



University of
Salford
MANCHESTER

Does PAL work? An exploration of affect amongst First-year HE in FE students

Bosmans, D, Thompson, RK and Young, E

10.30958/aje.6-1-2

Title	Does PAL work? An exploration of affect amongst First-year HE in FE students
Authors	Bosmans, D, Thompson, RK and Young, E
Publication title	Athens Journal of Education
Publisher	Athens Institute for Education and Research (ATINER)
Type	Article
USIR URL	This version is available at: http://usir.salford.ac.uk/id/eprint/56198/
Published Date	2019

USIR is a digital collection of the research output of the University of Salford. Where copyright permits, full text material held in the repository is made freely available online and can be read, downloaded and copied for non-commercial private study or research purposes. Please check the manuscript for any further copyright restrictions.

For more information, including our policy and submission procedure, please contact the Repository Team at: library-research@salford.ac.uk.

Does PAL Work? An Exploration of Affect amongst First-year HE in FE Students

*By Daniel Bosmans**
Emma Young†
Rachael McLoughlin‡

The study evaluates a peer-assisted learning (PAL) scheme as an effective strategy in alleviating levels of negative emotions and, in the process, contributes to explorations of affect in first-year students in an HE in FE environment, with a particular focus on anxiety and related emotions. Various types of anxieties are defined in the context of a student's experience in HE, followed by an explanation of the present interventional study in an HE in FE institution, including the survey method used to collect data analyzed through SPSS. Surprisingly, the main findings are that overall anxiety and worry increased for students belonging to most faculties with time, regardless of participation in the PAL scheme. A positive finding was nonetheless that anxiety levels increased more steadily for students who belonged to the control group. The PAL scheme may have thus influenced how less anxious PAL students felt, compared to those who did not participate in the PAL scheme who were left feeling more anxious at the end of the semester.

Keywords: Affect, Anxiety, HE in FE, Peer-Assisted Learning (PAL), Transition

Introduction

The aim of this paper is to explore affect in first-year students in HE, with a particular focus on anxiety and related emotions, and evaluate a peer-assisted learning (PAL) scheme as an effective strategy in alleviating levels of stress and anxiety. In recent years, students' mental health and well-being have been the object of several studies that have highlighted the alarmingly increasing rates of depression, stress and anxiety amongst university students all over the world (Gaddis, Ramirez & Hernandez, 2018; Lee et al., 2018; Viskovich & Pakenham, 2018; Moore, Pollio, Hong, Valencia, Sorrell, & North, 2018; Carter, 2016; Adewuya, Ola, Olutayo, Mapayi, & Oginni, 2006; Nerdrum, Rustøen, & Rønnestad, 2006; Aktekin, Karaman, Senol, Erdem, Erengin, & Akaydin, 2001; Stewart-Brown, Evans, Patterson, Petersen, Doll, Balding, & Regis, 2000).

First-year students are potentially more likely to drop out because of anxiety and other emotions related to affect than in subsequent years of study (anxiety being one of the attributes of neuroticism in the Richardson, Abraham & Bond (2012) meta-analysis of variables correlating with students' performance). The first weeks in an HE institution are possibly the most stressful and anxiety may

*Academic Development Lecturer, University Campus Oldham, University Way, UK.

†Head of Student Journey, University Campus Oldham, University Way, UK.

‡Research Assistant, University Campus Oldham, University Way, UK.

drop after this settling-in period. Peer-assisted learning (PAL) schemes have recently been praised as a panacea to a whole range of issues affecting students' engagement and autonomous learning and they have been used as a source of additional support to first-year students in HE institutions across the globe (Arendale, 2014). PAL has, however, proved to be useful in other ways which may not have been obvious at first, for instance when tackling issues in relation to the affective state of HE students. Concerns about students' mental health are not new but it seems that it has now become a global phenomenon and much research has recently focused on this worrying issue (Richardson, Abraham, & Bond, 2012). The majority of research into this transitory phase in a student's life is based on HE institution study where these topics have all been documented (MacAskill, 2012). A student's former educational experience moving on to a new learning context, a difficult separation from friends and family and, usually but not always, a change in living conditions triggered by moving to one's university location can all contribute to the levels of stress a student may experience in their first year in an HE institution.

The present research based in an HE in FE context is understandably exploring problems which are somewhat different to those faced by students in a more traditional HE setting. Students in this context often come from widening participation (WP) or are returners to education; they commute to their college, struggle with balancing family life, work and study and may suffer from feelings of inadequacy leading to negative emotions. Although this is a growing subpopulation of students, there have been some issues with the real effect of education policy on some of the WP participation in terms of the kinds of students coming from disadvantaged backgrounds and BME students, as well as their sporadic entry to HE institutions belonging to the Russell Group (Evans, Rees, Taylor, & Wright, 2017). Moreover, some research has focused on possible causes or theorized on the take-up of HE studies by WP students (Bowers-Brown et al., 2017; Webb et al., 2017) but by in large, exploring WP students' experience only features when it is the very focus of these studies, resulting in being overlooked in more general research on the HE experience.

Stress and anxiety are often seen as two related concepts. For instance, Rabkin and Struening (1976, p. 1014) state that "stress, like anxiety, is a broad and general concept describing the organism's reactions to environmental demands." Anxiety is an important construct to explore in the context of an HE institution as Brown and Ralph (1999) found that anxiety-related stress was one of the main reasons why a student would withdraw from their programme. Moreover, first-year students are more likely to drop out because of anxiety issues than subsequent years (Moffat, McConnachie, Ross, & Morrison, 2004) as the first weeks in an HE institution are possibly the most stressful and anxiety may drop after this settling in period. In the following literature review, various types of anxieties will first be defined in the context of a student's experience in an HE environment, completed by an explanation of the present interventional study in an HE in FE institution.

Literature Review

Several studies have highlighted the alarmingly increasing rates of depression, stress and anxiety amongst university students all over the world (Adewuya, Ola, Olutayo, Mapayi, & Oginni, 2006; Aktekin, Karaman, Senol, Erdem, Erengin & Akaydin, 2001; Nerdrum, Rustøen, & Rønnestad, 2006; Stewart-Brown, Evans, Patterson, Petersen, Doll, Balding, & Regis, 2000) This has obvious implications for the quality of life students will have over the next few years but also on their friends and family, as well as their peers. It may also have dramatic repercussions on their experience as a student, including achievement and the classification of their first degree. An awareness of the issue is essential but more importantly, strategies need to be put in place to support students who suffer from high levels of stress and anxiety (Bayram & Bilgel, 2008).

Peer-assisted Learning

Peer-assisted Learning (PAL) schemes are an increasingly prevalent aspect of HE provision, which first planted seeds in the UK higher education sector in the 1990s, that is now accompanied by a body of research self-reflexively evaluating the value and impact of these peer-to-peer initiatives. The primary focus of such schemes targets first-year students and centers on enhancing the student experience of higher education in a supportive and informal learning environment. As Falchikov (2001) identifies, the model most frequently deployed is that of a student from a higher level of study leading sessions and facilitating activities, thereby providing non-remedial additional study support for first-year students (Green, 2018, p. 57; West, Jenkins, & Hill, 2017; see also Dawson, van der Meer, Skalicky, & Cowley, 2014 for a systematic review on PASS in the UK). At UCO, PAL sessions are usually held fortnightly and first-year students' attendance is voluntary. Although much of the research focuses on single-subject case studies (Hammond et al., 2010; Longfellow et al., 2008; Meertens, 2016), the value of PAL schemes for learning enhancement are well-recognised. Indeed, discussions about PAL schemes highlight the relevance of Vygotsky's Social Development Theory (Hammond et al., 2010) as well as the relevance of communities of practice and scaffolding learning for students (Longfellow et al., 2008). The demonstrable pedagogical value of PAL schemes is a contributing reason for the increasing support of such activities across the higher education sector. Boud et al. (1999) defines peer learning as "the use of teaching and learning strategies in which students learn with and from each other without the immediate intervention of a teacher" (p. 413). In fact, the social and informal aspect of peer learning sessions is identified as one of the key benefits of such schemes by students (Hammond et al., 2010). Equally, PAL schemes have been identified as "clarifying" activities for students as they recapitulate course materials and often reduce the "feeling of being intimidated about asking questions" (Longfellow et al., 2008, p. 101). Research has also pointed to the positive impact that such schemes can have on retention (Congos & Schoeps, 1998) as well as on attainment (Bidgwood, 1994; Parkinson, 2004). Beyond supporting student engagement and

understanding of curriculum content and course requirements, PAL schemes have also been shown to contribute to a gain in self-confidence and improvement of interpersonal skills (Meertens, 2016), alongside providing cognitive benefits by nurturing cohesiveness, mutual trust and emotional security between student groups (Longfellow, May, Burke, & Marks-Maran, 2008). The developments of these broader skills are critical to student transition into and through higher education study.

Transition into HE

Making a successful transition from FE into HE studying is a difficult period, not only in a young person's life but also when one is entering HE as a more mature student. Studies have highlighted an increase of depression, obsessive-compulsive disorder and forgetfulness during the transition period from FE to HE (Fisher & Hood, 1989; Gibson et al., 2018). Anxiety is one of the psychological effects of transition as students have to adapt from an FE environment where learning is very prescriptive and top-down to an HE-level study where independent learning is encouraged and practiced. This can result in students not feeling in control of their learning as they are unsure of how to proceed or what to do. Young, Bosmans & McLoughlin (n.d.) have identified the main sources of anxiety of students undertaking degree-level studies in an HE in FE setting. Not all anxiety is due to external factors though so an examination of various types of anxieties is needed here.

Anxiety in HE

Anxiety from Affective and Cognitive Perspectives. Anxiety can instinctively be associated with an affective concept but some researchers have also highlighted the cognitive component of anxiety (Krohne & Hock, 2011; Riskind, 2005). MacIntyre (1995, p. 91) cites Liebert and Morris (1967) who separated two of the components of anxiety, namely "worry" as the cognitive element and "emotionality" as the affective aspect of it. MacIntyre makes the point that "worry" or "preoccupation often takes the form of self-related cognition" and that it has an obvious impact on the learning performance, as whilst the student's cognitive activity is engaged in worry, it competes with the task at hand. However, a deeper look into the issue by MacIntyre (1995) indicates that positions depicted as clear-cut by opposite sides of the disabling/enabling debate are not so. He carries on by explaining that when a task is relatively simple, anxiety may cause an increased effort, which, in turn, results in a better performance. Conversely, with the level of difficulty of task increasing, the anxiety will shift from enabling to disabling as evidenced by the Yerkes-Dodson Law (Smith, Sarason & Sarason, as cited in MacIntyre, 1995, p. 92). Moreover, the direction of the relationship between anxiety and performance is not only that the required behaviour can cause anxiety but rather become a cyclical course of events where anxiety can in turn impact on performance so much so that the very prospect of a similar performance being required in the future can trigger anxiety (Bertrams, Englert, Dickhauser, &

Baumeister, 2013; MacIntyre, 1995).

Various Types of Anxieties in HE. Anxiety is not an easy psychological construct to define not only because it can be framed in a variety of ways but also because of its situated nature as well as more permanent attribute of one's personality, doubling the impact of a stressful situation when both transient and permanent aspects of anxiety occur at the same time and thus making it difficult to isolate. Khoshlessan and Pial Das (2017) acknowledge that anxiety in HE can be defined through a variety of anxiety constructs in the context of HE. Also, not all anxiety is necessarily a negative concept. Enabling anxiety is a concept related to second language acquisition and has been the object of much debate as to its existence or significance. Chapin (1989) notes that anxiety can produce motivation and therefore enhances the student's performance (see also Strack, Lopes, & Esteves, 2015). Other researchers go further, arguing that there is no such a thing as enabling anxiety. For instance, Watson and Clark (1988, p. 347) state that "anxiety is essentially a state of high negative affect, and has no significant relation with positive affect" (see also Zanon, Bastianello, Roat, Cerentini, & Hutz, 2013).

Nevertheless, anxiety can be broadly distinguished between a positive (enabling) or negative (disabling) emotion and between a permanent (trait) or transient (state) one. There are of course more specific types of anxieties but these will fall under these four descriptors. Most of the research on learning anxiety has understandably focused on the negative impact on learning (Deffenbacher, 1980; Sieber, O'Neil, & Tobias, 1977; Wine, 1980) with a more focused look at the learning of various subjects. Learning anxiety has mainly been studied in relation to second language acquisition (Bosmans & Hurd, 2016; Dewaele, 2017; Gardner, 1985; Horwitz, Horwitz, & Cope, 1986; Dörnyei, 2005; Mak, 2011; MacIntyre & Gregersen, 2012; Pae, 2013; Rodriguez & Abreu, 2003; Young, 1991; Zhang, 2013), but other subjects such as maths (Rusmono, 2015) and chemistry (Oludipe & Awokoy, 2010) also feature in these studies. More recently, the effect of game-based learning in reducing learning anxiety has also been researched, with a stance on the negative effects of anxiety (Su, 2016). Studies in psychology have identified three main kinds of anxiety: "trait anxiety (a more or less permanent personality characteristic), state anxiety (a temporary emotion felt at a particular moment in a given context) and situation-specific anxiety (anxiety felt in specific and isolated events such as exams and when giving an oral presentation)" (Ellis, 2008, p. 691). The latter can be further subdivided into test and examination anxiety and presentation/public speaking anxiety. Other types of anxiety specific to the HE context can also be added such as social anxiety.

Trait anxiety vs. state anxiety in HE. As mentioned above, the distinction between trait and state anxiety is a crucial one to make. Hampel Felix, Hauck, & Coleman (2005, p.17) acknowledge that it is difficult "without a fearsomely complex research design" to distinguish between all these types of anxieties. The use of two different and distinct questionnaires in the present study are thus merely giving an indication as to what kind of anxiety the sample is experiencing. An added difficulty is highlighted by Scovel (1991, p. 21) who quotes Kleinmann's study who stressed that:

anxiety itself is not a simple, unitary construct that can be comfortably quantified into either "high" or "low" amounts. On the one hand, some researchers feel that momentary anxiety should be distinguished from a more permanent predisposition to be anxious, and that this dichotomy would help to account for some of the conflicting results of previous anxiety studies

Scovel's (1991) remarks have certainly proven true in the present study as, not only was it difficult to distinguish between a permanent condition of anxiety and a more momentary one but the results presented below are still showing an increase in state anxiety in both the test and the control group. However, the distinction between state and trait anxiety was still attempted by the use of two questionnaires looking at separating both forms of anxiety.

Any type of formal learning in an educational establishment involves a certain amount of social interaction, no more so than in HE teaching where seminars and discussions among students are part of the learning process. It is precisely this social and communicative aspect of HE learning that can trigger social anxiety. This distinct type of anxiety has been defined by Schwarzer (1986, p.1) as "(1) feeling of tension and discomfort, (2) negative self- evaluations, and (3) a tendency to withdraw in the presence of others". Feelings of tension and discomfort are common to all types of anxieties but (2) and (3) are particularly relevant in an HE in FE context where non-traditional routes open the way to a Level 4 course. The fear of not being able to study at that level is typical of these students and of adult returners to education. A lecture is an ideal place to hide, as is a seminar where it is all too easy to let more vocal students take the lead in discussions. This is precisely the type of issue that a PAL scheme addresses when giving students the opportunity to contribute to group discussions and practice oral presentations in a non-threatening environment. These students should then feel better equipped to make sense of lecture content, present in front of an audience and participate more fully in seminar debates, all skills that are essential to keep up with the demands of HE study.

Methodology

Ethics

There was no institutional Ethical Committee in place at UCO when this project started. Great care was thus taken to ensure that ethical standards were maintained by following the guidance given by the Ethics Committee of the British Psychological Society (2009) in terms of informed consent obtained from participants. The research aims were communicated verbally to students, along with an explanation that students were entirely free to participate or not. Students were also told that they had the right to withdraw at any point in the project and that all data would be anonymized as only student numbers would be taken to match the responses to courses and to check that both questionnaires had been filled. The fact that some students chose not to complete the second questionnaire demonstrates that completion was non-compulsory.

Participants

Most students at UCO have taken a non-traditional route into HE as the university prides itself on being a widening participation institution. At the time the present study was conducted, the student population was made up of 68% female students to 32% male students. The disparity can be explained through the degree portfolio offered at UCO, with a significant number of Education and Health and Social Science courses, attracting female students due to the make-up of the local commuting population, the White British to Black Minority Ethnic (BME) figures are more equally distributed as 48% of the student population is from a BME background, a much larger proportion than what can be seen at national level with an overall BME population of 18.4% (Equality Challenge Unit, 2014). UCO has also a higher than average mature student population with 41% of the students being over the age of 25. In contrast, the national average in England for students aged 26 and above is 29% (Equality Challenge Unit, 2014). The present study thus focuses on a quite specific sample and a unique context within the HE in FE sector and gives a very useful snapshot of non-traditional students' affective state in a sector becoming increasingly concerned about students' emotional well-being.

The first questionnaire (See Appendix 1) was given to approximately 160 first-year students who volunteered to complete it. Twenty-two (22) PGCE students were also included in the sample as most of them had completed their first degree in another institution and were also starting at UCO. The sample was therefore self-selected and provided a numerical account of the way they felt at the beginning of their HE journey in terms of affect and anxiety levels.

Questions allowing for differentiation between trait and state anxiety were included so as to discard students who would naturally feel anxious. A second questionnaire (See Appendix 2) was administered at the end of the first semester and altogether, 86 responses from students who completed both were gathered, resulting in a return of 53.75%.

The representativeness of the present study sample was analyzed in 6 demographic areas and can be seen in Table 1. A Pearson's Correlation Coefficient was computed to determine how representative the collected study sample was to the overall cohort of first-year students.

Table 1. Pearson's Correlation Coefficient between Study Sample and Whole Cohort

Pearson correlations between this study sample and the whole cohort	
<i>Characteristic of sample</i>	<i>Pearson Correlation Coefficient</i>
Female	.891
Male	.968
BME	.643
White	.768
Age below 21	.927
Age 21+	.921

Research Design

The present study was of a formative interventionist nature and proposed a descriptive model using the survey methodology which provided detailed information about students' affective state before and after the intervention. The research was conducted at an HE in FE educational provider, University Campus Oldham (UCO), which offers Honours and Foundation degrees in partnership with 5 HE institutions in the United Kingdom. A quantitative research approach enabled data to be yielded which made it possible to link first-year students' anxiety levels to their participation in a PAL scheme in a numerical way. The two questionnaires administered at two points in the academic year are described in the next section.

Data Gathering Instruments and Procedure. Two questionnaires were designed for the study; these were administered at the beginning and the end of the first semester. Both questionnaires can be seen in the Appendices. The first one was made of two well-known short versions of questionnaires used in psychology and for which reliability and validity have already been documented in the literature, the 7-item General Anxiety Disorder questionnaire (The GAD- 7, 2006) and the six-item short form of the state scale of the Spielberger State-Trait Anxiety Inventory (STAI) (Marteau & Bekker, 1992).

The second questionnaire only featured the STAI part of the first questionnaire as it would have been already established who displayed trait anxiety during the first administration. It also featured some open-ended questions destined to yield qualitative data used in this study.

Findings/Results

Data Analysis

The two questionnaires yielded both quantitative and qualitative data. The questionnaire responses were collated electronically and entered on an Excel Worksheet in order to trace which courses were being represented and to make sure that only respondents who completed both questionnaires were kept in the data set. They were then uploaded onto IBM Statistics SPSS 24 for analysis and the statistical procedures explained below were run. The main statistical procedures used were 1) the Kolmogorov-Smirnov test to check for normality and to quantify the distance between the empirical distribution function of the sample groups, 2) the Levene's test to assess the homogeneity of variance between groups, 3) the Mann Whitney U to test the difference between the test and the control group in terms of STAI scores and 4) the Wilcoxon signed-rank test for changes of anxiety in both the test and control group. The Pearson's Correlation coefficient was also calculated to establish the sample representativeness.

Overview of Sample

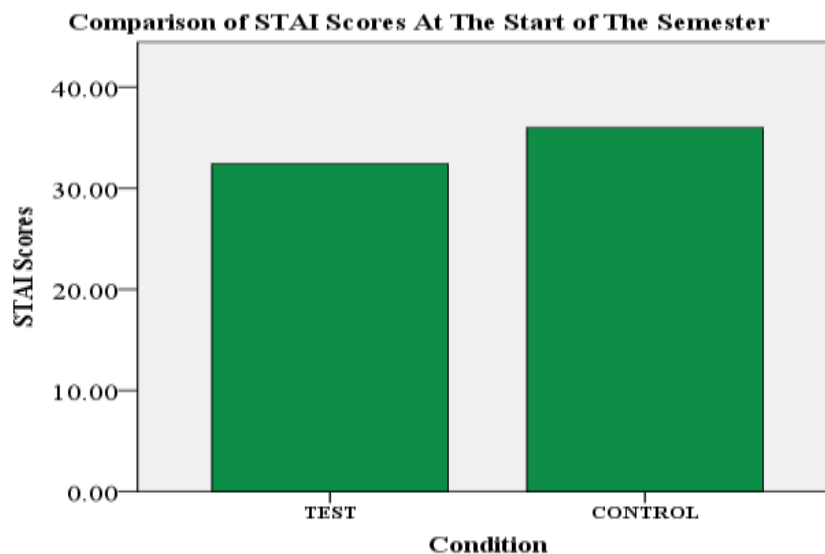
Missing values were coded for using "99". Students GAD scores were calculated to determine those students who scored above the threshold of 15 and were therefore classed as severely anxious. Only three students appeared to be categorized as severely anxious and so were removed from the data set so as to not skew the data.

Of the 83 students who had completed both questionnaires and thus making up the final sample, a total of 29 (35%) existed in the test condition which was made up of four courses involved in the PAL scheme. The results from the GAD questionnaire identified 3 students to be mildly anxious and 5 students to display a middle state of anxiety. A total of 54 (65%) were in the control condition being made up of seven courses not actively participating in PAL schemes. Again, using the GAD questionnaire, 11 students indicated being of a mild state of anxiety and 7 of a middle state of anxiety.

Anxiety of Test/PAL vs Control/Non-PAL Group

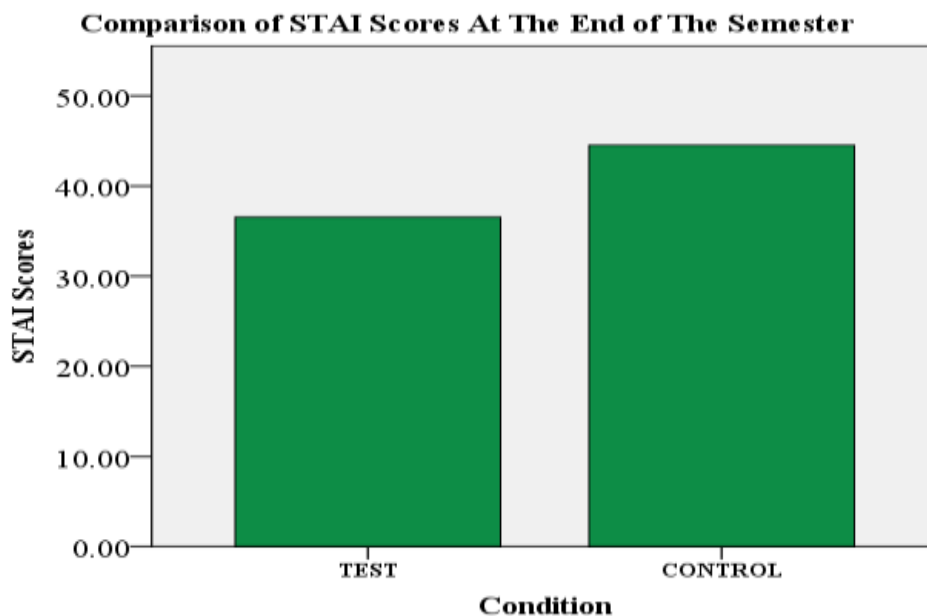
At Start of Semester. Comparing the two groups STAI scores, the control group appeared more anxious ($M = 35.98$, $SD = 10.93$) than the test group ($M = 32.41$, $SD = 10.83$) at the start of the semester (see Figure 1). Kolmogorov-Smirnov tests showed assumptions of normality to be broken, therefore a non-parametric Mann Whitney U test was run to see if the difference between the two groups STAI scores at the start of the semester was significant. Results from the Mann Whitney U showed there was no significant difference ($U = 626.50$, $Z = -1.503$, $p = .133$) between the control group ($Mdn = 36.66$) and the test group ($Mdn = 30$).

Figure 1. Comparison of STAI Scores at the Start of the Semester for the Test and Control Groups



At End of Semester. The two groups STAI scores were again compared against one another at the end of the first semester. Once again, the control group appeared to be more anxious ($M = 44.50$, $SD = 12.20$) than the test group ($M = 36.55$, $SD = 7.89$) (see figure 2) with assumptions of normality again being broken and therefore a Mann Whitney U test was run to account for any significant differences. Results from the Mann Whitney U demonstrated a significant difference, $U = 474.00$, $Z = -2.969$, $p = .003$, to exist between the test ($Mdn = 36.66$) and control group ($Mdn = 41.66$). This highlights that the PAL scheme may have influenced how less anxious students felt compared to those who did not participate in the PAL scheme who were left feeling more anxious at the end of the semester.

Figure 2. Comparison of STAI scores at the end of the semester for the test and control Groups

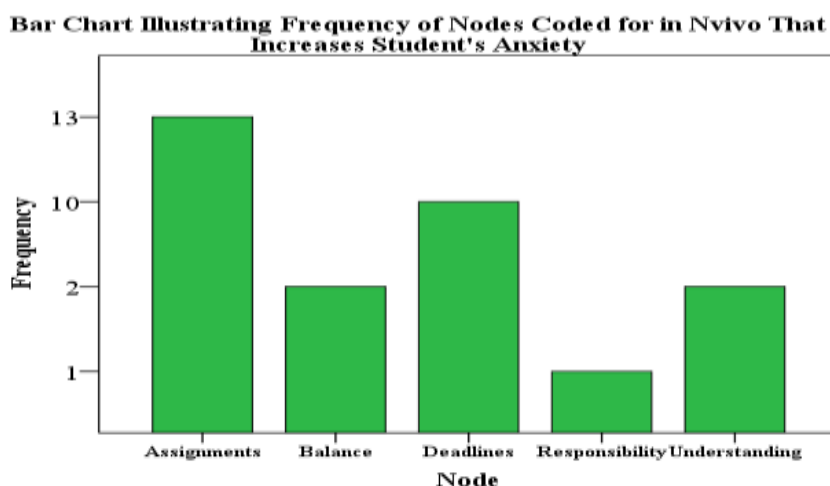


Changes in Anxiety from the Start to End of the Semester. Further tests were carried out to explore changes of anxiety at both time periods. Results of Kolmogorov-Smirnov tests showed assumptions of normality to be broken, therefore non-parametric Wilcoxon Signed Rank tests were applied to the data to investigate whether any significant differences existed within the data set of both groups. Overall, students in the test condition were less anxious at the start of the semester ($Mdn = 30.00$) than at the end of the semester ($Mdn = 36.66$) with a Wilcoxon Signed Rank test showing there to be a significant difference in anxiety between the two-time periods ($Z = -2.248$, $p = 0.25$). Likewise, students in the control condition were less anxious at the start of the semester ($Mdn = 36.66$) than at the end of the semester ($Mdn = 41.66$) with a Wilcoxon Signed Rank test showing there to be a significant difference in anxiety between the two-time periods ($Z = -3.559$, $p = .001$).

Reasons for Changes in Anxiety Levels

Qualitative data was collected from the second questionnaire that was administered to students, thus allowing further probing for factors which either increased or decreased their anxiety levels. Qualitative responses were coded for through the use of NVivo 11. This study carried out in 2017 investigated affect in an HE in FE institution and possible relationships between students' affect and emotions linked to their transition into HE, and yielded a large body of quantitative and qualitative data. Young, Bosmans and McLoughlin (n.d.) have already reported on the qualitative part of the study below but this paper uses the data yielded to explore a potential link between affect and participation or not in a PAL scheme, focusing next on the factors increasing or decreasing students' anxiety.

Figure 3. Factors Increasing Students' Anxiety Levels



Factors That Increase Anxiety

A total of 49 students (57%) disclosed factors that increased their negative emotions. As can be seen in Figure 3, assignments and deadlines were by far the main factors (51%) leading to an increase in students' level of anxiety. Adding to these, worries about obtaining lower grades than anticipated for their work and thus not doing well generally on the course all contributed to 20.4% of negative emotions at the start of the semester. Comments about 'not being good enough' were also expressed, potentially linking students' lack of confidence and self-esteem to feelings of anxiety. Including in the latter were comments about not being able to understand or cope with the large amount of new information being presented during lectures and when reading essential texts, linking teaching styles and course content to higher feelings of anxiety. Not all factors were necessarily linked to their studies with 4% of students highlighting personal life issues such as family relations, financial pressures and employment making it difficult for them to balance studying with other responsibilities. Anxiety levels can thus be

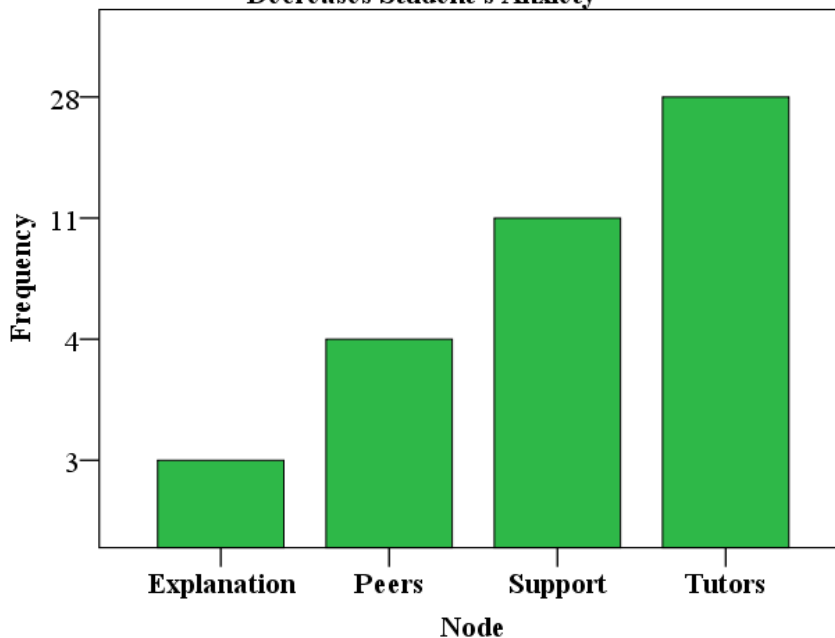
impacted on by factors external to their learning but these are very much real for students who may be returning to education as older learners with more life responsibilities or for learners who come for a BME background and all the other personal issues this may bring on.

Factors That Decrease Anxiety

A positive set of findings from the data was that 53 students (61.6%) highlighted several factors which helped lower their anxiety levels. The factor most often identified (64.2%) and much more significant than all others was the tutor's contribution to available help. This included one-to-one tutorials with their course tutors which was the conduit by which help could be obtained. This in itself highlights the wealth of help available to students, including from their personal tutor. However, another factor more relevant to the present study was help being obtained by peers (26.4%), along with their explanations and that is where a PAL scheme come to the fore as peer support is its *raison d'être*. Help from peers can of course take various guises such as informal conversations and moral support but students who participate in PAL have access to a third-year student's explanations on how to complete an assignment. This, along with more informal conversations, may have greatly contributed to a reduction in anxiety levels brought on by a dread of the white page. Additionally, 3 students (5.6%) also identified a positive attitude as an important factor in reducing anxiety, i.e. "just getting on with it".

Figure 4. Factors Decreasing Students' Anxiety Levels

Bar Chart Illustrating Frequency of Nodes Coded for on Nvivo That Decreases Student's Anxiety



Discussion

The present study attempted to explore affect in first-year students in an HE in FE environment, with a particular focus on anxiety and related emotions. The aim was also to evaluate a peer-assisted learning (PAL) scheme as an effective strategy in alleviating levels of negative emotions experienced by first-year students when embarking on their HE journey. In order to ensure that the anxiety felt by students was not trait anxiety, i.e. that it was not part of their emotional make-up, the GAD questionnaire was instrumental in discarding 3 respondents from the sample and only retain the moderately anxious and the mildly anxious students. Of the remaining 83, there were 61 students (73.5%) who scored zero and therefore were not anxious, 13 students (15.7%) who scored 5-9, therefore fitting into the mild category, and 9 students (10.8%) who scored 10-1, thus corresponding to the moderate category. Approximately just under a third (28.5 %) of students feeling some level of anxiety at the beginning of the semester compares to 26% of university students who suffer from moderate stress and anxiety from time to time in the UK in 2016 (Aronin & Smith, 2016). The STAI (Marteau & Bekker, 1992) was instrumental in identifying students' levels of anxiety at both points of administration in the project and allowed for comparison of these levels following intervention. Both groups of students had their level of anxiety rise towards the end of the semester as in other studies exploring WP students' mental health (Moore et al., 2018). However, the results highlighted a difference in anxiety levels which showed lower rises of anxiety for students who took part in the PAL schemes, compared to the control group as can be seen when comparing the data shown in Fig.1 and Fig.2. The control group got an increase of 8.52 in their anxiety level by the end of the semester compared to only 4.14 for the test group. The unexpected rise in anxiety for the test group may be due to some programs, i.e. Psychological Studies and Health and Community Studies showing a sharp increase in their level of anxiety by the end of the semester. This may be due to course specific contextual factors relating to changes in course staffing or the timing of the assessment deadlines specific to these courses. The sharp rises in anxiety levels in these two specific programs may have been the reason why there was a rise in anxiety overall by the end of the semester.

At this stage, it is thus not possible to establish a direct correlation between the students' anxiety levels and their participation in a PAL scheme but this is still a significant finding showing a smaller rise in anxiety for this group of students. In fact, Fig. 4 shows that help from peers and support are two essential factors decreasing anxiety levels. Tutor help has clearly been identified as an integral factor in decreasing students' anxiety and UCO's tutorial scheme is central to the levels of support given to the students to such a high standard. However, this research also shows that peer-to-peer support is critical in students' perception of support available, thereby giving credence to the importance of a PAL scheme. Lee et al. (2018) equally champion peer-to-peer initiatives in order to create solutions together when it comes to mental health issues (see also Carter, 2016). Together with the tutor's input in the content of some PAL sessions, shows that it is an invaluable source of support for first-year students. Feeling better equipped to

face assignments and deadlines, their anxiety levels still rise, but less so than students who are on their own.

Both groups were subjected to the same factors exacerbating their anxiety as shown in the findings above, namely assignments, deadlines, feelings of insecurity resulting from an inability to make sense of lectures and readings. However, a lower rise in anxiety levels of students participating in PAL sessions may be explained by the fact that these sessions directly address these negative factors. PAL leaders are asked to help their group with assignment briefs and act as a sort of reminder of the work they still need to put in to meet their various deadlines. Feelings of insecurity are also tempered by the PAL leaders' help in making sense of lecture notes and in looking at various texts related to their program of study.

The PAL Leaders' training at UCO includes topics such as: principles of learning to cater for different learners, suggestions on how to help their group with various problems, building self-confidence by looking at various techniques to ensure everyone's participation, emphasis on learning processes to promote autonomy, encouragement of winning behavior, and become a good active listener. It follows that a lower rise in anxiety level coupled with a qualitative description by students of factors decreasing negative emotions allows for a positive evaluation of the PAL scheme in terms of it addressing affective issues through its Leaders.

In addition, it is important to ask whether a PAL scheme could further help students to cope with issues linked to affect, as Viskovich and Pakenham (2018) stress the importance of early intervention to address the effect of negative emotions. In the context of second language acquisition, Bosmans (n.d.) identifies course designers, learning materials and lecturers as the major contributors to learning strategies instruction to meet students' needs in terms of metacognition, cognition and affect. Peers themselves could now be added to this set as PAL sessions are a non-threatening forum for an exchange of learning strategies as identified in the findings of the present project. Barkham, Bewick, Koutsopoulou, Miles, and Slaa, (2010) stress the importance of embedding a range of approaches in the curriculum. PAL sessions being timetabled centrally are therefore one of the various interventions that address students' affective issues and help lower their negative emotions. The direct involvement of HE administrators at meso-level is also encouraged by Gaddis, Ramirez & Hernandez (2018) to influence local environments.

Finally, PAL sessions have a unique status in the lecturer/student interaction as PAL leaders are not to be seen as experts or in some kind of position of authority but as what they are, i.e. peers. This in itself takes away what could be perceived as an anxiety-inducing communication event with the lecturer as assessor and is therefore pivotal in addressing affective issues. An added advantage is also the promotion of autonomy that students are required to cultivate in HE, but with all the scaffolding that PAL sessions can provide. PAL schemes are indeed student-led and, as such, contribute to the independent stance of HE study rather than combat it, without leaving first-year students completely on their own, a situation which was seen as exacerbating anxiety in the present study findings.

Conclusion

Anxiety is a complex emotion. This paper has looked at various definitions of it, be it considered as a positive (enabling) or negative (disabling) concept. As a strength of this study, not only was the affective side of anxiety explored but also its cognitive component. Anxiety was also studied in terms of its relationship to learning performance, including the potential relief that a PAL scheme could bring on this negative emotion in students. Moreover, not only was affect and the affordances of a PAL scheme investigated in a WP population but also in an underexplored context, that is HE in FE.

Limitations of the Study

There are still some debates on whether anxiety causes poor learning performance or is the result of it. Various types of anxieties were defined in the context of a student's experience in an HE environment, followed by an explanation of the present interventional study in an HE in FE institution. Although both trait and state anxiety can occur at the same time and thus making it difficult to differentiate, the use of the STAI and the GAD questionnaire were instrumental in isolating the sample displaying state anxiety for the purpose of this project which was to look at the effectiveness of a PAL scheme in terms of relieving negative emotions when making the transition between FE and HE or returning to education.

Further Research

Although this project resulted in a slower increase of the anxiety experienced by students participating in the PAL scheme, further studies are required to look more closely at other positive outcomes of this resource in helping HE students to survive a time which could prove difficult in terms of emotional well-being. Conversely, further projects could investigate other types of interventions which would be equally effective in relieving negative emotions when entering an HE program.

Brown and Ralph (1999) advocate the use of targeted resource and time to be allocated during induction period and ongoing academic support. This paper has sought to find a link between a student-led strategy such as PAL and a reduction in the state anxiety felt by first- year students. PAL is one of the schemes and strategies which can be used by HE in FE institutions to aid students' transition between college life and university experience. After all, it is in the interest of all stakeholders that students make a success of their HE studies and move on to be productive members of society.

References

- Adewuya, A.O., Ola, B.A., Olutayo, O.A., Mapayi, B.M., & Oginni, O.O. (2006). Depression amongst Nigerian university students. Prevalence and socio-demographic

- correlates. *Social Psychiatry and Psychiatric Epidemiology*, 41, 674–678.
- Aktekin, M., Karaman, T., Senol, Y. Y., Erdem, S., Erengin, H., & Akaydin, M. (2001). Anxiety, depression and stressful life events among medical students: a prospective study in Antalya, Turkey. *Medical Education*, 35, 12–17.
- Arendale, D.R. (2014). Understanding the Peer Assistance Learning model: Student study groups in challenging college courses. *International Journal of Higher Education*, 3, 1-12. doi:10.5430/ijhe.v3n2p1
- Aronin, S., & Smith, M. (2016). *One in four students suffer from mental health problems*. Retrieved from <https://bit.ly/2mn3SfP>.
- Barkham M., Bewick B., Koutsopoulou G., Miles J., & Slaa, E. (2010). Changes in Undergraduate Students' Psychological Well Being as They Progress through University. *Studies in Higher Education*, 35(6), 633-645. doi: 10.1080/03075070903216643.
- Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, 43, 667–672. doi: 10.1007/s00127-008-0345-x.
- Bertrams, A., Englert, C. Dickhauser, O., & Baumeister, R.F. (2013). Role of Self-Control Strength in the Relation between Anxiety and Cognitive Performance. *Emotion*, 13(4), 668-680. doi: 10.1037/a0031921
- Bidgood, P. (1994). The success of SI – the statistical evidence. In C. Rust and J. Wallace (eds), *Helping Students to Learn from Each Other: Supplemental Instruction*, pp. 71–9. Birmingham: Staff and Educational Development Association.
- Bosmans, D. (n.d.) An Exploration of French Pronunciation Learning Strategies of Distance Learners. *International Conference "MOOCs, Language learning and Mobility"*, Naples - 13/14 October 2017. [forthcoming].
- Bosmans, D., & Hurd, S. (2016). Phonological Attainment and Foreign Language Anxiety in Distance Language Learning: A Quantitative Approach. *Distance Education*, 37(3). doi: 10.1080/01587919.2016.1233049.
- Boud, D., Cohen, R., & Sampson, J. (1999). Peer learning and assessment. *Assessment in Higher Education*, 24, 413–26.
- Bowers-Brown, T., Stahl, G., Lacey, S., & Morrison, A. (2017). Higher education, social class and social mobility: the degree generation. *International Studies in Sociology of Education*, 26(3), 326-334. doi: 10.1080/09620214.2017.1359230.
- Brown, M., & Ralph, S. (1999). Using the DYSA Programme to Reduce Stress and Anxiety in First- Year University Students. *Pastoral Care*, September 1999.
- Carter, S. (2016). To promote better mental health at university we need less "them" and more "us". *Nursing Times*, 112(44).
- Chapin, T. J. (1989). The Relationship of Trait Anxiety and Academic Performance to Achievement Anxiety: Students at Risk. *Journal of College Student Development*, 30, 229 – 235.
- Congos, D.H., & Schoeps, N. (1998). Inside supplemental instruction sessions: One model of what happens that improves grades and retention. *Research and Teaching in Developmental Education*, 15(1), pp. 47–61.
- Dawson, P., van der Meer, J., Skalicky, J., & Cowley, K. (2014). On the Effectiveness of Supplemental Instruction: A Systematic Review of Supplemental Instruction and Peer-Assisted Study Sessions Literature between 2001 and 2010. *Review of Educational Research*, December 2014, 84(4), 609 –639. doi: 10.3102/0034654314540007.
- Deffenbacher, J.L. (1980). Worry and Emotionality in Test Anxiety. In I.S. Sarason (ed.) *Test Anxiety: Theory, Research and Application*. Hillsdale, NJ: Erlbaum.

- Dewaele, J.-M. (2017). Psychological dimensions and foreign language anxiety. In S. Loewen and M. Sato (eds). *The Routledge Handbook of Instructed Second Language Acquisition*, pp. 433 – 450. London: Routledge.
- Dörnyei, Z. (2005). *The Psychology of the Language Learner – Individual Differences in Second Language Acquisition*. New Jersey: Erlbaum.
- Ellis, R. (2008). *The Study of Second Language Acquisition, 2nd Edition*. Oxford: OUP.
- Equality Challenge Unit. (2014). *Equality in Higher Education: Statistical Report 2014*. Retrieved from <https://bit.ly/2RB3c53>.
- Ethics Committee of the British Psychological Society. (2009). *Code of Ethics and Conduct*. Leicester, UK: The British Psychological Society.
- Evans, C., Rees, G., Taylor, C. & Wright, C. (2017). "Widening Access" to higher education: the reproduction of university hierarchies through policy enactment. *Journal of Education Policy*. doi: 10.1080/02680939.2017.1390165.
- Falchikov, N. (2001). *Learning Together: Peer Tutoring in Higher Education*. London: Routledge Falmer.
- Fisher, S., & Hood, B. (1989). The Stress of the Transition to University: A Longitudinal Study of Psychological Disturbance, Absent-mindedness and Vulnerability to Homesickness. *British Journal of Psychology*, 78, 425 – 441.
- Gaddis, S.M., Ramirez, D., Hernandez, E.L. (2018). Contextualizing public stigma: Endorsed mental health treatment stigma on college and university campuses. *Social Science & Medicine*, Volume 197, pp. 183-191. doi: 10.1016/j.socscimed.2017.11.029.
- Gardner, R.C. (1985). *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London: Edward Arnold.
- Gibson, A.-M., Shaw, J., Hewitt, A., Easton, C., Robertson, S., & Gibson, N. (2018). A longitudinal examination of students' health behaviours during their first year at university. *Journal of Further and Higher Education*, 42(1), 36-45. doi:10.1080/0309877X.2016.1188902.
- Green, J.L. (2018). Peer support systems and professional identity of student nurses undertaking a UK learning disability nursing programme. *Nurse Education in Practice*, 30(2018), 56-61. doi: 10.1016/j.nepr.2017.11.009.
- Hammond, J. A., Bithell, C. P., Jones, L., & Bidgood, P. (2010). A first-year experience of student-directed peer-assisted learning. *Active Learning in Higher Education*, 11(3), 201 – 212. DOI: 10.1177/1469787410379683.
- Hampel, R., Felix, U., Hauck, M., & Coleman, J. (2005). Complexities of learning and teaching languages in a real-time audiographic environment. *GFL-German as a Foreign Language* 3, 1–30.
- Horwitz, E.K., Horwitz, M.B. and Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125 – 132.
- Khoshlessan, R., & Pial Das, K. (2017). Analysing International Students' Study Anxiety in Higher Education. *Journal of International Students*, 7(2), 311 – 328.
- Krohne, H.W., & Hock, M. (2011). Anxiety, coping strategies, and the processing of threatening information: Investigations with cognitive-experimental paradigms. *Personality and Individual Differences*, 50(7), 916-925. doi: 10.1016/j.paid.2010.08.001.
- Lee, M., Wada, M., Carter, K., Goldman-Hasbun, J., Le, T.N., Pang, M., . . . Jung, D. (2018). *Conducting a university student mental health needs assessment using a participatory action research approach*. SAGE Research Methods Cases.
- Longfellow, E., May, S., Burke, L., & Marks-Maran, D. (2008). They had a way of helping that actually helped': a case study of a peer-assisted learning scheme. *Teaching in Higher Education*, 13(1), 93-105. doi: 10.1080/13562510701794118.

- MacAskill, A. (2012). The mental health of university students in the United Kingdom. *British Journal of Guidance and Counseling*, 41(4), 426-441.
- MacIntyre, P.D. (1995). How Does Anxiety Affect Second Language Learning? A Reply to Sparks and Ganschow. *The Modern Language Journal*, 79(1), 90 – 99.
- MacIntyre, P.D., & Gregersen, T. (2012). Affect: The Role of Language Anxiety and Other Emotions. In S. Mercer, S. Ryan and M. Williams (eds.) *Language Learning' in Psychology for Language Learning – Insights from Research, Theory and Practice*, 103 – 118. Basingstoke, UK: Palgrave Macmillan.
- Mak, B. (2011). An exploration of speaking-in-class anxiety with Chinese ESL learners. *System*, 39, 202 – 214.
- Marteau, T.M., & Bekker, H. (1992). The development of a six-item short-form of the state scale of the Spielberger State-Trait Anxiety Inventory (STAI). *British Journal of Clinical Psychology*, 31, 301-306.
- Meertens, R. (2016). Utilization of a peer assisted learning scheme in an undergraduate diagnostic radiography module. *Radiography*, 22(2016). doi: 10.1016/j.radi.2015.08.004.
- Moffat, K.J., McConnachie, A., Ross, S., & Morrison, J. M. (2004). First year medical student stress and coping in a problem-based learning medical curriculum. *Medical Education*, 38(5),482–491. doi: 10.1046/j.1365-2929.2004.01814.x.
- Moore, J., Pollio, R., Hong, D., Valencia, E., Sorrell, B., & North, A. (2018). Pilot Design and Implementation of an Innovative Mental Health and Wellness Clinic at a Historically Black College/University. *Community Mental Health Journal*, 54(4), 371-375.
- Nerdrum, P., Rustøen, T., & Rønnestad, M.H. (2006). Student psychological distress: a psychometric study of 1750 Norwegian 1st-year undergraduate students. *Scandinavian Journal of Educational Research*, 50(1). pp. 95–109.
- Oludipe, D., & Awokoy, J.O. (2010). Effect of Cooperative Learning Teaching Strategy on the Reduction of Students' Anxiety for Learning Chemistry. *Journal of Turkish Science Education*, 7(1).
- Pae, T. (2013). Skill-based L2 Anxieties Revisited: Their Intra-relations and the Inter-relations with General Foreign Language Anxiety. *Applied Linguistics*, 34(2), 232 – 252.
- Parkinson, M. (2004). Researching the outcomes of a peer-tutoring scheme. In *Peer Assisted Learning Conference Proceedings*, 2004, Bournemouth University, UK.
- Rabkin, J.G., & Struening, E.L. (1976). Life Events, Stress, and Illness. *Science*, 194(December).
- Rodriguez, M., & Abreu, O. (2003). The stability of general foreign language classroom anxiety across English and French. *Modern Language Journal*, 87, 365 – 374.
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: A systematic review and meta-analysis. *Psychological Bulletin*, 138(2), 353-387. doi: 10.1037/a0026838.
- Riskind, J. (2005). Cognitive Mechanisms in Generalized Anxiety Disorder: A Second Generation of Theoretical Perspectives. *Cognitive Therapy and Research*, 29(1), 1-5.
- Rusmono. (2015). Effects of learning strategies and anxiety of learning mathematics. *International Journal of Research Studies in Education*, 4(3). doi: 10.5861/ijrse.2015.920.
- Schwarzer, R. (1986). Self-related cognition in anxiety and motivation: an introduction. In R. Schwarzer (Ed.) *Self-related cognition in anxiety and motivation*, pp. 1 – 17. Hillsdale, NJ: Erlbaum.
- Scovel, T. (1991). The Effect of Affect on Foreign Language Learning: A Review of the Anxiety Research. In E. K. Horwitz & D. J. Young (Eds) *Language Anxiety – From*

- Theory and Research to Classroom Implications*, pp. 15 – 23. New Jersey: Prentice Hall.
- Sieber, J.E., O'Neil, H.F., & Tobias, S. (1977). *Anxiety, Learning, and Instruction*. New York: Erlbaum.
- Stewart-Brown, S., Evans, J., Patterson, J., Petersen, S., Doll, H., Balding, J., & Regis, D. (2000). The health of students in institutes of higher education: an important and neglected public health problem? *Journal of Public Health Medicine*, 22(4), 492–499.
- Strack, J., Lopes, P. N., & Esteves, F. (2015). Will you thrive under pressure or burn out? Linking anxiety motivation and emotional exhaustion. *Cognition and Emotion*, 29(4), 578-591. doi: 10.1080/02699931.2014.922934.
- Su, C.-H. (2016). The effects of students' motivation, cognitive load and learning anxiety in gamification software engineering education: a structural equation modeling study. *Multimedia Tools and Applications*, 75(16), 10013-10036. doi: 10.1007/s11042-015-2799-7.
- The GAD-7. (2006). A Brief Measure for Assessing Generalized Anxiety Disorder. *Archives of Internal Medicine*, 166(10), 1092-1097. doi:10.1001/archinte.166.10.1092.
- Viskovich, S., & Pakenham, K. (2018, July 01). Pilot evaluation of a web-based acceptance and commitment therapy program to promote mental health skills in university students. *Journal of Clinical Psychology*, 2018, 1 – 23. doi: 10.1002/jclp.22656.
- Watson, D., & Clark, L.A. (1988). Positive and Negative Affectivity and Their Relation to Anxiety and Depressive Disorders. *Journal of Abnormal Psychology*, 97(3), 346 - 333.
- Webb, S., Burke, P.J., Nichols, S., Roberts, S., Stahl, G., Threadgold, S., & Wilkinson, J. (2017). Thinking with and beyond Bourdieu in widening higher education participation. *Studies in Continuing Education*, 39(2), 138-160. doi: 10.1080/0158037X.2017.1302926.
- West, H., Jenkins, R., & Hill, J. (2017). Becoming an effective Peer Assisted Learning (PAL) Leader. *Journal of Geography in Higher Education*, 41(3), 459-465. doi: 10.1080/03098265.2017.1315384.
- Wine, J.D. (1980). Cognitive-Attentional Theory of Test Anxiety. In I.G. Sarason (Ed.) *Test Anxiety: Theory, Research and Application*. Hillsdale, NJ: Erlbaum.
- Young, D.J. (1991). Creating a Low-Anxiety Classroom Environment: What Does Language Anxiety Research Suggest? *The Modern Language Journal*, 75(4), 426 – 439.
- Young, E., Bosmans, D., & McLoughlin, R. (n.d.). Affective Transitions? Understanding the Student Experience of Entering Higher Education in a Widening Participation HE-in-FE Setting. *Manuscript submitted for publication*. [forthcoming]
- Zanon, C., Bastianello, M., Roat, P., Cerentini, J., & Hutz, C. S. (2013). Relationships between positive and negative affect and the five factors of personality in a Brazilian sample. *Ribeirao Preto*, 23(56), 285-292.
- Zhang, X. (2013). Foreign language listening anxiety and listening performance: Conceptualizations and causal relationships. *System*, 41, 164 – 177.

