



BLENDED LEARNING TO SUPPORT A DIVERSE GRADUATE COHORT DURING CAMPUS DISRUPTIONS: BARRIER OR BLESSING?

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Introduction

Higher education the world over requires support in order to ensure that it survives current turbulent times (Schreiber, Moja, & Luescher, 2016). Student protests and violence have caused closure of campus for students at the University of Pretoria for extended periods during 2016 in order to protect people and property. These circumstances necessitated instruction to a change from only on-campus to larger components of online instruction in order to safeguard completion of studies. While this study explores the experience of a cohort of graduate students, it was envisaged that the learning challenges could increase, as graduate students were often diverse in background, previous learning and experience in diverse employment sectors. They faced unique, yet significant challenges that needed to be addressed with appropriate support. A new approach to graduate studies was necessary with blended learning as a potential vehicle to achieve continuity. What was not known is how ready the graduate students in an entrepreneurship course were for their Masters' studies, or how they experienced the involuntary blended learning approach that was implemented in 2016.

Even under stable circumstances students who return to University for advanced degrees, particularly if they are working full-time, face many challenges, such as managing time constraints and balancing work/family and study roles (Pluut, 2016). An online environment also challenges students with new advances in ICT on top of mastering the writing skills and research component of graduate studies (Pintz & Posey, 2013). A blended environment may paradoxically increase their discomfort and uncertainty, while the intention was to assist them in managing their studies and time better. The uncertain situation in Higher education in SA added to the challenges graduates faced on many levels. The turmoil made it necessary to revisit delivery modes of traditional on-campus graduate programmes. The teaching approach therefore had to accommodate the diversity of student background knowledge, the unique challenges graduate students face upon returning to University, all in a setting of limited contact time with peers and lecturers. Adopting a blended format was one option to reach the desired outcome of successfully completing their studies in turbulent times. The study focuses on the experiences of one cohort of graduate students at a traditional contact university who were introduced to a blended delivery format. This was necessary to avoid disruption of the academic programme and ensure throughput. The blended format introduced online activities to replace two of the contact sessions and supplement the remaining three contact

sessions. This allowed students to work at their own pace and time as most of the theory-based course-work was presented online or outside of the lecture hall. The theories underpinning the educational approach is blended learning (Picciano, 2009), flipped learning (Herreid & Schiller, 2013) as well as the first principles of instruction according to Merrill (2002).

Therefore, the focus of this study is to observe graduate students, their perceived preparedness for their studies, experience of the blended teaching method particularly the more challenging technology component in the course. Our main question translates into the local vernacular the question posed by Milman, Posey, Pintz, Wright, and Zhou (2015), namely: “which supports and resources should be offered by institutions of higher education to promote success in online learning for online masters graduate students?” The research sub-questions are:

- What barriers do entrepreneurship students experience when starting their Masters’ studies?
- How does a blended environment influence their ability to overcome such barriers?

Literature

Blended Learning

Garrison and Kanuka (2004) approach blended learning as the thoughtful integration of classroom face-to-face experiences with online experiences where the emphasis is on integrating the strengths of activities from the two main delivery modes. Picciano (2009) furthermore posits that blended learning can accommodate students with diverse needs, intelligences, personality types and learning styles. However, he also calls for a purposeful blend of classroom and online activities informed by pedagogy that is driven by the course goals and objectives.

Flipped Learning

Flipped classroom can be described as “a new pedagogical method, which employs asynchronous video lectures and practice problems as homework, and active, group-based problem solving activities in the classroom” (Bishop & Verleger, 2013). The characteristics of a flipped classroom are not restricted to the above format. Jon Bergmann (2016), one of the first exponents of this teaching method emphasizes the exchange activities of individual and collaborative nature in the two teaching modes. This viewpoint allows adaptation of a flipped classroom to fully online environments, without losing the strengths of the “classroom”. Such an approach supports the study of content outside of the classroom (individual space) and application in a collaborative space, which we contend can vary from being inside a real classroom to an online classroom. Such concessions may be beneficial in supporting graduate students with time constraints due to work schedules.

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First Principles of Instruction

The educational practices are further based on Merrill's first principles of instruction. "Many current instructional models suggest that the most effective learning products or environments are those that are problem-centered and involve the student in four distinct phases of learning: (1) activation of prior experience, (2) demonstration of skills, (3) application of skills, and (4) integration of these skills into real-world activities" (Merrill, 2002; p.44). In cohorts with diverse background and pre-knowledge, these principles are indispensable. The flipped learning process can achieve those principles in a logical way. These first principles also suggest two layers of relationships. On the surface they identify learning activities that should be included in effective instruction while a second deeper, subtler level consists of structure-guidance-coaching. Moore and Fetzner (2009) argue that effective practices for engaging students and motivating them to persist can best be addressed through collaboration within and across learning organisations. The collaborative activities, peer critique and discussion, as well as the coaching conversation can operationalise the deeper layers of instruction that are also recommended by Merrill (2005).

The Coaching Conversation

Coaching conversation in general refers to a goal-directed, multi-faceted process for enhancing people, work and life. Coaching is further defined as a solution-focused, systematic process that supports reflective learning (Mühlberger & Traut-Mattausch, 2015). Coaching is also understood as an action oriented conversation that focuses on collaborative goal setting to construct solutions and employ goal attainment processes. The aim is to foster the on-going performance, self-directed learning and personal growth of the client (Mühlberger & Traut-Mattausch, 2015). More-over coaching aims to improve the attainment of self-congruent goals or conscious self-change and self-development. Coaching relationships inherently provide the opportunity to interact with a client on more than one level of engagement namely on a cognitive, behavioural and emotional level. This "helping process" provides a context where learning can take place.

"Building trust, understanding and managing coachees' emotional difficulties, having a two way communication process, facilitating coachees' learning and development and having a clear contract and transparent process were identified as the top five critical factors for enhancing the coaching process" (Lai & McDowall, 2014; p.15).

"Coaching furthermore is seen as a social support system. Social support presents a critical interpersonal resource that signals that one's well-being is valued by those providing support. Social support is a key interpersonal resource intended to enhance the well-being of the recipient" (Pluut, 2016).

Context

“The higher education sector in South Africa is in turmoil with ongoing student protests causing widespread disruptions and destruction” (Council of the University of the Witwatersrand, 2016). Protest actions resulting from campaigns for “Fees must fall”, Africanisation of curriculums and language policies were dominating the higher education landscape in South Africa. The University management therefore encouraged teachers to use more online activities in order for programmes to continue online when classes are disrupted in future. The study was done in a 14 week-long graduate Entrepreneurship course in the faculty of Economic and Management Sciences that was presented in English. The 10 students enrolled for the course were selected purely on their previous accredited academic degrees. They had diverse cultures and mother tongues; none were first-language English speakers, while the mother tongues of eight were indigenous African languages. They included two full-time students, while five worked for government agencies, the rest in the private sector of which two had their own businesses. Four were alumni of this University, including three with degrees in entrepreneurship, while one was a foreigner. The course was facilitated and managed by a senior lecturer in Entrepreneurship who is also a qualified business and personal coach. The course /module consisted of a theoretical as well as a practical application part. After completion of their course work article they had to submit a mini dissertation or an article as the final contribution for being awarded the MPhil degree. The overall outcome of the module was twofold; firstly, to enhance knowledge of the subject area namely entrepreneurial growth but also to assist them in their ability to do academic writing. The theoretical part introduced the student to the small business environment in South Africa dealing with the small business act, industries within the small business arena as well as growth possibilities for entrepreneurial businesses. The practical application part was aimed at developing a research ability in the growth field.

Teaching Design

In a blended learning approach, no traditional face-to-face lectures were given. The course was structured around five milestones each with its own outcomes to support students in successful completion of their studies. Course activities followed the instruction cycle (Merrill, 2002) to demonstrate, activate, apply and integrate knowledge into the students’ world. The blended learning approach depended on the use of technology in the University’s Blackboard Learn CMS (course management system). This was communicated to them in an online study guide and discussed in the first contact session. Online activities included analysis of journal articles, self-study and viewing online videos in preparation for a collaborative assignment. Class time was used for discussions and presentations. To achieve the outcomes, students had to reach five milestones. The first milestone was a face-to-face contact session in classic flipped tradition as an introduction and meeting of students, discuss the content of the course and what was expected from them. Discussion of the Small Business Survey demonstrated the small business environment. Merrill’s (2002) principles were evident in the activities as indicated in brackets. Due to the diverse background of the group it was necessary to help

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students to relate and apply the new knowledge to their existing or prior knowledge (activation of existing knowledge). In the class discussion students debated the report (application), tell the rest of the group how it applied to their business or industry (integration). The lecturer facilitated understanding of new and unclear concepts. The second milestone required online activities aimed at improving academic writing, by first guiding them in how to read an article and to reflect critically on what they learned by giving peer feedback. Students had to read three articles one week apart and analyse the articles based on criteria provided online. They received two submissions to peer review and provide feedback online. The third milestone addressing theoretical knowledge was also achieved online. They were required to watch content knowledge videos online in the individual space (activation of pre-knowledge) in their own time while applying that to a specific given case study. The outcome was evaluated in a test that also comprised the application of theoretical knowledge to a case study in the fourth session. Students also prepared a group assignment using own initiative to communicate and collaborate. The assignment had to be in article format, thus strengthening their academic writing skills. The fourth milestone represented the collaborative space activities of a flipped classroom consisting of a case study application and group assignment presentation. After writing the test, the groups presented their assignment. The last part of the session provided for an opportunity for peer feedback and discussions on the findings in the group assignments. After these four milestones it was required from students to schedule a meeting with the lecturer to reflect on their experience and progress and to discuss possible dilemmas that may hamper their studies. This was done to check in with students, connect with student on a deeper guidance-coach level to assure that each student progressed in such a manner that they can successfully complete their studies as suggested by Merrill (2005) to guide, coach and reflect on their progress. The interviews aimed to engage, motivate and detect early signs of dilemmas hampering students' success on personal and academic level. The fifth and last milestone consisted of the presentation of the individual assignments and wrapping up the course. The individual assignment was also completed in article format. The students did a literature review on the development in entrepreneurial growth research from 2011-2016 They reported on the status quo as well as made recommendations for further research The outcome aimed at improving their academic writing and to provide possible research topics for their mini dissertation later in the course.

Methodology

Considering the diversity of the small group of students, a was followed in the research, with the lecturer being a participant, observer and researcher. The researcher wanted to make sense of the student experiences within the blended learning format, the dilemmas experienced and suggest ways to successfully complete their studies. This involves description (of issues) and understanding (relational), but mainly sense-making and interpreting the multiple narratives describing the experiences. Data were collected on student experiences at key points during the course. Firstly, students were asked to complete a short survey after the first contact session to rate their preparedness for their studies on a 5 point Likert scale. The questions were informed by the challenges of graduate students who have studied some time ago (Pintz

& Posey, 2013). The possible challenges included: computer and internet access, general computer skills, using Library online resources, academic writing skills, conducting research, motivation and managing time. They could also list other anticipated barriers at this stage. Secondly students had coaching interviews with their lecturer after completion of the fourth milestone to reflect on their study experience, discuss their progress and to determine what they needed to successfully complete the coursework. The interviews were transcribed and analysed using qualitative analysis methods by allocating codes and grouping them into code families, according to emerging themes. After completion of the course, students provided written feedback on the technology aspects of the course that was also analysed thematically. Triangulation among findings provided a richly nuanced picture of students' experiences.

Findings

The questionnaire indicated that all but two students in the beginning had home computers, of which one used a computer at work and the other on campus in the laboratory; only one student had insufficient internet access, while three others had limited internet access. None was intimidated by new computer technology, while only one was unsure of how to use the Blackboard CMS. Half the class were unsure of using the online library resources, four were unsure of research terminology, while the largest group (seven) felt under-equipped for academic writing. Supporting the requirement for becoming self-regulated independent learners, they all had excellent motivation, but six did not think their time management skills and ability to balance work and studies were sufficient.

In the discussion on the first milestone, three students mentioned late registration as the reason they missed it. Registration procedures were disrupted at that stage, and students were not allowed access to campus to clear out problems with lecturers. They also felt uncertain of what was expected of them in the course, which caused unnecessary stress and wasted time. The other seven said that the first session was insightful, gave them an overview of the field, helped them to link it to their industry and alerted them to the course outcomes and deadlines. Discussing the report that they had to prepare for the first session was also helpful and the discussion and integration in their specific industries was insightful setting a base from which they could work in future.

The experience of milestone two focused on three issues: firstly, the online activities, value of analysing articles as well as giving and receiving peer feedback. The students said that the online activities benefited their overall studies, was however time consuming because they were unfamiliar with doing it online. Some had to reread it several times to make sense. Their experience of giving peer feedback varied from *felt inadequate* to *give sensible feedback, found it difficult, did not like it, was scared* and *did not trust [their] judgement*. However, seven enjoyed the feedback received. One student mentioned that he had spent a lot of time to give good constructive feedback but was unhappy about the effort of his peer reviewer. A lack of coaching on how to approach peer review, and the delays in completion of registration

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resulted in late engagement with the online systems, which added to students' poor confidence in their own judgment and abilities, as also reported by Pintz and Posey (2013):

"Giving peer feedback was difficult but receiving it was valuable"

"I did not feel confident enough to give peer feedback"

The discussion of on milestone three focused on the value and benefits of the videos. Students preferred videos above lectures, giving them flexibility in when and where to watch and watch again, all helping them to manage time better. They also commented on the practical examples discussed in the videos that allowed them to integrate it in their world of work and the value of application to the case study.

"I prefer watching the videos to a lecture"

"...the online videos allowed me better time management."

"I had internet problems that frustrated me a lot"

In the fourth milestone discussion the case study assessment and group assignment were dealt with. The students mentioned group work and collaboration, meeting online which saved time and the value of the intervention for their thesis. Under group work they mentioned sharing ideas, feeling supported, understanding and insight as well as communication online. Only one student reported that he did not enjoy group work. Another student reported that he battled to join a group due to late registration. Meeting online for group sessions (Skype™) was a benefit and time saver. Students referred to the online article analysis and reported that was a big help and time saver in finding suitable articles for their assignments. Two students also referred to how it benefitted their academic writing abilities. According to Merrill (2005) learning from application is enhanced when students collaborate with each other through active learning. It is more effective when they come up with a solution themselves, describe, discuss and defend their solution in an attempt to come to some agreed solution. The students experienced emotional and practical aspects of group activity:

"I like group work and enjoyed the interaction and collaboration. I felt supported and it help me to clarify uncertainty"

"Collaborating online saved so much time"

"I found it difficult to join a group due to late registration"

The students reflected on their experience of the interview session itself. The interviews were experienced as valuable on both a personal as well as an academic level. On the academic level students mentioned that it forced them to reflect on what they have accomplished up to that point, their marks, what they struggled with and what hampered them to complete their studies. It forced them to look at available resources and what was needed to complete their

studies. On a personal level they reported that they felt emotionally and physically supported, as somebody was listening and not judging. One student said that he realised he is his own worst enemy regarding procrastination and time management. Others afterwards said that they felt less stressed, had a clear way of where to go, felt supported and in control of their destiny after the coaching. Although such a conversation was new to them, it was very helpful and insightful. They said:

“I think the timing of the interview was good. I reflected on my progress and the way forward. I needed the support

“I felt supported on a personal and academic level. It forced me to look at my progress. I appreciated the guidance”

When concluding the course, the students were asked to reflect on the blended format and the use of technology in the course. The overall sentiment was that the bigger online component helped them to manage their studies and time better, allowed them a better balance between work/family and studies for it gave them flexibility to work when and how they wanted. It allowed for flexibility. However, three of the students complained about internet services that were unreliable, expensive and resulted in limited access.

The biggest hurdles to successfully achieve their overall study outcomes were observed as administrative matters resulting in limited access to campus due to protests, as only two were registered in time, their limited academic writing skills, time management, work/family/study balance, and procrastination. One student reported:

“Managing my office workload with my studies was very difficult. However, when my manager gave me the support to continue with my studies it became easier”

Initially the biggest hurdle was academic writing closely followed by understanding research and accessing electronic library resources. The structured approach to academic resources and practice in writing greatly enhanced their skill and confidence to write. Initially time management was the other great barrier, and it remained an issue. In the beginning, nearly half the group experienced internet barriers, even before they fully experienced high intensity online activities as part of blended learning. It is gratifying that only two at the end felt that the internet was a barrier. On the contrary, seven students were positive about the way the online environment helped them save time, manage time, work in their own time, and positively helped them to negotiate the biggest hurdle, namely balancing workloads, even if the internet was a challenge.

Conclusions and Recommendations

Students were initially particularly worried about their academic writing skills and their ability to juggle their time between studies, work and other responsibilities. Disruptions in the registration process resulted in many students missing the first orientation and not starting to

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interact with the CMS in time. This resulted in gaps in the foundation for academic writing skill outcomes, and eroded their self-confidence, a known barrier in graduate studies (Pintz & Posey, 2013). While disruptions increased the necessity of connectivity that was another barrier most students negotiated internet problems creatively. This resilience was possibly due to confidence in their general computer skills, that differs from barriers reported from other institutions (Pintz & Posey, 2013). The online environment was clear and structured. As reported elsewhere, these students also preferred videos to class lectures (Bergmann, 2016). Campus lockdown also resulted in collaborative assignments shifting from classroom to online environment, stretching the flipped approach. Surprisingly, students experienced online collaborative activities very positively due to convenient online meeting times, which helped them manage their time, one of their biggest concerns. The value of the coaching conversations turned most of their personal and learning barriers around, helped them with strategies to manage their time and priorities, and contribute towards successful course completion. Both the insights from the coaching conversation and the online learning skills contributed to the development of self-regulated, independent learners (Pintz & Posey, 2013). To answer the main research question, Universities should not shy away from replacing lecturing contact time in coursework Masters' degrees with online resources and self-paced and collaborative activities. Support should communicate the need for internet enable using the CMS and online Library resources. A structured, scaffolded introduction to research methodology and academic writing from the very beginning will allay many fears. In addition to online resources, recognition should be given to students' personal and emotional stresses and needs for which capable facilitation or coaching is indispensable.

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