

An investigation into the self-efficacy of year one undergraduate students at a widening participation university

Dawn Reilly^{a*}, Liz Warren^a, Gerhard Kristandl^a and Yong Lin^b

^a*Greenwich Business School, University of Greenwich*

^b*Birmingham Business School, University of Birmingham*

*Corresponding author email address D.Reilly@gre.ac.uk

An investigation into the self-efficacy of year one undergraduate students at a widening participation university

Abstract

Retention and progression issues are complex problems that need to be addressed by the Higher Education sector. This paper views the academic self-efficacy of students as an important matter which is linked to retention and progression. The study employs online student surveys to analyse the differences in self-efficacy among year one students on accounting and finance, and business undergraduate programmes at a United Kingdom university with a widening participation agenda. The study references student discussion forums to share the voices of year one students, exploring how confident they feel about their ability to progress. It finds no association between performance and ethnicity, but that student performance is associated with gender and type of entry qualification. The social aspect of learning, and its value in supporting sources of academic self-efficacy, is a theme which emerged strongly in the forums.

Keywords: ethnicity, foundation year, gender, self-efficacy, widening participation, year one.

Introduction

At many universities, the students commencing programmes of study in Higher Education (HE) have become increasingly diverse in terms of their social and personal backgrounds, although there remains scope to encourage additional diversity across the sector (Bowl 2018). Diversification is supported through policy; for example, in 2015 the European Commission agreed to promote social inclusion by encouraging young people from disadvantaged backgrounds to engage in HE (Claeys-Kulik and Jørgensen 2018). The Widening Participation (WP) agenda aims to attract individuals from traditionally under-represented groups to register on university degree programmes. However, WP can be accompanied by increased failure and drop-out rates (Naylor, Baik, and Arkoudis 2018), and analysis of attrition data regarding the number of students who leave a programme prior to its completion is one way of determining the success of a WP strategy. Consequently, universities must sharpen their focus to establish how best to retain and progress students from year one, in which the highest rates of attrition occur (Naylor, Baik, and James 2013).

The context for this study is a business school at a modern UK university with a formalized commitment to WP. In the United Kingdom (UK), under-represented groups include Black, Asian, and minority ethnic (BAME) students, and students from deprived backgrounds. The University recruits a high proportion of students from ethnic minorities: in the academic year 2019-20, 58% of its students identified as BAME; in 2019-20 the proportion of UK-domiciled students identifying as BAME was 25% (Higher Education Statistics Agency, n.d.). WP backgrounds in the UK are also measured using Participation Of Local Areas (POLAR4) quintile 1 data (where 'Local Areas' are classified by the number of young people who enter HE), and the Index of Multiple Deprivation (IMD) categories associated with the location of a university. The POLAR4 and IMD data evidence that 26.3% of the University's students come from areas with an IMD quintile 1 ranking, meaning that these students come from the most

deprived local neighbourhoods. These under-represented groups are not mutually exclusive, and so this type of classification oversimplifies the intersectionality of the student population (Christoffersen 2017).

It is documented that in the UK, BAME students generally achieve worse degree outcomes than white students, despite possessing comparable qualifications upon entering university (McDuff et al. 2018; Richardson 2008; Warren and Reilly 2019). This is an issue that is now receiving increased attention throughout the sector, and this investigation therefore complements other work concerned with addressing the attainment gap (McDuff et al. 2018). At the university in question, 33% of students have either low or non-tariffable entry qualifications¹. Moreover, the number of low or non-tariffable qualifications has increased in the case study setting, due to the introduction of a suite of extended degrees in 2016-17. These were designed to attract students often associated with a WP strategy, and to enable them to enter HE by beginning their programmes with an initial ‘foundation’ year. O’Sullivan et al. (2019) suggest the foundation year at English universities is an under-researched area, and this project will therefore increase understanding of how confident these students are in their ability to succeed in year one.

This study draws on Bandura’s (1982) work on academic self-efficacy, and employs Byrne, Flood, and Griffin’s (2014) self-efficacy survey of closed questions to gather data from 124 year one undergraduate students regarding their perceived levels of confidence across 26 academic activities. According to Byrne, Flood, and Griffin (ibid., 408) self-efficacy can be defined as *‘one’s belief in one’s capabilities to organize and execute the courses of action required to produce given attainments’*. An objective of this study is to compare the feelings

¹ International qualifications are not accounted for in this data.

of self-efficacy among BAME and white students, to identify whether a gap in academic self-confidence emerges in year one. In their work, Byrne, Flood, and Griffin (ibid.) observed minimal differences between the self-efficacy of female and male students, but they did observe that the results of previous studies are variable in this regard. Therefore, the present study also tests for the effect of gender, to make an additional contribution to the extant literature. The survey used in the current project adds open questions to the survey used by Byrne, Flood, and Griffin (ibid.), and employs student discussion forums to explore why students feel confident or unconfident that they will pass year one. In this way the paper adds to the literature by utilizing the voices of students to take a student-centric perspective on self-efficacy. Bandura's (1997) vicarious experiences and verbal persuasion are sources of self-efficacy which rely on social interaction. However, this investigation also finds that other sources of self-efficacy can be strengthened in a social setting, as peers encourage each other to engage in, and persevere with, mastery experiences, and help each other to regain a positive emotional state following challenges, such as a low grade. By evaluating the influence of the social aspect of learning, and its role in supporting Bandura's (1997) four sources of academic self-efficacy, the paper contributes to the understanding of academic self-efficacy.

In the context of students who are studying at a university which has a WP agenda, the aim of the project is to investigate how self-efficacy informs understanding of the retention and progression rates for year one undergraduates. The next part of this paper reviews the literature to develop the research questions needed to meet the aim of the project. This is followed by the presentation of the methodology, findings, and discussion points arising from the study. The final section concludes the investigation into the self-efficacy of year one undergraduate students, offering recommendations for practice and suggestions for future research.

Literature review

Globally there is a significant requirement for improvement in the areas of retention and progression of university students. Boero, Laureti, and Naylor (2005, 1) demonstrate that at Italian universities *'only a small proportion of students are likely to complete their studies within the institutional time'*, and that students' previous educational background and level of academic success prior to entering HE are important predictors of degree completion. This highlights the relevance of research into whether the introduction of a foundation year aids students who enter university with lower-level qualifications. Baik et al. (2019, 526) highlight the *'[d]ramatic changes [that] have taken place in the Australian higher education sector'*, notably an increasingly diverse student body. This includes postgraduate programmes (Carroll, Ng, and Birch 2009), indicating that this is an issue that is relevant to both undergraduate and postgraduate degrees.

During year one, the retention of undergraduate students is particularly challenging, and progression rates tend to be lower than in the latter years of a programme (Naylor, Baik, and James 2013). Various factors can contribute to an individual's failure to progress beyond year one. For example, previous research suggests that students in the early stage of their studies sometimes struggle to adjust to a new environment, lack clearly defined study and career goals, find it difficult to adapt to an academic culture, and become isolated (Briggs, Clark, and Hall 2012; Pennington et al. 2018; Pitkethly and Prosser 2001). In addition, non-academic factors that can affect ability to study include family-related matters and financial struggles (Jeffreys 2007). Any of these issues can cause voluntary and involuntary attrition, and thereby have a negative impact on retention and progression.

Jungert and Rosander (2010) state that students with higher levels of self-efficacy are less likely to consider dropping out of university. According to Southall, Wason, and Avery (2016), students with higher levels of self-efficacy adapt better to university life, but that students with

lower social and cultural capital may have lower self-efficacy. For universities with a commitment to WP, and whose intake comprises mainly students who are the first in their family to attend university, this may create a particular challenge. Engstrom and Tinto (2008) argue that it is the responsibility of HE educators to engineer conditions that enable all students to succeed on their programmes of study. However, Pearce et al. (2015) acknowledge that there will be students who find it difficult to adapt to the requirements of university, such as self-management of their study schedule. For universities that offer a foundation year to applicants with ‘the ability but not the qualifications’, the challenge is to identify what can be done to ensure that these students progress through their programmes and ultimately graduate. Helping students to build self-confidence in their academic ability is part of the solution, and building confidence is an integral element of Bandura’s (1982) self-efficacy.

Recognizing that BAME students are among the under-represented groups targeted by an WP agenda (Office for Students 2020), it is important to consider the specific issues of relevance to this group. The attainment of students from different ethnic backgrounds is an emerging issue in the literature. Specifically, attention is now being given to the well-documented awarding gap, previously known as the attainment gap, which is observed between BAME students and their white peers (McDuff et al. 2018; Mountford-Zimdars et al. 2017). According to Christoffersen (2017), the situation is more complex than initially perceived, because the intersectional nature of the student body’s demographics must be considered. For example, although the awarding gap literature highlights the superior attainment of white students in general, this is not the case for white working-class males (Hunter, Hewings, and Suddards 2018; Stockfelt 2018). When questioning BAME and white students from two UK universities about their hoped-for academic selves and the strategies they used in realising these hopes, Stevenson (2012, 109) found white students *‘had a significantly greater congruence between their hoped for and true possible selves than their non-[w]hite peers, which appeared to be*

informing their academic help-seeking strategies, most specifically their relationships with their lecturers'. This lack of congruence was most apparent for Black male students, as well as Asian and Chinese female students. Therefore, when investigating the self-efficacy of students, it is important to consider gender, as well as ethnicity.

Bandura's (1982, 122) work '*addresse[d] the centrality of the self-efficacy mechanism in human agency*' and linked greater self-perceived efficacy to higher performance levels. Bandura (1997) identifies four sources of self-efficacy, all of which can be applied in an academic context: mastery experiences, vicarious experiences, verbal persuasion, and emotional state. Mastery experiences are those experiences that provide the opportunity to build confidence in one's ability across similar situations. At university, previous experience of completing essays and exams shows students that they can be successful, and consequently, if they encounter problems or challenges, students have the confidence to persevere with and complete the required task. Vicarious experiences arise from the social setting: if someone witnesses a peer completing a task successfully, this can bolster their confidence because they believe they can also do so. Therefore, when a student works alongside other students, they can be encouraged by their peers' success. Verbal persuasion again focuses on the social nature of academic study; students' confidence can be greater when their abilities are verbally affirmed by others, whereas criticism or negative feedback from others can decrease confidence. This type of feedback might come from a lecturer or tutor, or the student's peers.

The fourth source of self-efficacy is a positive emotional state. If a student experiences a feeling of satisfaction or enjoyment of studying, this increases their feelings of confidence. However, if a student experiences negative emotions, such as anxiety or stress, for example when a low grade is received, this can reduce academic self-efficacy. In his review of motivators for academic study, Seifert (2004) notes that students with higher levels of self-efficacy are more

likely to control any anxiety related to their studies, leading to improved academic performance.

Linnenbrink and Pintrich (2003) distinguish between domain specific self-efficacy and global self-esteem. They recommend that educators promote domain specific self-efficacy beliefs and enable the development of academic self-efficacy by providing students with relevant learning opportunities (mastery experiences). In a US study, Elias and Loomis (2002) found that academic self-efficacy beliefs predicted the performance of students on introductory psychology courses. They suggested that the reason for better performance was that students with higher self-efficacy worked harder and for longer than students with lower self-efficacy.

Honicke and Broadbent (2016) note that certain factors moderate the effect of the sources of self-efficacy on the confidence an individual has in their ability to succeed. Such moderating factors affect the strength of the relationship of the source with self-efficacy. These include the time spent on a task, because this influences performance. It is therefore important that students cultivate efficient time management. Other mediating factors may explain observed relationships between the sources of efficacy and academic performance. For example, goal setting improves performance (*ibid.*), while self-doubt increases academic procrastination, delaying commencement of study, and consequently affects performance negatively (Duru and Balkis 2014).

The present investigation employed Byrne, Flood, and Griffin's (2014) self-efficacy survey, which was designed to be domain-specific for undergraduate students on an accounting and finance degree. In their study, Byrne, Flood, and Griffin (*ibid.*) found that female students were more likely to produce a study plan, make a good attempt at tutorial questions in advance, and ask their classmates for help, whereas male students were more confident that they could judge

the standard necessary to attain good marks in exams. However, for most of the 26 activities included in the survey, no significant gender differences were found. Moreover, the study found that students were not as confident about asking their lecturers questions as they were about other aspects, such as meeting deadlines for assignments or asking for help from their classmates.

Further research has confirmed and expanded on these findings. In a study based in New Zealand, Beatson, Berg, and Smith (2019) used a modified version of Byrne, Flood, and Griffin's (2014) survey, and discovered that self-efficacy belief scores showed a relatively strong relationship with final grade on an introductory accounting module taken by students on accounting or business degree programmes, although there was no relationship with gender. Meanwhile, in a Sri Lankan study, Sachitra and Bandara (2017) explored the self-efficacy of undergraduate business students. Similar to Byrne, Flood, and Griffin (2014), they found that students were reluctant to ask their lecturers for help and were more willing to ask their peers. They also found that female students had higher self-efficacy scores than males, and greater confidence that they could take sufficient notes, comprehend feedback, and maintain concentration during lectures.

In order to understand the retention and progression rates of year one undergraduate students, the following questions are used to explore the confidence of various student groups and its impact on performance:

1. At the start of year one, is there any difference in the self-efficacy of BAME and white students?
2. At the start of year one, is there any difference in the self-efficacy of female and male students?

3. How do the entry qualifications of students impact on their self-efficacy?
4. Does the level of self-efficacy at the start of the year have an impact on performance in year one?

Methodology

This study employs an interpretive research (IR) approach. Synthetizing theory and practice in interpretive work can establish explanations through abductive logic (Lukka and Modell 2010). Although the empirical data form a significant part of this paper, the utility of IR is that it integrates empirical data with theory, elucidating the mechanisms through which self-efficacy plays a role in a WP setting. IR may employ various research methods, including surveys and group discussions (Ghauri and Gronhaug 2005). Therefore, within this study we implement a mixed methods approach (Cresswell 2009). The Business School was chosen as the data collection point because the main survey tool used by Byrne, Flood, and Griffin (2014) was designed with Accounting and Finance students in mind, and the survey has also been used to investigate the self-efficacy of students on business programmes (Beatson, Berg, and Smith 2019; Sachitra and Bandara 2017).

Data collection

Survey

This study has employed the closed-question self-efficacy survey developed by Byrne, Flood, and Griffin (2014) to gather data regarding students' perceived levels of confidence across 26 academic activities, including asking questions in lectures and tutorials, judging the standard necessary to attain good marks in exams and assignments, and meeting deadlines. These questions are listed in Table 1. **[Table 1 near here]** The participants were year one undergraduates from two business school departments, studying accounting and finance-related or general business degree programmes.

All year one undergraduate students in the two departments were sent an email invitation to complete an online survey in the first month of year one. This was followed by a reminder in a face-to-face lecture with each group of students, plus a second email. Participant information and a consent form was included at the start of the survey. In total, 124 year one undergraduate students completed the survey: 82 students from accounting and finance-related programmes, and 42 from general business programmes; 49.2% of respondents were female, and 50.8% were male; 58.1% of the students identified as BAME, 41.1% as white, and 0.8% (one student) preferred not to say. At the end of the academic year, the relationship between academic performance in year one, parameterized by average stage grade (ASG), and students' perceived self-efficacy was investigated via quantitative analysis. A two-tailed regression test was employed to improve the precision of the test by checking whether the correlations between two variables were statistically significant at significance levels of $p < .01$ and $< .05$. Building on the work conducted by Byrne, Flood, and Griffin (2014), in order to explore the reasons why students may have, or lack, confidence that they will pass year one, two open questions were added to the survey: '*The main thing that makes me feel confident about passing year one is ...*', and, '*The main thing that makes me think that I might not pass year one is ...*'.

Discussion forum

Additional data for qualitative analysis were collected through two student discussion forums. All students who completed the survey were invited to participate in a discussion forum and a total of nine students, including six on extended programmes, joined a forum. The discussions were facilitated by a member of the project team, who adopted a semi-structured approach to support a live conversation among the students at each forum. Initially, the questions proposed for discussion were informed by Bandura's (1982) sources of self-efficacy (see Table 2), but in each forum follow-up questions and discussions arose from students' comments. The

discussions were audio-recorded and transcribed for analysis. Institutional ethics approval was received from the University Research Ethics Committee (reference UREC 17.5.5.5) before the project commenced.

Data analysis

Quantitative analysis

For the survey closed-question data, the reliability was first tested, and then the answers to each question were ranked to enable comparison with other similar research. Furthermore, the relationships between self-efficacy scores and demographic variables were statistically analysed.

Qualitative analysis

With data from both the survey (answers to open questions) and the discussion forums, a process of thematic analysis was used (Dunworth et al. 2021). Firstly, textual analysis was used to help the project team capture participants' understanding of, and concerns about, self-efficacy. Through the coding of keywords, the data were categorized into themes. **[Table 2 near here]** The identified themes, for example the reasons for, and challenges to, self-efficacy, are explored in the Results section with direct quotations from open questions and discussion forums. This is followed by the Discussion section where the findings are related to the research questions.

Results

Surveys

This section provides an overview of the data collected via the survey, and the related comments made in the discussion forums. Table 1 presents the self-efficacy scores of the students who completed the survey. The results indicate that students were least confident that

they could ask or respond to questions in lectures. However, they were most confident that they could ask their classmates for help, and meet their assignment deadlines. To consider the generalizability of the results, in Table 1 the rankings attributed to each question were compared to the results obtained by Byrne, Flood, and Griffin (2014). It should be noted that Byrne, Flood, and Griffin (ibid) surveyed students in week 22 of a 24-week academic year and the present study conducted the survey in week 3 of 24, so data for the two investigations reflect levels of confidence at different points in the academic year. In the present study, students were surveyed in week 3 in order to focus on their self-perceptions of self-efficacy on entering university; the data were collected before students received high grades in assignments that would contribute towards their successful progression, or low grades that would have a negative effect on their ASG and potentially detract from their confidence. Table 3 shows the relationship between demographic variables and self-efficacy scores, and the ASG, while Table 4 shows the relationship between the self-efficacy scores and the demographic variables. Only the significant correlations are reported in these two tables. Cronbach's alpha was 0.936, indicating a reliable data set. **[Tables 3 and 4 near here]**

Reasons for self-efficacy

The following analysis of the results addresses first what the students reported concerning their self-efficacy. Quotations are included from 14 students who had completed the survey (Students A to N) and 5 students who had participated in a discussion forum (Students O to S). Of the 124 students who completed the survey, 106 (85.5%) provided answers to the open question, '*The main thing which makes me feel confident about passing year one is ...*'. A common reason (given by 32 students) was confidence in their own efforts and intention to work hard:

'I am studying all the time and I am not skipping any lectures.' (Survey-A)

'I am giving my 100% in all my work and every module.' (Survey-B)

Students see goal setting, self-organization, and time management as important sources of success. A total of 15 students gave ability to manage their time as a reason for confidence:

'I know how I plan and arrange my time so that I can study independently and effectively.' (Survey-C)

'I have made a study plan and am keeping up to date with my work.' (Survey-D)

Students also believe that peer support will help them to succeed:

'A lot of my first-year assignments are group work, so I feel as if I am not completely alone as I have the support of my peers and tutor.' (Survey-E)

'I know second year students who help me.' (Survey-F)

Students feel confident when they have some prior knowledge of a subject and therefore the subjects which they are studying are familiar:

'I have previous background in Accounting.' (Survey-G)

'I'm determined to work hard and try to translate that hard work into success. I also have previous knowledge that relates to most of the modules.' (Survey-H)

Finally, students have confidence in their own ability when this can be based on past academic success:

'I never had to repeat a year whilst I was studying back in my country.' (Survey-I)

'I am usually a good student. And I haven't failed a year yet.' (Survey-J)

Challenges to self-efficacy

Self-efficacy can be increased because of various factors, but it can also be subject to threats and challenges. From our sample of survey responses, 96 students (77.4%) provided answers to the statement, *'The main thing which makes me think that I might not pass year one is ...'*, although, instead of noting a possible reason for failure, 8 of students stated that they were confident they would pass, effectively leaving 88 (71.0%) responses to the question. Course assessments (both exams and essays) were noted as a possible reason for not passing year one by 23 students. This may be because the survey was run early in Term 1, when students may have seen past exam papers or assignment briefs but they had not yet studied all of the relevant content to prepare for those assessments. Other students identified that their lack of confidence arose from a lack of motivation for study and self-doubt concerning their ability to work hard:

'I'm afraid I won't be motivated enough.' (Survey-K)

'I've failed before.' (Survey-L)

Poor time management was stated as a concern by 12 students:

'I may not be able to manage my time properly.' (Survey-M)

'... my way of not planning enough revision time for myself.' (Survey-N)

Discussion forums

In the forums, students agreed that they have benefitted from the rigour of studying and revising for unseen exams as part of their secondary education:

'... it was really, really intense in A-levels because I had to get so much content done in such little time, and basically they drilled in us that you learn the content and then do the exam, the questions, and you'll do it because you've learnt all the content. So I think it prepared me well for university ... because you have to be very independent, which is key.' (Discussion Forum 2-O)

The social aspect of learning was a theme that emerged very strongly in the forums, as students discussed the support they give each other:

'I think it's a natural, you get a group of students who help each other out; even in tutorials we just help each other out, go over it and see what you've done wrong and what you've done right.' (Discussion Forum 2-O)

'Some things I do struggle with and I will just ring one up, "oh I didn't get this", and then they're literally on the phone to me for half an hour trying to explain it, and I end up getting it in the end.' (Discussion Forum 1-P)

Students explained that when they received a low grade, other students helped them regain their confidence:

'... when one of my friends does good and I'm just like, "how have you done that and I've done this?" ... I've had moments where a couple of my friends were saying to me like, "don't worry about it, I'll help you through this", and then for example it's come to the next test and I've done a lot better and I'm kind of thankful that I didn't give up ... giving up is quite easy, and to kind of not give up you need to have a strong mind ...'
(Discussion Forum 1-Q)

There are distractions associated with working on campus, even in quiet study spaces:

'If I come to uni and there's someone just being polite and they're like, "oh you all right?" and they'll come and say hello, that's 5 minutes gone, and then you get distracted.' (Discussion Forum 1-R)

Meanwhile, the successful completion of the foundation year of an extended programme was given as a reason for confidence that students would pass year one:

'We had a year before everyone else, so we've got a year's extra knowledge of how to structure things and do it, so we've got less stress when people were stressing over something really basic that we stressed over last year.' (Discussion Forum 1-R)

'Towards the beginning of the year, I think I've had the ... feeling of being confident, because I know what I've done last year has been helping a lot. So when I started this year I was already on a high thinking, "yeah I'm going to go to [a] lecture".'
(Discussion Forum 1-S)

Discussion

The discussion in this section addresses the four research questions posed.

1. At the start of year one, is there any difference in the self-efficacy of BAME and white students?

There were no significant differences between the participants in the various areas of self-efficacy, except that white (including mixed-white) background students were more confident that they would ask their classmates for help ($p < 0.05$) (see Table 4). The findings indicate

that performance was not related to ethnicity at the institution where this study took place. This raises the question of why this differs from the findings of other studies, such as those conducted by McDuff et al. (2018) and Mountford-Zimdars et al. (2017). One reason may be that students from a BAME background are not minorities at this institution; diversity in the student population is vast, so there is no sense among BAME students of a lack of belonging that might have a negative impact on their confidence. However, further research would be required to validate this reasoning.

2. At the start of year one, is there any difference in the self-efficacy of female and male students?

Table 3 reveals that gender was strongly linked to student performance (year one ASG), with female students performing better than males. This may be because the female students had attained higher grades in their entry qualifications. (There was a significant correlation between gender and entry grades.) However, there were more male students on the extended programme, and this should be considered when reviewing the findings. Further reasons for this outcome might be suggested by the strong correlations indicated by the survey results (see Table 4), including the fact that female students were more confident in their ability to create a study plan, to source and write up additional notes, to plan their study time, and to revise effectively ($p < 0.05$). Goal setting, which would include these types of planning activities, is a mediating factor in developing self-efficacy (Honicke and Broadbent 2016). Table 4 shows the male students in this study had higher levels of self-efficacy in terms of their confidence when responding to questions in lectures.

3. How do the entry qualifications of students impact on their self-efficacy?

In the UK, there are two main types of post-16 qualification that students study at school or college, namely the academically-focused Advanced levels (A-levels) which include exam assessments, and the more vocational Business and Technology Education Council (BTEC) diplomas which mainly assess via coursework. It is frequently assumed that students who study A-levels are better prepared for study at university level than their peers who complete vocational qualifications (Hurrell, Shawcross, and Keeling 2019). Indeed, Table 3 shows a significant relationship between the type of entry qualification and performance, where students with A-level qualifications performed better than those with alternative qualifications. This may be because those students who had completed A-levels had recently experienced exam assessments, and Table 3 also shows that students who are confident that they can produce their best work in exams tend to perform better. Therefore, A-level students seem to have benefitted from their exposure to a previous mastery experience to build their confidence regarding university exams.

In the surveys, the students noted that they felt more confident when they had studied similar subjects at school or college. If familiarity with a subject studied previously increases confidence, it can also be assumed that studying a new subject inhibits confidence. Therefore, lack of familiarity with subjects may be an issue for students studying degrees where specific subjects are not part of the entry requirements for a programme.

For a university with a commitment to WP, and where the portfolio of programmes on offer has extended degrees for students with relatively low school-leaving or college qualifications, there may be particular challenges in developing students' confidence that they can succeed on their course. However, an important mastery experience highlighted in the forums was the successful completion of an extended year before joining year one, which suggests an effective extended programme design. In addition, Table 4 shows that students undertaking the extended

programmes were confident in their ability to create a study plan ($p < .01$), suggesting they were well-placed to set themselves study goals and to manage their time, following their initial experience of HE. Another point to consider is that students on extended degrees began year one with a group of friends in place. This is important because the social aspect of learning and its value in increasing academic self-efficacy emerged strongly as a theme from the forums.

Working together motivates students to study, and has the potential to reduce academic procrastination. Maintaining task focus and working through study materials provide mastery experiences that build confidence. In group study sessions, and online interactions via social media, students help each other to understand areas where they are confused and provide mutual encouragement. Group study also provides vicarious experiences, as a student can see first-hand that their friends, in likelihood the students among the cohort with whom they most closely identify, succeed in completing tasks and demonstrate understanding of challenging topics. As the academic year progresses, students experience varying levels of confidence, and this is often dependent upon the grades received in recent assessments. When students feel demotivated, verbal persuasion from their peers serves as a powerful source of motivation, and when a student receives a low grade, the resilience of facilitative emotional states is tested. At this point other students can be a valuable source of support to restore a positive attitude.

Sub-question 4. Does the level of self-efficacy at the start of the year have an impact on performance in year one?

Table 4 shows students who were confident in their ability to make sense of the feedback they received on assignments tended to perform better. Therefore, providing constructive and clear comments on students' work should help them to achieve higher grades. This resonates with Winstone et al.'s (2017) argument that for feedback to be useful, a student should engage with it. Students are more likely to do so if they are confident that they will understand the feedback.

Moreover, students who are confident that they can engage in academic discussions with their classmates also perform better, suggesting that in-class engagement improves students' attainment levels. Improved performance increases progression rates and reduces involuntary attrition through failure.

Table 1 compares this study's rankings of the sources of self-efficacy with those identified by Byrne, Flood, and Griffin (2014), interestingly demonstrating consistency at the bottom and top of the table. In both investigations, the students were most confident in their ability to meet deadlines and to ask their classmates for help, but were less confident about asking for help from their lecturers or tutors. However, Table 3 shows that the students who were confident about asking their tutors for help performed better than those who were not. This is consistent with findings reported by Byrne, Flood, and Griffin, who suggested that students' reluctance to ask faculty members for help '*may have inhibited their ability to develop a deep understanding of the course content, resulting in poor performance*' (ibid., 420). In both investigations, the students involved were least confident about asking and responding to questions in lectures, a finding which may be attributable to the large number of their peers in attendance, with over 100 people typically present at lectures.

Conclusion

This project has considered whether the self-efficacy of year one undergraduate students has an impact on their performance, and therefore retention and progression. In a WP context it is heartening that the results suggest that most of the students who completed the survey felt confident about their ability to succeed in year one of their programmes. The study found only minor differences in the participants' perceived self-efficacy associated with gender and ethnicity.

The findings demonstrate that Bandura's (1997) four sources of self-efficacy were present for these students, although the sources could sometimes be difficult to distinguish between. For example, an overlap was evident in the peer learning data because the four sources were all shown to be strengthened in a social setting. Students can observe their friends successfully completing tasks, which encourages them by providing a vicarious experience to build self-efficacy. The emotional connection created provides students with an identity, which strengthens their commitment to their studies, resulting in lower attrition rates. Verbal persuasion is in operation during this process, as friends help and motivate each other to persevere. When students are supported by their peers in this way, it can benefit their emotional state, especially when there is a risk of self-doubt following a disappointing assessment grade. This, and the (enjoyable) social element of studying together, may mean that students spend longer on task, and are potentially less subject to academic procrastination than when studying alone. Peers can therefore encourage each other to engage in, and persevere with, mastery experiences, thereby improving retention.

The findings of this research advance understanding of self-efficacy by emphasising the power of the social dynamic to facilitate the effectiveness of the sources of self-efficacy. Alongside the facilitation of peer learning within the classroom (García-Ros et al. 2018), it is important that universities support the development of friendship groups to encourage peer learning outside the classroom, starting with induction activities (Turner et al. 2017). However, this can be complex because, as Terblanche et al. (2020) suggest, it is students with higher levels of self-confidence who are more likely to interact with their peers in academic or social scenarios. Webb and Cotton (2018) identify low interaction with peers as a reason students contemplate their withdrawal from HE. Therefore, it is particularly important to facilitate interaction with peers for a university with a WP agenda, where higher rates of attrition can be expected.

Furthermore, if learning activities are moved online, for example because of the COVID-19 pandemic, this will present a particular challenge to universities, who will need to think creatively about how to encourage and facilitate peer-to-peer support in the future to reduce voluntary and involuntary attrition.

Academic experiences in secondary education provide students with important exposure to past mastery experiences, but the different qualifications that students possess on joining university mean that their previous experiences are not homogeneous. In the UK, students who studied A-levels will have been exposed to exam assessments and are used to learning a large amount of material in preparation for unseen exams. Students with BTECs do not have that same experience; however, this does not mean that a deficit model should be applied to BTEC students, rather that they have different experiences, including of time management and of self-discipline to deliver large coursework assignments. It is important to comprehend these differences in order to remind students of their pre-existing skills, and to develop their academic self-confidence, which will help with retention issues as they will become confident alongside their peers.

Where students join university via an extended programme, that programme is designed to give them mastery experiences related to subject content and types of assessment in their initial foundation year. The foundation year also provides an opportunity for them to move into year one with a group of friends. While new year one students require time to make friends, and to create small study groups, extended programme students already have access to such groups, and can quickly start to reap the rewards of the sources of self-efficacy that these networks provide.

The analysis of the survey and forum data collected by this study indicates four areas of focus for building year one students' confidence in their academic abilities by harnessing sources of self-efficacy. The following recommendations for practice are therefore posed. First, when designing induction and teaching activities, it is important to include as many opportunities as possible for students to start working together, and to form their own informal study groups, which will become sources of support and encouragement. This is particularly challenging where induction activities are online. Therefore, it is crucial to think creatively about how it might be possible to achieve this using the virtual learning environments available. Second, recognizing that male and female students have different opinions about their self-efficacy in some areas, when students work in groups these should ideally be mixed gender. Specifically, male students may benefit from working with female students, who are more likely to formulate a study plan. Third, it is necessary to understand the subject content and assessment methods of students' entry qualifications, so as to be able to remind students of their pre-existing skills and build academic confidence. Finally, the foundation year of an extended degree should be tailored to ensure that it includes both relevant subject content and exposure to various forms of assessment, in preparation for year one.

A limitation of this study is that it considered a cohort of students from a single university; therefore, the findings may not be generalizable. They do, however, support those of Byrne, Flood, and Griffin (2014), which suggest students are most confident they can meet deadlines and ask their classmates for help, and are less confident about asking their lecturers or tutors for help. Further research is needed to explore other areas of self-efficacy, and to identify local initiatives designed to improve efficacy in particular areas. In addition, this investigation found only minor differences in self-efficacy between BAME and white students at the start of year one, despite the current awareness of the BAME awarding gap across the sector. Therefore, future research projects might adopt a longitudinal approach to try to identify if and when

discrepancies in self-efficacy start to appear, so that targeted action can be taken by universities to support BAME students.

References

Baik, C., R. Naylor, S. Arkoudis, and A. Dabrowski. 2019. "Examining the experiences of first-year students with low tertiary admission scores in Australian universities." *Studies in Higher Education* 44 (3): 526-538.

Bandura, A. 1997. *Self-efficacy: The exercise of control*. New York, NY: WH Freeman and Company.

Bandura, A. 1982. "Self-efficacy mechanism in human agency." *American Psychologist*, 37 (2): 122–147.

Beatson, N., D. Berg, and J. Smith. 2019. "The influence of self-efficacy beliefs and prior learning on performance." *Accounting & Finance*. doi: 10.1111/acfi.12440.

Boero, G., T. Laureti, and R. Naylor. 2005. "An econometric analysis of student withdrawal and progression in post-reform Italian universities." Working Papers, Centro Ricerche Economiche Nord Sud, Università di Cagliari & Università di Sassari, April 2005, 1-43.
https://www.researchgate.net/publication/4825827_An_econometric_analysis_of_student_withdrawal_and_progression_in_post-reform_Italian_Universities.

Bowl, M. 2018. "Differentiation, distinction and equality – or diversity? The language of the marketised university: an England, New Zealand comparison." *Studies in Higher Education* 43 (4): 671-688.

Briggs, A., J. Clark, and I. Hall. 2012. "Building bridges: understanding student transition to university." *Quality in Higher Education* 18 (1): 3-21.

Byrne, M., B. Flood, and J. Griffin. 2014. "Measuring the academic self-efficacy of first-year accounting students." *Accounting Education* 23 (5): 407-423. doi: 10.1080/09639284.2014.931240.

Carroll, D., E. Ng, and D. Birch. 2009. "Retention and progression of postgraduate business students: an Australian perspective." *Open Learning* 3: 197-209.

Christoffersen, A. 2017. "Intersectional approaches to equality research and data." https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/ecu/Research_and_data_briefing_2_Intersectional_approaches_to_equality_research_and_data_1579105654.pdf.

Claeys-Kulik, A. and T. Jørgensen. 2018. "Universities' Strategies and approaches towards diversity, equity and inclusion – examples from across Europe." European University Association. <https://eua.eu/downloads/publications/universities-39-strategies-and-approaches-towards-diversity-equity-and-inclusion.pdf>.

Creswell, J. 2009. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Thousand Oaks, CA: SAGE Publications Inc, 3rd edition.

Dunworth, K., T. Grimshaw, J. Iwaniec, and J. McKinley. 2021. "Language and the development of intercultural competence in an 'internationalised' university: staff and student perspectives." *Teaching In Higher Education*, 26 (6): 790-805.

Duru, E. and M. Balkis. 2014. "The roles of academic procrastination tendency on the relationships among self doubt, self esteem and academic achievement." *Education and Science* 39 (173): 274-287.

Elias, S. and R. Loomis. 2002. "Utilizing need for cognition and perceived self-efficacy to predict academic performance." *Journal of Applied Social Psychology*, 32 (8): 1687-1702.

Engstrom, C. and V. Tinto. 2008. "Access without support is not opportunity." *The Magazine of Higher Learning* 40 (1): 46-50. doi: 10.3200/CHNG.40.1.46-50.

García-Ros, R., F. Pérez-González, F. Cavas-Martínez, and J. Tomás. 2018. "Social interaction learning strategies, motivation, first-year students' experiences and permanence in university studies." *Educational Psychology* 38 (4): 451-469.

Ghauri, P. and K. Gronhaug. 2005. *Research Methods in Business Studies, a practical guide*. Harlow: Financial Times Prentice Hall.

Higher Education Statistics Agency. nd. "Who's studying in HE?"

<https://www.hesa.ac.uk/data-and-analysis/students/whos-in-he> (accessed 12 April 2021)

Honicke, T. and J. Broadbent. 2016. "The influence of academic self-efficacy on academic performance: A systematic review." *Educational Research Review* 17: 63-84.

Hunter, J., S. Hewings, and A. Suddards. 2018. "White working-class boys: The challenges of translating widening participation policy into practice." *Widening Participation and Lifelong Learning* 20 (3): 27-49.

Hurrell, E., E. Shawcross, and E. Keeling. 2019. "How does a vocational qualification (BTEC) prepare students for a degree in Biosciences at a research intensive university?" *New Directions in the Teaching of Physical Sciences* 14 (1): 1-13.

Jeffreys, M. 2007. "Tracking students through program entry, progression, graduation, and licensure: Assessing undergraduate nursing student retention and success." *Nurse Education Today* 27: 406-419.

Jungert, T. and M. Rosander. 2010. "Self-efficacy and strategies to influence the study environment." *Teaching in Higher Education* 15 (6): 647-659.

- Linnenbrink, E. and P. Pintrich. 2003. "The role of self-efficacy beliefs in student engagement and learning in the classroom." *Reading & Writing Quarterly* 19 (2): 119-137.
- Lukka, K. and S. Modell. 2010. "Validation in interpretive management accounting research." *Accounting, Organizations and Society*. 35 (4): 462–477.
- McDuff, N., J. Tatam, O. Beacock, and F. Ross. 2018. "Closing the attainment gap for students from black and minority ethnic backgrounds through institutional change." *Widening Participation and Lifelong Learning* 20 (1): 79-101.
- Mountford-Zimdars, A., J. Sanders, J. Moore, D. Sabri, S. Jones, and L. Higham. 2017. "What can universities do to support all their students to progress successfully throughout their time at university?" *Perspectives: Policy and Practice in Higher Education* 21 (2-3): 101-110.
- Naylor, R., C. Baik, and S. Arkoudis. 2018. "Identifying attrition risk based on the first year experience." *Higher Education Research & Development* 37 (2): 328-342.
- Naylor, R., C. Baik, and R. James. 2013. "Developing a critical interventions framework for advancing equity in Australian Higher Education." Centre for the Study of Higher Education, University of Melbourne. <http://hdl.voced.edu.au/10707/259740>.
- Office for Students. 2020. "Promoting equal opportunities." <https://www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/> (accessed 29 June 2020).
- O'Sullivan, K., N. Bird, J. Robson, and N. Winters. 2019. "Academic identity, confidence and belonging: The role of contextualised admissions and foundation years in higher education." *British Educational Research Journal*. doi: 10.1002/berj.3513

Pearce, H., A. Campbell, T. Craig, P. le Roux, K. Nathoo, and E. Vicatos. 2015. "The articulation between the mainstream and extended degree programmes in engineering at the University of Cape Town: Reflections and possibilities." *South African Journal of Higher Education* 29 (1): 150-163.

Pennington, C., E. Bates, L. Kaye, and L. Bolam. 2018. "Transitioning in higher education: an exploration of psychological and contextual factors affecting student satisfaction." *Journal of Further and Higher Education*, 42 (5): 596-607, doi: 10.1080/0309877X.2017.1302563.

Pitkethly, A. and M. Prosser. 2001. "The First Year Experience Project: A model for university-wide change." *Higher Education Research and Development* 20 (2): 185–98.

Richardson, J. 2008. "The attainment of ethnic minority students in UK higher education." *Studies in Higher Education* 33 (1): 33-48.

Sachitra, V. and U. Bandara. 2017. "Measuring the academic self-efficacy of undergraduates: The role of gender and academic year experience." *World Academy of Science, Engineering and Technology* 11 (11): 2320-2325.

Seifert, T. 2004. "Understanding student motivation." *Educational Research* 46 (2): 137-149

Southall, J., H. Wason, and B. Avery. 2016. "Non-traditional, commuter students and their transition to Higher Education - a synthesis of recent literature to enhance understanding of their needs." *Student Engagement and Experience Journal* 5 (1): 1-15.

Stevenson, J. 2012. "An Exploration of the link between minority ethnic and white students' degree attainment and views of their future 'possible selves'." *Higher Education Studies* 2 (4): 103-113.

Stockfelt, S. 2018. "Ethnic variation in higher education participation amongst males in the UK: the mediating effects of attitudes and prior attainment." *Studies in Higher Education* 43 (11): 1895-1911.

Terblanche, W., D. Fakir, W. Chinyamurindi, and S. Mishi. 2020. "Impact of self-esteem and student-and-lecturer interaction on academic performance in a chartered accounting programme." *Journal of Further and Higher Education* 45 (4): 464-480. doi: 10.1080/0309877X.2020.1781801.

Turner, R., D. Morrison, D. Cotton, S. Child, S. Stevens, P. Nash, and P.

Kneale. 2017. "Easing the transition of first year undergraduates through an immersive induction module." *Teaching in Higher Education* 22 (7): 805-821.

Warren, E. and D. Reilly. 2019. "Addressing the attainment gap: business schools can lead the way by providing an inclusive approach to the student experience." Chartered Association of Business Schools. <https://charteredabs.org/addressing-the-attainment-gap-business-schools-can-lead-the-way-by-providing-an-inclusive-approach-to-the-student-experience/>.

Webb, O. and D. Cotton. 2018. "Early withdrawal from higher education: A focus on academic experiences." *Teaching in Higher Education*, 23 (7): 835-852.

Winstone, N., R. Nash, J. Rowntree, and M. Parker. 2017. "'It'd be useful, but I wouldn't use it': barriers to university students' feedback seeking and recipience". *Studies in Higher Education* 42 (11): 2026-2041.

Table 1 – Classification of students’ self-efficacy scores using Byrne, Flood, and Griffin’s (2014) survey instrument

<i>I feel confident in my ability that I can ... :</i>	Ranking			n	Mean (1-7)*	Std dev	NC (1-3)**	U (4)**	C (5-7)**
	Current	Byrne, Flood, and Griffin (2014: 414)	Diff.						
Ask questions in lectures	1	1		124	3.94	1.68	40.3%	14.5%	45.2%
Respond to questions asked in lectures	2	2		124	4.35	1.61	25.8%	19.4%	54.8%
Answer an essay style question	3	21	-18	123	4.84	1.40	13.8%	22.0%	64.2%
Judge the standard to get good marks in my exams	4	9	-5	123	4.93	1.40	10.6%	22.8%	66.6%
Draw up a study plan	5	4	+1	124	4.98	1.42	15.3%	16.1%	68.6%
Judge the standard to get good marks in my assignments	6	8	-2	124	5.04	1.38	8.9%	18.5%	72.6%
Make sense of theoretical aspects of my modules	7	15	-8	123	5.08	1.27	8.9%	13.0%	78.1%
Produce my best work in exams	8	14	-6	123	5.10	1.43	10.6%	14.6%	74.8%
Ask for help from my lecturers	9	5	+4	124	5.11	1.48	16.1%	10.5%	73.4%
Approach my lecturers to receive feedback	10	3	+7	124	5.12	1.40	10.5%	16.1%	73.4%
Make a good attempt at tutorial questions in advance	11	20	-9	123	5.13	1.24	8.9%	13.0%	78.1%
Respond to questions asked in tutorials	12	10	+2	124	5.15	1.39	11.3%	11.3%	77.4%
Apply my knowledge to previously unseen questions	13	12	+1	123	5.16	1.17	8.1%	13.8%	78.1%
Ask questions in tutorials	14	11	+3	123	5.20	1.42	13.8%	7.3%	78.9%
Make sense of material I read in textbooks	15	25	-10	123	5.23	1.17	8.1%	7.3%	84.6%
Plan my time to revise effectively for exams	16	7	+9	124	5.24	1.38	11.3%	10.5%	78.2%
Engage in academic discussions with classmates	17	16	+1	123	5.26	1.32	11.4%	9.7%	78.9%
Follow and make sense of material covered in lectures	18	24	-6	124	5.27	1.18	7.2%	12.1%	88.7%
Make sense of feedback on my assignments	19	18	+1	122	5.30	1.23	6.5%	11.5%	82.0%
Study effectively on my own	20	22	-2	123	5.31	1.34	7.3%	9.8%	82.9%
Source and write up additional notes	21	6	+15	124	5.39	1.35	7.3%	12.9%	79.8%
Explain material to a friend	22	19	+3	121	5.40	1.20	6.6%	9.1%	84.3%

Ask for help from my tutors	23	13	+10	122	5.48	1.23	6.6%	9.0%	84.4%
<i>Pass Year one of my degree at the first attempt***</i>	24	17	+7	124	5.49	1.42	8.1%	5.6%	86.3%
Meet the deadlines for my assignments	25	26	-1	124	5.58	1.40	8.1%	3.2%	88.7%
Ask for help from my classmates	26	25	+1	123	5.60	1.21	4.9%	7.3%	87.8%

* Seven-point Likert scale: 1 = not confident at all to 7 = completely confident

** NC = Not confident (scores 1 to 3), U = unsure (score 4), C = confident (scores 5 to 7)

*** Byrne, Flood, and Griffin (2014: 414) includes '*Pass both accounting modules at the first attempt*'

Table 2 – Discussion forum questions informed by Bandura (1997)

Self-efficacy themes	Questions
Mastery experiences	How did your sixth form help you to prepare for university?
Vicarious experiences	How do you work together with other students, especially when someone finds a topic difficult?
Verbal persuasion	When things are challenging, how do your lecturers or personal tutors help you?
Emotional state	When you get a good mark, how does that affect your effort toward future assignments? Does it encourage you to keep working hard, or to relax a bit?
	Is there anything else you would like to say about your confidence as a year one student?

Table 3 - Relationships between variables and performance (ASG)

Variable	Correlation
Demographic:	
Gender	0.277**
Which qualifications did you have on joining your programme?	- 0.184*
Self-efficacy: <i>I feel confident in my ability that I can ... :</i>	
Produce my best work in exams	0.178*
Engage in academic discussions with classmates	0.223*
Make sense of feedback on my assignments	0.189*
Ask for help from my tutors	0.215*
Pass Year one of my degree at the first attempt	0.186*

* Correlation with ASG is significant ($p < 0.05$)

** Correlation with ASG is significant ($p < 0.01$)

Table 4 – Significant relationships between demographic variables and self-efficacy

Self-efficacy: <i>I feel confident in my ability that I can ...</i> :	Correlation		
	Ethnicity	Gender	Extended
Respond to questions asked in lectures		-0.186*	
Draw up a study plan		0.212*	0.249**
Source and write up additional notes		0.193*	
Plan my time to revise effectively for exams		0.238*	
Ask for help from my classmates	0.198*		

* Correlation with ASG is significant ($p < 0.05$)

** Correlation with ASG is significant ($p < 0.01$)