Pertanika J. Soc. Sci. & Hum. 26 (4): 2179 - 2194 (2018)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Exploring Role Players' Experiences of Learning in Higher Education through a Hybrid Study Approach: A Case Study

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ABSTRACT

Extending the traditional learning experiences of adult students into new learning experiences can potentially be enriching. This article reports on part of an investigation done for a Master's dissertation (Van Tonder, 2015) and focuses on the experiences of students, tutors, and institutional management when employing a hybrid study approach in adult learning. A qualitative research approach, namely a case study, was used at both a South African and an American higher education institution. The study finds that in the move toward a society where students are interconnected, adult students intentionally search for educational settings that support their way of learning. Moreover, a redress and reform of training and education in South Africa, especially with the integration of technology is needed in order to adapt to a changing global economy.

Keywords: Adult learning, blended learning, higher education, online learning, quality learning, technology learning

INTRODUCTION

In a global environment rich in technology, the need to incorporate a cost-effective solution for higher education, while adopting a quality system to meet expectations in education, society and industry, is inevitable (Council on Higher Education, 2006; Kanwar, 2015; Universities South Africa, 2014; U.S. Department of Education, Office of Planning, Evaluation and Policy

ARTICLE INFO

Article history:

Received: 11 August 2017
Accepted: 12 April 2018
Published: 24 December 2018

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ISSN: 0128-7702
e-ISSN 2231-8534

Development, 2010). Despite the global revolution in the use of technology for learning in higher education and the repeated acknowledgment of the use of technology for learning in South African higher education, there has been no directive to lead such a development or its application (Council on Higher Education, 2014). Building additional higher education institutions, better utilisation of existing education facilities, and various other possibilities have been discussed (Department of Higher Education and Training, 2013). In spite of the obvious necessity, very little knowledge and feedback are available on how the quality of learning could be managed by using technology to facilitate the process, due to the lack of a framework and guidelines for the facilitation of the use of technology in South African higher education (Department of Higher Education and Training, 2015).

An awareness of the possible use of innovative and flexible learning methods through technology to enhance the quality of learning is evident from research done at the Cork Institute of Technology in Ireland, Cambridge University in the United Kingdom, Kozminski University in Poland as well as the following institutions in the United States: the University of Indiana, Stanford University, and Clarkson University, each of which fosters a hybrid culture to improve, support, and extend learning and teaching (Johnson et al., 2016). According to Stansbury's report (2011) on the *eSchoolNews* portal entitled "Five things students say they want from education," students want to make decisions about subjects and subject contents and would also like to have a choice when it comes to the method of delivery. With technology constantly accessible through devices connected to the internet, online education can be delivered wherever and whenever, without a person having to leave the workplace or home and without having to spend time and resources on transport and/or accommodation (Department of Higher Education and Training, 2013; Pappas, 2015; U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2010).

The integration of technology in education is inevitable. However, investigating the way in which technology should be integrated with and extended to hybrid online education environments requires exploration. Hybrid learning is an educational method by which a web-based platform using a learning management system (LMS) with a curriculum and course materials is blended with the traditional classroom (classroom + online = hybrid). The fact that the integration of technology, with a change in the pedagogical approach in higher education is inevitable, leads us to the main research question of the study: What were the experiences of students, tutors, and the management staff of higher education institutions while using a hybrid study approach in education teaching and learning?

The hybrid study approach is a collaborative and social constructivist learning technique that draws on the theories of Dewey (1938), Vygotsky (1999) and

Piaget (1971) (Jacobs, Vakalisa & Gawe, 2011; Paciotti, 2013; Tapscott & Williams, 2010), emphasising the need for active involvement, reflective thought and the understanding of previous experiences connected to new information. Brown and Adler (as cited in Tapscott & Williams, 2010) reported on the social constructivist learning approach that puts the emphasis on "how" students acquire knowledge and not "what" knowledge students acquire. This viewpoint opposes the Cartesian approach: "I think, therefore I am…" in favor of a social approach to learning: "We participate, therefore we are". Ashcraft, Treadwell, and Kumar (2008) pointed out that "in social constructivism, knowledge is developed through cognitive activity that occurs during the discussion of experience with other people". In this theory, the tutor is seen as a facilitator, rather than an instructor, as students develop their own knowledge while the tutor facilitates rather than lead discussions to promote social interaction (Ashcraft et al., 2008).

Although Merriam, Caffarella, and Baumgartner (2007) proclaimed that there was "no single theory of adult learning", the social constructivist theory is an important step toward understanding adult learning. Drawing on Vygotsky's view, Merriam et al. (2007) and Scheepers (2015) supported by Kadir, Baboo, Rosni, Rahman, and Bakar (2017) stated that learning was socially constructed through interaction with others, and the constructivism theory of learning was understood as an active activity through "dialogue, collaborative learning, and cooperative learning" (Merriam et al., 2007). A unique characteristic of adult learning is that it is student-centered. This study draws on the theory of Knowles (1984) in his goal for andragogy, namely to transform the learning/teaching experience from tutor-directed to student-directed learning, moving toward the encouragement of independent and self-directed learning. This implies that different learning styles are applicable to different students (Paimin, Hadgraft, Prpic, & Alias, 2017). Fleming and Mills's VARK (visual, auditory, read/write and kinesthetic) physiological style inventory is highly accommodated in learning with technology (Fleming & Mills, 1992). Referring to their model, Akin and Neal (2007) stated that students who were orientated more toward visual stimuli prefered graphs, flowcharts, and hierarchy models, whereas students more reliant on auditory perception performed best with lectures, reading, e-mail, and group discussions. However, students for whom the kinesthetic sense was dominant prefered experience and practice that was facilitated by using videos, case studies, and simulations (Madiope & Govender, 2015). Apart from the focus on adult learning, social, cultural, and technological change calls for "New Learning" (Kalantzis & Cope, 2012). This theory focuses on learning by doing, by thinking, and by being productive in the world and also knowing that world. "New Learning" is about action as well as cognition, it is about collaborative social learning, connected with the ability to act and be adaptable, responsive and

flexible, as opposed to individualized, and cognitive learning (Amory, 2015; Kalantzis & Cope, 2012).

MATERIALS AND METHODS

In the qualitative approach to the case-study design, a "wide- and deep-angle lens" (Johnson & Christensen 2012) was employed to gain an understanding of students', tutors' and institutional management's experiences using a hybrid study approach. The study was based on the interpretative paradigm that claims that individuals develop subjective meanings when they seek to understand the world in which they live and work (Creswell, 2013). The aim was to make sense of participants' perspectives through direct personal and participatory contact.

Sample

Through purposeful sampling, a group of individuals with experience in studying, tutoring, or managing hybrid study learning, in either Business Management-related or Information Technology-related degree programs, participated in the study. Twenty participants were identified that consisted of 12 senior students, five tutors, and three members from management. Eight students, three tutors, and one management member, from a research site in the Western Cape, South Africa, were involved and four additional students, two tutors and two institutional management members, from a research site in the United States, were engaged to support this study. Participants from the research site in the United States engaged in this study because the hybrid study model was developed and managed there. Participants from both research sites had access to the same technology platform, content and tutors. Introducing a new unconventional pedagogic approach in learning encouraged participants to explore and investigate a full understanding of different learning perceptions, personal experiences, and possible uncertainties when using a hybrid study approach.

Data Collection

For this study, different sources were accessed and data coordinated by means of entry to students' and tutors' online platforms, following peer-group discussion forums as well as asynchronous discussions, reading e-mails, institutional records, journal entries, assignment postings, evaluation records, and getting feedback from students, tutors, and management. The managers of the institutions authorized access to study material that had been issued and assigned to users, as well as the use of internet protocol (IP) addresses according to company policy. Media reports, articles in government journals and newspapers, discussions on forums, including information from audio and visual as well as other related sources were collected and integrated with the data obtained through interviews. On-site individual interviews with participants in the Western Cape, South Africa, and face-to-face individual interviews via Skype with the participants in the United States were conducted focusing on the experiences and expectations of students,

tutors and institutional management when using a hybrid study approach. Field notes were taken during interviews and voice recordings were transcribed.

Data Analysis

The coding of concepts and the analysis of data started after the first interview when concepts were condensed into themes, categories, and sub-categories to identify related themes that appeared throughout the data (Johnson & Christensen, 2012). Furthermore, *in vivo* coding was used in the formulation of themes to respect the precise words of participants (Creswell, 2013). Member checking was also done to confirm the accuracy of the findings.

Ethical Measures

Ethical measures included voluntary participation in the study with written permission from all participants at the institutions involved: both the higher education institution in the Western Cape, South Africa and the higher education institution in the United States. Participants gave permission to access their online platforms and discussion forums by signing notes to indicate informed consent.

RESULTS AND DISCUSSION

Participants from both the South African and the American research sites were either full-time or part-time employees or full-time students. Six students were in Business Management and six students were in Information Technology-related degree programs. Five students were employed full-time, three part-time, and four were full-time students. Of the tutor participants, three were employed full-time and two were part-time employees. Three tutors taught Business Management and two tutors Information Technology. All three management members were full-time employees. For the purpose of this article, two main themes were identified: (1) 21st century learning experiences and expectations, and (2) creating a platform for learning through the use of technology

21st Century Learning Experiences and Expectations

From the data, it was evident that three core factors contributed to 21st century learning are: (1) the integration of technology in everyday life, (2) experiences and expectations, and (3) learning styles and personality types.

Technology integration in everyday life: "It's natural - like a signature". Students and tutors revealed their use of technology in everyday life, both inside and outside the formal practices of work and study and extending to personal and social networking. A South African student succinctly indicated that "it's [the integration of technology] natural – like a signature." Students indicated that they spent 1 to 3 hours per day engaging in some form of non-academic interaction with technology and an average of 4 hours per day on academic activities. The majority of students concluded they spent less time studying when using technology; they could

do research faster, did not have to attend classes on a daily basis and could access their learning anywhere. An American student noted:

I like the fact that I do not have to be in a classroom for hours at a time. I don't have to fight traffic or worry about parking. The schedule is flexible and I can work at my own pace. If things come up, I am able to rearrange my schedule easier.

Drawing on the social constructivist orientation of learning in adulthood (Coogan, 2009), it was evident that when students engaged socially in dialogue and events, their learning improved and their current views of knowledge were challenged and transformed through their interaction with others. This is largely supported by Vygotsky's work, (1978) as cited by Amory (2015), who found that meaningful learning in higher education, where learning was seen as an active event, accentuated both an individual's cognitive and socially interactive activity. According to Knowles (1984), adult students' ability to take control of their own learning activities encourages greater autonomy, independence, and responsibility as supported by this study.

Experiences and expectations: "Technology stretches the boundaries of teaching to a lot of lengths". The perceptions of students, tutors, and institutional management members had a notable effect on their learning experiences. A South African student stated that his learning experience was different due to technology, "students become more academic because of technology, and they continuously talk to their peers…about studies, research… So the proliferation of technology gives a proliferation to academic advancement". Moreover, students' ability to take control of their own learning led to meaningful learning as noted by another South African student: "I read my textbook by myself. That way I can understand … I am constantly learning new ways of doing things … and feel more confident". An American student supported this view by saying that technology had made her "more resourceful and self-sufficient".

An American tutor noted that the requirements for enhancing technology during learning activities included innovation and "…to bring in outside sources and to try keep up with different technology tools …". She explained the importance of paying attention to the "tone" in the technology classroom and that communication with students was "personable" when tutors were not physically present in the classrooms. Regardless the medium, many of the same qualities essential to successful traditional classroom learning also applied to the technology classroom with the tutor as the most significant factor to impact student success. She further explained:

You [still] need to elaborate…break down ideas and concepts that the student can understand even without your presence… If a student posts information I build on that… and I try to be visually there for them [students] like in the classroom….

Tutors mentioned measures such as having a welcome video for students at the beginning of a course, to be available

on specific days for students to meet in person, to have Skype, telephone and e-mail availability with a 24-hour response time during the week and a 48-hour response time over weekends to meet the needs of students.

It was evident from the findings that a different set of skills and management competencies were required for quality learning by using technology. As stated by Kearsley (2013), supported by Roslina, Nur Shaminah, & Sian-Hoon (2013) the effectiveness of teaching with technology was challenging when considering tutor interaction, responsiveness, evaluation, and tutor presence. Tutors had to be good at written communication, had to be organized in order to meet deadlines for both themselves and their students, be emotionally intelligent and be a team player when involved in online teaching (Naroozi & Haghi, 2013). This implies the training of tutors to allow them to share the best practices in accelerating student performance (Naroozi & Haghi, 2013).

Learning styles and personality types: "In class you will just be quiet… but on technology you can say it". Not all students learned the same thing at the same time and in the same way, as explained by a South African student:

If I feel I have energy at 2 a.m., I wake up and do my assignment … No disturbances. I like it more than during the day … [but] everything must be available for me … I don't have to waste the day to go to a tutor. I like to read and study by myself.

Students felt more comfortable to express themselves in an online classroom as they did not experience peer pressure. A South African student said that in class she preferred to be quiet, but with technology she could "say it, as there is [was] no one to criticize or laugh at you [her]".

This study showed that where adults learnt with the use of technology and active learning strategies were implemented, focusing on self-direction and taking control of their own learning, different learning styles and personality types were acknowledged. The way in which students preferred to receive, process, and retain information was highly dependent on their learning styles and personality types. It was also evident that different learning styles could be accommodated in the online classroom, which were confirmed by the findings of Collins (2011).

Creating a Learning Platform by the Use of Technology

Online learning refers to learning offered on a learning platform via the internet that excludes face-to-face and print-based instruction, versus a learning approach that includes face-to-face and print-based delivery using a hybrid study approach (U.S. Department of Education, 2010). Students indicated that the type of teaching and learning they preferred depended on the content of the program. A South African student said that "with computer programming…I don't think I would need a class… But with the classes where we had to come in…it helped." An American member of management noted that the combination of "real lifetime interaction

with the flexibility of learning is the best way" and acknowledged that hybrid learning gave them better results and great retention rates.

Many first-time users of the technology learning platform experienced hybrid study learning as challenging yet positive, as one South African student explained:

At first I was not impressed…I thought how I am going to survive? But now, after experiencing it [the platform], it is really nice and convenient… I learn more than I used to… You click on your course and see what you need to do…it is not complicated.

This view was supported by both South African and American tutors in the study who expressed the advantages of the use of technology for learning and teaching.

In line with the findings supported by Van der Merwe et al. (2015), and Madiope and Govender (2015), participants in the study indicated that challenges existed when using technology in learning that required hands-on practical applications of theoretical content. Other difficulties, also in agreement with the findings of the aforementioned authors, included implementing effective netiquette, applying controlled supervised assessments and evaluations, coping with poor and/or unavailable network strengths and other technical difficulties.

The findings reveal three core factors that contribute to the creation of a learning platform by the use of technology: (1) traditional learning versus learning with technology, (2) the promotion of interaction and feedback, and (3) challenges in using technology for learning.

Traditional learning as opposed to learning with technology: "I don't have to be in a classroom for hours…My schedule is now very flexible". Many students said that they preferred the flexible schedule when using technology as opposed to traditional learning where they had to be in classroom for hours. Reasons included not having to travel to venues of instruction, medical reasons, work and family responsibilities and the flexibility of learning at any time or place. A South African tutor described the convenience of using technology:

Preparation on the traditional side is more than online … in traditional learning many concepts need explanation from the textbook … [but] online is easier … concepts are already well explained in videos and text….

The findings showed that technology placed greater emphasis on adult students who needed to control their own learning environment and implement appropriate learning strategies to enhance their learning (Knowles as cited in Merriam, et al. 2007). A few students indicated that they preferred traditional learning as one South African student said: "It is easier to learn information from attending class than with reading material … it is easier to remember what is said than to work alone". Some tutors also mentioned concerns such as lack of physical contact and that opportunities for observing student behavior were lost in the e-classroom.

Although technology has the potential to expand the efficiency of learning and

teaching, many first-time users experienced learning by the use of technology as challenging and not all students found such learning beneficial. The fact that physical contact and possibilities for observing student behavior were lost in the online classroom was a challenge. However, research findings state that students in hybrid learning conditions perform better than students receiving purely online or exclusively face-to-face instruction (Lane, 2016; ICEF, 2015). One has to acknowledge that technology is in service of educational goals and that pedagogy is more important to quality than technology tools (Van der Merwe et al., 2015).

The promotion of interaction and feedback: "We can post comments, questions, concerns … to other students and staff members". Students' interaction with online course materials showed that the well-indexed and searchable online textbooks, the availability of visual materials such as video clips and presentations, online quizzes with immediate results and feedback and the availability of an online library benefitted their learning. Moreover, many students experienced online interaction as helpful due to the peer support they experienced. However, not all students fully utilized student-to-student interaction online, while a few did not feel the need to engage socially or even felt inferior in online peer interactions.

All students experienced student–tutor interaction as positive as regards feedback, visibility and student support. Tutors also had access to the students' online platform to assess student involvement and competency. A South African tutor succinctly commented:

I can insert comments and give feedback to students immediately… I can track if students are posting to the discussion forums and are commenting on topics. I can go back … to the history of assignments if I need to evaluate progress.

The tutors indicated that the teaching styles of tutors using technology were different from traditional face-to-face instruction. An American tutor initially believed that online discussions would not be that dynamic and that it would be difficult to build relationships with students. With experience, she saw that there were appropriate ways to effectively communicate with the students and to build relationships with them. Tutors agreed that the benefits of being paperless and the easy administration were particularly favorable as classes, assignments, discussion forums and grade books were available online. Moreover, the availability and provision of visual materials enhanced the learning experience for users and encouraged student–tutor interaction. However, some students indicated that although tutors were helpful they were not always available when needed, or that feedback was sometimes "generic and clinical." In line with these findings, Kearsley (2013) stated that the effectiveness of teaching with technology was challenging when considering tutor participation, interaction, responsiveness, evaluation, and tutor presence. An American management participant listed instruments

that were used to measure successful tutoring. Tutors met on a monthly basis where they completed in-service training modules, which did not necessarily take much time. If a tutor was not able to meet the needs of students, he or she was considered not "a match" for online teaching.

Managers at both institutions felt that using technology could change the future of adult learning. An American member of management admitted that students who learnt with the use of technology were a "few steps ahead" of traditional students as they acquired documentation skills, report writing skills, and analysis skills through their participation in discussion forums. Moreover, since students had to learn to keep up with demands outside the educational environment, institutional management relied on "employer advisory boards" where representatives and employers from every program regularly gathered to assess curriculums and express workplace requirements for prospective applicants.

In accordance with the findings of the Vygotskyan social cognitivist approach (1978), student learning in the study occurred in a social context through social interaction with peers and tutors where learning was collective that furthered students' understanding (Paciotti, 2013; Scheepers, 2015). Although the findings revealed the benefits of online learning, challenges associated with this type of learning were also identified.

Challenges using technology for learning: "Sometimes, because technology is not 100% you don't have access". Participants identified a number of challenges in using technology for adult education, which include the following:

- Adjusting to changes in technology**:** Learning with technology required rapid adjustment of learning material, accessibility, flexibility, and support. Students, tutors, and institutional management expressed the constant change and adjusting when using technology to learn. They expressed technology as forever changing and noted that for institutions to be able to deliver quality learning and to be sensitive to the demands of their learners, change is imperative. Other problems for tutors, students, and management included institutions' technology system upgrades that interfered with all participants' abilities to interact and for uploads and downloads of assignments that are subjected to deadlines.
- Practical application of learned theory: In this regard, an American student said that certain sections of her study fields required both online and classroom learning.
- Netiquette: Despite an orientation process and set rules to guide protocol when communicating online, concerns about quality of postings emerged as was expressed by students and tutors.
- Assessment without direct supervision: Although student platforms could be accessed by

institutional management and external assessors to determine the quality of activities, concerns regarding assessments were expressed from tutors and management participants that a controlled and central supervised assessment venue is needed to authenticate learners and eliminate issues of plagiarism.

- Online learning was not suitable for all: It was evident from participants' feedback that learning results proved highly successful where a face-to-face approach was supported by integration with technology. Moreover, not all individuals got the same social satisfaction from online learning and needed a physical environment to engage with others. As one participant admitted, "I need the tutor in front of me." A tutor participant indicated that students who were tutor-dependent and who lacked self-discipline and self-direction, were less suitable for learning by the use of technology.
- Inferior or superior qualification: Some student participants expressed that obtaining a qualification through technology learning was perceived by their friends, family, and colleagues as inferior when compared to a qualification obtained via face-to-face tuition due to the absence of a full-time and direct tutor supervision. For other students in favor of learning by using technology, this was a mindset that had to change, especially when the same standards, learning materials, and outcomes were assessed.
- Logistical reasons: Participants mentioned that students who resided in remote areas would be unable to connect or upload assignments or get support from tutors. In addition, network strengths that slowed down the downloading of video material and financial constraints when it came to accessing the internet were identified as challenges.

To simplify an understanding of the diverse factors that have an influence on learning when using a hybrid study approach, a diagrammatic representation is presented in Table 1. In the first section of the article, three categories have been identified, namely: (1) the integration of technology into everyday life, which is influenced by the time spent on using technology; (2) the experiences and expectations of those applying technology in learning; concluding with (3) learning styles and personality types. The second section, namely creating a learning platform by using technology, is a discussion of the challenges faced, as illustrated in three different categories: (1) traditional learning as opposed to learning by the use of technology, including the emerging challenges involved; (2) the promotion of interaction and feedback, highlighting student to student interaction and focusing on the challenges students experience when interacting with course material and the

challenges students experience as regards the discussion forum and peer support; and (3) the challenges in using technology for learning with appropriate subcategories such as the adjustments to changes in technology as required, the practical application of theoretical content of courses, netiquette, assessment without direct supervision, the fact that not everyone finds online learning equally beneficial and that qualifications acquired in this way are sometimes regarded as inferior.

Table 1
Representation of research results impacting on *learning* in *higher education through* a *hybrid study approach*

21st Century Learning Experiences and Expectations	**Impact on Learning in Higher Education Using A Hybrid Study Approach (Research Results)**
1. Technology integration in everyday life	▪ *Use of time optimized when learning with technology*
2. Experiences and expectations	▪ *Students' experiences and expectations*
	- Innovative and flexible learning
	- Meaningful, social and active participation
	- Self-directed and resourceful engagement
	▪ *Tutors' experiences and expectations*
	- Innovative tutoring skills and teaching styles
	- Same qualities essential for traditional learning success to be applied in the technology classroom
	- Immediate student support and feedback
	- From tutor-directed to student-centered approach
	- Easy administration
	▪ *Institutional managements' experiences and expectations*
3. Learning styles and personality types	- Technology needs to keep up to face future students
	- It services a diverse audience
	- Future employment to be considered
	▪ *Technology accommodates different learning styles*

Table 1 *(Continue)*

Creating a learning platform by using technology	**Impact on learning in higher education using a hybrid study approach (research results)**
1. Traditional as opposed to learning with technology **2. The promotion of interaction and feedback**	▪ *Type of teaching/learning depends on program content* ▪ *Training required for first-time users of technology* ▪ *Challenges for students* - Few students fully utilize student to student opportunities - Interaction and availability of tutors a concern - Feedback from tutors sometimes generic and clinical ▪ *Challenges for tutors* - Promoting interaction between student and institution - Building relationships with students - Keeping up with changes in technology ▪ *Challenges for management* - Arranging an appropriate orientation program - Student support (administrative and technical support) - Engagement beyond geographical/institutional boundaries - Student retention through rich learning experience
3. Other challenges in using technology for learning ▪ **Adjusting to changes in technology** ▪ **Practical application of learned theory** ▪ **Netiquette** ▪ **Assessment without direct supervision** ▪ **Learning by the use of technology not fit for all** ▪ **Inferior or superior qualification** ▪ **Logistical reasons**	• *Challenges for students/tutors and management* ▪ Rapid adjustment of various learning related aspects ▪ Certain study fields require both online and classroom learning ▪ The quality of postings questioned ▪ Even with internal and external quality control, assessment is questioned ▪ Supporting face-to-face approach with integration of technology ▪ Perception that qualification through online learning is inferior ▪ Remote students, network strengths, upgrading of technology

CONCLUSION

This study focused on the experiences of students, tutors, and institutional management when using technology in adult learning. The findings from the study largely concurred that technology interaction presented meaningful and significant learning when technology is used as a dynamic ingredient in the teaching–learning environment. Moreover, the quality of the learning when using technology was improved when the learning content had been customized according to students' capabilities, personalities, expectations, and learning styles. This implies that a one-for-all learning approach in adult learning is not the best option for the current needs of society and does not foster an inclusive learning approach.

This study therefore found that there is a need to reform teaching and learning at South African and American institutions that employ technology in higher education. Moreover, the development of an assessment model when using technology is suggested to assess online activities, collaboration, and interaction. However, longitudinal studies are needed for the development of an explicit international quality management framework for the use of technology in learning and a hybrid study model for higher education.

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