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FROM ALIENATION TO PLACE- MAKING: OVERCOMING CREATION ANXIETY IN JOURNALISM STUDENTS THROUGH BLENDED LEARNING

ABSTRACT

In this article, journalism students' interaction with layout and page design software (specifically Adobe InDesign) is explored. It is an explorative inquiry into a practical research problem encountered by the author at a university of technology in South Africa. Initial observations revealed that students encountered significant challenges in performing basic layout tasks using layout software. To address this issue, a qualitative research approach was used to investigate how page layout could be taught to facilitate better comprehension of subject material. The theoretical basis of the study rests on two main postulations. Firstly, when students are confronted with new computer technologies, they find themselves in a liminal space characterised by uncertainty. Secondly, it is in this space that their uncertainty to perform basic newspaper layout techniques is manifested as creation anxiety. A questionnaire was distributed to students that informed the action research phase. Blended learning was implemented through two primary interventions namely e-learning content and video tutorials. The impact of these interventions was measured through the assessment of student work and interviews. It was found that blended learning improved students' understanding and practical application of subject material and facilitated in mediating their creation anxiety.

Keywords: blended learning; creation anxiety; digital immigrants; journalism education; liminal space; newspaper layout

INTRODUCTION

"We are as forlorn as children lost in the woods," writes Kafka. Not so long ago, Hansel and Gretel were able to find their way home by following breadcrumbs. Today, our "travels in hyperreality", to quote Umberto Eco (1986: 3), take university lecturers and their students to the remotest parts of cyberspace and other digital platforms made

accessible through cloud-based computer applications. While the implementation of new technologies and other digital tools are required to make classroom experiences interactive, the pertinent question is, What kind of digital morsels should be used to guide students back 'home' in an increasingly digitalised world?

Depending on the field of study, it is posited that lecturers working at institutions of higher learning in South Africa have three primary technological touchpoints with students. Firstly, "home base" is the university's online learning management system (LMS), such as Brightspace or Blackboard. These platforms have made it relatively easy to deliver educational courses, establish online subject repositories and interact with students synchronously and asynchronously (Raza *et al.* 2021). Secondly, in various classroom contexts lecturers are compelled to employ technology to engage students who demand to be "edutained". To grab binge-watching students' attention, different forms of digital and non-digital gamification are introduced in classrooms (Bowman 2020). Platforms such as Kahoot! and Quizlet have gained popularity, especially during the Covid-19 pandemic as learning activities had to be performed remotely. Thirdly, depending on the subject area, students have to master software, ranging from Microsoft Office and Adobe Photoshop to AutoCAD and SolidWorks. This often entails lecturers teaching software as standalone subjects or as integrated components in subjects with practical sections (Celen 2020).

In this article, the author explores how the aforementioned technological touchpoints could be used to address a specific barrier to student learning. In essence, the focus is on a practical research problem and the research takes the form of a self-reflexive, qualitative enquiry. The author observed how undergraduate journalism students at a university of technology in South Africa grappled to comprehend and execute tasks associated with desktop publishing software used in the layout of newspapers and magazines. Drawing from disciplines such as journalism studies, visual culture studies and education studies, the author aims to illustrate that tangible solutions to learning barriers could be found through the implementation of blended learning. The original contribution of the study is two-fold: it theorises the student-computer interactional space as fluid and liminal; and it introduces the phenomenon of creation anxiety in the field of journalism.

The article is structured as follows: in the first instance, background to the research problem is provided by briefly discussing the aspects of newspaper layout that students find challenging. Alongside the practical research problem, the author delineates liminal spaces and the newly theorised phenomenon of creation anxiety. As this research is focused on finding tangible solutions to a practical research problem, ways to aid student-centred classes are explored. This is achieved by detailing how the author conceptualised a new pedagogical subject framework for her subject. Here the blended learning approach, as well as the inclusion of video tutorials to augment teaching and learning activities, is discussed. The second part of the article focuses on how action research was implemented, along with the evaluation of the action plan. Lastly, verbatim statements from students are incorporated to illustrate the effectiveness of the blended learning approach to facilitate newspaper layout classes and to overcome creation anxiety.

LIMINAL SPACES AND THE PHENOMENON OF CREATION ANXIETY

The study is primarily concerned with the manner in which journalism students at institutions of higher learning interact with desktop publishing applications used in the creation of newspaper and magazine layout. To contextualise the research issue broadly, the content of qualifications (such as a diploma in journalism and media studies registered with the South African Qualifications Authority (SAQA)) shows that various exit-level outcomes relate to visual and design capabilities. These include the ability to apply knowledge of print reporting practices and document design aesthetics; the ability to communicate effectively using visual skills; and the ability to edit and produce print media products by applying the knowledge of visual values and news genres (SAQA 2019a; SAQA 2019b; SAQA 2019c).

To achieve the aforementioned exit-level outcomes, subjects related to media production are offered. A cursory overview of the registered journalism qualifications at SAQA, along with prospectuses of various South African universities, reveals that media production in its various forms (print, broadcast, and digital media) is a core module that all journalism students must complete (Cape Peninsula University of Technology 2021; Durban University of Technology 2021; Tshwane University of Technology 2021). The practical components of media production subjects generally entail gaining proficiency in media production software such as InDesign, Photoshop, Dreamweaver and Premiere Pro that are part of the Adobe Creative Suite. In some instances, print media production specifically entails mastering newspaper and/or magazine layout. These practical media production components increasingly demand high visual literacy rates in students (Avgerinou & Petterson 2020).

Broadly defined, visual literacy is understood to be a set of abilities that enables one to effectively evaluate, use, interpret and create various forms of visual media and images (ACRL 2011; Kędra 2018). When limited visual literacy is present in individuals, they are unable to successfully complete tasks that demand their comprehension of visual media along with other activities in which aesthetic evaluation is required (Matusiak *et al.* 2019). In the context of journalism students performing hands-on newspaper layout tasks in a computer laboratory, limited exposure to computer software along with limited visual literacy result in a barrier to learning. Students find it difficult to comprehend design concepts and perform practical layout tasks (Bleed 2005).

When the author lectured newspaper layout and design to novice second-year journalism students, it was observed that a large section of the class was unable to perform basic layout tasks in InDesign and basic navigation to file locations on the computer laboratory's server was a cumbersome undertaking. Newspaper layout and design require students to be computer and visually literate and when either of these literacies is not present, students experience barriers to learning (Kaeophanuek *et al.* 2018).

Instead of investigating students' hesitance to use computers and their limited visual literacy skills purely through the lens of educational technology, the author opted to employ constructs used in visual culture studies. Van Gennep (in Czarniawska & Mazza 2003: 269) first used the term "liminal" in 1909 to denote rituals of transition.

The concept of liminality was further investigated by Turner (1984) to describe liminal rites that are performed in front of spectators to mark the passage from social invisibility to social visibility. Liminal or transitional spaces are characterised by the blurring and merging of boundaries, temporary feelings of pain or frustration, and unstableness (Cousin 2006; Czarniawska & Mazza 2003).

Van Gennep’s delineation of the three stages inherent to rites of passage are “separation (divestiture), transition (liminality) and incorporation (investiture)” (Czarniawska & Mazza 2003: 270). The first stage involves separation during which the social agent is separated from his/her previous social world. During the second stage, the social agent undergoes transition and experiences a liminal condition. The third and final stage involves incorporation that enables the social agent to enter a new social group and/or a new life.

The author proposes that liminality, liminal space, and rites of passage can be evoked in this particular educational context where students with limited visual literacy skills exhibit hesitancy in adopting technologies. As such, these constructs are used to describe the developmental process in a classroom where students with limited exposure to advanced computer software have to engage in certain tasks to meet learning outcomes inherent to computer-based subject matter such as newspaper layout.

Drawing on Ellapen (2007: 116), the space between computers and students aiming to perform a layout task is theorised as a “threshold space of liminality and in-betweenness”. This threshold space positions the student between adaptation (represented by the computer software) and pre-adaptation (the student’s lack of exposure to technology). Although the space is described through the use of binary oppositions and with reference to a certain divide, so-called liminal spaces, or the “third space of hybridity”, are “conceptualised as key sites of intervention” (Mitchell 1997: 255). Van Gennep and Turner (in Czarniawska & Mazza 2003: 272) argue along similar lines and state that liminal spaces offer “a sense of freedom [and] a possibility of creation”.

It is argued that students enter a liminal space when they sit in front of a computer to learn practical skills pertaining to newspaper layout and design. The space is regarded as a developmental site as it offers students the opportunity to acquire new skills. This liminal space is entered and exited by means of the three stages inherent to rites of passages, as depicted in Table 1 (adapted from Czarniawska & Mazza, 2003: 270).

TABLE 1: STAGES OF RITES OF PASSAGE

Stage 1: Separation	Stage 2: Transition	Stage 3: Incorporation
Subject is separated from their previous social world	Subject experiences a liminal condition	Subject enters a new group and/or a new life

The three distinct stages and their application to the research context is theorised as follows: stage 1 is termed “separation”. The student, a digital immigrant in this particular

research context, is separated from “familiar” software (Microsoft Office programmes such as Word/Excel) and they have a vague understanding of new software such as Adobe InDesign and Photoshop.

Stage 2 is “transition”. The student experiences a liminal condition and creation anxiety is manifested. Due to the unfamiliar space and design constructs they encounter while working in InDesign and Photoshop, an “uncomfortable emotional repositioning” takes place (Cousin 2006: 4). The student is on a learning journey and might feel unsafe, uncertain or simply out of place. In order to feel or experience “safety”, students perform “mimicry” (Cousin 2006: 5). This means students would mimic the actions of their lecturer as they perform and explain layout tasks. Copycat behaviour is exhibited and the work produced by students is not particularly creative as they simply imitate supplied examples and dummy layout packages.

Stage 3 is called “incorporation”. The student enters a new skills grouping, namely the realm of digital natives. This stage is reached when the student has fully grasped new layout techniques. During this stage, the student’s initial mimicry becomes mastery. The student’s behaviour exhibits traits such as independence, confidence, and originality. While in stage 2 the student produced work with limited creative elements, layout produced in stage 3 is regarded as more imaginative. The time it takes to transition from stage 2 to stage 3 differs from student to student and the exact timeframe was not measured in this research. Thus, the rite of passage is completed, as it entailed moving from a state of minimal technological adaptation to becoming more confident because of newly acquired technological and visual literacy skills.

In addition to the identified state of liminality, the author proposes that students who encounter Adobe Creative Suite software such as InDesign and Photoshop for the first time, experience creation anxiety. The concept of creation anxiety has not been extensively theorised or described in literature. It has only been investigated by Rovira (2008: 16) with reference to the English Romantic period myth “of a creature” that turns “against its creator” as manifested in William Blake’s and Søren Kierkegaard’s writings. Similarly, Truffin (2014) refers to creation anxiety in Gothic metafiction where protagonists fear their creations and/or miscreations. In Truffin’s research, reference is made to writer’s block and writers who are trapped within the writing process. Writers not only fear that they will cease to exist upon finishing their literary works, but they also fear that their creations will haunt them (Truffin 2014).

Apart from the aforementioned academic texts, no formal definition of creation anxiety exists within the journalism context. The author proposes that creation anxiety can be re-theorised as *angst* associated with the process of creating a visual artefact. Similar to the original myth of a creation that turns against its creator, it is proposed that students experience a certain type of fear that impedes them from crossing the threshold of liminality to become competent creators of visual products. For example, they might fear that their visual product (the newspaper layout) could be interpreted as chaotic, aesthetically displeasing, or simply against good design principles. In addition, the blank, white page and the myriad of buttons and design tools positioned along the margins of the InDesign workspace might be overwhelming for first-time users. They

fear that their creation could be “wrong” and they will be awarded poor marks for their visual layout packages.

Whereas writer’s block is associated with the “inability” to produce literary works, it is suggested that creation anxiety occurs in the domain of design and visual production (Rose 2009: 13). It is a temporary condition that occurs when, for example, inexperienced students are confronted with new design software or design techniques. As creation anxiety is regarded as a temporary condition, it is apt to attribute it to the liminal space in which inexperienced students find themselves when performing layout and design tasks. While in the liminal space, students “oscillate between old and emergent understandings” of computer software and design (Cousin 2006: 4). Students further give “child-like responses to their transitional status” (Cousin 2006: 4). Statements such as “I am feeling lost”, “I cannot do layout”, or “I do not understand design” are common when students have to perform basic layout tasks. The author also observed that students, who are at first unable to cross the threshold, would stare at their computer screens without attempting to actively engage in the layout and design process.

Cousin (2006: 5) argues the liminal state is a learning journey and students construct safety nets by practicing mimicry – they mimic what their lecturer is doing. Although mimicry is a point of departure, deep learning cannot be achieved. It is here that technological pedagogical content knowledge could assist lecturers to help students cross the threshold, overcome creation anxiety, and achieve mastery of learning outcomes.

SELF-REFLECTION AND THE CONCEPTUALISATION OF A NEW PEDAGOGICAL SUBJECT FRAMEWORK

From a practical perspective, one needs to find a realistic way to teach students who lack visual and computer literacy skills to be competent creators of visual media. The author opted to perform explorative research to investigate the issue. Firstly, the author reflected on her own pedagogical approaches to teaching newspaper layout to conceptualise a new subject framework that would not only include learning material to enhance students’ visual literacy and design skills, but also to aid in the facilitation of interactive student-centred classes.

Hattwig *et al.* (2012: 64) state, “Students’ visual competencies are not always aligned with [lecturer] expectations or academic demands”. This is also the case with basic newspaper layout and design students. The author observed during practical classes that the majority of students could not digitally modify photographs appropriately. For example, when photographs were given to students to crop and resize proportionally, students would distort the photographs, and when asked why the photograph was rendered unusable, students were unable to pinpoint their mistakes. Moreover, they did not have the ability to evaluate their visual products critically. Students’ inability to use software competently to manipulate and modify images could be ascribed to low levels of computer literacy (Bates 2019; Brumberger 2011).

To address these issues, a new pedagogical framework was established to “promote sustained improvement in student achievement” (Department of Education, Training and Employment 2012: 1). The four core principles encapsulated in the framework were derived from the Queensland Education Framework and include student-centred learning, the alignment of the curriculum to assessment opportunities, innovative instruction methods, and the establishment of “connected and inclusive learning environments” (Department of Education, Training and Employment 2012: 2).

According to Otrell-Cass *et al.* (2012: 370), the process of fusing one’s teaching practices with knowledge regarding the benefits and advances of technology is called “technological pedagogical content knowledge”. During this process, educators reflect on the information and communication technology (ICT) available to them and on how they could incorporate or infuse ICT in their teaching practice to create student-centred learning environments.

During the establishment of a new pedagogical framework, the blended learning approach was researched. This teaching approach, according to Dzakiria *et al.* (2006), advocates for the infusion of traditional teaching with technology and media tools. Since the newly formulated technological pedagogical content knowledge framework for newspaper layout and design aimed to incorporate technology to create an interactive learning environment, the blended learning approach offered the ideal structure on which the framework could be based.

Brief overview of the blended learning approach

Blended learning is a teaching strategy that “combines the use of multiple delivery media that are designed to [...] promote learning” (Dzakiria *et al.* 2006: 11). Garrison and Kanuka (2004: 96) elaborate on this definition by stating that blended learning is the “integration of classroom face-to-face learning experiences with online learning experiences”. Blended learning fuses synchronous learning activities, such as face-to-face classroom instruction and asynchronous learning activities, such as online educational content, to create enhanced classrooms where students are able to interact more fluidly with learning content (Garrison & Kanuka 2004; Levin 2012; Parry 2012).

Authors such as Baker (2000) along with Lage *et al.* (2000, in Strayer 2007: 2) refer to this teaching approach as the “classroom flip” or the “inverted classroom”. In essence, it entails removing lecture material from the classroom and placing it on digital platforms where learning content is delivered (Alonso *et al.* 2005: 232). Another important characteristic of the blended learning approach is engagement and conversation with students. In this approach, conversation is extended through “threaded discussion” (Strayer 2007: 2). For instance, lecturers could create blogs and wikis on Blackboard, a learning management platform, where learning modules could be discussed or they could post video tutorials on YouTube where students could leave comments (Alonso *et al.* 2005; Hughes 2007; Koller 2011). When discussion boards are created, these enable students to pose and answer pertinent questions as well as discuss problem areas.

Interactive learning content is also at the heart of the blended learning approach (Alonso *et al.* 2005; Garrison & Kanuka 2004; Holley & Oliver 2010). It is proposed that the establishment of a learning community is an effective method to open communication channels and foster dialogue between lecturers and students (Garrison & Kanuka 2004). One method to create a learning community is to create an online subject page or an online learning environment via a content management platform. Liu *et al.* (2003) emphasise that meaningful learning environments with enhanced e-classrooms, online content, and methods of online interaction should be created to support learning outcomes. Moreover, not only do meaningful, interactive learning environments foster dialogue between lecturers and students, engagement also leads to better understanding of subject matter (Alonso *et al.* 2005).

Another engagement tool at lecturers' disposal is audio-visual material. Prensky (2012: 2) argues, "Short video has already replaced text as the preferred method for learning". It is clear that videos have become an integral part of courses facilitated according to the blended learning approach.

Video tutorials: Watch and learn

The use of video material in classrooms is not a novel concept and educators have used videos as "representational and communicative resources[s]" for long (Otrell-Cass *et al.* 2012: 370). The inclusion of television and video content in educational settings occurred since the 1960s (Bates 2019). Otrell-Cass *et al.* (2012: 371), however, point out that in previously recorded studies, students only passively watched the videos shown in class without any form of engagement. Yet the introduction of interactive video or digital video technology, which is available on electronic platforms and/or websites, has changed the manner in which lecturers and students interact (Bates 2019). Likewise, Guimarães *et al.* (2000) state that the products of digital technology, such as videos, are "new learning artefacts" that provide novel opportunities for lecturers to augment teaching and learning.

Rosaen *et al.* (2008 in Otrell-Cass *et al.* 2012: 371) suggest, "Videos provide unique opportunities to capture, process, research, and present information and can even promote critical teacher-student reflection of their classroom experiences". The process of watching a video tutorial could help students reflect on the importance of the content presented in the video; moreover, educators are afforded the opportunity to present learning content in an interactive way (Prensky 2001a).

Additionally, Guimarães *et al.* (2000: para. 27) state that videos enhance students' "natural experiential cognitive attitudes[s]" that enable them to "stop, think, and correlate different types of information". This is in line with other studies that indicate that videos assist students in drawing parallels to information (Alonso *et al.* 2005; Bates 2019).

See you in my e-class: Learning management systems

Although videos and online learning content can aid students, there has to be a platform on which students can access video tutorials and digitalised learning content.

Part of the blended learning approach is facilitating classes electronically. Blackboard is an online learning management system that serves this purpose. Sanserm (2010: 28) defines a learning management system as “a system that is used to create, store, assemble, and deliver personalised e-learning content in the form of learning objects”.

Blackboard provides lecturers with the opportunity to structure their e-classrooms in such a manner that optimal, interactive learning environments are created. One model that can be used to construct an effective online learning environment (e-classroom) in which students can navigate and create digital learning paths is the “hyperscapes model” (Guimarães *et al.* 2000). The hyperscapes model allows lecturers and course designers to structure online content in such a manner that it facilitates interactivity and provides students with cognitive mapping support (Alonso *et al.* 2005; Sanserm 2010).

METHODOLOGY

Qualitative action research was conducted as it focused on a single educational problem. The action research process encapsulated the identification of the problem area, the collection of data to support the identified problem, the implementation of an action plan to address the problem, and the evaluation of the action plan’s effects. It is important to note that the data collection and evaluation of the action plan took place prior to the Covid-19 pandemic.

Action research is usually conducted within an educational context and one of its main aims is to uncover how an educator’s teaching practices can impact students (Ferrance 2000; Hattie, 2012). It is a reflective process and a collaborative activity that provides a method for an educator to analyse his/her “educational practice” with the intent to change and improve his/her teaching practice (Ferrance 2000: 1). Based on initial classroom observations, it was presumed that newspaper layout and design students found the layout and design software InDesign difficult to master as they struggled to perform basic page layout tasks. It was also presumed that the method of instruction might not be adequate for the optimal understanding of InDesign and basic layout techniques. Based on these presumptions, the following research question was formulated: How can InDesign and page layout be taught to students in order to facilitate better comprehension and retention of subject material?

While the research followed the general action research process, questionnaires, two layout assessments, and interviews were used to collect data. The data collection entailed approaching 79 second-year journalism students who were enrolled for newspaper layout and design classes. A questionnaire with closed and open-ended questions was distributed to obtain data regarding the students’ demographics, their opinions about the software, aspects of InDesign that they had difficulty with, and aspects of the software they enjoyed. In total, 54 students completed the questionnaire.

To investigate design competency further, the same 54 participants completed a practical layout exercise after attending a class that was facilitated using the existing method of instruction. This mode entailed students watching the lecturer perform newspaper layout techniques. The students followed the class by watching the lecture

on a data projector screen and following step-by-step instructions printed in hard copy format. This exercise was assessed according to a rubric.

Based on the preliminary data from the questionnaire and layout exercise, the author opted to implement the blended learning approach as an intervention tool. It involved the following work schedule: firstly, all learning material was digitised: that is, all notes, PowerPoint slides, and hard copy hand-outs were digitalised into soft copy documents. Secondly, as the participants consisted of digital natives and digital immigrants, combining videos of learning content with class notes would cater for both segments of the group. Prensky (2001b: 2) argues that digital natives prefer “receiving information fast”, multi-tasking, and accessing information through “random access [...] hypertext”. Digital immigrants, on the other hand, prefer learning by performing individual tasks “step-by-step [and] one thing at a time” (Prensky 2001b: 2). Blended learning provided a good balance as it incorporates face-to-face classroom instruction with hard copy notes, as well as e-learning through video tutorials.

As part of the action plan’s second phase, the digitised learning material was presented through video recordings. Short video tutorials of learning units, such as design basics, InDesign tools and workspaces, methods to modify photographs, and the page layout of news packages, were produced. Camtasia, which is video recording software, was used to produce the videos. Additional video graphics, such as text explaining InDesign shortcut keys along with instructional objects such as “appearing” arrows and circles, were incorporated in the videos to supplement the author’s voiceover narrative.

The third phase entailed creating an e-classroom based on the hyperscapes model. An e-content site was built that students could visit to access information through hyperlinks and various content folders, without following a specific linear or sequential order. This is in line with the blended learning notion, which recommends that information should be co-constructed by lecturers and students (Bates 2019; Kukulska-Hulme & Traxler 2005; Liu *et al.* 2003; Park 2011). After the e-classroom was created on Blackboard, the video tutorials were uploaded and the participants in the research could remotely access the video content. Then, the participants were sent links to the videos and were instructed to watch the videos on Blackboard prior to the next practical layout class.

Subsequent to the implementation of the blended learning approach, the effects of the intervention were assessed to determine if an improvement in the participants’ comprehension and competency of InDesign and basic layout techniques had occurred. The assessment took the form of another practical exercise. The two video tutorials that were uploaded to Blackboard were re-watched by the 54 participants. After watching the videos, the students were given the same instructions as in the first practical exercise to complete the layout of one news package (headline, text, photograph, and caption). However, a different newspaper story and photograph were used in the second exercise. The author then assessed the practical layout work of the participants with the same rubric used in the first practical exercise.

Finally, the 54 participants who answered the questionnaire were approached to participate in interviews after the blended learning approach was implemented. In total,

18 interviews took place. The interview schedule focused on how the space between students and a technological interface could be interpreted and students' affective responses to working in InDesign. Questions centred on how students felt when they first interacted with InDesign, how they felt after watching the video tutorials, and whether the video tutorials had an impact on how they perceived newspaper layout and design. The interviews were transcribed and the responses were coded through thematic analysis.

FINDINGS AND DISCUSSION

Questionnaire and practical exercise

Data from the questionnaire showed that the 54 participants were a heterogeneous mixture of digital natives and digital immigrants. The terms digital native and digital immigrant were coined by Prensky in 2001. The former refers to individuals who are "native speakers of the digital language of computers, video games and the Internet" and the latter refers to individuals who have not fully mastered the use of computers, the Internet, and computer software packages (Prensky 2001b: 1).

The following also supports this stratification between digital natives and digital immigrants: the average age of the respondents was 21. In total, 35% came from rural areas in South Africa; 38% did not have access to computers at the high schools they attended; 25% did not have personal laptops or computer facilities at home; and 73% did not have access to the Internet at home.

The following areas of concern pertaining to InDesign newspaper layout were identified in the questionnaire: 48% stated that locating and working on master pages were difficult; 52% stated that they had difficulty with creating ruler guides and measurements; 56% did not know how to balance text; 22% found following textual instructions problematic; 59% stated that they had trouble positioning the elements of a news package (headline, text, photograph, and caption) on a page; and 54% indicated that they were not able to crop and resize photographs proportionally.

The comparative data in Table 2 reflect a similar situation. The low percentage of students who were able to meet the criteria in the first practical exercise echoes the questionnaire responses. Areas flagged as problematic in the questionnaire responses correlate with the criteria where students performed poorly.

TABLE 2: COMPARATIVE ANALYSIS OF TWO PRACTICAL PAGE LAYOUT EXERCISES

Criteria	Exercise one Percentage of students who met the criteria (N=54)	Exercise two Percentage of students who met the criteria (N=54)
Placement of text according to instructions	37	87
Placement of headline according to instructions	70	85
Placement of caption according to instructions	43	83
Use of paragraph styles according to instructions	22	59
Placement of photograph according to instructions	74	85
Cropping of photograph according to instructions	35	50
Resizing of photograph according to instructions	17	72
Adherence to spacing requirements (ruler guides and measurements)	0.5	44
Balancing text	0.7	24

The situation is, however, radically different when the percentage of students who met the criteria in the second exercise is studied. The assessment of the two practical exercises shows a clear improvement in the participants' practical application skills pertaining to basic layout techniques. Based on the data, it can be deduced that video tutorials facilitated through the blended learning approach resulted in a measurable improvement in the participants' ability to follow instructions and their ability to create and complete the layout of one news package.

Drawing on the comparative analysis of the practical exercises and data from the questionnaire, it is suggested that the implementation of the blended learning approach and the introduction of video tutorials improved the "multidimensional visual-spatial skills" of the participants (Prensky 2001a: 4).

Interviews

The digital natives and digital immigrants interviewed had distinctly different responses to using InDesign. Both student groupings were asked: How do you feel when you have to complete the layout of a news package in InDesign? The following verbatim statements (Table 3) indicate that certain digital immigrants associated the software and newspaper layout with being anxious, being disorientated, or going astray. These feelings are symbolic of students' state of alienation when confronted with new technology and signal the first stage of the rite of passage. It also points to the creation anxiety the students experienced when they had to create a news package and master new subject content.

TABLE 3: DIGITAL IMMIGRANTS' INTERVIEW RESPONSES

Theme	Verbatim quotations
Anxiety	<p><i>It made me feel nervous. It was kind of scary. You cannot grasp those shortcuts (Participant 1).</i></p> <p><i>At first, I was scared because I did not know how to use a computer (Participant 2).</i></p> <p><i>Maybe a bit of panicking because it is something new. You are worried if it [the layout] will be okay (Participant 4).</i></p> <p><i>It depends, sometimes I feel nervous and sometimes I feel relaxed. Sometimes I feel very, very nervous when doing layout (Participant 8).</i></p> <p><i>I feel a little bit anxious when sitting in front of a computer (Participant 16).</i></p>
Alienation	<p><i>[...] because I do not have a computer background I am scared of making mistakes (Participant 16).</i></p>
Disorientation	<p><i>When I need to do layout I sometimes feel lost because there are so many pictures [tool icons in InDesign] there. I do not know which one to pick (Participant 2).</i></p>

Conversely, digital natives used metaphors that referred to place-making in answering the question: How do you feel when you have to complete the layout of a news package in InDesign? (Table 4). They feel they “belong”; the software affords them the opportunity to enter their “own world”; and there is no separation, alienation or isolation between them and the software. The students expressed feeling “free” and likened layout to a performance on a stage. Interestingly, the digital natives used place-making metaphors to describe their interactions. This points to them feeling at ease with the layout software and to their adaptation to performing tasks in a digital space.

TABLE 4: DIGITAL NATIVES' INTERVIEW RESPONSES

Theme	Verbatim quotations
Familiarity	<i>I cannot wait to do layout. I feel very excited [...] layout never makes me feel nervous. I do not get scared (Participant 13).</i> <i>When I sit in front of a computer, I am not nervous. It is something I have been using for a while (Participant 5).</i>
Belonging	<i>Layout makes me feel like I belong because I am a creative person (Participant 13).</i> <i>I feel okay when I sit in front of a computer. I understand what I am about to do. I am not scared of a computer. I also feel okay when I do layout. Although you can make mistakes, I do not feel like I am going to be isolated when I have to use the program (Participant 7).</i>
Place-making (spatial metaphors/ references)	<i>You get into your own world (Participant 13).</i> <i>It [working on a computer] is like singers getting on a stage and doing what [they] love (Participant 13).</i> <i>Doing layout is liberating. I am more free – you can play around in the program (Participant 5)</i>

The impact of the teaching intervention was explored by asking the participants: How would you describe your overall experience of InDesign or your emotive response to it and layout after watching the video tutorials? The students' verbatim statements in Table 5 point to familiarity and belonging. Students expressed feeling "free", "normal", "familiar", "in control", and "comfortable" when completing basic newspaper layout after having watched the video tutorials repeatedly.

TABLE 5: COMBINED RESPONSES TO INDESIGN AFTER INTERVENTION

Theme	Verbatim quotations
Familiarity	<i>[...] but when you get used to it [InDesign shortcuts], it is easy to remember (Participant 1).</i> <i>At first layout was a bit tricky but as time progressed, the videos illustrated how InDesign works and it became easier (Participant 3).</i> <i>I am familiar with the program. I feel free. I was following whatever you said [in the video] (Participant 6).</i> <i>Now it is just normal for me because I am familiar with the computer program. I do not feel anxious or uncomfortable, I now feel free (Participant 15).</i> <i>I felt nervous before I knew what a computer was. As time went on, I started becoming more familiar with it. At first I was nervous, but after having classes and watching some videos, I was okay (Participant 18).</i>

Theme	Verbatim quotations
Belonging	<p><i>It feels normal. When I first started InDesign I was not comfortable and design was difficult. But having the videos you made for us, I feel like I have a second lecture when I watch them (Participant 9).</i></p> <p><i>After watching the videos, I felt in control, knowing that I [was] doing the right thing (Participant 2).</i></p>
Place-making (spatial metaphors/ references)	<p><i>I feel free. I was following whatever you said [in the video] (Participant 6).</i></p>

The responses indicate that the students have progressed from a state of estrangement to the third state in the rite of passage, namely assuming, internalising and adapting to their new role. In short, this new role has to do with being more visually literate and at ease with InDesign. It is therefore assumed that the liminal state and creation anxiety experienced by the participants were bridged, to some extent, by exposing them to new technologies that aimed to guide them to successfully master the subject content.

It is accepted that whenever there are student-technology interactions, educators are given the opportunity to implement learning interventions (Bates 2019; Hattie 2012; Ferrance 2000; Matusiak *et al.* 2019). Therefore, if the actual space in front of a computer is not only regarded as a site for a learning intervention, but also as a liminal space, it could help explain students' emotive responses to technology. This theoretical position is substantiated by the results of the comparative analysis that showed a dramatic improvement towards the mastery of basic layout techniques after watching the video tutorials. This points to the transition that took place, namely moving from a place of alienation and creation anxiety to a familiar, digital world characterised by the understanding of layout and design principles.

CONCLUDING REMARKS

This research focused on an educational problem the author encountered while presenting practical newspaper layout classes to second-year journalism students. After surveying different types of educational intervention strategies, it was decided to conduct action research and a new pedagogical subject framework was conceptualised. During the intervention stage, a "mediated learning" method was implemented (Winters 2006: 9). This was done to investigate whether subject material – newspaper layout and design techniques – presented through technology and video tutorials could improve the participants' comprehension thereof. Following the blended learning approach, a complete online subject platform was created. This platform presented both text-based learning content and video tutorials of the subject material. Otrell-Cass *et al.* (2012: 370) emphasise that integrating digital technologies into curricula help to focus the curriculum and complement teaching and learning activities.

The secondary aims of the research were to theorise the physical space between students and computer screens as liminal; and to show that creation anxiety exists when students are confronted by new technologies that have to be adopted. These aims were achieved through interviews with students that showed the existence of anxiety, hesitance, alienation, and disorientation in their interactions with technology. Moreover, the interviews showed the transitional nature of the liminal space in which students find themselves. While creation anxiety is a barrier to learning, the implementation of the blended learning approach assisted in ushering students over the liminal threshold. Instead of being in a perpetual state of uncertainty and anxiety (stage 1 separation), using training videos and other digital delivery methods assisted in shifting/improving their skills (stage 2 transition) until the skills were integrated into their ability to perform basic layout tasks in InDesign (stage 3 incorporation).

The author acknowledges that the research has various limitations: only one student cohort's interactions with InDesign were studied; the sample size was small; the data collection instruments were not piloted; and the visual literacy skills level of the research participants were not determined prior to the study's onset. As a result, the findings cannot be generalised across all journalism student populations in South Africa. It is further recognised that the effects of test anxiety in educational contexts were not investigated, although the layout exercises were not formal tests.

The research aimed to illustrate that action-based applied research could assist lecturers in enhancing their teaching practices. With regard to future research directions, further studies on using the blended learning approach for other journalism subjects, such as news reporting, multimedia journalism and data journalism, could be explored. Finally, the field of journalism education could benefit from further systematic investigations into heuristic approaches to solving design and visual literacy problems.

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