



## **INTRODUCTION**

Students enrolled for university degrees not only need to master the content knowledge and academic skills, but need to develop a range of non-cognitive abilities such as motivation, time management and self-regulation in order to succeed (Nagaoka et al., 2013, Wilmot and Merino, 2015, Rowan-Kenyon et al., 2017). Research has established links between acquiring self-regulated learning (SRL) skills and the positive impact on academic outcomes (Zimmerman, 2002, Pintrich, 2004, Silén and Uhlin, 2008, Nagaoka et al., 2013). SRL refers to the processes required to reach a goal through acquiring new knowledge, changing behaviour and learning new skills. The processes can be categorised into three components, namely; motivational strategies, behavioural strategies and learning strategies (Zimmerman and Risemberg, 1997, Dembo and Seli, 2013, Merino and Aucock, 2017).

Management Accounting and Finance III is offered face-to-face as a full-time or part-time course at a South African university. Over the past six years the students in the part-time class have struggled to get to grips with the content and therefore shown very low motivation and insufficient perseverance in their commitment towards the module. These part-time students have to contend with challenges such as the inability to dedicate much of their time to their studies due to work and family commitments (Kember, 1999, Yum et al., 2005, Kasworm, 2008). Not only is the course demanding in terms of the amount of content to master given the available time, but it requires various analytical, problem-solving and reading skills. The required support for the students to acquire the necessary strategies needed to successfully complete the module had been lacking in the past (Wilmot and Merino, 2015, Merino and Aucock, 2017). We identified this problem given that SRL is especially important in environments where support and guidance is lacking (Kizilcec et al., 2017) and set out to change the students' negative attitude by introducing them to these skills. We needed to change their attitude towards the module and the lecturers and teach them the necessary skills to enable them to take responsibility for their own learning.

This paper describes the methodology and input of the two lecturers from the School of Accountancy as they introduced the part-time class to SRL strategies and skills. The acquisition of the strategies and skills would be evidenced by the students' willingness to participate in a flipped classroom at the end of the semester.

During the first teaching cycle which took place during the first block, the lecturers exposed the students to a range of SRL skills and strategies whilst building trust between themselves and the class in an attempt to breakdown the initial resistance to change. The second cycle was introduced during the second block and was designed once the data and the personal reflections of the first cycle were analysed.

## **CONCEPTUAL FRAMEWORK UNDERPINNING THE RESEARCH**

The intervention was designed based on a conceptual framework which categorises SRL skills into three components: motivational strategies, behavioural strategies and learning strategies as illustrated in Figure 1 (Merino and Aucock, 2017). Motivational strategies relate to goal-setting, self-efficacy beliefs, and the effort that students put into achieving their set goals; whereas time management and the managing of students' social and physical environments form part of behavioural strategies. Learning strategies guide the way in which

learning takes place during preparation, and how assessments are approached. These learning strategies include problem-solving, effective reading, metacognition and self-regulation. The framework used by Merino and Aucock (2017) was adapted slightly for this study so as to assess the impact of exposure to SRL skills on academic outcomes rather than academic performance as the aim of this study was to observe the change in students' participation, active learning and peer-to-peer collaboration over time in a final flipped the classroom setting (Roehl et al., 2013). The interaction between motivational, behavioural and learning strategies including the components of each strategy, and its impact on academic outcomes is illustrated in Figure 1. Positive academic outcomes include students attending lectures, engaging with course material and active participation, all of which can be measured by how effectively the class could be flipped.

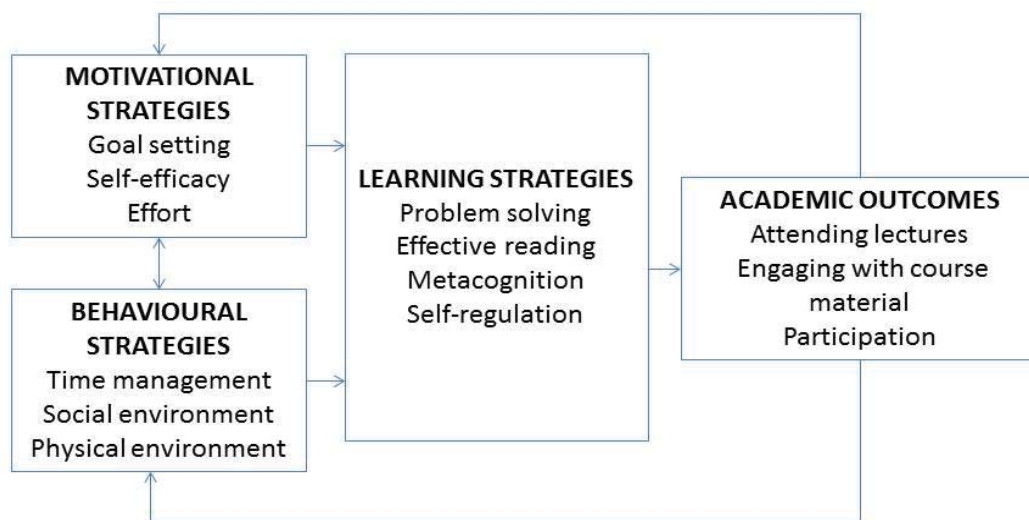


Figure 1. SRL Components and Strategies

### Motivational strategies

Research shows that challenging goals lead to better performance (Latham and Locke, 2002, Meekings et al., 2011) as goal-setting focus's students' attention (Rothkopf and Billington, 1979) and encourages students to look for the best strategies to achieve the set goals (Wood and Locke, 1990). A student who sets goals is more likely to put effort into their studies, particularly when the student has confidence in their personal ability to achieve the goal. Students tend to engage in activities in which they feel confident that they will perform well, and tend to avoid activities in which they lack such confidence (Bandura, 1986). Furthermore, students need to be shown that what they are studying is relevant, as research has shown a direct correlation between class attendance and motivation and students' perceived value of the work covered (Pintrich and De Groot, 1990, Allensworth and Easton, 2007).

When students realise that there is a positive link between how much effort they put into their studies and the academic results that they are going to obtain as a result of their effort

(self-efficacy), the goals they set act as motivation to put in a greater amount of effort (Bandura et al., 1996, Dweck, 2006, Zimmerman et al., 1992, Sales, 1970). Self-regulated learners are then able to stay focused on the goal (Pintrich, 1999), do the required work, and display the perseverance to persistently push forward towards the particular goal despite disappointments, distractions or challenges faced throughout the course (Duckworth and Seligman, 2005, Merino and Aucock, 2017).

### **Behavioural strategies**

Research also points to a link between how students manage their time in relation to their academic performance (Steenkamp et al., 2009, West and Sadoski, 2011). Yum et al. (2005) found the biggest challenge for part-time students to be a lack of time, as fitting study time into an already busy schedule can be difficult for adult learners. The fact that the part-time students enrolled for this course were older and working full time meant that they were faced with additional commitments and responsibilities, which required better time management for their studies.

The management of a student's physical and social environments also form part of behavioural strategies, both contributing to the academic success of a student. Managing the physical environment means creating a study environment that is conducive to studying (Merino and Aucock, 2017). Social skills include interpersonal qualities such as co-operation, assertion, responsibility and empathy (Farrington et al., 2012) and are particularly important in collaborative learning environments in which students need to interact in order to learn (Vygotsky, 1978, Bandura, 1997). They also include social interactions between peers and between students and lecturers (Zimmerman and Martinez-Pons, 1990). With regards to managing the social environment, there is a long line of research that links sense of belonging with academic success (Harvey and Schroder, 1963, Goodenow, 1993, Cohen and Garcia, 2008, Oyserman et al., 2006, Won et al., 2017). Part-time students often battle with their sense of belonging (Kember, 1999) having a questioning sense of who they are, what they should be doing as learners, and how they can be effective and successful in a collegiate environment (Kasworm, 2008). Lecturers can therefore impact the social environment by encouraging students to ask questions, participate in group work and help to improve their social skills, as well as make consultation times available for students, and encouraging them to seek help when needed (Merino and Aucock, 2017).

## **Learning strategies**

Learning strategies guide the way in which learning takes place and how assessments are approached. These strategies include problem-solving, effective reading, metacognition and self-regulation and encompass the capacity of students to perform study tasks such as reading, analysing and making summaries, as well as their ability to reflect on the effectiveness of their study approach (Farrington et al., 2012). This is largely impacted by a student's specific personality traits (Bidjerano and Yun Dai, 2007). There is also a great diversity of learning styles and approaches, and what may work for one student may not necessarily work for another. Students need to be aware of their preferred learning style and may need to adapt and change their approach in order to meet new study goals. This adjustment is achieved through metacognitive and self-regulated learning strategies which allow students to stand back and reflect on how they think and learn (Paris and Winograd, 1990, Zimmerman, 2002, Radovon, 2011, Wilmot and Merino, 2015).

Before starting a task, students who self-regulate set themselves study goals (motivational strategies), plan how they will use their time and organise their social and physical environment in order to achieve those goals (behavioural strategies). During their study time they then stay focussed and carry out the study tasks as previously planned. Upon completion of their study time they are able to reflect on the effectiveness of their study approach and determine whether or not their study approach needs to be modified (learning strategies).

## **Academic outcomes**

In this framework the three strategies mention above impact on Academic outcomes. Academic outcomes refer to the behaviours that are expected of successful students, where these include attending lectures, engaging with course material and participating in class discussions and activities. These outcomes are all characteristics of a successfully flipped classroom. A "flipped classroom" refers to a class during which class time is focussed on active learning activities where students are engaged in collaborative learning (Tucker, 2012, Mok, 2014) instead of passively listening to a lecture. Research about "flipped classrooms" shows significant improvements in students engagement with the material as well as class participation (Gunyou, 2015) through active learning techniques (Tucker, 2012, Roehl et al., 2013, Phillips and Trainor, 2014, Jensen et al., 2015). It is through these behaviours that students not only develop content knowledge, but also demonstrate that they have or are engaging with course material (Nagaoka et al., 2013).

## **DESCRIPTION OF THE INTERVENTION**

The intervention was implemented during the first semester of 2016. The 38 students who participated in the intervention were part-time BCom Management Accounting and Finance III students. Prior to the commencement of the study, ethical clearance was sought and granted by the University's Human Research Ethics Committee.

The main challenge emanated from the fact that these part-time students have limited time available to study given their other commitments. The interaction with other students and lecturers who could provide support and guidance in terms of the students' studies was

limited to a single 3 hour contact session each week. This meant that the motivational, behavioural and learning strategies required to pass the course had to be introduced and as far as possible practiced during the sessions to encourage learning through active participation to be effective.

To overcome the negative attitude towards the course the two lecturers who delivered the course set out to gain the trust of the students. They introduced students to prior research that identified the challenges faced by part-time students in order to show empathy (understanding of their situation) and to explain the potential benefits of the intervention. The lecturers then followed a structured program to introduce and role-model to the students the following Self-Regulated Learning strategies and skills: goal setting, time and study environment management, group work, problem-solving, effective reading and meta-cognitive self-regulation.

In total there were 12 contact sessions available in the semester and each session was three hours long. In each session students were provided with content knowledge and they were also introduced to SRL skills.

### **Action research**

Action research is cyclical in nature and involves identifying a problem, such as an issue related to student learning; designing and implementing an action plan; collecting data of the action taken; reflecting on the plan and the data obtained; and then updating or modifying the plan. A new cycle can then be started to obtain further insights from the intervention (Cunningham, 2008, McNiff and Whitehead, 2009). Our intervention included two teaching cycles, with feedback obtained from students at the end of each cycle. Throughout the intervention, the plan was further adapted in response to our own reflections as lecturers of the course (Menter et al., 2011, Wilmot and Merino, 2015). The initial plan of action was designed to expose the students to the SRL strategies and skills identified as part of the overarching three components, Motivational, Behavioural and Learning strategies having an impact on academic performance. As part of the process we also attempted to improve our own approach to teaching part-time students given the specific challenges that they face.

### **Teaching cycles**

The first teaching cycle consisted of six consecutive weeks of lectures. The sessions were structured to introduce students to a particular SRL skill during each session, as demonstrated by one of the lecturers while the other lecturer observed the class and made notes on how students reacted to the material presented to them. Table 1 contains the schedule that was prepared prior to the intervention to address key strategies and skills throughout the first teaching cycle.

Table 1: Intervention plan of action for the first teaching cycle

<b>MOTIVATIONAL STRATEGIES</b>	<b>BEHAVIOURAL STRATEGIES</b>	<b>LEARNING STRATEGIES</b>
<p><u>GOAL SETTING</u></p> <ul style="list-style-type: none"> <li>▪ Discuss benefits of the intervention (<i>session 1</i>)</li> <li>▪ Encourage students to prioritise time in their study plan to attend lectures and actively participate (<i>session 1 and onwards</i>)</li> <li>▪ Draw up a study plan and assess weekly thereafter if this had been implemented, is monitored and evaluated. Break down objectives in the plan into tasks (<i>session 2 and onwards</i>)</li> </ul>	<p><u>TIME MANAGEMENT</u></p> <ul style="list-style-type: none"> <li>▪ Discuss part-time students' challenges (<i>session 1</i>)</li> <li>▪ Give feedback on specific challenges identified in first questionnaire and discuss time management in the context of part-timers (<i>session 2</i>)</li> <li>▪ Encourage students to use study plans and prioritise important tasks (<i>throughout</i>)</li> </ul>	<p><u>PROBLEM-SOLVING</u></p> <ul style="list-style-type: none"> <li>▪ Approach content by looking at various "What-if" scenarios, e.g. "What if there is a normal loss? What if the inspection point was earlier? What if..." (<i>session 4 and onwards</i>)</li> </ul>
<p><u>SELF EFFICACY</u></p> <ul style="list-style-type: none"> <li>▪ Illustrate relevance of material by applying theory to real-life situations (<i>throughout</i>)</li> <li>▪ Build self-efficacy by showing students how to score the easy marks in every question and how to plan their answers and build an argument in order to get as many marks as possible (<i>throughout when going through tutorial questions and past</i>)</li> </ul>	<p><u>SOCIAL ENVIRONMENT</u></p> <ul style="list-style-type: none"> <li>▪ Share research on part-time challenges and discuss (initiate trust) (<i>session 1</i>)</li> <li>▪ Have students introduce themselves build collegiality and a sense of belonging (<i>session 1</i>)</li> <li>▪ Encourage students to consult and ask for help. Be available for consultation before class and via email (<i>throughout</i>)</li> <li>▪ Ask students to do the prior period concept tests in</li> </ul>	<p><u>EFFECTIVE READING</u></p> <ul style="list-style-type: none"> <li>▪ Engaging with course material by reading from the textbook and showing the students how to extract information (<i>session 2 and onwards</i>)</li> <li>▪ "Build" a mindmap together for the section and encourage students to do weekly summaries in order to use their time more</li> </ul>

<p><i>papers)</i></p>	<p>groups of two; then discuss with another group and mark using solutions (<i>session 4</i>)</p> <ul style="list-style-type: none"> <li>▪ Encourage participation through active learning and group work (<i>throughout</i>)</li> </ul>	<p>efficiently (<i>session 3</i>)</p>
<p><u>EFFORT</u></p> <ul style="list-style-type: none"> <li>▪ Praise students when they attempt a question and show them how their knowledge is being constructed one building block at a time (<i>session 2 and onwards</i>)</li> </ul>	<p><u>PHYSICAL ENVIRONMENT</u></p> <ul style="list-style-type: none"> <li>▪ Name tags and desks in a circle (<i>session 1</i>)</li> <li>▪ New venue (<i>session 2 and onwards</i>)</li> </ul>	<p><u>METACOGNITION AND SELF-REGULATION</u></p> <ul style="list-style-type: none"> <li>▪ Discuss self-regulation (<i>session 1</i>)</li> <li>▪ Refer back to goals and assess achievement (<i>throughout</i>)</li> <li>▪ Analyse and discuss variances calculated individually and then in groups to see how communication should/can be improved. Provide students with an extract of a poor discussion of variances and discuss how this could be improved “to get more marks” (<i>session 5</i>)</li> <li>▪ Discuss personality styles (<i>session 5</i>)</li> <li>▪ Go through test to reflect and improve (<i>session 6</i>)</li> </ul>



The second teaching cycle also involved six weeks of lectures. The intention of the second teaching cycle was to introduce the learning and insights gained from the first teaching cycle and therefore the plan was to prepare for these sessions once the data from the first teaching cycle was analysed. Data was also collected after the second teaching cycle to reflect on the skills acquired by the students as well as our teaching approach.

## **METHODOLOGY**

A qualitative approach was used to explore the impact of the intervention on the development of the SRL skills of the students. Data was collected from questionnaires and in the form of written and verbal feedback from group participants and from the lecturers' research diaries. The analysis of the data during the intervention allowed us to refine the intervention as the weeks progressed. It also served to help us determine the structure of the second research cycle. The following sources of data were used:

- Written feedback from students: Students were required to complete three questionnaires. The initial questionnaire was given during the first session, the next at the end of the first teaching cycle after their test, and the third at the end of the semester upon completion of the intervention. The first questionnaire was aimed at gaining an understanding of the background of the class by collecting student characteristics such as demographic information, challenges faced by the students, and their goals. The second questionnaire was mainly given to encourage students to reflect on their test, assessing areas where they went wrong and how they would change their approach going forward. The final questionnaire was used and analysed to obtain student feedback on the course.
- Following the students' first test upon completion of the first teaching cycle, a group feedback session was held which was recorded, transcribed and used to identify common themes through thematic content analysis (Fereday and Muir-Cochrane, 2006).
- Lecture observations: During each session the lecturer that was not delivering the content observed and recorded how the sessions developed and made notes of the interactions between the lecturer and the students.
- Lecturers' self-reflection diaries: Both lecturers involved in the intervention kept self-reflection diaries in which they recorded their reflections of how each session unfolded. The dairies were also used to keep a record of the planning sessions that took place prior to each lecture. The lecturer dairies and observations were analysed and used as reference for the research paper.

## **FINDINGS**

The course as it was presented historically was designed for a full time student, with an average age of 21, who was able to pre-read lecture material before coming to class, attend all lectures with minimum participation, attempt all tutorial questions and do past papers long before the exam period. In contrast, the average age of the part-time students was 30, which is significantly higher than the students who study the course full time. The fact that the part-time students were older also meant that they were faced with additional commitments and responsibilities. Students therefore needed to manage their time much better. Given the additional demands on their time, the feedback obtained from the students indicated that

they did not do any pre-reading before lectures, did not do many of the required practice tutorial questions and generally did not prioritise their studies or look at past papers until they went on study leave which was often only two days before the test or mid-year exam. Given the profile of the students in the study it was therefore clear that the introduction of the intervention was necessary, tailoring the course and material to meet the needs of the students and create an opportunity for active learning during the class.

The introduction of SRL skills throughout the semester was explained during the first session and 2 students were visibly resistant to the idea of having to learn skills that were not related to the content of the course. Students didn't seem to understand what we meant by "skills". One student wrote the following on his feedback form:

"Please make sure that at least 50% comes from knowledge content, the rest can come from skills. I believe skills are not taught but born with. So those other students who study hard and do their tutorials deserve 50% pass mark. But I will do my best to achieve more skills."

## **First Teaching Cycle**

### **Motivational strategies**

Stepping into the first contact session we experienced negative and demotivated students. From the data gathered in the very first questionnaire it was clear that students were not only very negative towards the subject but also towards the lecturers, as most students were repeat students and had felt the lecturers had let them down in the past. When asked which challenges they faced with regards to the module in the past, these were some of the responses:

- "Have better teachers for a start."
- "I found the course difficult to pass and I become scared of it. I attempted to pass so many times that I gave up on completing my degree."
- "Other subjects were more prioritised as they were more understood and therefore had a more "guaranteed pass."
- "Transition from AccIII to FinAcc III and repeating ManFin is hard emotionally."

Once the students completed the first questionnaire detailing the personal and course related challenges that they thought might hinder their academic performance, a discussion ensued around the general challenges that all part-time students face. We steered the discussion and mentioned challenges identified from previous academic literature. The discussion was intentionally held to show a level of empathy towards the students' situation and to explain the potential benefits of the proposed intervention.

Right from the start in an attempt to address the motivational strategies, students were encouraged to draw up a study plan and to commit time during the week to dedicate to their studies. We asked them to assess weekly if they were implementing that plan. We also encouraged students to prioritise time in their study plan to attend lectures and actively

participate. We decided that in order to make the most of the time available during lectures and to further encourage participation, the flip classroom model was used. In this model the majority of the theoretical principles would be taught by working through examples rather than taking the conventional approach of lecturing from slides and requiring students to work through questions after class.

A lot of time was spent encouraging students to attempt questions even if they weren't sure of their abilities. Slowly we tried to build their confidence by showing them how their knowledge was being constructed one block at a time (Bandura, 2011). While going through tutorial questions every week, we asked students to spend a few minutes planning their answers. We explained that they needed to practise reading the questions carefully as students tend to get nervous in test and exam situations and then miss out on easy marks, because they don't understand what the question requires of them. We wanted to ensure that students construct their answers well, in order to get as many marks as possible.

In the first questionnaire we also asked students to write down the final mark they were aiming for. Students understood that this was the goal they were working towards and that they had to stick to a plan to achieve this goal (Dembo and Seli, 2013). After the first test, we again asked students what marks they were expecting and what mark they were working towards. Students became aware of the fact that it was something that was within their control and they were able to put in the work to achieve that goal.

### **Behavioural strategies**

During one of the first sessions, students were asked to take out their diaries and to commit a time during the week to spend on Management Accounting and Finance III, as it was clear from the first questionnaire that many students struggled to find the time for their studies.

22 students had originally indicated that they were struggling to find the time to study and practice questions during the week. After analysing the first questionnaire we gave feedback on the challenges specifically raised by the students and provided advice in terms of how to deal with some of the challenges mentioned. We set out to gain their trust and create a positive learning environment that not only encouraged participation but also made the students realise that we were on their side and wanted to see them succeed. We also told students that we were available for consultation via email and that we would also be available before class each week.

Being part-time students, the opportunity to interact with other students are limited and for many students it is a very lonely journey. All the students enrolled for the class were given a name tag and were asked to give a brief introduction including their name and background. The intention was to create a sense of collegiality from the start of the course, with the hope that students would interact, participate and learn from each other as well as from us. It was already clear at this point that some students were a lot more reserved than others. One student specifically, wanted to remain anonymous, refusing to give us her name to write on her nametag, while other students clearly enjoyed getting to know their peers.

Some simple logistical changes were introduced to make the class more open to participation and encourage a positive learning environment. Conventionally the desks in the

classroom are arranged in rows, with all the students looking at the lecturer. This creates a typical environment for teacher-centered learning. During the first session, the desks were therefore deliberately arranged in a circle with students facing each other and the lecturers. From the third contact session going forward we were able to secure a boardroom to lecture in, with the intention of breaking away from the typical student-teacher-classroom environment and rather to simulate a working environment that many of the part-time students could relate to and could facilitate group work.

As participation during the lectures that followed improved, students were given more and more responsibility to prepare some material for each lecture. However, they often didn't do their homework from the previous lectures, using excuses such as the fact that they didn't have the questions when in fact the questions were available to them on an online portal. At that stage we felt like they were not yet taking responsibility for their own learning, as none of the students had even taken the trouble to send us an email asking for the questions or clarification in terms of where to find them. We had hoped that the effort we had put in up to that point would have somehow already have translated into students taking responsibility for their own learning.

During the fourth contact session students were encouraged to work together in groups. Students worked through prior concept tests and were then asked to discuss their answers with another group and also mark their attempt using the suggested solution. Some students were hesitant to work with other students initially, but the atmosphere in the class quickly changed when they realized they all had a common goal. Students clearly enjoyed the group work:

*"I have definitely benefited from group work. It's much better to explain a topic to someone else and discuss it with them than having to do it alone."*

The students demonstrated improved behavioural strategies through better time management and appreciation of the change in the social and physical environments (Dembo and Seli, 2013).

### **Learning strategies**

The first session was concluded with a discussion surrounding self-regulation and self-reflection and students were encouraged to spend time reflecting on the content and skills covered during each lecture, even if it meant reflecting on the session on a taxi ride home (Weinstein et al., 2011).

We noted early on that many students hardly use their textbook as they are used to studying from the slides given to them. However, we decided that the majority of the theoretical principles would be taught by working through examples and illustrating the application of principles whilst role-modelling SRL strategies and skills, not using any slides. As a result, students were encouraged to work through the content and make their own notes and summaries. This skill was role-modelled by us, showing the students how to do an overall summary of a topic using the textbook and adding notes once they have attempted tutorial practice questions. Students seemed to enjoy the class, and followed as we went through the information to extract the data that was relevant to the scenario. Even though many

students did not have their textbooks with them, they actively read through the scenario, and we paused at points to highlight why information was important. It was noted in the weeks that followed that more students brought their textbooks with them to lectures, which was encouraging to see.

During the third session we gave each student a blank piece of paper and again encouraged them to do a summary or to build a mind map as we went through content and questions. We made our own summary on the board as an example. It was very encouraging to see the students taking the instructions seriously at that point and we could see the students adding data to their individual summaries throughout the class.

In the fourth session we introduced students to “What if?” scenarios. While working through the questions, we asked students how their approach and answer would change if we made small changes to the information given. Initially students were very unsure, but after a few examples they were able to come up with alternative solutions and the discussions that followed were very encouraging.

For the fifth session, standard costing, we analysed and discussed variances calculated individually and then students had to explain the results of their analysis in groups in order to work on their communication skills. We also provided students with an extract of solution containing a poor discussion of variances and discussed how this could be improved to gain more marks and to answer the question relevantly. Most of the students admitted that the way that they had studied standard costing in the past was by memorizing formulas as opposed to really understanding the principles. This had led to students having a very negative perception of standard costing as they had to “study so many formulas”. We attempted to teach the concepts and reasons behind the variances calculated and focused less on the formulas, in an effort for them to gain understanding of principles. When we did our reflection after the lecture we noted that the students seemed to have grasped the basic principles of standard costing.

During the final session before the first assessment opportunity, we had a session on coping strategies and stress management in a test or exam, which was presented by two teaching and learning experts. The session aimed to link the students’ personality styles to how they deal with anxiety, stress and problem-solving before and during tests, given that there is a strong correlation between academic tenacity and academic behaviour, and students’ specific personality traits (Dweck et al., 2011). Initially many of the students were resistant to the ideas presented, but after a short discussion more and more students engaged in the discussion.

*“The personality styles part made me think a lot about my approach to studying and where I may be holding myself back.”*

After the first test students wrote in March, they were asked to complete an additional questionnaire relating to both their test and the intervention. It was evident that students were considerably more motivated and confident than the feedback obtained before the intervention. None of the students complained that the test was unfair or too hard. They all seemed to be taking responsibility for the mark they received. When asked how they felt

after writing the test and after they received their mark, some of the student responses were as follows:

***How did you feel after writing the test?***

- “Feel like if I prepared for it I would have passed it.”
- “Not well, because I didn’t finish writing.”
- “I felt like it was not a bad paper at all, it was fair.”
- “I felt like I can make it.”
- “Slightly confident and motivated. Peace of mind knowing the test was on the same level of testing as past papers. Thank you for the excellent lectures and the effort that is being put in for the part-timers.”

***How do you feel now after receiving your mark?***

- “I need to work on exam technique and timing of answering questions.”
- “Motivated – I must work harder.”
- “It encourages me to study very hard.”
- “I feel a bit disappointed, but am willing to move on and focus on getting a higher mark in the June exam.”

Students were asked to refer back to the initial goal they had set for the module and to also consider the plan they had set in order to achieve that goal. It was clear that some students were happy with their approach so far, while other realised they had to go back to their plan and implement some changes. During the test review session we spent time going through each question with them, pointing out common mistakes and emphasising good exam technique. We showed them how to go through their own answers to improve performance going forward and to learn from their mistakes.

**Academic outcomes**

As the course progressed students attended lectures more regularly and participated more in the discussions. Even though students were engaging with the course material they were not doing their homework as we expected. We realised there was a big expectation gap between what we expected from students and the effort they were willing or able to put in.

We started the fourth session, process costing, by going through a sequential structure to answering process costing questions. Students appreciated the structure and tried to apply the proposed structure to the first few examples given. However, it seemed they battled to break down the question bit-by-bit, and instead wanted to attempt the entire problem at once. During the lecture we realised that even though process costing was also examined in the Management Accounting and Finance II syllabus, very few students had even a basic understanding of the topic. No-one referred back to notes prepared during their second year

and many students seem to lack the confidence in their own ability and wanted to continuously confirm their understanding despite having gotten some of the answers correct.

During our reflection after the lecture we established that the students were not yet ready to move on from this topic as they were all very confused and frustrated during the session, and that we were potentially in a position to not only help them academically, but also gain the students' trust if we were willing a sacrifice a morning during the weekend to cement their knowledge of the principles in the section. Even though it was difficult and demanding for us as lecturers with other commitments, we arranged an additional contact session for the Saturday morning.

Students were clearly grateful for the effort from the lecturers' side. One student specifically mentioned that he only came to the class because he knew we would have given up our Saturday to help them and that he prepared well for the class because he didn't want to disappoint us. This indicated a change in their attitude towards us and the course.

After the Saturday session, students were a lot more motivated even asking how they could better prepare for the following lecture on standard costing. We gave them specific revision questions to work through, knowing the standard costing was a topic that was also covered in Management Accounting II. We also decided to develop a similar framework for standard costing with the intention of assisting the students to approach a question in a structured, conceptual manner as well in order to better facilitate the learning during the next lecture.

Despite our perceptions that the students were now motivated to work on their own, very few students had done the work we asked them to complete for the lecture. We again realised that students weren't yet taking much responsibility for their own learning outside of the classroom. The students could see we were disappointed and upon engagement with the class we were reminded that the main challenge part-time students' face is finding the time to study between work and family commitments. We therefore emphasized to them that they had to work extra hard and participate in each of the sessions as they were often not able to go and spend the required amount of time to work through the questions at home.

Going forward, it became clear that students were starting to take ownership of their own learning more and more each week. We were able to give them more responsibility during the lectures as the course progressed. Even though the initial atmosphere in class was negative, students were starting to realise that we wanted them to succeed. Their confidence in their own abilities grew and they felt their contributions in class were valued. We tried to teach them to learn from their mistakes and to always attempt a question, and in that way develop a growth mind-set.

## **Second Teaching Cycle**

In response to the feedback obtained after the first teaching cycle, as well considering our own observations, we set out to focus specifically on exam technique in the upcoming teaching cycle. Furthermore, we deliberately incorporated more group work going forward, as many of the students had felt after the first cycle that participation would be increased if they were allowed to work in groups more often. Group work and active participation was needed in order to ultimately flip the classroom.

As the course progressed students were given more responsibility for preparing the material for the lectures so as to engage in group discussions. In many of the subsequent contact sessions we encouraged students to work together in groups and to struggle through a few shorter class tests which assessed concepts dealt with in the lecture. Even though they often initially struggled to answer the questions, the students worked together very well in groups with a willingness to communicate and engage with each other. They positively debated the issues at hand and could argue why they considered a certain point to be the case. We were encouraged to see an improvement in their level of engagement of the material.

At the start of the second teaching cycle, we gave each student a calendar for the six weeks remaining leading up to their exam. We asked the students to fill in all various subjects' exam dates and other important dates that they know of (work trips, family commitments, etc.). We again encouraged them to use this as a study plan going forward and to assess their progress weekly. Many students were nervous at the realisation that the exam was closer than they expected.

Throughout the semester we continued to spend a lot of time focusing on exam technique and showing students the benefit of only spending the available time on each of the required questions, and saving time by planning their answers, structuring their answers in a logical way and attempting to score the easy marks first. Students needed to understand that they were sacrificing marks in a subsequent question when spending too much time on a previous question. During one class in particular, we worked through a tutorial question to role-model the appropriate exam technique we expected them to master. We gave them the time allocated to each part of the question and asked them to write down their answers. Afterwards, we critically analysed their attempts in order to show them whether they would have been awarded marks. Students were motivated and positive and participated well in these active learning activities.

### **Final Lecture and Feedback**

The final lecture was the perfect example of cooperative learning. There was a definite change in the students' confidence, attitude and skill levels. The class was divided into groups and we made sure each group had access to a textbook. We gave the students 20 minutes to prepare the information they needed to explain a strategic cost management technique, find a relevant practical example of its implementation and to give feedback to the class. Every group did a quick internet search to find a relevant example. The students were motivated and excited to really understand each tool allocated to them. We ran the lecture with a specific format in mind, which made the discussion around the tools flow logically. Students gave excellent explanations and relevant examples, which the other students found easy to understand. We warned them upfront that everyone had to listen to each other as we weren't going to re-lecture the content if it was correct. We would only add to the discussion where we felt it necessary and correct groups if they were not 100% accurate in their explanation. As a result of following this approach, the entire room was silent and everyone listened and engaged with the presenting group. Subsequently, some students came to tell us that if they were to get tested on this topic, they would do really well, merely as a result of the interactive nature of the lecture.



During the final lecture of the second teaching cycle, students were asked to provide feedback on their overall approach to the course and the changes they have implemented in their approach to their studies as a result of the intervention. We did not prompt any specific answers, merely stated that if students wanted to elaborate more, they were welcome to use the blank pages at the back.

Twenty-seven students completed the final feedback form and all of the students stated that they found the lectures helpful. Out of the 27 students that participated, 26 (96%) students even said they found the course enjoyable. Twenty-three (85%) students indicated that they had changed their study approach in response to the discussions and role-modelled examples done in class. We asked them in what way they had changed their studies and these were some of the responses:

- “In the sense that my attitude towards ManAcc is no longer negative and I keep up with lectures.”
- “The way the lecture examples were tackled helped me with a technique to tackle tutorial questions and I intend to use it to tackle the exam. Breaking down a task.”
- “I integrate the notes done in class with my own.”
- “I pre-read in order not to arrive at class blank.”
- “My approach to studying is now more focused on maximizing the productivity I get from the minimal hours I have to study as a part-time student and I try to do this by using similar approach to the one used in class.”

Approximately 90% of the group said they enjoyed exposure to the different skills introduced, while 10 students (37%) mentioned that they benefited from learning and practicing to do questions under the time limits available:

- “I benefited from time management, like doing the tuts or past papers in the required time under exam conditions.”

When asked if they had changed the way they plan their time and studies, 93% of students said yes and 6 (22%) students mentioned that they now have a study timetable and the majority of students indicated that they prioritise their studies better and they spend more time practicing questions.

Final thoughts from the students with regards to the course were:

- “Teaching style, giving exam technique during lectures, doing tuts as a group as well as having passionate lecturers, should all continue.”
- “Continue bringing challenging exams and making the class interactive, but importantly being approachable.”
- “Good to work through tutorials in class as we part-time students do not usually have this benefit.”

- “My learning technique in terms of this course is way better than before as I am not afraid to tackle the difficult questions and finish them in the time provided.”
- “My lecturers helped me overcome my fear of ManAcc and made me realise I can pass it. I have the knowledge, I just need to stay calm and work.”
- “The way things went with regards to Management Accounting was the best experience.”

## CONCLUSION

Results suggest that role-modelling SRL strategies and skills in an active learning environment helps students to take responsibility for their own learning and leads to positive academic outcomes. Students benefited from the intervention in the following ways:

- Succeeding in changing their negative attitudes and making them more positive about their studies and the course. This was achieved by gaining their trust, making small changes to the delivery of the course and building their confidence by demonstrating their progress to them.
- In terms of learning strategies the students seemed to benefit the most from making summaries, practicing reading skills, working on specific exam techniques and being exposed to how their personalities influence how they approach assessments.
- Students were also given more responsibility to drive the learning process by themselves as the course progressed and this led them to take more responsibility for their own learning.

At the end of the intervention we were able to observe a big change in attitude and in the application of skills and as a result of this the last lecture was flipped successfully.

As lecturers and researchers we sometimes felt that the efforts that we were putting into the intervention were not bearing fruits. This was somewhat discouraging as a lot of energy and planning went into making sure that each session achieved a particular set of results. At the end however, we were pleased to see that even though it took longer than anticipated to see the expected changes, the students were in fact able to acquire more insight regarding their patterns of learning that were not beneficial, and to display positive academic behaviours. As researchers we have found the research process very enriching, not only in terms of what we have learned from the students, but also in terms of the insights that we have obtained to improve our own way of lecturing and structuring the courses we coordinate.

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