we discussed many important issues regarding the programme and its implementation at the campuses. The result of this meeting was that Mrs. XXX would organize a tele-meeting with all the stakeholders as soon as possible, in order to clarify the resulting issues.

It was important for deans to become involved in the projects. They knew the requirements of the programme and they knew that the partners needed support to implement their courses successfully. They also knew that their own role was important for sustaining the project. It was noticeable that the implementation of partners’ web-based courses went more smoothly in those cases where the deans and directors were involved than in those cases where the deans of partners remained uninvolved.

4.2.2 Head of departments

Some of the partners implemented their courses successfully with the support of their HODs. In some cases it was the fulfilment of a head of department's dream to see different technologies being used in various ways in their departments. As one partner indicate: For many years it was a dream of the head of department to capture all the basic cookery methods on video and make it available to the culinary study students in the library.

Other HODs were very interested in the partners’ web-based courses and they actually asked to see the courses that the partners had developed before they began to implement them in their classes. Although it can be quite intimidating to expose oneself to criticism from one’s own head of department, one of the partners made the following observation: It is, however, a joy to try and erase what’s wrong before our HODs take a peep. An analysis of the data made it clear that the HODs’ interest made an appreciable difference to the quality of the work because all the partners wanted to
eliminate the mistakes and improve the courses as much as they could before exposing them to the critique of their head of department. When HODs showed an interest in what was happening and were both keen and enthusiastic about the integration of technology in the teaching and learning activities in their departments, it became much easier for the partners to implement their courses.

4.2.3 Colleagues

Collaboration between academics, colleagues and professionals played a crucial role during the capacity building, design and development, implementation and research components of the P@W programme. The data from this research showed that the partners’ fellow lecturers and colleagues were in fact also keen to embrace an e-learning approach to teaching and learning. A partner stated that she introduced it to the other lecturers that are going to teach the subject and change it to fit the different courses. It was up to the partners to encourage their colleagues and fellow lecturers to support and buy into everything that they had prepared and learned during their time on the programme. [15] state that the implementation of web-based courses requires teamwork. Some of the participating partners involved their colleagues who were the subject experts in their departments by asking for advice and help during the design and development components of their projects. Because of this kind of collaboration, the web-based courses that partners designed and developed were often therefore useful to other lecturers in their departments. The lecturers found that by sharing the learning materials they could increase their utility. Collaboration on the part of staff members therefore permitted other lecturers also to integrate technology into the teaching of their subjects.

Some of the partners’ fellow lecturers were enthusiastic and showed interest when they observed how the partners were implementing their web-based courses with their students. One partner fulfilled his role of mentorship successfully in his departments. As one of the partners indicated that his role of mentor in his department required him to render assistance to other lecturers as they design and develop their web-based teaching and learning materials in myTUTor. He also mentioned that his fellow lecturers were interested and excited by the prospects of e-learning in teaching and learning. This partner designed a software template that made it easier for his fellow lecturers to design their courses. He further stated that he would like everything particularly the look and feel in agriculture to be the same, the banners and the icons.

4.2.2 Academic department

The term academic departments refer to the heads of department, the lecturers and the students in those departments. Because partners got to experiment with personal digital assistance (PDAs) or pocket computers as part of the P@W programme, they had time to explore its uses and functions. When they realised the extent to which these pocket computers were able to improve their own capacity for teaching and learning, they felt that others in their departments might benefit as well. One partner said: The department should buy PDAs for the students. In those cases where departments had funds available, some PDAs were actually bought for students so that they could go on to use them for academic purposes. Financial support from departments may therefore be seen as an indicator of success. If funding of this kind had not been available, the value that these particular partners derived from the P@W implementation would not have been sustainable.

One of the partners asserted that in her department: the staff first has to evaluate the programme before they could start implementing it. This was caused by the fact that a new course had been introduced and the members of the department had to first familiarise themselves with it before they could apply technology to its teaching. Another partner noted that his entire department supported him. He also said that he is now in charge of the departmental training. He added: I really enjoy it very much. It’s amazing to see most of the lecturers who threw me out of their offices requesting to attending these trainings. So that is quite possible. It is important for a department to support their partners so that the implementation of technology can run smoothly.

4.3 Support from the department of teaching and learning with technology

[12] note that it is because the department of Teaching and Learning with Technology are the organisers of the P@W programme. They provide various kinds of support such as technical support and individual attention for the duration of all the components of the P@W programme. They state that it is the task of the Teaching and Learning with Technology as an academic support department to develop and present workshops, information sessions and seminars of the highest quality and thus to increase the level of professional development in the university[12]. The [11] Institution Operating Plan document sets out the ways in which the university supports academic development by means of the activities of the Teaching and Learning with Technology through the creative use of technology. In this section, I will discuss what an analysis of the data has to say about the contributions of Instructional Designers and the partners.
4.3.1 Instructional designers

[5] emphasizes how important and necessary it is for individual Instructional Designers to offer their services to the lecturing staff of the university. [12] agree with [5] and state that Instructional Designers need to provide a readily accessible instructional design service and should in addition contribute to the empowerment and professional development of staff. Although this is the ideal, it has not always been possible to implement it in practice. Some of the partners were of the opinion that they would be able to manage the implementation component without assistance from the Instructional Designers, others relied heavily on their Instructional Designers for support. When the partners from this group experienced problems during the implementation component, they were heartened by the knowledge that the Instructional Designers would be there to help them. But they also knew that they could call on other members of the Teaching and Learning with Technology for assistance.

One of the partners described the staff of the Teaching and Learning with Technology metaphorically as magicians. This partner referred to the directorate in the following words: And then, you meet the magicians: they are a hand of wonderful people that make you believe in humanity again! They are Instructional Designer, video editors, technology specialists, graphic artists, programmers, multimedia experts, researchers, curriculum designers and many others. The partners were of the opinion that the Teaching and Learning with Technology team could make the technology work and thus make their lives easier. They were reassured by the knowledge that when technical problems arise the team would be there to help them.

But the partners really appreciated the significance of the help offered by the Instructional Designers when the Instructional Designers undertook most of the students’ training sessions on behalf of the partners at the beginning of the year. Students were impressed by the sympathetic approach of the training team from the Teaching and Learning with Technology. The implementation, the theory part of the implementation went well with the help of Lwazi the Instructional Designers secretary in the Teaching and Learning with Technology and Kwazi the Instructional Designer. Yes it went well. They conducted the training and they had the manual as well.

4.3.2 Fellow partners

Partners were able to rely on one another for explanation and help in all those cases where they did not understand concepts from the workshop or in which they needed clarification. They were also able to explain difficult concepts to one another in more simple and direct language. It was observed that they were able to comfort one another and motivate each other to complete their projects. One of the partners made the following remark about her colleagues and the staff of the Teaching and Learning with Technology: We absolutely rejoice each other, as well as all the kind of stuff and activities we do. We really have become friends and form a “safe” environment for each other. Partners therefore supported one another during the contact sessions and by means of instant messages through Skype and Yahoo Messenger.

4.4 Academic development and support

This section discusses the role of curriculum development support as well as other academic support units as success indicators during the implementation component of partners’ projects

4.4.1 Curriculum designers

The partners were able to integrate technology into their curricula in a most effective way because of the support that they received from the Instructional Designers and the Curriculum Designers. [16] argues that education programmes should integrate technology into their curriculum. All the partners were expected to re-engineered their courses so that they could introduce the technology to their students and so that their courses would also comply with the requirements of outcomes-based (OBE) teaching and practice. The incorporation of Curriculum Designers into the P@W programme therefore exerted a positive influence on the web-based courses in terms of its outcomes, the South African Qualification Authority standards, assessment, assessment criteria and the OBE approach as a whole. One partner made the following remark:

The study guide was loaded to myTUTor and the OBE requirements were met with regard to outcomes from the knowledge gained from the Curriculum Designers. Another partner noted:

P@W provided me with the basics for becoming a knowledgeable educator in understanding the core foundation of learning and technology; integrating technology and media meaningfully into the curriculum.

One of the partners mentioned that the adoption of OBET and the use of technology to teaching and learning created were incorporated in the courses. At Tshwane University of Technology education and training needs to be in line with
OBET principles, while catching up with the widespread use of mobile and wireless technologies. Partners successfully integrated curriculum and OBET principles into their web-based courses with assistance from the Curriculum Designers.

4.2.2 Other academic development and support

The other academic development support directorates that were involved in the partners’ project were Research and Innovation, the Centre for Continuous Professional Development, the Library and Information Service, and Student Development Support. All of these departments contributed to the success of the P@W experience and all of them helped to ensure that the implementations were of a high standard.

5. Conclusion

This article highlights the importance of Institutional support to lecturers when implementing web-based courses. This article confirms the statement by [1] that stakeholders should participate in the process of implementing web-base instruction in higher education institutions. In this research this is indicated by the intervention of the P@W professional development programme in the use of educational technology at Tshwane University of Technology. Therefore, it is necessary that higher education institutions that would like to successfully implement web-based courses to be supported by the management or the institution as a whole. Once lecturers receive support from various stakeholders, it will be easy for them to implement their web-base courses successfully. This chapter has identified, discussed and explain the issue of support when implementing web-based courses such as institutional support, faculty related support, support from the Directorate of Teaching and Learning with Technology and Academic support.

6. Recommendations

It is crucial that for any institution that would like to successfully implement technology-enhance courses to be supported by the management or the institution as a whole. Stakeholders need to play the vital role during the implementation of online courses.

The dean, directors and HODs should take into account the importance of integrating technology in teaching and learning, fully support the lectures that are bringing this matter in the faculty and encourage other staff members to also integrate technology in their teaching and learning. Deans might take a lead to ensure the successful implementation of online teaching and learning in their faculties.

Tshwane University of Technology should continue to improve and supplement traditional courses by taking advantage of internet and technology and empower the faculty members to utilize and integrate technology to enhance the quality of teaching and learning.

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References

