

MyLab Accounting, Queen's University Belfast, UK

An efficient and effective way to teach non-specialist students



About the resource

MyLab Accounting is a digital learning resource designed to work alongside specific textbooks as an online homework, tutorial and assessment programme. MyLab Accounting provides a variety of different question types which can be studied independently or assigned by the lecturer. Assigned work is created and set with a deadline either as homework (for practice) or a test (for assessment). Settings can be adjusted to allow for single or multiple attempts. In anything other than a test, students will have access to a range of features to provide support and feedback such as 'Help Me Solve This' which offers a similar exercise, broken down into steps. Independent study is completed in a study plan with practice and sample test questions.

Achievement within MyLab Accounting can be measured in a number of ways including mastery. Students gain mastery points as they complete the online study plan, or in some cases assigned questions, to a maximum of 54 points. They must score 100% on the relevant sections and this score is translated as a percentage for the overall study plan score.

Introduction

This study investigated the use of MyLab Accounting on an **introductory accounting** module taken by Business & Management undergraduate students at the university.

The purpose of the study was to understand the lecturer's challenges, motivations and experience of integrating MyLab Accounting. We wanted to include student experiences, and uncover what impact the use of this online platform had on students' level of:

- Engagement
- Preparedness for assessment
- Progress
- Satisfaction.

We conducted an in-depth interview with the module leader and 43 students completed an online survey.



Key Findings

From our research we concluded that the structured, clear implementation of MyLab Accounting in this module led to a number of positive outcomes for students:

- i) Allowed students to undertake self-paced learning, supporting student progress:
 - **93%** *strongly agreed* or *agreed* with the statement: MyLab Accounting helped me to **make better progress** on this module than I would have done without it.
- ii) Motivated and encouraged student engagement and helped them develop confidence:
 - **95%** thought the structured integration of MyLab Accounting into the module supported their engagement with the subject.
 - **86%** found MyLab Accounting *very helpful* or *helpful* in building their confidence in the subject.
- iii) Added value for students, particularly for the feedback they received and the ability that gave them to guide and monitor their performance.
 - **79%** *strongly agreed* or *agreed* that the feedback from MyLab Accounting homework improved my understanding of the subject
 - "Very helpful to see progress in the subject as the semester went on" Student, Queen's University Belfast
- iv) **Delivering added value while supporting teachers:** MyLab Accounting supported Dr McConville to deliver the module in a more efficient way, which freed her up to add value for her students:
- More easily identifying students who were struggling and needed extra support by monitoring their activity in MyLab Accounting.
- Students were better informed on their own progress through the feedback and tracking in MyLab Accounting.
- Students were encouraged to seek her support around specific areas within a topic, which made for more productive office hours sessions.
- Assessment: There were additional specific benefits to using MyLab Accounting to administer the mid-term class test:
- Overcame logistical challenges around cohort size and room availability.
- Provided greater test marking accuracy.
- Enabled students to receive immediate feedback which isn't usually possible with exam assessment.
- Detailed feedback on tests remained available so that students could engage again.



Context

MyLab Accounting has been used on this module at Queen's University Belfast course for 10 years.

The students on the course are full-time, undergraduates with 80% being home students (primarily from Northern Ireland) and 20% international, with English as a second or other language. The majority of the international cohort comes from The People's Republic of China. Many home students live at home (up to 1.5 hours travel time away from campus) and will attend campus only on the days they have classes, while other home students and almost all international students live on/near campus.

This is a non-specialist module meaning all the students are taking it even though accounting is *not* their main degree subject. Many of them didn't expect to be studying accounting: there is a potential need for additional motivation because of a lack of interest in the subject.

There is also a variation in their preparedness for the less structured approach to learning at university. This is a first year, first semester module, and students have different educational backgrounds. Some struggle with ability, but also confidence, to learn independently, especially if they have come from very structured learning environments, or indeed if they have received intensive 1:1 tuition.

An increasing cohort size is one of the biggest challenges in delivering the course. There were 320 students on the course this year (up from 200 less than 5 years ago) which presented a major logistical problem. The students don't fit in a single lecture theatre and Dr McConville can't timetable small-group tutorials and seminars.

Course structure

The work students did in MyLab Accounting was worth 50% of the total course mark and was integrated as follows:

- For 8 weeks of the course students are *required* to complete assignments in MyLab Accounting each week: one *practice* homework and one *assessed* homework.
- The assessed homework assignments make up **20%** of the total course mark.
- In Week 6 students complete a **class test in MyLab Accounting** which counts for **30%** of the total course mark.

Each week the students followed the same structure:



Lecture 1 (Monday, new concepts and introduce problems set for the week)



Computer Lab (Tuesday or Wednesday; they start MyLab problems with support on hand)



Practice homework due (Thursday, help tools are enabled for students)



Assessed Homework due (Friday 11.59pm)

The course had a clear structure of practice and summative assessment within MyLab Accounting and an engaged course leader who monitored and supported the class.



Adapting MyLab usage for maximum impact

Dr McConville has always sought to address the challenges of student motivation and their lack of confidence to study independently. In her first year taking over as module leader in 2018/19, Dr McConville thought the advantages of using MyLab Accounting were clear, so she ran the module broadly as it was already set up, with no major changes to the MyLab integration within the course.

Believing that MyLab Accounting was helping with student challenges, she wanted to increase the potential it had to make an even greater impact on students. To that end, in 2019/20 she made two significant changes:

1. Increased assessed homework weighting

Dr McConville decided to increase the weighting of the MyLab Accounting assessed homework, from 10% to **20% of the total course mark**, thinking that higher credit would motivate student participation.

"I really wanted to encourage them to use it more, and to really try for those higher marks in it."

 Dr Danielle McConville, Module Leader, Queen's University Belfast

2. Delivered class test in MyLab

Dr McConville chose to administer the mid-term class test online through MyLab Accounting, moving away from the previous paper-based test, and implemented this as follows:

- In computer labs with invigilators.
- Test time was 60 minutes (longer for students with disability support statements).
- Students were split into 4 groups of 80 and took the test in 4 different time slots.
- Questions were pooled and the order randomised so students were not all taking exactly the same test.
- All the MyLab Accounting in-question help tools were disabled.
- The lecturer adjusted question scores per question when setting up the test, based on the average difficulty and time spent ratings provided in MyLab Accounting.

There were **two key drivers** for this decision: **logistics and feedback.**

Logistical – due to timetabling constraints and lack of exam hall availability, class tests had been difficult to facilitate, often happening in the evening in suboptimal rooms.

Feedback – paper-based tests took a long time to mark and were not adding any value for the students who weren't getting detailed, timely feedback.

Dr McConville has observed a number of advantages when conducting the class test via MyLab Accounting:

- 1) **Opportunity for cheating decreased**: because a student is very *unlikely* to be sat next to someone doing exactly the same test as them (i.e. all the same questions, in the same order).
- 2) **Students get immediate feedback:** they can review where they've gone wrong and how they can fix it.
- 3) **Consistency in assessment style:** students are prepared for this type of online assessment having done the weekly homework; they're not put off by a different format.



Student Experience

Engagement

Dr McConville found that attendance was lower than she could have liked on this course, which she attributed partly to students' expectations of university but also to students' changing circumstances with many working and commuting from home. However, she has also found that students working can help in her module because they can be prompted to link their job experiences to the course material.

Finding a balance between study, work and social is imperative for students and many students do get the balance wrong, especially in their first year. To mitigate against this, the course is clearly structured, and this is where the MyLab Accounting assignments come in.

Students are introduced to MyLab Accounting before they even arrive on campus. They registered and therefore engaged with the course and the resource very early on – first homeworks are in Week 2. This, in turn, **strongly encouraged students to engage with their learning** on the course, according to Dr McConville "earlier than they would have otherwise engaged." Once engaged and using MyLab Accounting, the gradebook allowed instructors to more easily **monitor engagement**.

"...it's trying to encourage them to start working early, and continue to work, get used to that pattern of working through the term."

- Dr Danielle McConville, Module Leader, Queen's University Belfast

"I think giving them that expectation and a clear structure, and then saying, 'here are some of the things you can be doing in those [study] times', is actually quite helpful."

– Dr Danielle McConville, Module Leader, Queen's University Belfast

"it's quite a powerful tool for me from a point of view of identifying if someone's engaging or not. For example, if in week 4 I have someone who's not been at a Computer Lab class yet, I will look at MyLab Accounting and see if they've engaged with that."

- Dr Danielle McConville, Module Leader, Queen's University Belfast



Students Survey Results

100% responded that they used MyLab Accounting at least once a week.95% thought the structured integration of MyLab Accounting homework and tests into the module supported their engagement with the subject.



Independent, confident learning

MyLab Accounting provides students with the flexibility to work in their own time, to work as much as they want in the system and to set their own learning pace, whilst motivating completion with deadlines.

As they often come from a very structured learning school environment, Dr McConville was keen to figure out how to bridge the gap to the students becoming independent learners and found that the structured integration of MyLab Accounting in the module helps achieve this.

"The MyLab Accounting is very helpful for them; I really like the fact that they can work at their own speed. ... I do think it helps the students to start to find their feet, and in particular, to start to learn for themselves. [Through regular MyLab homework] I think they get a really good sense, right throughout the course, of how they're doing. It gives them the confidence" – Dr Danielle McConville, Module Leader,

Queen's University Belfast

Having identified that students don't always have the confidence to keep working to solve problems on their own, Dr McConville was keen to continue using MyLab Accounting and further develop its usage to help address this challenge.



Students Survey Results

86% found MyLab Accounting *very helpful* or *helpful* in **building their confidence** in the subject.



Student Comments

I found it the most helpful revision method I've used during my education career and I think it greatly improved how well I understood the subject and made it much easier to learn painlessly

I think my accounting lab worked well in this module because it was numbers based and [automatically] generated more questions [for practice].

I really enjoyed the module and felt that it was a safe space to challenge myself without feeling embarrassed about getting answers wrong and really built my confidence in this module.

It helped me to have a better understanding of what content I learned and what I should pay more attention.

Very helpful to see progress in the subject as the semester went on.

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International student experience

This course has around 20% international students. According to the latest available HESA data (www.hesa.ac.uk) Queen's University Belfast had 18% non-UK students in 2018-19 (up from 15% in 2016-17). As Dr McConville explains, "Internationalisation is a big change for us, particularly in Northern Ireland. There are huge benefits of that, but there are also support challenges." Many of the international students in this cohort expect a very structured and guided approach to learning. This introductory accounting module, with its well-defined study expectations and regular MyLab Accounting assignments, supports international students on their journey to becoming more independent learners.

The self-paced style of the MyLab Accounting homework is also helpful for international students with English as a second language who might find it harder to follow during live lectures and tutorials.

"It helped me to have a better understanding of what content I learned and [to] what I should pay more attention."

– International Student, Queen's University Belfast

"Rather than sit in a tutorial and hear from me, which they might struggle with, they are actually working at their own speed. Being able to pause, stop, step away from it, look up, go back over again, and actually having things really clearly worked out is actually very, very powerful for them."

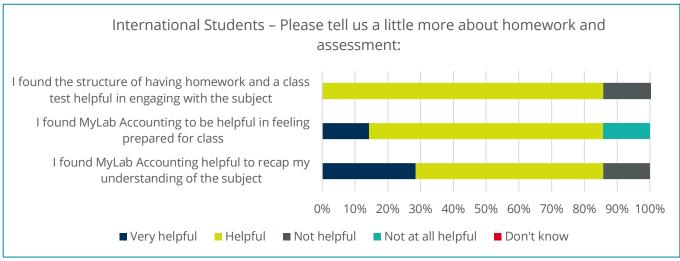
Dr Danielle McConville, Module Leader,
 Queen's University Belfast

From the survey results we saw that **international students valued MyLab Accounting most for its structure and in recapping their understanding and preparing for class**.



International Students Survey Results

86% found MyLab Accounting Very helpful or helpful to recap their understanding of the subject.86% found MyLab Accounting Very helpful or helpful to in feeling prepared for class.86% found the structure of having homework and a class test helpful in engaging with the subject.





Feedback to support progress

In this course students were required to submit practice and assessed homework each week on MyLab Accounting. Students had access to the MyLab help tools during their practice homework. The tools were not enabled during assessed homework however, students were *not* forbidden from using their textbook and lecture notes meaning they had the opportunity to gain high marks.

This formative assessment approach encouraged students to engage with the learning and apply their knowledge rather than memorise something. The teaching team felt this was more authentic assessment for a practical subject like accounting.

The assessment provided regular, immediate feedback, which both students and the lecturer used to support student progress.

The feedback that students received meant they could monitor and reflect on their performance in MyLab Accounting. By identifying gaps, they could focus their practice or ask for help. Those less inclined to ask faculty for help could use work independently to improve their understanding in specific areas, and the teaching team observed that international students in particular liked being able to act upon their feedback.

"[Through regular MyLab homework] I think they get a really good sense, right throughout the course, of how they're doing."

– Dr Danielle McConville, Module Leader, Queen's University Belfast

"One of the things that I really like is that they get really, really detailed feedback on where they've gone wrong and how they can fix it.

And I actually think for our international students, that's really powerful, because that's how many like to learn."

– Dr Danielle McConville, Module Leader, Queen's University Belfast

"The questions were very helpful and especially when you got something wrong and it explained the correct answer."

- Student, Queen's University Belfast

Instant insight on class performance via MyLab Accounting was particularly beneficial as an instructor. Setting regular online, automatically marked homework meant that Dr McConville was able to monitor student understanding across the course topics: "if it seemed like the mark was very low that week, I might go in and have a look and see what they were getting wrong. ...it means I could follow up if I needed to."

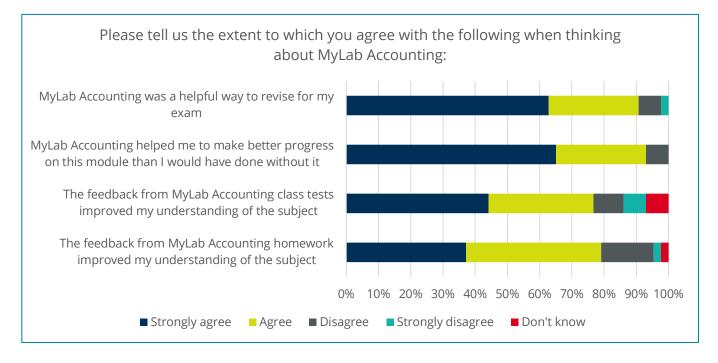


Student Survey Results

79% of students *strongly agreed* or *agreed* that the feedback from MyLab Accounting *homework* improved my understanding of the subject.

77% of students *strongly agreed* or *agreed* that the feedback from MyLab Accounting *class tests* improved my understanding of the subject.





Adding value with online assessment

Dr McConville found that setting up the class test in MyLab Accounting very straightforward. It was easy to make sure the test was set up in a way to mitigate cheating through the pooling and randomisation of questions. The platform further facilitated her class test creation process through its 'easy', 'moderate' or 'difficult' ranking and the 'average time taken' question data.

The digital solution was found to be both efficient and quite likely more accurate by mitigating against the limitations of a human marking numeric response accounting test papers like these who naturally miss the odd mark or occasionally give marks incorrectly.

Dr McConville is now able to add more value in personally **supporting students**. With the paper-based class test, students weren't able to see a copy of their submitted paper, whereas now that the class test is on MyLab Accounting they can.

She has seen this have an effect on both the number of students coming to her for guidance after the test and the kind of help she can give them: "I got more contact about it...they were coming to me and saying, 'I know why I got 50% and I know I got these wrong, but this bit here, I don't understand why this is the case'. So, I've been able to have much more informed conversations with them."

"For me to sit down and mark those [paper-based class tests] is absolutely zero added value, a computer can mark that quicker, and actually more effectively and more efficiently."

- Dr Danielle McConville, Module Leader, Queen's University Belfast

"They can, not only get their score immediately, they can also see exactly where they've gone wrong. And that, to me, is a huge, huge improvement."

- Dr Danielle McConville, Module Leader, Queen's University Belfast

"I've been able to have much more informed conversations with the students about their test results."

- Dr Danielle McConville, Module Leader, Queen's University Belfast



Students agreed that they would recommend MyLab Accounting as an **enjoyable**, **accessible resource**.



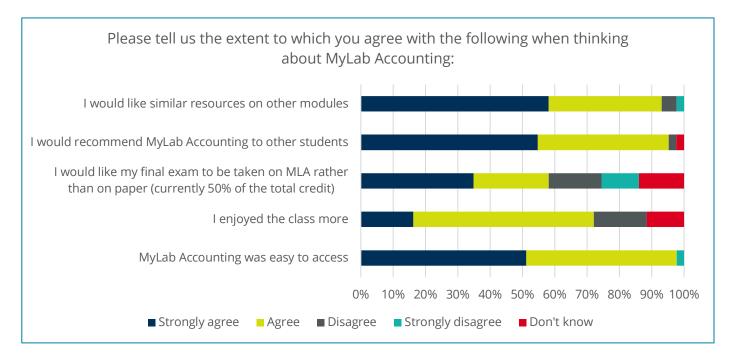
Student Survey Results

97% of students agreed that MyLab Accounting was easy to access.

95% said they would recommend MyLab Accounting to other students.

93% said they would like similar resources on other modules.

72% *strongly agree* or *agreed* with the statement 'I enjoyed the class more'.



Future plans

MyLab Accounting will continue to be an integral part of this course and the ease of use has given Dr McConville the confidence to set up more summative testing in the system, so in the next academic year she will run the final course exam through MyLab Accounting.

Again, these will be invigilated in computer labs – actually requiring fewer invigilators than in alternative venues. She will also get support from her IT team to lock down the computer browsers during the test to help increase the security of the test set up.



Conclusion

This study indicates that MyLab Accounting has supported and impacted on the course challenges:

- Allowed students to undertake self-paced learning, supporting student progress and developing confidence.
- Motivated and encouraged student engagement with the course content, early in the course.
- Added value for students, particularly for the feedback they received and the ability that gave them to guide and monitor their performance.

"I massively recommend it, 100%. I think the students get a really good deal out of it. [They] get something of real value."

- Dr Danielle McConville, Module Leader, Queen's University Belfast

Administering the mid-term class test via MyLab Accounting helped the module leader:

- Overcome logistical challenges around cohort size and room availability.
- Provide greater test marking accuracy.
- Provide faster, better feedback for students that prompted useful conversations and better support.

Dr McConville would recommend it to other lecturers. Indeed, within her department she is an advocate and is using her experience to support colleagues to implement MyLab Accounting in undergraduate and postgraduate accounting modules. With cohort sizes still increasing and presenting challenges for teaching, assessment and feedback, Dr McConville thinks digital is a good solution and there are clear advantages of using MyLab Accounting.

"I think that it engaged them earlier than they would have otherwise engaged, ... I definitely feel that it gave them support in a module that is very alien to a lot of them."

- Dr Danielle McConville, Module Leader, Queen's University Belfast

"It deals with the logistical issues of bigger class sizes, scheduling tests. Plus, the workload implication of marking... The ability for students to work through at their own speed, to be very structured...to have the support that they have through it, to have that formative feedback on how they've got on, I think is just a fantastic thing for students to have."

- Dr Danielle McConville, Module Leader, Queen's University Belfast



Student Survey Results

95% said they would recommend MyLab Accounting to other students.

93% said they would like similar resources on other modules.