



## Case Study Facts

**Course:** MAT100 Pre-Algebra (Remedial course, non-credit bearing)

**Instructor:** Kristian Luciani, Assistant Dean for Accounting and Finance



**Digital Product in Use:** ALEKS Pre-Algebra

**Program in Use:** Bachelor of Business Administration

Number of Students: 2,300

Stamford International University strives towards the provision of innovative and interactive learning and delivering superior employability outcomes to its graduates. The institution focuses on core principles of Innovative Learning, Industry Linkages, International Perspective, and Integrity. The four principles are embedded deeply in the university's strategy so that graduates are provided superior outcomes and become ready to excel in their careers and their lives with deep commitments to local and global citizenship.

### The Challenge

Diversity faced the teaching team at Stamford International University in two different ways prior to the implementation of a new course and the utilization of McGraw-Hill's ALEKS. Not only were the teaching team facing a broad spectrum of ability levels, but they were also struggling to deal with an enormous variety of nationalities in their cohorts. Explains Assistant Dean for Accounting and Finance, Kristian Luciani, "We have students from over 100 countries joining the course, with widely different backgrounds: some come into the university with little mathematics skills, and others come in with a lot if they've taken algebra, calculus and trigonometry in school."

The impact of disparity in skills was felt across other quantitative subjects such as finance, statistics, economics and accounting.

#### The Solution

To counter these challenges, the university decided to set up an introductory level course that all students must take and pass within their first term. It has become a prerequisite to the MAT101 course, and every student must pass it.

After committing to the creation of the new course, the team then needed to explore how the course could be managed, and what technology would be most impactful.

"We needed something that could offer personalization, something that wasn't 'one size fits all'" Another of McGraw-Hill's digital solutions, Connect, is used widely at Stamford International University's Accounting and Finance department. Kristian explains, "It's used across a lot of our quantitative courses: accounting, finance and statistics. Connect is great as it allows students to practice at home and we also use it in the classroom for activities. It's very hands on and students get timely feedback."

Another benefit to using Connect is its ability to better manage diversity in the classroom.

In setting up the new course, the local McGraw-Hill Learning Consultant showed Kristian and his team the ALEKS platform. They were immediately impressed by its capacity for customization to every student, as well as the personalization it offers.

"We needed something that could offer personalization, something that wasn't 'one size fits all'," commented Kristian. "We have very diverse students, and some students need to spend more time in the system whereas some students are coming to this course already equipped with the right skills."

ALEKS Pre-Algebra (MAT100) was introduced at the university in November 2018 and is synched with Blackboard Learn. There's a mandatory face-to-face meeting with students during the first week where the students are introduced to ALEKS. "They're showed how to create an account, how to log on and use the platform, and, lastly, how to use the initial knowledge check," explains Kristian.

After that, the students are then asked to complete the initial knowledge check, and if they score above 85%, they are invited to take a test in ALEKS the following week. If they pass, they have then completed the module.

As Kristian notes, "This process is really appreciated by the students. If they already have the skills they need, they don't want to sit in a class learning things they already know. If they pass early, they can then focus their efforts on other areas of their study."

Other students who don't pass first time are able to re-sit the test a further four times over the course of the term, and will re-take the tests during the following term if they've not passed in the first 12 weeks.

Those who do take a little more time to pass are benefitted by the immediate feedback given by ALEKS. Kristian believes the feedback is key to keeping his students motivated and not demoralized.

"If they don't pass the test, they can get a report immediately detailing which areas they need to focus on. After the test, the students will ask for more details on those areas they need support with, and have the concepts explained to them. The ones that don't pass are then leaving the test with a clear understanding: they know what they have done wrong, and they can go back and prepare for the next test. It's less demotivating for them."

In addition to the personalized reporting and guidance, there are also frequent coaching sessions set up for those students who need it.

#### The Results

The team at Stamford International University are keen to look at the impact ALEKS has had on their learner outcomes. The research they have conducted is at its initial stages, but Kristian shared that the average grade of students in MAT101 College Algebra who took our MAT100 Pre-Algebra course (which utilizes ALEKS) was

# 20% higher

than those who did not take the MAT100 course. "This difference is statistically significant," said Kristian, who explained that two random samples of student groups and their outcomes had been analyzed. Whilst acknowledging that the data should be viewed cautiously, he is keen to dive deeper into this analysis at a later stage.

On top of the rise in outcomes for learners who had used ALEKS, there was also an additional benefit for staff in utilizing the ALEKS platform: the fact that it was easy-to-use and time-saving.

Expanding on this, Kristian noted that ALEKS was fairly easy to implement, but acknowledged that he had been reliant on support from McGraw-Hill. "I did need support," he said, "And this was key. But I got immediate responses over email from the McGraw-Hill staff."

The time-saving piece revolves around the creation of new sections. Kristian explained that it would take just two hours to set up five sections of course every term, and that his teachers then use that. "They don't need to edit what I've created or change it. It's all ready for them!"

#### Conclusion

For Kristian, the creation of the MAT100 course with the powerful personalization ALEKS offers, has been hugely beneficial to his learners and has enabled the team to conquer the issues around diversity with additional bonuses of saving time and increasing student satisfaction.

"I don't think we would be able to manage this diversity without the solution of ALEKS."

For more information on ALEKS, please visit mheducation.sg

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