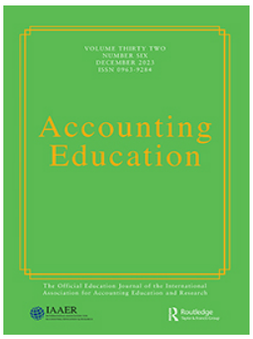

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RESEARCH ARTICLE

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The use and measurement of communication self-efficacy techniques in a UK undergraduate accounting course

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ABSTRACT

This research contributes to helping educational establishments across the world develop self-efficacy techniques to improve communication skills within an accounting course design and other disciplines. This paper asks the research question: Does self-efficacy enhances accounting students' communication ability? Previous research has identified the business community requiring accountants to display high levels of communication ability. However, despite many deliberate pedagogical interventions over the years, communication skills are lacking in graduating accounting students. This paper describes a new approach of deliberate self-efficacy interventions in one UK university's undergraduate accounting curriculum to improve accounting students' communication ability. In addition, a self-efficacy framework of Stone and Bailey [(2007). Team conflict self-efficacy and outcome expectancy of business students. *Journal of Education for Business*, *82*(5), 258–266. https://doi.org/10.3200/JOEB.82.5.258-266.] is developed to model communication self-efficacy, outcome expectancy and behavioral intentions of the students. The data consists of the results of 131 first-year accounting students, and this paper contributes by helping to pinpoint two self-efficacy techniques to improving students' communication skills: 'personal mastery' and 'mentor support'.

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Introduction

This study has occurred because the world of accounting is changing and the role of the accountant is changing. This is due to globalization and changes in technology, with the profession requiring individuals to be dynamic, entrepreneurial in spirit and display leadership skills in the workplace (Albrecht & Sack, 2001; Ellington, 2017; Flood, 2014). Rather than being in the background creating the results of the business,

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the accountant and their associated departments are being drawn forward into a more strategic, forward thinking role, designed to create the score rather than set the score.

A major priority in the future role of accountants is that they must be able to offer a range of skills that go beyond the basics of being a transaction processor (ACCA, 2020) to be more of a business advisor or 'partner' (as defined by CIMA, 2009, p. 18). To attain this status, accounting and finance entry-level students must develop the necessary cognitive and vocational skills. Amongst those skills, it is often viewed that communication skills, both verbal and written, are the most important (AAA's Bedford Committee Report, 1986; AICPA, 2000; Christensen & Rees, 2002; de Bruyn, 2022; Ellington, 2017). It is this skill of communication and how to help accounting students improve this skill that becomes the focus of this study.

Accounting education academics agree that the role of the accountant is changing and therefore demand an improvement in the communication skill set of students entering the profession (Borzi & Mills, 2001; de Bruyn, 2022; De Lange et al., 2006; Ellington, 2017; Flood, 2014; Hassall et al., 2005; Ireland, 2020; Jones & Sin, 2003; Kavanagh & Drennan, 2008; Leveson, 2000; Wilson, 2011). The accounting profession also is in agreement that there is a need for better communication skills in accounting education. The International Federation of Accountants (IFAC) published in their Third International Education Standard (IES 3) (2015, 2019) on Professional skills to demonstrate Interpersonal and communication skills accountants must be able to:

(i) Display cooperation and teamwork when working towards organizational goals.
(ii) Communicate clearly and concisely when presenting; discussing and reporting in formal and informal situations; both in writing and orally.
(iii) Demonstrate awareness of cultural and language differences in all communication.
(iv) Apply active listening and effective interviewing techniques.
(v) Apply negotiation skills to reach solutions and agreements.
(vi) Apply consultative skills to minimize or resolve conflict; solve problems; and maximize opportunities.

IFAC – The Handbook of International Education Standards (2019, p. 45)

Although potentially this is a change for the better and re-positions the accountant as an important player in the future of business, there seems to be a concern that this new role needs a new skill set that people entering and currently in the position of accountant find difficult to achieve. Unfortunately, there are still studies that show that despite the best efforts of educators, accountants are still perceived to lack this skill of communication. Many accounting degree courses globally have introduced modules that have resulted in a change to the syllabus; yet there still seems to have little effect on communication ability levels in accounting students (Aly & Islam, 2003; Fulmer et al., 2021; Simons & Riley, 2014).

This study utilizes an employability module within a first-year accounting degree program at a UK University to introduce communication self-efficacy techniques to understand students' communication ability. Self-efficacy has a pivotal role in transforming learned skills into efficacious performance (Mathieu et al., 1993). It has been claimed that self-efficacy techniques are more cost-effective and easier to apply (Zimmerman, 2000).

Once these self-efficacy techniques have been introduced to improve accounting students' communication ability and will ask the research question: Does self-efficacy enhances accounting students' communication ability?

In addition, our study creates a communication self-efficacy model to test for the variables (antecedents) of communication self-efficacy and their impact on student communication self-efficacy, the outcome expectancy and behavioral intentions. This study should enable students to use their improved communication skills in the future. This self-efficacy model has its origins from the work of Stone and Bailey (2007), which tested team-conflict self-efficacy.

However, our study is different from Stone and Bailey's in that we are interested in which self-efficacy technique can help individual students increase their communication self-efficacy. We have built a model that measures the self-efficacy interventions built into the curriculum, and the influence self-efficacy has on the students' future verbal communication self-efficacy and future behavioral intentions.

First-year accounting students were chosen for this study, as it is thought that if a person"s self-efficacy is raised in a particular task, it will also raise their intention to use this newfound ability again in the future (Beatson et al., 2019). Therefore, the earlier the intervention in a person's life, the better it will be for that person (Bandura, 1977).

Contribution of this study

Our first contribution is that this study adds to the accounting education literature, introducing self-efficacy techniques to improve a person's belief in their communication ability (communication self-efficacy). The ability to communicate effectively is of importance, as the content of the accounting profession has shifted over the years. Therefore, this study adds to accounting education research that considers aligning the accounting students' communication ability with employers.

The second contribution is the creation of a new model for measuring the effects of variables (antecedents) on communication self-efficacy. In the current academic literature, to our knowledge, this is the only model that tests for communication self-efficacy.

In using our model, the third contribution will allow accounting educators to improve their course design by identifying which self-efficacy antecedents (personal mastery; peer and mentor support; vicarious experience and emotional state) has the most impact on improving a person"s communication self-efficacy. Therefore, once they can identify which antecedent improves self-efficacy beliefs in communication, they can then implement extra interventions into the curriculum to help the students strengthen their belief in their communication abilities.

The fourth contribution presents a unique way to capture and model communication self-efficacy outcome expectancy and behavioral intentions of an individual. The effects of self-efficacy can rapidly boost a person"s belief in achieving a specific task and increase confidence in their overall belief (Beatson et al., 2021). Focusing on outcome expectancy and behavioral intentions (as defined by Bandura, 1986) allows educators to understand how a person with increased self-efficacy will use this newly improved mental state. Outcome expectancy will record the students' use of their improved communication

ability in the immediate future and behavioral intentions records a person"s desire to use their new-found skills in the longer term.

The remainder of this paper is as follows: the next section considers the literature view; the definition of self-efficacy, hypothesis development and course design; followed by the research method and the data collection process. This is then followed by discussion and analysis; conclusion and limitations.

Literature review and theoretical framework

On investigation as to which of the generic skills were deemed important for the future accountant, the most important skill has been identified as oral and written communication skills (De Lange et al., 2006; Gammie et al., 2010; Hassall et al., 2013; Ireland, 2020; Siriwardane & Durden, 2014). Communication skills are still viewed by academics and employers alike as the most desirable skill-set in an accounting graduate and the one most lacking (Beatson, 2019; Borzi & Mills, 2001; De Lange et al., 2006; Hassall et al., 2005; Jones & Sin, 2003; Kavanagh & Drennan, 2008; Leveson, 2000; Malan & Dyk, 2021).

Unfortunately, many studies have indicated that students entering undergraduate programs in accounting suffer from communication apprehension more than other students in differing degree courses (Arquero et al., 2007; Borzi & Mills, 2001; Byrne et al., 2012; Faris et al., 1999; Hassall et al., 2013; Ireland, 2020; Simons et al., 1995). The reasons for this are difficult for researchers to specifically pinpoint, but it seems that a lot of this due to the fact that accounting has an image problem, that students are drawn to accounting because they feel that accounting does not require a high level of communication ability (Lucas & Mladenovic, 2014), whereas in fact today, the opposite is required. This trait of communication avoidance is displayed by students who McCroskey (1970) defined as suffering from communication apprehension. Students matching careers with those that they deemed requiring little communication ability was identified by McCroskey in the early 1970s.

The major influence to our work came from Hassall et al. (2013). Hassall noted an inverse causal link between communication apprehension and communication self-efficacy in Malaysian students. This study was successfully repeated for UK students by the first author of this study (Roberts, 2017). Both Hassall et al. and Roberts suggested that self-efficacy techniques should be introduced into the accounting curriculum as an easier method to help the students improve their individual communication ability. As a students' communication self-efficacy improves, then students' communication apprehension will be lowered.

Self-efficacy

Bandura in 1977 published 'Self-efficacy: Toward a Unifying Theory of Behavioral Change', which directly correlates with a person's perceived self-efficacy, outcome expectancy and behavioral change. The full definition of self-efficacy by Bandura is given as the belief 'in one's capabilities to organise and execute the courses of action required to produce given attainments' (p. 3). The term came from Banduras' observation of individuals with phobias. Self-efficacy comes from four sources: 'performance

accomplishments, vicarious experience, verbal persuasion, and physiological states' (Bandura, 1977, p. 171; Pelzer & Nkansa, 2021).

Self-efficacy is not a measure of actual skill but rather a measure of an individual's perception of their ability to perform a specific behavior (Bandura, 1977). Low self-efficacy will lead people to believe tasks are more difficult than they really are; resulting in increased stress; poor planning of tasks and it can even lead to erratic; unpredictable behavior (Bandura, 1977). If an individual believes that they cannot do one thing; it will negatively affect their beliefs about their ability to achieve another similar task. Conversely, if a person has high levels of self-efficacy, they will take on a task if they feel that they can succeed (Beatson et al., 2019).

People with high levels of self-efficacy believe that tasks are there to be mastered, not avoided. Self-efficacy represents the personal perception of the ability to achieve goals or tasks and motivation towards completing a task will be strong in people with high levels of self-efficacy. If an individual believes that they will succeed, they will be more inclined to attempt a task; put more effort into completing the task and be prepared to maintain this effort for a longer period of time despite encountering obstacles.

In 1986, Bandura then went on to further increase his theory on not just what influences a person"s self-efficacy but also about what that person will do with their newfound increased belief in their ability. Bandura created the terms 'outcome expectancy' and 'behavioral intentions'. For outcome expectancy, this is the consideration of what a person 'can' do 'now' immediately with their improved self-efficacy in relation to a task. Behavioral intentions consider what the person can perceive about their use of their increased self-efficacy in the future. Self-efficacy is concerned with an individual's own perceived ability to achieve a task; therefore, creating question items that is all about whether an individual 'can' achieve a task, not about how 'will' an individual achieve a task, as 'will' here is a statement of Intention.

The success of self-efficacy has been noted in many areas, including medical and clinical fields such as phobias (Bandura, 1982), stress (Jerusalem & Mittag, 1995) and addiction (Marlatt et al., 1995). It has been around for over 40 years now and has generated hundreds of research articles (Morris et al., 2017). As glossophobia is the fear of public speaking; then it could well be that Bandura"s techniques may indeed be successful in improving the accounting students' inability to communicate.

Unfortunately, very few studies still have yet to find a direct link between public speaking, communication apprehension and Bandura's work on self-efficacy. Rubin et al. (1997) suggested that self-efficacy could be a link between communication apprehension and self-efficacy but were not able to query its impact in their basic course study. Other researchers have suggested exploring the relationship between communication apprehension and self-efficacy rather than an actual examination or introduction of self-efficacy into the course curriculum (Dwyer & Fus, 2002).

Some accounting communication skills improvement research has mentioned techniques without specific reference to self-efficacy. For example, one of the first studies, Ruchala and Hill (1994), notes that students can improve their oral presentation skills when they understand what effective presentation looks like; practice giving individual and multiple group presentations and experience consistent instructor feedback. Others include the use of case studies (Boyce et al., 2001), business simulations

(Gammie et al., 2002), development over small tasks (Grace & Gilsdorf, 2004), co-operative learning (Ballantine & McCourt Larres, 2009) and assessment by presentation (Kerby & Romine, 2009).

Self-efficacy has been a technique that has not been used a lot in accounting education; but has started to gain traction (Beatson et al., 2019, 2020; Burnett et al., 2010; Byrne et al., 2014; Christensen & Rees, 2002; Mooi, 2006). These studies, though, have looked at the self-efficacy of the students in relation to their results. These studies found that if a student had a strong self-efficacy in their abilities, then this was reflected in their overall results. However, none of these studies have advocated the use of self-efficacy techniques in a communication course to help students overcome their communication inability.

The next steps taken were consideration and attempt to introduce specific, deliberate self-efficacy interventions into the accounting curriculum. Alongside these considerations thoughts were given to design a questionnaire and model that would capture the effects, these self-efficacy changes have had on the student. From this position, the teaching took place and at the end of the program the students were asked to complete the finished questionnaire. The results were then analyzed and modeled to demonstrate which, if any self-efficacy antecedents had an effect on the students' overall communication self-efficacy and behavioral outcomes.

Methodology

Self-efficacy techniques introduced in the curriculum in this study

A significant focus for a new module was on improving communication skills in the accounting students as this is a highly desired skill requirement by accounting employers (CIMA, 2009; IFAC, 2015, 2019). Therefore, 'The Professional Accountant' (TPA) module was introduced into the first-year accounting curriculum to enhance employability skills for accounting students. In addition, as a new module, it provided the opportunity to include self-efficacy techniques as advocated by Bandura (1977, 1986).

The TPA emphasized dealing with uncertainty, teamwork, and verbal communication. In addition, the accounting pedagogy was to develop accounting students with a capacity for creative thinking and an appreciation of ethical standards and conduct; and according to Bérubé and Gendron (2022), a challenge inherent in the pedagogy initiative.

The important thing to note in designing this course is that the techniques used are not particularly new to the pedagogy of accounting education. It is the different use of the techniques that accounting educators are used to, which are then used to stimulate the students' interest in the course and, therefore, participating even in formative tasks that will accrue to help the students increase their communication self-efficacy.

Therefore, as we build our model with its nine hypotheses, we also will be concentrating on course design, the use of case studies, co-operative learning, tutors, and guest speakers that would positively affect the students' communication self-efficacy. All of which are briefly discussed below.

Model creation – conceptual framework

Our study advances the use of Stone and Bailey's (2007) framework on team conflict self-efficacy to be adapted to explain the antecedents and behavioral intentions of the accounting students exposed to communication self-efficacy techniques. We use Stone and Bailey"s nine hypotheses on team conflict self-efficacy, which we amend to address the objectives of this research on understanding communication self-efficacy and behavioral intentions.

Hypothesis development for the antecedents of self-efficacy

Bandura (1977, 1982) proposes four types of antecedents that influence a person's thought about their self-efficacy beliefs in achieving a task. The first antecedent is 'personal mastery', which can be explained as 'accomplishments regarding a task' (Stone & Bailey, 2007) or allowing one to master an idea or concept (Chowdhury et al., 2002) has a substantial effect on self-efficacy and future behavioral intentions. If a student's communication experience is that of consistently performing well in a communication task, then it is considered that that student will have increased communication self-efficacy.

Therefore, the course includes two summative assessments to enable active participation by the students: A group presentation on a case study (worth 30%) and, following the presentation; an individual reflective essay on how their generic skills had improved (or not) worth (70%).

As of week one, the students were grouped by the tutors into small groups of five students chosen at random by the tutor. The rationale for this group size is to ensure that team members yield diversity and cohesiveness and avoid students feeling uncomfortable in large groups.

The first task began in the second week by giving a presentation as a group to the rest of the class and the tutor on what skills are required to be an accountant. This presentation was given for two reasons. The first was to help the students begin their verbal presentation journey, and the second was to help them start on their reflective essay. Students needed to self-reflect on the following: reasons for choosing an accounting course; what job they wished to have after their degree; what skills were required for their future employers; and finally, ask themselves – did they already possess those skills? According to Carnegie (2021), 'accounting is not a mere neutral; benign; technical practice' (p.12). Hence, second, the chance to research and understand that they will need more than just being good at accounting numbers to be a successful accountant in the 2020s. This nuanced design generated buy-in (Van Niekerk & Delport, 2022) from the students and positively impacted the rest of the course. Such curriculum changes require other approaches to the assessment of students' achievement of competence regarding these communication skills.

We hoped that with the help of tutors and peers, these students would learn and develop and can practice freely, reducing any fear they had of presenting. The role of the instructor has been shown to help build trust in an active learning environment (Beatson et al., 2019; Cavanagh et al., 2018). The accounting undergraduates commenced with a simple task of presenting an understanding of accounting, gradually building this

over the course duration. This continued until the final summative task presenting the answer to a CIMA-provided case study, thus relating to real scenarios. The idea being here that students will be able to apply the numerical formulas they have learnt in theory in other modules on their degree course to help improve their critical thinking and problem solving as well as develop teamwork and communication skills as suggested the recommendations of O'Connell et al. (2015). Therefore the first hypothesis on self-efficacy was:

> Hypothesis One: The level of communication experience has a significant and positive impact on communication self-efficacy.

The second antecedent of Bandura's is 'vicarious experiences' explained as mirroring the behavior of others who are viewed as completing the task successfully (in this case of communicating). Vicarious experience here would come from two sources: First, the students observing each other complete a presentation successfully, and second, the students observing a guest lecturer. Concerning the latter, stories are important enabling the alumni/guest lecturer to demonstrate dominant narratives of vicarious experience (Declercq & Jacobs, 2019; Van De Mieroop, 2019). Reflecting on the alumni/guest lecturer's personal experience narrative, students might feel inspired and envisage the future benefits potentially improving their future communication performance (Bandura, 1997; Gist & Mitchell, 1992).

Besides introducing case studies and co-operative learning, there was also the introduction of guest speakers at lectures. Guest speakers were invited from the professional bodies and individuals of high status within the accounting profession who had previously studied accounting on the same course. Using guest speakers allowed students to increase their communication self-efficacy levels again by another example of vicarious experience. Students observed guest speakers from the profession with good communication skills, noting that an ex-student of this program can succeed at both accounting and communicating.

These lectures concentrated on instructing the students as to the nature of accounting in the business world and the skills required to be successful in the workplace. This reflects academic research that states that carefully planned guest speaker presentations can provide very real accounting experiences to first-year undergraduate accountancy students (Fedoryshyn & Tyson, 2003; Metrejean et al., 2002; Metrejean & Zarzeski, 2001). This will also help to close the gap between academia and practice that is said to exist (Albrecht & Sack, 2001). It might also allow practitioners (due to their connection with the students) to reduce their preconceived notions of student abilities and reduce the expectations gap (Hassall et al., 2005).

> Hypothesis Two: The level of vicarious experience has a significant and positive impact on communication self-efficacy.

The third antecedent is that of 'social persuasion' by a team mentor, the university tutor, assigned to each group in their class. A positive assertion by the mentor (or tutor in this case) that a student has done well in the task (e.g. a good presentation) and that person believes that mentor; then their (communication) self-efficacy will rise (Krasodomska and Godawska, 2021).

Tutors were instructed to give as much positive feedback to students for taking part in their respective seminars (social persuasion). They were told to use these common methods of verbal encouragement, coaching and performance feedback to gradually improve the performance of the students in the task. For students who are not used to/unfamiliar to these new techniques, a caring and nurturing environment should be created as this is an important part of creating motivation for students to communicate (Biggs, 1989). Additionally, to support the students in their respective groups, the tutors were instructed to actively encourage them to support (Van Niekerk & Delport, 2022) one another in the presentation tasks to create an atmosphere of empathy; mutual understanding; and guidance on how groups perform over time. Basic guidance was given as to how groups would form and rules for interaction, but instruction did not go as deep as respecting cultural and religious differences as suggested by Hofstede's cultural model (2001).

The presentations given by the students (in small groups of four to five students) also helped link to another communication self-efficacy antecedent, emotional state. Tutors were made aware (and had their own preconceptions) that this was the first time many students had given any sort of presentation. The tutors were instructed to praise the student for just standing up and having a go in the early presentations to try to put the students at ease. The teaching team was chosen in recognition of previous research, which noted that teachers with experience in the business world would have the most credibility and influence on the students (Boyce et al., 2001).

Tutors should also make it clear to students what is expected of them (Van Niekerk & Delport, 2022), such as full participation in class. Tutors cannot just give out the case studies and expect the students to figure out what is required themselves. Students must now become active participants (Boyce et al., 2001). Teachers need to ensure that the students have the knowledge and strategies that are required to be successful at completing the tasks (Bandura, 1977).

> Hypothesis Three: The influence of a team mentor has a significant and positive impact on communication self-efficacy.

The fourth antecedent is 'team support'. A group's achievement is through shared knowledge, motivation, skills, and beliefs in their collective power to achieve the set task (Bandura, 2000). Therefore both lectures and seminars focused on the creation of teams and how they should operate based on the classical theory of small group development over time (e.g. Tuckman, 1965). Students would also be given an insight via a lecture and a seminar, into the type of role they might play as an individual within that team as defined by academics such as Belbin (2010). We will examine the group's collective motivation and cooperation.

Participation in group presentations in the module allows the students to be exposed to many of the other self-efficacy antecedents. For example, experience or modeling behavior on others who complete the task can help an individual improve their communication self-efficacy. The instruction to the tutors was to allow students to give their presentations (other than the one that was assessed) in front of the other students in the same seminar group. This meant that the students observing other students successfully giving their presentation (completing the task) could learn from the success of

others and improve their own performance (as suggested by Bandura, 1977; Gist & Mitchell, 1992; Pelzer & Nkansa, 2021).

The benefit of allowing other students to listen and watch other presentations is that another of Bandura's antecedents of self-efficacy and social persuasion could come into effect. Social persuasion on these occasions occurred when the students were prompted to give each other positive feedback on their presentations, using common forms of social persuasion such as verbal encouragement (Bandura, 1977).

> Hypothesis Four: The amount of team member support in the team has a significant and positive impact on communication self-efficacy.

The last antecedent to individuals' self-efficacy relates to physiological state when confronted with attempting a task. For example, as the individual could be suffering from nerves, they could interpret this as the reason for their poor performance. If individuals can modify their physiological state by reducing stress levels, self-efficacy may be increased (Wood & Bandura, 1989). Also included here are thoughts of the student's emotional (intellectual) arousal. If they were interested in the task, this would create a deep-learning environment (Ainsworth, 2021).

> Hypothesis Five: A team member's emotional state during a presentation has a significant and positive impact on communication self-efficacy.

Hypothesis development on the outcome expectations of the students

Similarly, to Stone and Bailey, we also consider two types of behavioral intentions. First, outcome expectancy is the idea that due to the consequence of accomplishing a task, this will lead towards achieving an overall desired outcome (Bandura, 1977) and this would be on career outcome.

Hence, hypothesis six, on outcome expectancy of communication self-efficacy relates to student's career. For example, a positive experience will increase students' communication self-efficacy and they will feel good about using this improved communication ability now as if they were in employment.

> Hypothesis Six: Communication self-efficacy has a positive impact on career outcome expectancy.

The second type, under outcome expectancy, considers teams. Looks at the positive effect of increased communication ability self-efficacy has on the students thoughts in working in their teams. If students feel that they could easily repeat the same task, the outcome expectancy results will be strong on their team outcome. This leads to hypothesis seven:

> Hypothesis Seven: Communication self-efficacy has a positive impact on current team outcome expectancy.

Hypothesis development on the behavioral intentions of the students

Although accounting is commonly positioned with technical practice (Carnegie, 2021), it is increasingly recognized for its effects on and reflections of behavioral intentions. Finally, in the last two hypotheses, we investigate the newfound levels of communication

self-efficacy and outcome expectancies on the students' behavioral intentions to use in the future. Behavioral Intentions comes from Henry and Stone (1999) on the use of self-efficacy, referring to the Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975). In addition, behavioral intentions are the formation in the mind that an individual has gathered enough information to act upon in the future (Ajzen, 1991).

Therefore, if communication self-efficacy has had a positive impact on the student, then there will be a strong correlation with their intentions to use their newly improved communication self-efficacy in their future careers:

> Hypothesis Eight: Career outcome expectancy has a positive impact on behavioral intentions to use communication skills.

Likewise, if the students view their communication self-efficacy to improve, they will use this improved ability when they are working in future teams. This could be either at university or in their future workplace.

> Hypothesis Nine: Current team outcome expectancy has a positive impact on behavioral intentions to use communication skills.

All of these hypotheses and their links can be shown diagrammatically in Figure 1.

The model created should reflect the strength of measurement of communication self-efficacy. It should also indicate which of these antecedents are statistically significant in influencing the student group's communication self-efficacy. The model will also show how likely communication self-efficacy will affect student's future communication views on their behavioral intentions to use their communication self-efficacy ability in the future workplace and future teams. The next section will indicate the student's final intentions to continue to use their newly found communication self-efficacy in the future.

Questionnaire item design

For the test of communication self-efficacy the questionnaire had 56 questions (items). The questionnaire has been designed slightly out of the order as created by Stone and Bailey, but the question re-ordering was more to do with the logical flow of the questionnaire and to group ideas together to allow for more considered responses. This re-ordering is in line with general questionnaire design suggestions as advocated by Willis (2004).

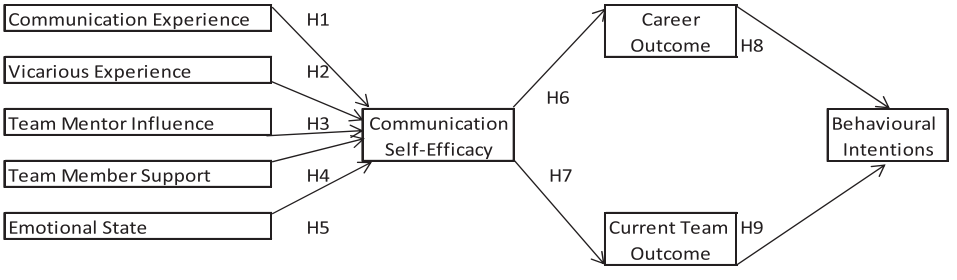

Figure 1. Schematic diagram of communication self-efficacy model and hypotheses.

Therefore, team and mentor support questionnaire items were brought together and emotional state questions were not left until last but were placed just after when the communication experience self-efficacy antecedent questions ended. This was in the hope that the students had the experiences of the group presentations at the forefront of their minds while completing the questionnaire. The emotional state questions were the easiest to replicate as they were just statements around feelings that could be easily applied to presentations as well as team conflicts:

When my team had a disagreement I felt anxious

Became:

When I had to present I felt anxious

To reduce the possible statistical impact of differently worded questions, it was decided to take the questions from the team-conflict questionnaire and adapt them where possible for communication self-efficacy. For example, a team-conflict, mentor support item:

A mentor helped my team resolve disagreements or conflicts

Became:

A tutor/mentor helped me improve my presentation skills

The addition of the word 'tutor' in this case was an attempt to point the question toward the effect the tutor had on their improving communication skills. It was hoped that each statement would have the same number of questions as the original model, but this was found impossible to replicate because of the nature of the questions asked. These questions were very specific to team conflict and could not be easily translated into communication self-efficacy. The main reason was that there were questions about collective behavior. For example, there were questions such as:

We worked so that to the extent possible we all got what we really wanted.

My team had frequent disagreements and conflicts

While this research is still interested in the effect of teams on an individual's communication ability, there needed to be a greater focus on the individual, so these questions about group behavior were thought to be superfluous. There was a potential that this removal of questions could ruin the statistical analysis, but these questions did not make sense and could not be easily replaced with a communication theme. Stone and Bailey, in terms of results, only highlighted questionnaire items that gave the strongest correlations to the constructs (statements). They claim that none fell below the range 0.7 for reliability, so losing some of the questions was a difficult choice.

The reduced number of questions is backed by other academics who state that having too many questions will lead to the respondent getting bored and not filling the questionnaire in correctly, with thoughts more on satisficing and completing quickly rather than revealing their true thoughts and feelings (e.g. Krosnick, 1999). The only concerns Stone and Bailey had regarding questionnaire items were over

Personal mastery, the first set of questions asked. This was due to their findings indicating that personal mastery was not important in improving team-conflict self-efficacy. Bandura (1977) stated that personal mastery should have the greatest impact on any type of self-efficacy. Stone and Bailey thought that their poor result in this area was down to poor questioning and something that needed work on in future questionnaires. This was noted by this researcher and questions were created with thought to key phrases such as experience and participation:

> Through my presentation experiences I was able to develop my skills in verbal communication.

> Participation in assessed presentation increased my verbal communication skills.

In order to prevent confusion in the students' responses, the language used in the questionnaire was kept clear and concise (Bandura, 2006). This safeguard included removing any mention of the term self-efficacy and any other possibly confusing terms such as vicarious experience that the students might not readily understand. A fairly benign title on communication and presentations will be used. The initial questionnaire design had headings at the start of each section that was to focus the student's thoughts on each particular section of theory to potentially prevent misinterpretation of the questions, following guidelines created by Willis (2004).

In the final statements of Behavioral Intention, there is also a danger that the question items may not work. This is because the instruction of Bandura (2006) clashes with the instruction of Ajzen (1991). Ajzen whose work on the TRA (Theory of Reasoned Action) created behavioral intentions suggests that designing questions with thoughts of future behaviors should use the term 'will.' Bandura suggests the term 'can' is replaced by 'will' in the item design. However, as Ajzen has a stronger focus in this particular area, this team chose to use Ajzen's design:

> I will not be afraid to give future presentations.

> I will help my future team find ways to improve their collective presentation skills.

Research design: testing of the communication self-efficacy model

Data collection

The research method includes a written questionnaire completed by 131 students, from a year-long accounting module. These students had completed their first-year undergraduate program. This specific year was the first running of the module that contained communication self-efficacy interventions.

The questionnaire was completed using the traditional pen and paper approach, which again was the same method adopted by Stone and Bailey (2007). The questionnaire was handed out in the final lecture of the module. The reason for doing this was that there are suggestions by Bandura (1997) that individuals make better judgements on their self-efficacy after attempting a full range of tasks (in this case, both formative and summative presentations) rather than at the start. Ethical approval was sought and approved by the university to approach the students with this questionnaire. The questionnaires had high

Table 1. Demographics.

Variables	Number	%	*M*	SD
Age (years)			18.64	2.22
Gender				
Male	90	68.7%		
Female	41	31.3%		
Total	131	100.0%		

completion rates with 131 students out of 168 returning completed questionnaires (a 78.0% completion rate).

Research design

After the students filled in the questionnaires, the questionnaires were gathered up and processed via SMARTPLS version 2. The results were obtained using Partial Least Squares Structural Equation Modeling (PLS-SEM) rather than using a Covariance Modeling (Ghasemy et al., 2020) is that the PLS-SEM measures the overall results using the multiple Pearson coefficient of determination, R2 to describe the latent variables in this model (Tables 1 and 2).

Results

The latent variables in this diagram (Table 3) are the inferred variables rather than the observed (Hair et al., 2017). This gives an indication of the overall explanatory power of the model, indicating the amount of variance in the construct, which, in turn, are explained by the antecedent variables in the model (Roldán & Sánchez-Franco, 2012). The range of results from R2 can be from 0 to 1 with 1 being the perfect fit. The R2 values should be high enough to achieve a minimum level of explanatory power (Urbach & Ahlemann, 2010), with the value of R2 to be at a minimum of 0.10. Chin (2010) created a range of marks that explained the explanatory power: with anything between 0.19 and 0.33 should be considered weak, between 0.33 and 0.67 moderate, 0.67 and above considered a substantial predictor.

Table 2. Overall model results.

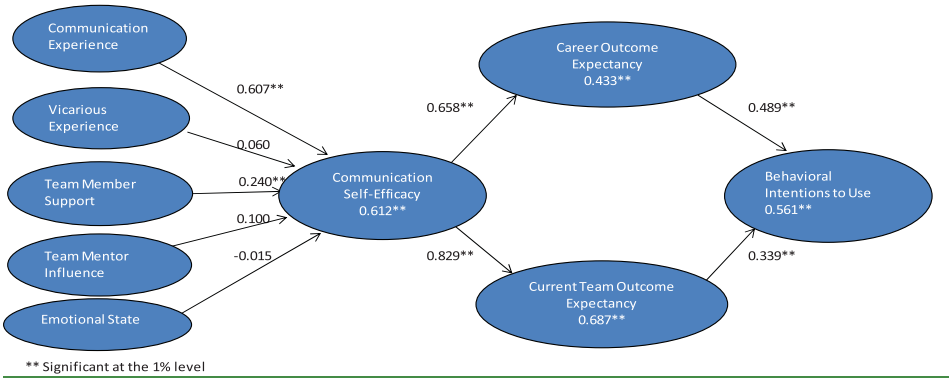

Table 3. Questionnaire items and standardized path coefficient results.

Questionnaire items		
	Hypothesis One – Personal Mastery	Coefficient
1	Through my presentation experiences I was able to develop skills in verbal communication	0.859
2	Participation in non-assessed presentations increased my verbal communication skills	0.847
3	Participation in assessed presentations increased my verbal communication skills	0.869
4	I worked in a team that had team members who could not communicate in presentations	0.223
5	Members of the team I was in exhibited communication problems	0.176
6	I was able to help my team increase their verbal communication skills	0.508
Hypothesis Two – Vicarious Experience		
1	Friends in my team told me how to resolve my verbal communication issues when giving presentations	0.609
2	I picked up tips on how to communicate by watching other members of my team who were good at communicating	0.755
3	I learned by listening to others as they resolved their verbal communication issues	0.796
4	I learnt how not to communicate by observing those who were poor at communicating	0.491
5	Friends on other teams told me how they resolved their verbal communication issues	0.744
6	I picked up tips on how to communicate by watching other teams	0.695
7	I learned by listening to other teams as they resolved their verbal communication issues	0.796
8	I learned via the 'grapevine' how other teams resolved their verbal communication issues	0.713
9	By listening to other teams' experiences, I learned how my team could resolve their verbal communication issues	0.775
Hypothesis Three – Team Mentor Support		
1	A tutor/mentor helped me improve my presentation skills	0.810
2	A tutor/mentor helped my team improve their presentation skills	0.867
3	A tutor/mentor encouraged us to work as a team in improving our presentation skills	0.800
4	A tutor/mentor got me to acknowledge my weaknesses in presenting	0.855
5	A tutor/mentor got the team to acknowledge their collective presentation weaknesses	0.785
Hypothesis Four – Team Member Support		
1	Friends in my team encouraged me to speak out in a presentation	0.898
2	Friends not in my team encouraged me to speak out in a presentation	0.535
3	Team members supported each other when giving a presentation	0.727
4	Team members encouraged a 'we are in it together' attitude	0.715
5	Team members treated poor communication as a mutual problem to solve	0.056
6	Team members avoided trying to solve any verbal communication issues we had	0.007
7	Working in a team forced me to improve my communication skills in order to gain acceptance from my team members	0.642
Hypothesis Five – Emotional State		
1	When I had to present I felt anxious	−0.566
2	When I had to present I felt stressed	−0.575
3	When I had to present I felt frustrated	−0.428
4	When I had to present I felt calm	0.828
5	When I had to present I felt confident	0.866
6	When I had to present I felt comfortable	0.854
7	I was interested in the intellectual challenge of the presentation tasks	0.685
8	I was interested in my verbal performance in the non-assessed presentations	0.771
9	I was interested in my verbal performance in the assessed presentations	0.757
Hypothesis Six – Career Outcome		
1	My verbal communication skills have improved	0.870
2	I feel I am able to better contribute in presentations now	0.887
3	By helping the team give a better presentation I also performed better	0.835
4	I feel I can produce higher quality presentations	0.786
5	I have learnt how to help my team give better presentations	0.784
6	I will be able to complete a similar presentation task with less stress	0.761
Hypothesis Seven – Team Outcome		
1	I feel I am now able to contribute more in future presentations	0.859
2	I feel I can improve my presentation performance in the future	0.288
3	By helping my team give a presentation I feel I am now able to contribute more in future teams	0.895
4	I feel I can improve the presentation performance of future teams	0.847
5	I feel I can become a contributing member to any team to which I am assigned	0.860
Hypothesis Eight – Behavioral Career Outcome		
1	I feel by improving my verbal communication skills I have become more attractive to employers	0.896
2	By improving me verbal communication skills I feel I am now better qualified for jobs when I graduate	0.964

(*Continued*)

Table 3. Continued.

Questionnaire items	
Hypothesis One – Personal Mastery	Coefficient
3 I am in a better position now to be more successful in my future career	0.947
Hypothesis Nine – Behavioral Team Outcome	
1 I intend to use my verbal communication skills in future presentations	0.722
2 I will not be afraid to give future presentations	0.657
3 I intend to be proactive and volunteer to give future presentations	0.715
4 I intend to continue improving my presentation skills	0.831
5 I will help others to improve their presentation skills	0.789
6 I will help my future team find ways to improve their collective presentation skills	0.781

Overall powers of prediction

We carried out the tests to review the strength of the overall powers of prediction of the model, the reliability of the model (consistency), the validity (the accuracy), which allows for the variables and their paths to be tested to examine if they are consistent with what they intend to measure (Straub et al., 2004) . The overall results indicate that we obtained for our new communication model a strong explanation of students' inferred communication behavior. The main number to concentrate on is an overall R2 result of 0.612 for communication self-efficacy. This means that the model has a 61.2% potential chance of capturing a student's overall understanding of communication self-efficacy. This is observed in Table 4.

In terms of the other latent variables, the results indicate that the model is a good predictor of the students' intention to use their new-found increased communication self-efficacy. This applies to their intentions to use it in their immediate near and long-term future (Team outcomes at 68.7% and behavioral intentions 56.1%). The result that is the weakest is the result for career outcome 43.3%. This could well be that the first-year students may not able to properly visualize their future and, therefore, the outcome would be lower.

Table 4 also gives as many reliability and validity results as possible. The redundancy measure is lower in all cases than the R^2 measure, indicating the relationships between the other variables and these higher level latent variables within the model. To measure the construct validity, the convergent validity, the AVE Average Variance Extracted (AVE) and a discriminatory validity measure the AVE square root is given. These measure the amount of similarity (AVE) and the amount of difference (AVE square root) each variable has with each other. The values for AVE should be greater than 0.5 (Fornell & Larcker, 1981).

Table 4. PLS-SEM latent variable results from the questionnaire.

PLS-SEM overview of reliability	AVE	Composite reliability	R^2	Cronbach''s alpha	Communality	Redundancy	AVE square root
Communication Self-Efficacy	0.675	0.926	0.612	0.903	0.675	0.050	0.822
Career Outcome	0.859	0.960	0.433	0.945	0.859	0.371	0.927
Team Outcome	0.753	0.924	0.687	0.891	0.753	0.514	0.868
Behavioral Intentions	0.565	0.886	0.561	0.846	0.565	0.241	0.751

Another assessment of the robustness of this model can be obtained from the communalities. The desired result is for the values to be close to 1, indicating that the model explains most of the variation for those variables. The model explains career outcome expectancy the best with the model explaining 96% of variation.

The test for internal consistency (or reliability) is given in the form of both composite reliability as developed by Werts et al. (1974) and the most popular test of overall fit Cronbach's alpha (Bryman & Cramer, 2009). Internal reliability is a measure of how well different items are measuring the same thing and Cronbach's alpha is a reliability coefficient that measures the average inter-correlation between the questionnaire items measuring the variable taking into account the number of questions and the average correlations in a construct (Nunnally & Bernstein, 1994). The Composite reliability is said to be the better suited for PLS (Chin, 2010), with both measures sharing a similar interpretation of indexes. However, with 0.70 as a benchmark for modest reliability in early research and 0.80 and 0.90 for advanced stages of research, this would suggest that the proposed model is reliable (Chin, 2010).

Hypothesis analysis

The results from Table 5 show that there are only two out of the five hypotheses that influence the results of communication self-efficacy. The two antecedents that are statistically significant and large enough to impact the students' communication self-efficacy are communication experience (Personal Mastery) 0.607 (Hypothesis One), team mentor support 0.240 (Hypothesis Three).

The others, vicarious experience (Hypothesis two), team member support (Hypothesis four) and emotional state (Hypothesis five) have had no effect on the communication self-efficacy of the students.

However, once the communication self-efficacy of a student is affected, there is a statistically significant effect on a student's outcome expectancy and behavioral intentions and these hypotheses should be accepted. Hypothesis Six (Career Outcome Expectancy), with a result of 0.658 suggests that a student can envisage using their communication self-efficacy in any career in the near future. Hypothesis Seven (Team Outcome Expectancy), with a result of 0.829 suggests that students will envisage using communication self-efficacy in their current teams on a new task. For Hypothesis Eight (Behavioral Career Intention), with a result of 0.489, the student can envisage using their

Table 5. Summary standardized path coefficient results from the questionnaire.

Structural self-efficacy		Coefficient	Std. err.	*Z*	P. [z]	[99% Conf. interval]	
Hypothesis One	Personal Mastery	0.607	0.049	15.990	0.000	0.684	0.875
Hypothesis Two	Vicarious Experience	0.060	0.068	1.470	0.141	−0.033	0.234
Hypothesis Three	Team Mentor	0.240	0.708	4.080	0.000	0.150	0.428
Hypothesis Four	Team Member	0.100	0.717	1.030	0.305	−0.067	0.214
Hypothesis Five	Emotional State	−0.150	0.077	−0.640	0.524	−0.201	0.103
Hypothesis Six	Career Outcome	0.658	0.052	12.610	0.000	0.549	0.751
Hypothesis Seven	Team Outcome	0.829	0.029	30.410	0.000	0.834	0.948
Hypothesis Eight	Behavioral Intentions – Career	0.489	0.086	5.510	0.000	0.179	0.521
Hypothesis Nine	Behavioral Intentions – Team	0.339	0.087	4.010	0.000	0.179	0.528

communication self-efficacy techniques in their long-term future careers. Hypothesis Nine (Behavioral Team Intention), with a result of 0.339 suggests that students will use their communication self-efficacy ability in future teams.

Discussion

From the demographic breakdown of the students, it can be seen that of the 131 students the majority are students are young, which is probably to be expected as these are first-year undergraduate students joining the accounting degree and that a significant proportion are male. This imbalance of accounting students with regard to gender has been noted by other researchers such as Rogers & Creed, 2011: Cory et al., 2010 and Koh & Koh, 1999. The young age of the students could be important as the students could be suffering from lower levels of self-efficacy and communication ability as they are new to university and are away from home for the first time. Other studies have shown that accounting students have lower levels of self-esteem that their peers (Farag & Elias, 2016). Therefore any intervention that will help raise the students' self-efficacy should help to improve their overall resilience and ability to cope with their course (Bandura, 1986; Byrne et al., 2014; Martin & Marsh, 2006).

In our model, when it comes to understanding which antecedent has the greatest effect on influencing the students communication ability, it is personal mastery (Hypothesis One) that has been found to have the strongest influence on communication self-efficacy. The results replicate Bandura and others' findings (e.g. Chowdhury et al., 2002) that personal mastery has the strongest effect on an individuals' self-efficacy to achieve a task (in this case, the task of communication). Personal mastery is an increasingly recognized psychological variable of the construct of self-efficacy. People's beliefs in their previous experiences control their actions in ways that produce desired outcomes. Unless the students believe that they can gather the necessary behavioral, cognitive, and motivational resources to successfully repeat the task in question (Ainsworth, 2021), they will most likely dwell on the more challenging aspects of the task. They will begin to feel that they cannot achieve the task, therefore, giving up, not exerting enough effort, and, therefore fail the latest task (Bandura, 1997).

For Hypothesis Two, the accounting students' vicarious experience results were disappointing. The PTA course was designed with opportunities for the students to observe other student groups' performance. There was also consideration that guest lectures comprising of alumni students who returned to tell how they had become a success in the field of accounting would also inspire the students. However, it seems that the students do not gain enough from observing or listening to other students or alumni for it to have a statistically significant impact on their communication self-efficacy.

In Hypothesis Three, the effect of team mentor (the tutors) was deemed to be statistically important. This is no surprise, as the findings of (Krasodomska & Godawska, 2021) stated that one of the greatest impacts on students was their tutor. The tutors had been specifically instructed to be as supportive as possible. A caring and nurturing environment should be created as this is an important part of creating motivation in students to encourage an environment of deep learning (Biggs, 1989). The tutors that taught on the module were deemed strong for two reasons, first, due to their previous experience using subjective rather than positivistic teaching methods (Hassard, 1990) and second,

via extensive previous work as accountants before they became teachers. It was hoped that the more credible the source of social persuasion, the more robust the development of the individual (Wood & Bandura, 1989). Students who are able to observe and gain feedback from mentors and senior professionals in the field are likely to have a significant effect on their understanding and self-efficacy. This is supported by the findings of Coll et al. (2001) in their study of co-operative education, where domain-specific knowledge and feedback from work supervisors were found to increase self-efficacy of students in science and technology. To teach generic skills, there must be a rejection of this objectivist mind-set (Hassard, 1990), and the tutor must adopt many different roles such as moderator, planner, fellow-student all within the same class (Barnes et al., 1994). These are not easy teaching ideas to grasp, and it may mean it takes a while before both the student and the tutor become confident in the subject matter.

Team member support (Hypothesis four) is a weak result. There has been deliberate intervention in the curriculum design of the module to ensure that there were opportunities for full support between members of the group. There were (following the suggestion of Stone and Bailey) seminar classes in which tutors instructed the students on the formation of groups and how groups would develop using classic theory as developed by the likes of Tuckman (1965) and Belbin (2010). It was hoped that team members could inspire, motivate and support each other in an attempt to achieve a task. The higher the individuals in the groups collectively perceive their ability to do well in a task, the greater the groups' motivation, staying power in the face of difficulties and the greater their final achievements (Beatson et al., 2019; Gully et al., 2002; Pelzer & Nkansa, 2021).

It was a surprise that emotional state was not statistically significant as previous studies such as Hassall et al. (2013) suggested that students enter the accounting undergraduate degree program with high levels of communication apprehension. Therefore most individuals should be displaying signs of stress and anxiety, as described by Hancock et al. (2010), undertaking communication tasks such as presenting in front of the class and their tutors. However, it could well be that with the gradual build-up of presentation tasks, a lot of their emotional state had been reduced for the better by the time the students had come to fill in the questionnaire. This would link back to Hypothesis One in that Personal Mastery is indeed the most important antecedent of all.

For Outcome Expectancy and Behavioral Intentions (Hypotheses 6-9) for academics to redesign their course to incorporate communication self-efficacy, there are a number of factors to consider. This is all about the students' intentions to use their communication self-efficacy in the near and distant future. To allow for communication self-efficacy to have longer lasting effects the levels of belief in the students must just be right. The optimum level of self-efficacy is where a person's belief in their ability is slightly above their actual ability to perform that task (Csikszentmihalyi et al., 1997). The best method to raise self-efficacy levels to their optimum is to create a program of personal experience over time accompanied by self-evaluative techniques (Bandura, 1977). By making self-rewarding reactions in attaining a certain level of behavior, people create self-inducements until their performances match self-prescribed standards. Performance accomplishment raises self-efficacy, but it must be seen as a real accomplishment not forced or contrived. Tasks that attempt to raise students' self-efficacy must be graduated with variation in the threat itself (Bandura et al., 1974). Real encounters with real threats produce results decidedly superior to imagined exposure with lesser

threats and prolonged encounters are more likely to produce improved behaviors as opposed to short encounters (Bandura, 2000).

The impact of verbal persuasion will vary substantially depending on the persuader''s creditability, prestige, trustworthiness, and expertise. The more believable the person doing the persuading, the more receptive to change the individual with low self-efficacy should be (Fogarty, 2020). The task itself must not be seen as easy but easy to master with a little bit of effort, and there must be room to allow failure and for individuals to learn from their mistakes.

After all of these thoughts on Bandura's self-efficacy we believe that for educators to increase students' self-efficacy in communication, we suggest that they concentrate on the following five key elements (Figure 2).

A very important part of communication experience is the need to practice to improve. Therefore, this is the reason why there needs to be room for failure and good tutor support is that people who experience failure in a task, yet can then go on to repeat the same task and accomplish the task will have greater increases in their self-efficacy (Bandura, 2006). If students feel too much disappointment in failing a task can rapidly lose any newfound self-efficacy and give up. Therefore it is good to point out the students' failings, but the journey for the students must be one of slight disappointment with the ability to reflect and to try again without too much pressure on the next task (Bandura, 2006). The idea is that the students gradually lose their fears so that, ultimately they can cope unassisted. Self-directed mastery experiences are then arranged

Element	Reason
1. Student Self-Reflection	This allows the student to "buy in" to the process and recognize that they need to improve their employability skills. This allows for personal mastery.
2. "Real World" Case studies	Students should become interested in the subject matter to maintain relevance.
3. Gradual increase in task difficulty	The tasks must increase in difficulty to prevent the students thinking the task is too easy, but must not be impossible that they give up.
4. Room for failure	As the communication tasks increase in complexity, the tasks must not be immediately summative as this puts the students under too much pressure.
5. Supportive Tutors	If the students do fail in the task, it is important that the group are informed as to why and more importantly what they have to do to get better next time.

Figure 2. Key elements required in a communication self-efficacy course.

to reinforce this newly gained personal efficacy. In tackling communication apprehension, there are many things to consider and research if this approach is adopted as another alternative solution for high levels of communication apprehension. If this antecedent of communication self-efficacy is administered correctly it allows those incapacitated to rapidly lose their fears and even reduce fears and inhibitions in other aspects of their lives (Bandura, 1977). Consideration must also be given to continuous professional development beyond this course. This is due to the fact that individuals can quickly return to their previous levels of self-efficacy if they encounter only a few unfavorable communication experiences. Success in a classroom will quickly be eroded if this success cannot be repeated in the future (Bandura, 2006).

Conclusion

The question at the start of this research was: Does self-efficacy enhances accounting students' communication ability? The findings here suggest that self-efficacy techniques do indeed have the potential to enhance an accounting student's ability to communicate. The findings in this investigation have also demonstrated that these self-efficacy techniques are simpler and less expensive techniques that can be employed in creating innovative communication accounting courses. This present study suggests the key antecedents for improving communication self-efficacy are 'personal mastery' and 'mentor support'. The pedagogy presented here is a new accounting course that also tries to meet the demands of academics such as Albrecht and Sack (2001) in teaching vocational skills. The module attempts to change student attitudes from viewing accounting as a mechanical bookkeeping process (Bougen, 1994) to give students a view of what is involved in accounting.

The course uses many techniques to advance communication self-efficacy. These techniques include guest lectures for vicarious experience, case studies (based on real-life scenarios) for personal mastery and tutors with practical accounting experience for mentor support. It suggests that for tutors to be successful, they must be engaging and have experience in the current profession (Gammie et al., 2002). A nurturing, helpful community must create an environment where students are guided through their mistakes rather than punished for them. This encouragement must come from not just from tutors but also from members of their own team (Boyce, 2004). Chowdhury et al. (2002) argue that self-efficacy is a growing process, which can be improved through positive feedback. There must be a collective buy-in to the purpose of the module or else lessons can be created that the students will not engage with as they do not see the point . Guest lectures by practitioners will help maintain relevance, informing the students about the potential jobs within accounting and enhancing key points regarding the need for key skills such as communication (Fedoryshyn & Tyson, 2003). The module is not a perfect design but has demonstrated that communication self-efficacy techniques can be introduced to mass-market education.

There is also now a new model for measuring the effects of variables (antecedents) on communication self-efficacy. In the current academic literature, this is the only model that tests for communication self-efficacy. Each of the new communication scales, measures, and items has a strong theoretical basis and showed high reliability and validity in accordance with instruction from Hair et al. (2011). It has been tested empirically and the model's results reflect the effects changes to the curriculum had on the students. The

model has shown that personal mastery and team mentor influence are overall statistically important factors in increasing an individual's communication self-efficacy.

This paper should contribute to helping educational establishments in the UK and other countries develop self-efficacy techniques to improve communication skills within an accounting course design and potentially other disciplines. This model of communication self-efficacy has shown that it can reflect changes to the curriculum design and its effect on the antecedents of communication self-efficacy. By gradually increasing the difficulty of the presentations that students had to do, this improved the results of personal mastery antecedent and reduced the students' reported emotional state. This change in the curriculum allowing students more opportunities to present reflects the works of Bandura (1982), who stated that personal mastery was the single most important variable in increasing an individual's self-efficacy. This increase in personal mastery led to the highest impact on self-efficacy in the testing, leading to the greatest impact on outcome expectancy and behavioral intentions to use communication skills in the future. This means that the course (and future design of any undergraduate communication course) in order to increase an individual's communication self-efficacy, must allow individuals to attempt to gain as much personal experience or mastery of a communication task as possible. However, care must be taken here in relation to the level of failure associated with personal experience of each task, as repeated failure will lower self-efficacy (Beatson et al., 2020).

Limitations

Although this model has been tested and analyzed thoroughly, it is only the findings of one cohort of first-year undergraduate accounting students at one UK University. This study needs to be replicated in similar courses both here in the UK and across the world to examine and compare results. It will be interesting to note if taking the recommendations of this study for improving students' self-efficacy and applying them in an employability course can be replicated with ease in other universities' pedagogy and curriculum. This would also allow for testing the validity of the communication self-efficacy model, its antecedents, the students' outcome expectancy, and behavioral intentions.

There is also the potential to extend the study to members of the accounting profession and for comparative purposes to students and members of other professions who have experienced similar communication apprehension problems, such as engineers and even vets (P'Rayan & Shetty, 2008; Sweet et al., 2021).

Also a longitudinal study would also be beneficial here to explore the changes that occur in communication apprehension and self-efficacy. We do not know how long the increased communication self-efficacy levels will last in the students. These increased levels may not last if the students are exposed to a negative experience in a future communication task. One of the potential downfalls of this model is that students were asked about their ability to use their communication skills in the future, either in future teams or future careers. This can lead to results that show increased intentions to use but could be that it is easy for the students to imagine themselves to be highly trained in communication skills in a hypothetical setting (Bandura, 1997).

However, on the plus side, any long-lasting increase in self-efficacy should help increase a students's belief about communicating and lead to increasing their beliefs in enhancing their overall ability to succeed in other future tasks in all aspects of their lives.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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