

**Exploring the Use of Wiki as a Technology Tool to Facilitate Student Engagement in a
Business Management Module**

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Abstract

The majority of literature supports the idea that student engagement is critical in achieving student throughput rates. This study investigated the function technology serves in meeting the needs of students in a first-year Sport Marketing course. Students' perception of their level of engagement, pertaining to the learning material of a Business Management module, through the use of a technology tool known as "wiki", is investigated. The data collection tool was in the form of a questionnaire, and findings indicated students viewed wiki as a successful online tool which promotes content engagement. Findings also suggest wiki promotes collaborative learning, improves overall student participation and cognitive engagement. The study affirms the premise that students enjoy incorporating technology into the classroom, thus affirming the idea that by applying a blended learning approach, millennial students experience and achieve greater learning outcomes.

1 Introduction

Student engagement is regarded by Kuh, Kinze, Shuh and Whitt (2005:22) and Pascarella and Terenzini (2005:417-420) as a significant predictor in student success. A number of educational strategies purport to encourage student engagement; such as discussions, small-group work, co-operative learning, problem solving, inquiry-based learning, role play, and the use of case studies (Killen, 2012). The specific educational strategy which this study will explore, however, is the use of technology; specifically, the use of *wiki*, as an online learning tool to facilitate active student engagement.

Wiki, which is the Hawaiian word for *quick*, was created as a collaborative online writing space, unique in its ability to enable multiple persons to view and edit the same document in the same place, thereby rapidly reducing the timeframe in which a body of knowledge can be constructed (Leuf and Cunningham, 2001).

2 Problem Statement

Student engagement is understood as the time, effort and resources invested in order to optimise learning outcomes, performance and development (Mader, 2008:4; Trowler and Trowler, 2010). Its importance is therefore regarded as vital in enhancing student success at Higher Education Institutions (HEI) (Ivala, Gachago, Condry and Chigona, 2013:82). Despite a variety of complex and compounding factors contributing towards poor student performance and subsequent repetition or failure of a module, lack of student engagement is regarded as the primary indicator (Kuh, Kinzie, Buckley, Bridges and Hayek, 2007:22; Letseka and Maile, 2008; Pascarella and Terenzini, 2005:417-420).

Intake data captured from a 2014 Business Management module indicates that, of the 26 students registered for the module in 2014, only 14 successfully completed the module within the allocated time. This is a 46 percent dropout rate/failure rate, which, while better than the national dropout rate of 56 percent (Council of Higher Education, 2013:1), is still exceptionally high. Results from the 2015 student intake reflect a similar scenario, with the dropout/failure rate only marginally higher, with 45 percent of registered students successfully completing the module in the allocated timeframe. Based on these findings and the literature concerning the importance of student engagement, the intention of this study is to investigate the use of a technology tool known as *wiki* as a means of improving student engagement. It is hoped findings will positively impact on students enrolled in the Business Management module in 2016.

3 Research Question and Objectives

Related to the described problem and the proposal to use wikis as a possible method to encourage student engagement, this study seeks to answer the following questions:

RQ 1: What understanding do first-year students, completing a module in Business Management, have of the purpose of wiki?

RQ 2: What are students' views regarding the significance of the use of wikis in creating an engaged learning environment?

RQ 3: What are students' views regarding the use of wikis to improve understanding of the module content?

Linked to these questions, the objective of this study is to establish what students regard the purpose of wiki to be. In addition, research focuses on determining whether students view this technology tool as a method to gain understanding of module content, and whether they believe it will assist them in deepening their knowledge of module content.

4 Brief Literature Review

McLeod and Lehmann (2011:vii-viii) suggest the millennial's brain is physiologically different, due to the prevalence of technology and hyper-connectivity, which dominates their daily experiences. Lenhart, Madden, Smith and MacGill (2007) propose the introduction of the Internet, and the proliferation of digital platforms, has transformed the information landscape into one where the majority of students practise some form of online content creation on a regular basis.

Electronic-learning is becoming increasingly popular as a teaching method amongst educators in course work development (Horton and Horton, 2003), and, coupled with valid and reliable learning theories, Kukulska-Hulme (2012) suggests wiki has the ability to engage students and enhance the teaching and learning experience. Toyama (2011:1), however, warns that the mere introduction of electronic devices into the classroom, without the creation of meaningful and engaging learning experiences, is counter-productive, inadvertently failing to equip students with the necessary knowledge and skills needed to excel in a modern world. Real transformation, purports Ahmed (2013:22), begins with a student-centred approach, rather than an educator-based instruction methodology.

Thus, educators should regard their primary responsibility as facilitators of learning, rather than content creators, encouraging students to collaboratively engage with one another in the achievement of desired learning outcomes. To this end, the selection of appropriate platforms to facilitate the learning process is vital.

A survey of more than 600 participants revealed that, after graduation, the most desired attributes in employees are communication skills, coupled with computer skills, and the ability to work collaboratively in order to problem solve (Job Outlook, 2014:1). Wiki fulfils all of these requirements, providing individuals with a unique, collaborative online experience (Barton and Cummings, 2009:vii).

Furthermore, wikis facilitate the creation of communities (around topics), gradually moving participants (through dialogue), from completely divergent opinions, towards a singular comprehensive state of knowledge, and a heightened level of understanding. Barton and Cummings (2009:ix-xi) indicate the pervasiveness of wikis in the corporate world is extensive

(Wikipedia, Wikitravel, WikiHow, Wictionary, etc.), and widely regarded as the preferred method for collaborative communication.

5 Key Terminology

Contextualised to the above studies, key terminology relevant to this research can be defined as:

i. Student Engagement

Student engagement is conceptualised as those educational activities linked to desired academic outcomes requiring both time and concerted effort on the part of the student (Kuh, Cruce, Shoup, Kinzie and Gonyea, 2008:542).

ii. Wiki

Wiki is a collaborative fully editable online writing space, which allows multiple users to visit, read, reorganise and update its structure and content in real time as they see fit (Leuf and Cunningham, 2001).

iii. Collaborative Learning

Collaborative learning is a joint intellectual effort, in which students are encouraged to search for mutual understanding around a particular problem, driven by student exploration through social interaction and intellectual discourse (Smith and MacGregor, 1992:1).

6 Research Methodology

The foundational philosophical assumption for this research study was a post-positivism paradigm based upon the application of a questionnaire as a quantitative data collection method (Guba and Lincoln, 1994:109; Muijs, 2004:5-6).

7 Worldview

The worldview underpinning this study is post-positivism. Post-positivism recognises all observations are fallible and contain error, and all theory is revisable (Trochim and Donnelly, 2001). Post-positivism assumes critical-realist ontology and an empiricist epistemology (Denzin and Lincoln, 2011). Findings are interpreted from a constructivist paradigm, holding to the belief that individuals construct their own view of the world based on their perceptions, and these constructions are imperfect (Trochim and Donnelly, 2001).

The notion of potential bias is accepted, as no individual sees the world perfectly, but rather from a theory-laden perspective (Ryan, 2006). A post-positivist study ultimately focuses on validity, reliability and objectivity (Guba and Lincoln, 1994:163-194; Patton, 2005:91), which is this study's motivation.

8 Quantitative Methodology Description

A non-experimental quantitative research design was used for this study. Qualitative student opinions were captured using a survey questionnaire, converted into numerical data, and analysed according to mathematical and statistical methods in order to draw conclusions (Aliaga and Gunderson, 2003). Respondents were selected using a non-probability sampling method, thus making the results not generalisable to the entire population (Du Plooy-Cilliers, Davis and Bezuidenhout, 2014).

9 Applicable Survey Design

A survey was used to gather information from respondents, as it is a flexible, versatile and efficient research tool (Du Plooy-Cilliers et al., 2014; Muijs, 2004). The survey was a cross-sectional survey, meaning data collection occurred only once from each respondent (Rindfleisch, Malter, Ganesan and Moorman, 2008). All survey components were considered: sample frame, sample group, questions posed, questionnaire design, potential errors relating to observation and non-observations, and language ability of non-native English speakers (Nel and Muller, 2010). All aspects of survey communication, data capturing, coding and estimation were observed (Snijders, Haraldsen, and Jones, 2013).

10 Data Collection Method

A cross-sectional survey, to capture data following a single intervention, was administered through the use of a self-completion questionnaire (Brace, 2008). Relevant questions provided a 'snapshot' of respondents' perceptions of how the use of wiki encourages student engagement with the learning content (Du Plooy-Cilliers et al., 2014:97). Closed questions encouraged respondents to choose the viewpoint that most closely reflected their own, while simple 'Yes'/'No' questions were followed by open-ended questions, to allow further explanation of chosen responses (Siniscalco and Auriat, 2005:23-27). Respondents were asked to evaluate the success of wiki according to various parameters which included: ease of use, level of enjoyment, forms of engagement and overall perception. A labelled five-point semantic differential scale was preferred over a Likert scale to encourage decision making between two bipolar adjectives (Garland, 1990). Throughout the process, respondents were monitored to ensure misunderstandings were clarified, and all questionnaires were fully completed in order to increase data accuracy in gaining an overall view of respondents' perception of the wiki tool.

11 Data Analysis Method

The units of measurement chosen to represent the sample population were first-year students (n=10), in a marketing course, completing a module in Business Management. The intervention took place in a group setting, under supervision, in which respondents were encouraged to engage with one another, in the creation of two wiki documents.

Respondents were asked a combination of matrix, 'Yes'/'No', open-ended and multiple choice questions. Data has been presented in table and diagram form, with supporting narratives, to enable the drawing of valid and trustworthy conclusions (Bayat and Fox, 2007:153; Du Plooy-Cilliers et al., 2014:305).

12 Population and Sampling Method to be Applied

Population is the number of individuals who conform to certain criteria and possess certain characteristics making them eligible for selection (Wiid and Diggines, 2013). The eligibility criteria for this study were first-year sport marketing students, registered for a Business Management module.

The sample population was drawn using a non-probability convenient sampling method, deemed appropriate due to the nature of study, ease of access to first-year students and financial and time

constraints (LoBiondo-Wood and Haber, 2014:253). For the exploratory purpose of this study, a sample size of ten (n=10) sport marketing students was deemed appropriate (Lenth, 2001), due to the homogeneity of millennial students with respect to technology (Pedro, 2006).

Critics argue results obtained using this research method may differ significantly from that of the target population (Ross, 1978:8); however, this approach is deemed sufficient for gaining insights (Burns and Groove, 2010:374) and clarifying understanding (Hair, Babin, Money & Samouel, 2003). Findings are not to be used in making conclusive assumptions or offering solutions to the existing problem of student engagement.

13 Ethical Considerations

The ethical practice of open and honest collaboration between all stakeholders (respondents, researcher, academic institution) was respected, and societal values were adhered to at all times (Illingworth, 2004:29; Resnik, 2011). Guidelines suggested by Cohen, Manion and Morrison (2004:70) were followed, namely: provision of an introductory cover letter (Annexure A), outlining the study's purpose, and provision of a consent form which each respondent signed to indicate voluntary participation (no coercion or manipulation). Ethical codes of beneficence, non-maleficence, confidentiality, anonymity and avoidance of deception were followed (Bishop and Nolen, 2001).

14 Validity and Reliability

Research is valid if it measures what it intends to measure (Du Plooy-Cilliers et al., 2014:256) and generates appropriate, meaningful and conclusive data (Gregory, 1992:117). Internal validity was achieved through posing of unambiguous questions based on experiential activities (Siniscalco and Auriat, 2005:76-78), while external validity and reliability did not apply due to the study's exploratory nature.

15 Results and Data Analysis

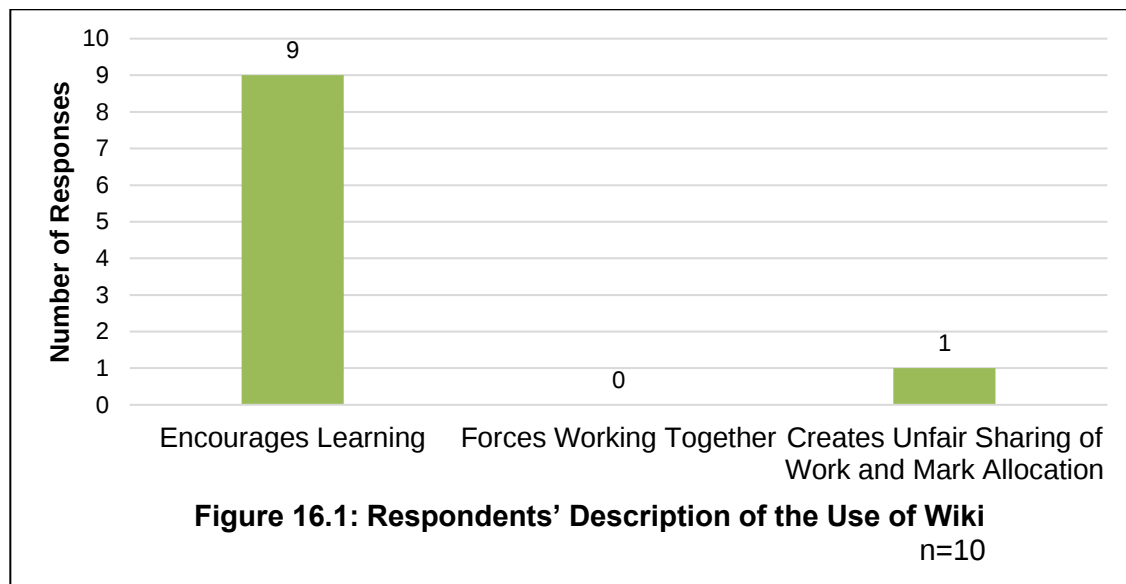
Data was collected from all respondents through a self-completion questionnaire. Results have been collectively presented in an appropriate, concise manner, with supporting narratives, so as to enable the drawing of substantive conclusions (Du Plooy-Cilliers et al., 2014:305).

The questions have been numbered one to thirteen, following a sequential order as appearing in the original questionnaire. Findings from Question 3, have, however, been omitted, as responses from this question were deemed insignificant to the outcome of the study.

A brief description has been given of each question, followed by corresponding findings and supportive evidence thereafter. The most appropriate representation of findings for each question has also been considered in order to present the research in a compelling, yet logical flow (Du Plooy-Cilliers et al., 2014:300).

i. Question 1: Respondents' Description of the Use of Wiki

Respondents were asked to describe their user experience of wiki as applied in this module. Findings are indicated below (Figure 16.1).

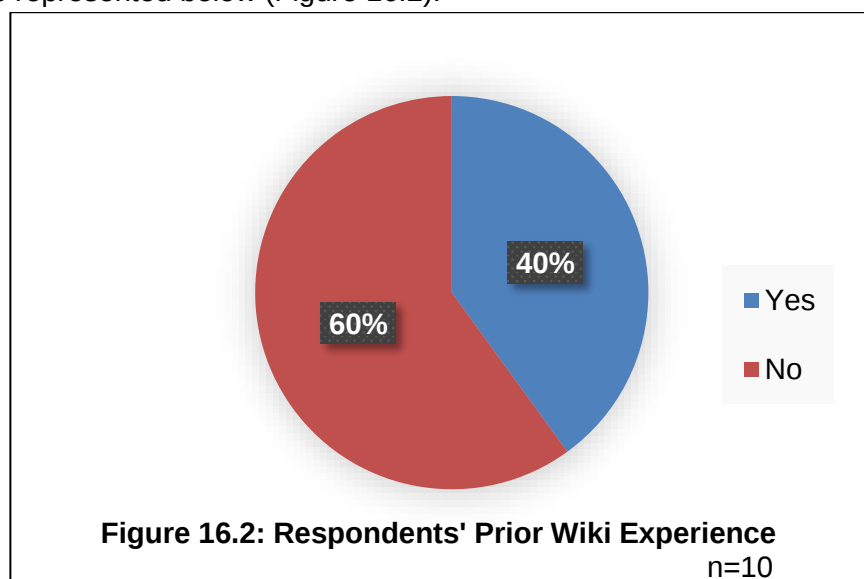


Of the respondents (n=10) who completed the questionnaire, nine (or 90%) respondents described wiki as a platform which encourages collaborative group work. None (or 0%) of the respondents felt wiki forced them to work together, and one (or 10%) viewed wiki as an unfair experience of sharing work and mark allocation. Findings indicate most respondents had a positive view of group work using wikis.

These findings confirm De Pedro, Rieradevall, Lopez, Sant, Pinol, Nunez et al.'s (2006) research, that wikis enhance cooperative learning and promote cooperation rather than competition among respondents. Further supporting evidence of positive user-experience is evidenced later, through all respondents stating they would recommend the use of wiki as a learning tool to others. It can therefore be concluded that the majority of respondents feel wiki use encourages learning.

ii. Question 2: Respondents' Prior Wiki Experience

Respondents were asked whether they had any prior experience in using wikis. Responses are represented below (Figure 16.2).



Of the respondents (n=10) who completed the questionnaire, six (or 60%) respondents indicated prior experience in wiki use, while four (or 40%) indicated this to be a first-time experience. Despite the group's relative inexperience in using this technology tool, most expressed relative ease of use, as reflected in later responses.

While millennials are regarded as digital natives (Prensky, 2001), a large portion of respondents still lacked in-depth knowledge of how wikis work (Menchen-Trevion and Hargittai, 2011), as wiki teaching is still seen as a novel practice in certain academic fields (Chao, 2007; Yalvac, Ayar and Soyulu, 2012:702). Responses confirm research, as almost half of the respondents indicated they were first-time users. Literature does, however, indicate wiki use is growing in popularity as an approach to learning (Banaji, 2010; Wright, 2011, 2012), due to ease of use and collaboration opportunities (Boulos, Maramba and Wheeler, 2006). From responses, it can be concluded prior experience in wiki is not a prerequisite for constructive engagement.

iii. Question 3: Respondents' Success Rating of Wiki

Respondents were asked to rate the success of wiki as an online tool. Findings are reflected below (Figure 16.3).

Figure 16.3: Respondents' Success Rating of Wiki

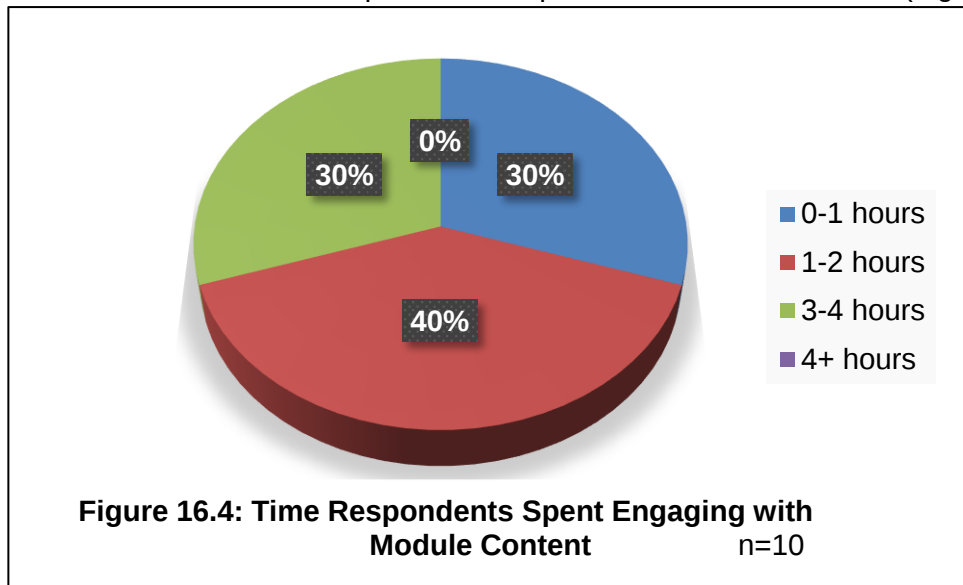
Success of wiki	Creates engaging experience	Deepens content understanding	Increases group interaction	Creates external learning platform	Assists creating meaningful content	Value as technology tool	Deepens learning experience	Total Number of Participants	Percentage of Participants
Extremely successful	2	4	0	5	3	5	5	24	69%
Highly successful	7	5	4	3	2	3	2	26	74%
Moderately successful	1	1	6	2	3	1	2	16	46%
Partially successful	0	0	0	0	2	1	1	4	11%
Unsuccessful	0	0	0	0	0	0	0	0	0%

Respondents were asked a series of statements related to the overall success of wiki. These included questions relating to whether wiki created an engaging experience, deepened content understanding, increased group interaction, created an external learning platform, assisted in creating meaningful content, was valuable as a technology tool, and deepened the learning experience. Overall, 24 respondents (or 69%) indicated their wiki experience as extremely successful, and 26 respondents (or 74%) indicated their overall experience as highly successful, while 16 respondents (or 46%) indicated it as a moderately successful experience. Only four respondents (or 11%) indicated wiki as partially successful in meeting expectations, while none of the respondents (or 0%) indicated wiki as unsuccessful. Thus, it can be concluded that most respondents found wiki to be a successful online tool.

These findings correlate with Deters, Cutherell and Stapleton's (2010:125) observations, that respondents generally have a positive learning experience when developing wikis. Their respondents also agreed that wikis promote student engagement, facilitate communication, serve as a useful technology tool and help in forming more meaningful, deeper connections towards learning content. It can therefore be concluded that, based on responses, wiki is regarded as a successful online learning tool.

iv. Question 4: Respondents' Time Spent Engaging with Module Content

Respondents were asked to indicate how much time they spent engaging with module content as a result of their interactions on the wiki platform. Responses are indicated below (Figure 16.4).

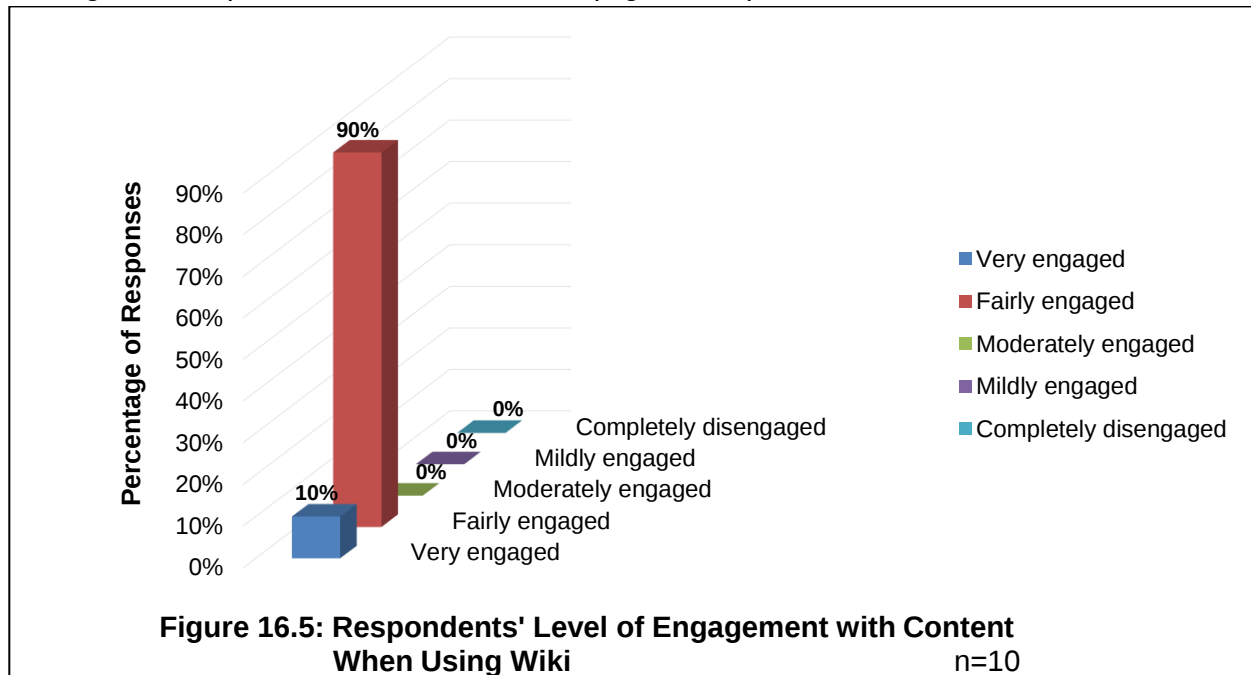


When respondents were asked how much time they spent engaging with module content on the wiki platform, three (or 30%) of respondents indicated they spent between 0-1 hours, four (or 40%) of respondents stated between 1-2 hours and three (or 30%) of respondents stated their engagement extended to between 3-4 hours. No respondent (or 0%) indicated they spent more than 4 hours engaging with the learning materials.

As a result of the intervention taking place during class-time, time constraints were a limiting factor. Respondents were therefore limited in the number of hours available to them for engaging with the module content before completing the questionnaire. It is possible that, if more time was available and the construction of each wiki consisted of an assessed element (Cole, 2009:145), more substantive conclusions could be drawn as to how much time respondents might spend engaging with module content. From this study, it can be concluded that, based on respondents' responses, wikis encourage between zero and four hours of engagement with module content.

v. **Question 5: Respondents' Level of Engagement with Content When Using Wiki**

Respondents were asked to indicate how engaged they felt with the learning content as a result of using wiki. Responses are recorded below (Figure 16.5).

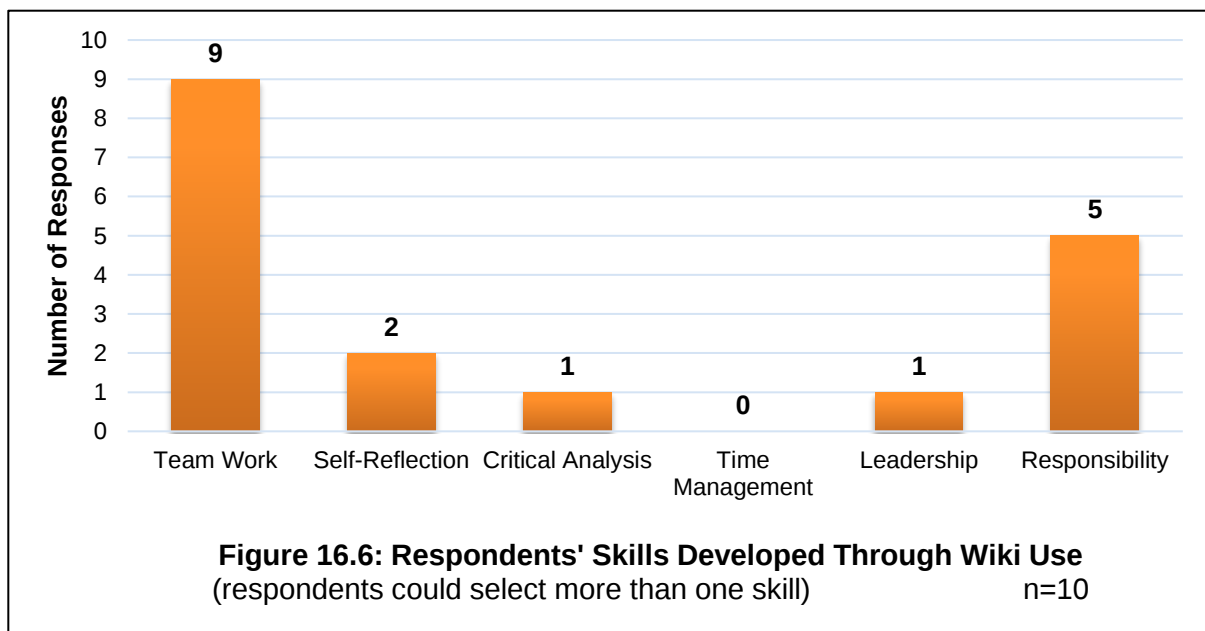


Of the respondents (n=10) who completed the questionnaire, nine (or 90%) indicated they felt fairly engaged with the content, when using wiki, whereas one (or 10%) indicated they felt very engaged. None (or 0%) of the respondents indicated a low level of engagement.

Findings are comparable with Stafford, Elgueta and Cameron's (2014:1) and Neumann and Hood's (2009:382) research, which found wiki collaboration improves student engagement, facilitates deeper comprehension and improves written exam performance and report writing skills. It can be concluded that, based on respondents' responses, there is a relatively high level of student engagement with module content during the process of wiki document construction.

vi. **Question 6: Respondents' Skills Developed During Wiki Content Creation**

Respondents were asked which skills they felt were most developed during the creation of wiki content. Respondents were allowed to indicate more than one skill. Responses are illustrated below (Figure 16.6).



Most respondents (nine or 90%) felt the creation of wiki documents encouraged teamwork, whereas half (five or 50%) felt it promoted a sense of responsibility towards the group. Only two (or 20%) of the respondents felt the creation of wiki documents gave them an opportunity for self-reflection, with just one student (or 10%) citing leadership development and one (or 10%) indicating critical analysis as developing skills. None (or 0%) of the respondents indicated the creation of wiki documents improved their time management skills.

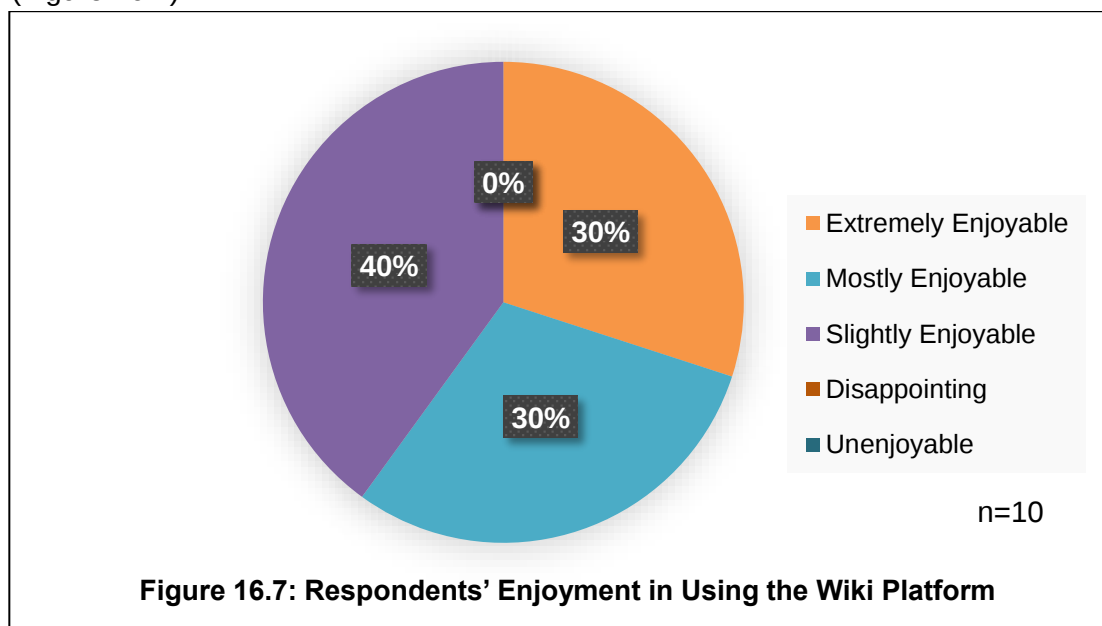
The high responses to team work confirm the findings of Schaffert, Bischof, Buerger, Gruber, Hilzensauer and Shaffert (2006) and Lipponen (2002), that interacting on wiki spaces enhances peer interaction and group work. Half the respondents indicated collaborative learning empowers student responsibility, which Myers (1991) also found.

Contrary to Fountain's (2005) and Knipper and Duggan's (2006), findings that wikis promote self-reflection and critical analysis, most respondents failed to indicate the development of these skills. Pon-Barry, Clark, Schultz, Bratt, Peters and Haley (2005), however, found that respondents often fail to understand how they resolved a certain problem, indicating a lack of self-reflection and critical analysis on their part. Wu and Looi (2012) suggest respondents ask one another self-reflective questions to stimulate this process.

Time management and leadership were also perceived as skills not developed by wiki use. These findings are not surprising, as the limited time given to this study did not afford respondents the opportunity to evaluate whether using wikis improved either of these skills. Further research into this area would be required. Based on the above student responses, it can be concluded from this study that respondents feel using the wiki tool promotes team work and creates a sense of responsibility.

vii. Question 7: Respondents' Enjoyment in Using Wiki-

Respondents were asked to rate the enjoyability of the wiki experience. Responses are depicted below (Figure 16.7).



Three (or 30%) of the respondents indicated their wiki experience was extremely enjoyable, whereas three (or 30%) indicated it was mostly enjoyable. Four (or 40%) indicated using a wiki was slightly enjoyable. None (or 0%) of the respondents indicated they were either disappointed

in the use of wikis from an enjoyment perspective or found the experience to be wholly unenjoyable.

Harp and Meyer (1997:95) state enjoyment promotes increased cognition; therefore, if respondents indicated higher levels of enjoyment, it can be deduced there has also been a higher level of cognitive understanding. The majority of respondents in this study indicated some level of enjoyment in using wiki. Thus, it can be concluded that using wiki to some degree stimulates learning.

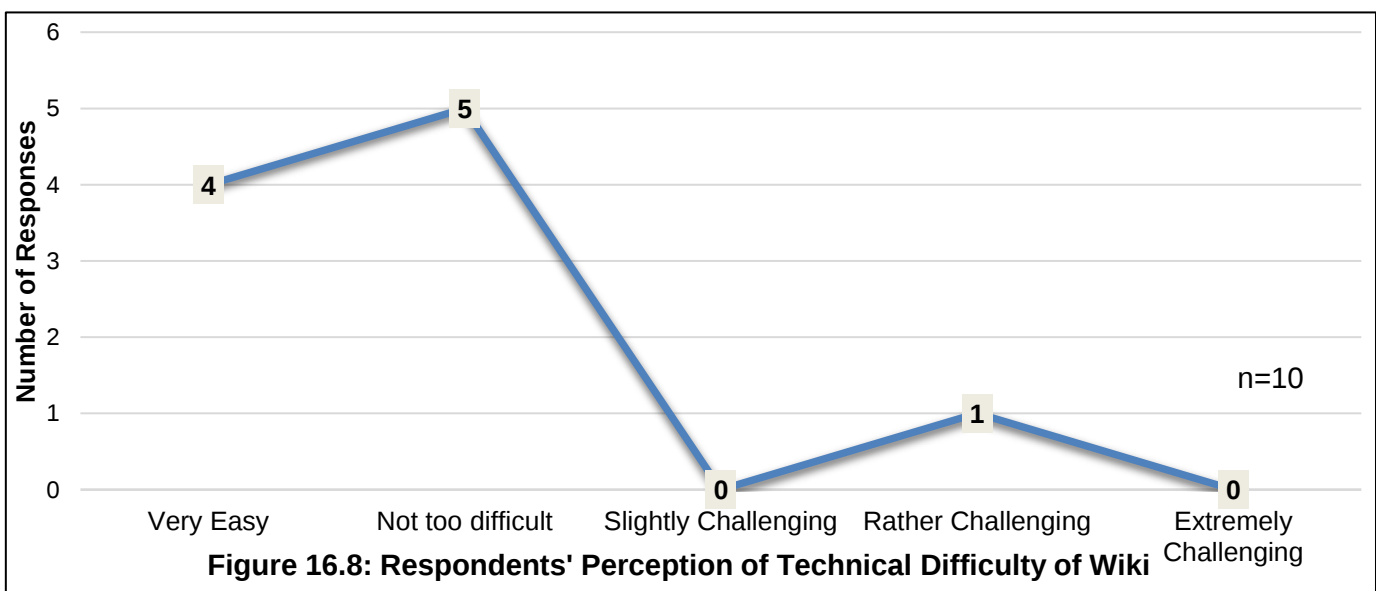
viii. Question 8: Respondents' Responses to Most Enjoyable Aspect of Learning Through Wiki

Respondents were asked to describe which aspect they found most enjoyable regarding their wiki user experience. Respondents indicated the most enjoyable aspect was the shared experienced which enabled them to engage with one another at a higher level of learning. Of particular value was the fact that respondents felt that they could share ideas to enhance understanding.

This confirms Coniam and Lee's (2008) and Wilms, Friesen and Milton's (2009:35) findings that wikis promote meaningful interactions among respondents, which creates a positive and enjoyable learning environment and fosters community development. The conclusion can be drawn that using wikis is perceived as an enjoyable experience.

ix. Question 9: Respondents' Perception of the Technical Challenge of Using Wiki

Respondents were asked to indicate how technically challenging the wiki user experience was. Responses are recorded below (Figure 16.8).



Four (or 40%) of respondents found wiki a very easy tool to use. Five (or 50%) indicated using wiki was not too difficult. None (or 0%) of the respondents indicated it was slightly or even extremely challenging. Only one (or 10%) student indicated wiki to be rather challenging. It was

noted during the intervention that some respondents expressed difficulties in accessing the institution's network with their devices, and this might explain the "rather challenging" response.

Classified as Web 2.0 tools, wikis are transparent technologies (Wheeler, Kelly and Gale, 2005), which allow users to concentrate on the learning task at hand, facilitating a collaborative experience, characterised by ease of use (Boules, Maramba and Wheeler, 2006). Sharpe and Benfield (2005) state it should not be assumed students have the necessary skill proficiency to use a proposed technology tool, and, as a result, motivation to engage may be reduced. Therefore, measuring respondents' ease of engagement through wiki eliminates the assumption of a skilled 'Google generation' (Nicholas, 2014). The findings from this sample group indicate wiki was not found to be too technically challenging and thus not a hindrance to engagement. It can therefore be concluded that, based on responses, wiki was a relatively easy tool for respondents to use in engaging with module content.

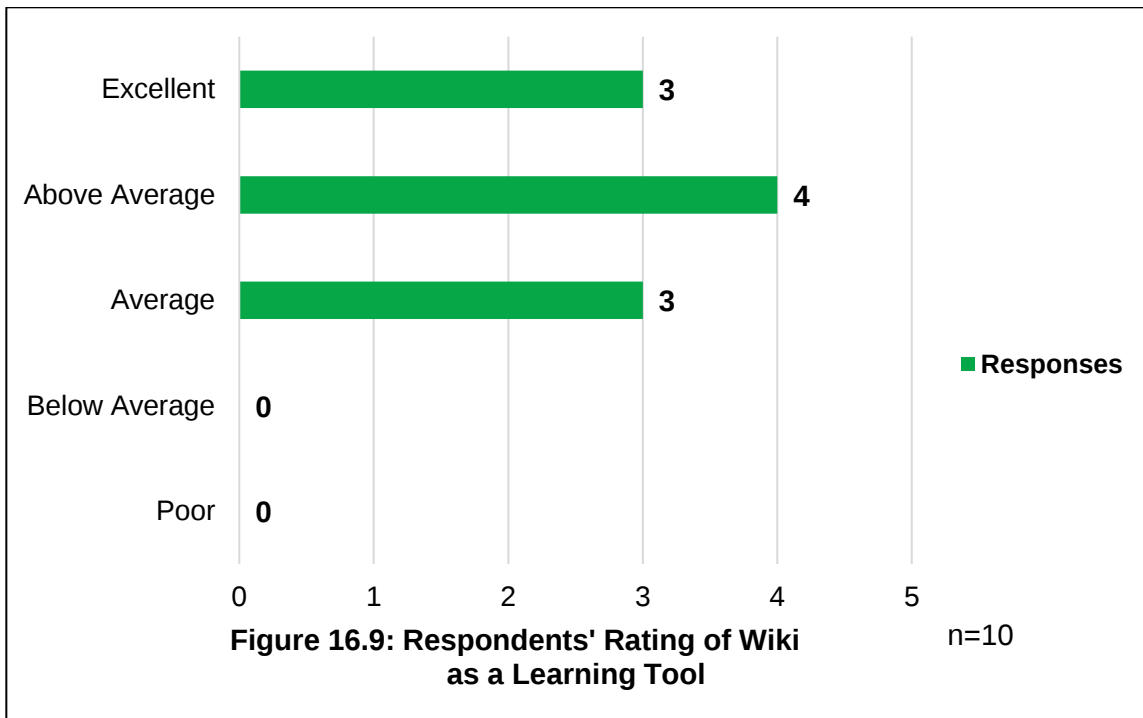
x. Question 10: Respondents' Challenges When Using Wiki

Respondents were asked to express their opinions on what the most challenging aspects were in using wiki. From responses, it is evident some respondents did not find using wikis challenging at all, while others found it initially posed a few challenges. One student indicated that when other respondents contributed to the wiki, it created confusion, while another student stated online learning seemed to be more challenging than conventional methods. One student also felt the time allocated for the intervention was too limiting, while another struggled to access the wiki through their device.

Judging by responses, some respondents felt the wiki tool was relatively easy to use, which supports Schwartz, Clark, Cossarin and Rudolph's (2004) findings. Some respondents, however, felt the experience was somewhat challenging, hurried or confusing, which Cole (2009:145) also experienced. Scaffolding, via tutors and peers, is therefore recommended as a means to support and explain how wikis are meant to be used, in order to facilitate collaborative learning (Cole, 2009:145; Ioannou and Artino, 2009:97, Morley, 2012). It can be concluded, based on respondents' responses, that some respondents experience little challenge in using wikis, while others require some assistance during the initial stages. Internet connectivity also plays an important role in the successful inclusion of wikis in class-related activities.

xi. Question 11: Respondents' Rating of Wiki as a Learning Tool

Respondents were asked to rate how well wiki as a learning tool facilitated their learning. Responses are recorded below (Figure 16.9).

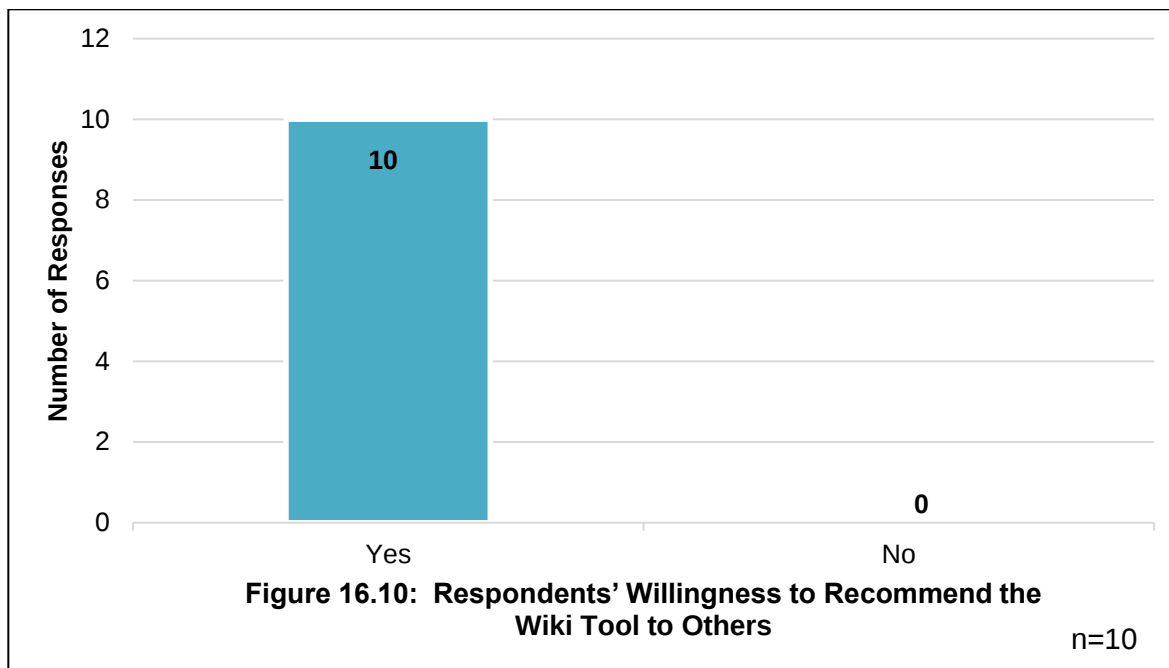


Of the respondents (n=10) who completed the questionnaire, three (or 30%) felt wiki was an excellent learning tool, four (or 40%) indicated it was above average, and three (or 30%) felt it was an average learning tool. None (or 0%) of the respondents expressed wiki was a poor or below average learning tool.

Deters, Cuthrell and Stapelton (2010) had similar findings, with respondents indicating their overall wiki experience was positive and viewed wiki as a great collaborative tool. Hughes and Narayan's (2009) findings also show that respondents perceived wiki as effectively supporting learning and content engagement. It can thus be concluded, based on respondents' responses, that the wiki tool is perceived by respondents to be an above average to excellent learning tool.

xii. Question 12: Respondents' Willingness to Recommend the Wiki Tool to Others

Respondents were asked whether they would willingly recommend the wiki as a learning tool to others. Responses are recorded below (Figure 16.10).



Findings indicate all respondents (or 100%), based on their experience in developing a wiki document, would recommend its use as a learning tool to others. Similarly, Neumann and Hood (2009:390) found the majority of their respondents stated they would recommend the use wiki as a teaching tool. Ioannou and Artino (2009:97) found that respondents recognised wiki's potential to support collaboration and to add value to their learning experience. It can be concluded, based on this study, that respondents derive value in using wiki and would recommend it to others.

xiii. Question 13: Respondents' Reasons for Recommending the Wiki Tool to Others

Respondents were asked to give a reason as to why they would recommend the use of the wiki tool to other respondents. From respondents' responses, it is evident they found wiki helpful, easy and enjoyable to use, and a great learning tool for engaging in and sharing of ideas. Parker and Chao (2007:59) assert wikis support a constructivist approach to learning, enabling respondents to construct knowledge and reflect on their own learning. They also assert it enriches the learning experience and increases student engagement.

Neumann and Hood (2009:382) report a wiki approach produces higher engagement with other respondents, improves cognitive engagement and increases class attendance. Lin and Yang (2011:94) observe a more positive class atmosphere when wikis are incorporated. Student responses to this study reflect similar feelings among learners and support general findings. Therefore, it can be concluded that, based on responses, respondents would recommend the use of wiki to other respondents.

16 Recommendations

Recommendations based on observations from this study are suggested for: i) policy makers of higher education institutions; ii) practical application in classroom/university settings; and iii) further research studies:

i. Policy Makers

Policy makers might consider integrating wiki technology into course construction, as respondents indicated they felt it encouraged learning, and simultaneously facilitated engagement and deepened their understanding of module content. Respondents also indicated wiki served as an excellent technology tool, which promoted team work and group collaboration, which could be applied in other course modules.

Additionally, respondents indicated they mostly enjoyed developing their own wikis and described it as useful in increasing content recall. Most respondents expressed ease of use and all indicated a willingness to recommend its use to others. Ease of use and the promotion of class discussions were also given as reasons for wiki use.

These findings are supported by widespread literature on the benefits of wiki inclusion into course design. With the current first-year pass rate at fifty-five percent (or 55%) at this HEI, policy makers might consider the study's findings beneficial to student outcomes, bearing in mind, Stafford, Elgueta and Cameron's (2014) assertions that wiki use improves overall examination results.

ii. Practical Application

Practical application and incorporation of wiki technology into course modules may require several pedagogical changes. Firstly, despite being digital natives (Prensky, 2001), a large number of respondents indicated they were unfamiliar with wiki use and some respondents expressed online learning as challenging. It is therefore recommended that some form of instructional scaffolding and continual wiki support take place during class time. Classroom exercises in editing and publishing content is suggested.

Respondents also expressed concern with the uploading of content and time limitations around each wiki activity. Based on these findings, respondents might experience greater success if wiki contributions were required on a weekly basis as opposed to shorter time periods. This suggestion is supported by respondents indicating wikis created a platform for learning outside the classroom.

While respondents indicated wikis promoted collaboration and sharing of ideas, they did not recognise its promotion of self-reflection or critical analysis. This suggests that wiki use is of greater benefit to respondents over the course of a module as opposed to a single intervention.

Another recommendation is using wiki as part of an assessed component, as Cole (2009:144) suggests this promotes motivation for engagement with content and knowledge creation. In addition, identifiable login credentials for each student is recommended, as Raitman, Ngo, Augar and Zhou (2005) suggest this promotes greater collaboration, trust and a sense of responsibility amongst respondents.

iii. Further Research

Further research is suggested in the use of wiki over an extended period of time (possibly the entire course), in order to evaluate its long-term impact on student engagement with module content. In addition, further research could explore respondents' ability to critically analyse one another's contributions and self-reflect on their own learning. It would also be of interest determining whether engaging in wiki collaborations improved first-year examination results and increased understanding and interest in course work. Conducting research with a larger sample

of the respondents would also produce results which might be generalisable to the entire population.

Conclusion

The study found that a class of ten first-year sport marketing students perceived the purpose of wiki as facilitating engagement with their learning material. They viewed wiki as a significant technology tool which promotes and supports collaborative learning and which improves understanding of module content. Students indicated wiki stimulated the desire for further engagement with learning material outside of the classroom. Findings suggest students respond positively to a blended learning approach and have a natural affinity for technology. It can be concluded that the wiki creates a supportive, collaborative and engaging learning environment for students which they enjoy engaging with on a regular basis.

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xiv. Annexure A: Informed Consent Letter & Questionnaire

Dear Respondent

I would like to invite you to participate in a study focusing specifically on the use of a wiki as a technology tool used to encourage students to engage with one another outside the classroom environment. According to its creator, a wiki is a collaborative online writing space which enables multiple persons to view and edit the same document in the same place, thereby collating a body of knowledge around a specific topic. The research aims to determine your views on the use of a wiki to improve your learning experience and assist you in obtaining a deeper understanding of the module contents.

To participate in this study, you will need to complete the attached survey. Please note that participation in this study is voluntary and you may opt out at any stage. You will not be penalised in any way should you decide not to participate in the research.

All responses gathered will be treated with the strictest confidentiality and will only be used for the purpose of this research. Completion of the survey is unlikely to exceed 15 minutes. All reasonable steps will be taken to ensure your anonymity. Findings from the research will be made available to you if you wish to view the final results.

Please be so kind as to answer all the questions included in the questionnaire.

Many thanks,
Gareth Gouws (Researcher)
garethgouws@gmail.com

SECTION A: YOUR KNOWLEDGE AND EXPERIENCE OF WIKI LEARNING SPACES

1. In your view, which of the following statements best describe the use of a wiki as applied in this module? Select (by marking with an 'X') only the statement that you think most accurately describes the use of a wiki.

A wiki is an online tool in which students are encouraged to work together to study a particular topic of the module.	
A wiki is an online tool that forces students to work together.	
A wiki is an online tool where some students do their part and others do not but all receive equal results.	

2. Prior to the Business Management module, have you had any experience in using wikis?

Yes	
No	

3. If yes, please state the course module and the wiki platform you engaged with.

4. Related to your views on using a wiki as an online tool, please mark your response to each statement with an 'X'.

	Description	Unsuccessful	Partially successful	Moderately successful	Highly successful	Extremely successful
4.1	How successful do you feel the use of a wiki as a learning tool has been in creating an engaging learning experience?					
4.2	How successful do you think the use of a wiki has been in deepening your understanding of the module content?					
4.3	How successful do you think using a wiki has been in facilitating group interaction and communication?					
4.4	How successful do you find the use of a wiki to be in creating a platform for learning outside of class to be?					
4.5	How successful do you think a wiki is as a learning tool in assisting you to create meaningful content related to the module?					
4.6	How successful do you think the wiki is as a technology tool?					
4.7	Do you think the use of a wiki as a learning tool could create a deeper learning experience for you in other course modules?					

5. In the creation of your wiki document, how much time do you think this tool allowed you to engage with the learning content? Select one option.

It allowed me to engage with the learning content between...

0-1 hour	
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1-2 hours	
3-4 hours	
5-6 hours	
7-8 hours	
9+ hours	

6. On a scale of 1-5 (5 being the most engaging and 1 being completely disengaged), how engaged did you feel you were with the learning content as a result of using the wiki tool? Select one option.

5. Very engaged	
4. Fairly engaged	
3. Moderately engaged	
2. Only mildly engaged	
1. Completely disengaged	

7. What skills do you believe the wiki as a learning tool promotes?
(Mark with an 'X' any of the options which you think may be relevant)

Team work	
Self-reflection	
Critical analysis	
Time management	
Leadership	
Responsibility	

8. On a scale of 1-5 (5 being the most enjoyable and 1 unenjoyable), how enjoyable did you find the learning experience of engaging in the compilation of a wiki document?

5. Extremely enjoyable	
4. Mostly enjoyable	
3. Slightly enjoyable	
2. Disappointing	
1. Unenjoyable	

9. Please state what you found to be the most enjoyable aspect of the learning experience as a result of using the wiki tool.

10. From a technological perspective, on a scale of 1-5 (5 being very easy and 1 being extremely challenging) how easy was it to learn how to use the wiki tool?

5. Very easy	
4. Not too difficult	
3. A little challenging	
2. Rather challenging	
1. Extremely challenging	

11. Please state what you found to be the most challenging aspect of the learning experience as a result of using the wiki tool.

12. On a scale of 1-5 (5 being excellent and 1 being poor), how would you rate the wiki as a learning tool?

5. Excellent	
4. Above average	
3. Average	
2. Below average	
1. Poor	

13. Based on your own experience in developing a wiki document, indicate whether you would recommend it as a learning tool to other students?

YES	
NO	

14. Please give a reason as to why indicated 'Yes' or 'No' in your previous response.

THANK YOU FOR COMPLETING THE QUESTIONNAIRE