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Impact of the First-Year Seminar Course on Student GPA and Retention Rate across Colleges in Qatar University

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Abstract. The first year is known to be challenging for students at university. If students fail to transition to college successfully, it can result in a low GPA and they may eventually drop out of university. Fortunately, higher education systems opt to add various types of support for students during this important transition. One possible support is to implement a first-year seminar course, a hybrid-course which teaches academic and non-academic skills that help students to be successful. Optimally, teaching students' skills for college success might help them manage their academic needs and increase retention rates. Following this proposal for best practice, Qatar University added a compulsory first-year seminar course in six colleges across different programs. The course included cognitive, non-cognitive and performance skills. In this retrospective study, we assessed the impact of this course on the retention rate at the university and students' academic performance over time. We reviewed a large sample of over 3000 students who started their college journey at Qatar University over four consecutive semesters. Students were classified into two groups to allow for comparison between those who took the first-year seminar course and those who did not take it, in terms of their retention rates and GPA. Our findings show that

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students who successfully completed the course had a higher retention rate, especially in the first semester. Furthermore, the GPA, for those who took the course and continued to attend the university, was higher across semesters. In conclusion, within our sample, the first-year seminar course was successful in supporting student success as evidenced by higher GPAs, and an increased retention rate.

Keywords: seminar course; first-year university students; Grade Point Average; retention rate; Qatar

1. Introduction

Higher education is now an important milestone in young adults' transition to the workforce. A university-level degree is associated with better economic benefits not only for graduates but also for society at large (Mayhew et al., 2016). However, only about 60% of students have graduated after six years following the start of a four-year university degree (Reid et al., 2014). This results in students who don't graduate being at higher risk of a lower socio-economic life (Mayhew et al., 2016) and at the same time burdens universities with great costs, especially public ones (Behr et al., 2020; Horn & Berger, 2004). Having around 40% of students dropping out of university is a serious problem for higher education. Hence, universities need to find ways to support a larger percentage of students to complete their degrees. To do that, we need to understand some common reasons why students decide to leave higher education.

Students' experience during their first year at university has been shown to be an important predictor of overall retention rate (García-Ros et al., 2019). Newly admitted university students are expected to adapt to self-directed learning to succeed within this advanced educational environment, and to become more responsible for their own learning. This requires the development of a new skill (i.e. self-directed learning). However, support to achieve this new skill is often absent. Therefore, students who are unfamiliar with the demands of university education may experience significant challenges in their transition to university, since they are less academically prepared than the rest of the student body (Gale & Parker, 2014; Herzog, 2005); as a consequence, they are at risk of earning low grades and eventually feeling less motivated to continue into second year (Padgett & Keup, 2011). Specific non-academic challenges faced by students include time management, communication skills...etc. Indeed, in this age of pervasive technology use, students must also navigate the challenges of social media and online communication. However, it is during university that students learn and master e-learning technologies, much less so in school settings (Elobaid & Elobaid, 2017). While social media is a powerful tool for networking and establishing community, it can also cause stress and lead to distraction. Developing effective study habits, e-literacy, time management skills, and managing their social lives are all challenges for students during the transition from high school to university. As a result, students in their first year of university need additional support in order to effectively transition to their new environment

and succeed academically and personally. While these skills might be introduced to students in school, they have little chance – if any – to apply them in the real world and gain practical experience. Students who fail to adapt to university life tend to drop out more commonly than those who transition well to this challenging and advanced academic setting (Credé & Niehorster, 2012). García-Ros et al. (2019) and Behr et al. (2020) noted that pre-college student characteristics were also important factors that predict academic results during the first year. Since it might be difficult to monitor pre-college experiences, preparing students during their first year and helping them transition well represent practical ways to solve the problem of low retention rates (García-Ros et al., 2019).

There are several practices that have been shown to be effective for first-year students including providing academic advising services and mental health care (Eisenberg et al., 2016). However, these practices fail to provide students with the necessary experiences and feedback to allow them to learn and adapt to the high expectations of faculty members specifically. This is important as academic advising services and mental health care might support non-cognitive skill development; however, students might still struggle academically to meet the needs of higher education. In a systematic review by Van der Zanden et al. (2018) first year programs focused on supporting peer-connection and supporting student academic needs helped with higher academic achievement, critical thinking skills and social-emotional well-being.

A growing number of institutions are offering first-year seminar (FYS) courses to improve student success. More than 90% of universities in the United States of America (USA) (Padgett & Keup, 2011) commonly have a FYS course to help students adapt and transition to university, by providing them with the basic skills, information, and support they need. The FYS courses are designed to introduce students to college-level learning, foster critical thinking skills, and assist them in making a successful transition to college. Experts recommend adopting FYS courses as they believe they promote resilience among students (Eisenberg et al., 2016).

Several types of FYS course exist across different universities with a focus on a variety of skills and content (Boettler et al., 2020). There are four common types of FYS (Barefoot, 1992; Griffin et al., 2008). The first type is an academic course. Students take academic FYS courses to learn about the academic expectations of college work, including critical thinking, research skills, reading, and academic writing. Faculty members teach this course to guide students on how to apply cognitive skills within their courses. It is within these types of courses that students learn how to interact with faculty members (for example, in terms of ways to communicate via email and during office hours). The second type of FYS is a course that provides students with basic study skills. This type is also known as a Fundamental Study Skills course and is intended to assist students in developing excellent study habits, time management skills, note-taking skills, and test-taking tactics. These skills have been shown to mediate the outcome of retention rate, academic success and institutional

commitment (Bowman et al., 2018) These courses might also teach students stress management, communication skills, and goal-setting skills. The third type offer content which is more like an extended university orientation. The course provides information about campus resources, extracurricular activities, and community engagement opportunities, as well as wellness, diversity, and inclusion sessions, to help students transition to college life and teach them non-cognitive skills. Finally, the fourth type of FYS course is known as a hybrid course – which includes skills combined from the last three types of course. There may be academic content, help with developing study skills, and an introduction to college life through community engagement. The goal of hybrid courses is to give students a complete introduction to college and help them develop the academic and social skills they need to do well. Regardless of which type of FYS course, as listed above, is offered, these courses had a positive effect on students' retention rates and Grade Point Averages (GPAs) across universities (Jajairam, 2016; Pascarella & Terenzini, 2005). Indeed, research highlights the importance of the FYS basic skills program at the University of Wyoming, which was developed for at-risk students to build their skills (Reed & Jones, 2021). Utilizing pre- and post-course survey data, students were asked how important they considered academic and non-academic skills to be, as well as how much preparation time they spent outside of class.

The findings of this study reveal significant shifts in the relevance of skills and time spent studying during the transition from high school to college. This finding further highlights that first-year programs targeting transition skills helped address the large gap between expectations and actual behaviors. Adjusting the expectations that students had of the university requirements contributed to academic success. This emphasizes the need to focus on study skills to help students transition. With this support, students learn to evaluate their level of performance and adjust their study hours accordingly.

Although, as mentioned before, all types of FYS had a positive impact on student success, some of these seminars were more effective, depending on their content. Hence, in order to ensure that students successfully transition to college as optimally as possible, it is important to study which factors in FYS predicted its success. For instance, Jairam (2020) showed that teaching study skills during FYS does not necessarily effect any changes in students' study habits. Meanwhile, positive interactions with faculty members are one of the essential predictors of success during the first year at university. In a large sample, Bowman et al. (2018) demonstrated that non-cognitive attributes such as time management were clearly related to retention and GPA. They recommended adding these skills through active learning in first-year seminars. One study evaluated the effects of FYS course grades on retention and academic performance based on data collected from first-time full-time degree-seeking cohorts from Fall 2010 through Fall 2014 (Shi et al., 2021). According to the results, students who took this course had a higher retention rate than other cohorts, who didn't take the course, in the sequential Fall terms. More so, this study found that students who earned a grade higher than a "B" in this course

had better retention and graduation rates. In general, the hybrid-type courses were shown to have the highest impact on students' success as they cover various skills – cognitive and non-cognitive that provide students with tools to adjust to college life and support their ability to score high grades within other courses (Permezian & Credé, 2016). This success drives students to continue to attend higher education and eventually graduate (van der Zanden et al., 2018).

Qatar University (QU), is the only public university in Qatar and it houses ten different colleges: Education, Arts and Sciences, Sharia and Islamic Studies, Law, Engineering, Business and Economics, Pharmacy, Medicine, Health Sciences and Dental Medicine. In addition to these colleges, QU developed the Deanship of General Studies to provide a general education plan within all the colleges and foster student success through its different programs (Core Curriculum Program, Honors program, Foundation program...etc.). The number of registered students in undergraduate programs in QU reached 4,262 in the academic year 2020/21. The percentage of registered females was 76% and Qataris totaled 69%[†]. In 2015/16, the number of registered students was 3333 in undergraduate programs. The retention rate varied from 86.2% - 88.1%. Meanwhile, the graduation rate reached a maximum of 76%. Although this is higher than what we see in other countries (Jairam, 2020), there is always scope for improving the graduation rate. As mentioned above, several studies have been conducted to investigate the efficacy of FYS courses in improving students' academic performance and retention rates. However, gaps in the literature must be addressed in order to better understand the influence of such a course on student outcomes. Most of the previous research studies, for example, have primarily focused on the impact of non-cognitive abilities on students' grades and retention rates. Few studies have looked into the impact of both cognitive and non-cognitive skills on student progress in the first year of college. Furthermore, while several studies have highlighted the importance of non-academic skills in student achievement, such as time management and communication abilities, none have investigated the importance of a hybrid FYS course in improving these abilities in a large student population. Our study aims to fill these gaps by exploring how QU's hybrid FYS course, that emphasizes both cognitive and non-cognitive skill development, influences the academic success and retention rates for more than 3000 students from a range of backgrounds in a Middle Eastern region. As a result, our current research has the potential to explore the impact of hybrid course implementation for diverse and large student populations in different regions, thereby increasing their academic and personal success.

Qatar University implemented best practices for supporting students through an FYS course within its first year programs. This course was uncommon in the Middle East, and this university was one of the few to add the course as part of its Core Curriculum Program as a general requirement. This was based on the recommendations of the

[†]<https://www.qu.edu.qa/offices/CSDO/departments/Institutional-Research-and-Analytic/studies-and-reports>

Academic Program Review and Curriculum Enhancement (APR&CE) Committee. The course was implemented in Spring 2014; however, during the academic year 2015/16 a new version of the course was being taught (i.e. added content, revised credit hours, hybrid rather than extended orientation.. etc..). A pilot study of this new version was conducted only for the College of Law and Business. The first cohort comprised 338 students. Later it was extended to six colleges. The newly implemented FYS was a hybrid type course that covered cognitive skills, non-cognitive skills and extended orientation. It is noteworthy that coaching and training faculty is vital to the success of courses (Al Qadhi, 2022) and since teaching the FYS course is considered highly challenging (Scanlon & Dvorak, 2019), training instructors is important prior to implementation. Hence, Qatar University has provided international training opportunities since the extension of the course.

One study about FYS at Qatar University (Al-Sheeb et al., 2018) comprised an analysis of a survey completed by the end of the Spring 2014 semester for the older version of the course. A quasi-experimental design was used to assess the intervention's influence on students' resource knowledge and utilization, interactions, general interests, and attitudes toward higher education. The results showed that the FYS course had a positive effect on how satisfied students were with higher education, how they felt about going to university, and how aware they were of university services and resources. When it came to students' interactions, the findings revealed that students who took the FYS course talked to their instructors, academic advisors, and close friends more often than those in the control group. However, when first implemented, this course was an extended orientation type, and students either passed or failed it. Qatar University subsequently changed the course to 3-credit hours in which students learned study skills and cognitive skills in addition to extended orientation. These changes might have an impact on student success in the areas which matter the most for academia – academic performance and retention rate. The aim of this study is to investigate the effect of the recent FYS course on student achievement, including academic performance and retention rates. Our research differs from (Al-Sheeb et al., 2018) in that we expand the concept of the course to a hybrid course that integrates academic, extended orientation, and basic study skills (more about the course is given in the methods section). Moreover, the target enrollment for this course has grown from 350 to more than 4000 students. In addition, Al-Sheeb, Abdulwahed, & Hamouda (2018) was a pilot study that included only two sections from two colleges. At a later stage, the course was added as a requirement to the study plan for the other colleges. During the academic year 2017/18, a total of 4,192 students were enrolled in the course. Hence, we aim to assess the effectiveness of this hybrid FYS course across one academic year (Fall 2017 and Spring 2018 semesters). This should be very useful in determining the efficiency of the course and highlighting its main strengths and areas of improvement to help students transition successfully to university life. We predict that there will be a higher retention rate among those who successfully completed the course. Furthermore, we hypothesize that students who pass the FYS will have a higher

overall GPA than those who fail or don't take the course, replicating previous findings (Klatt & Ray, 2014).

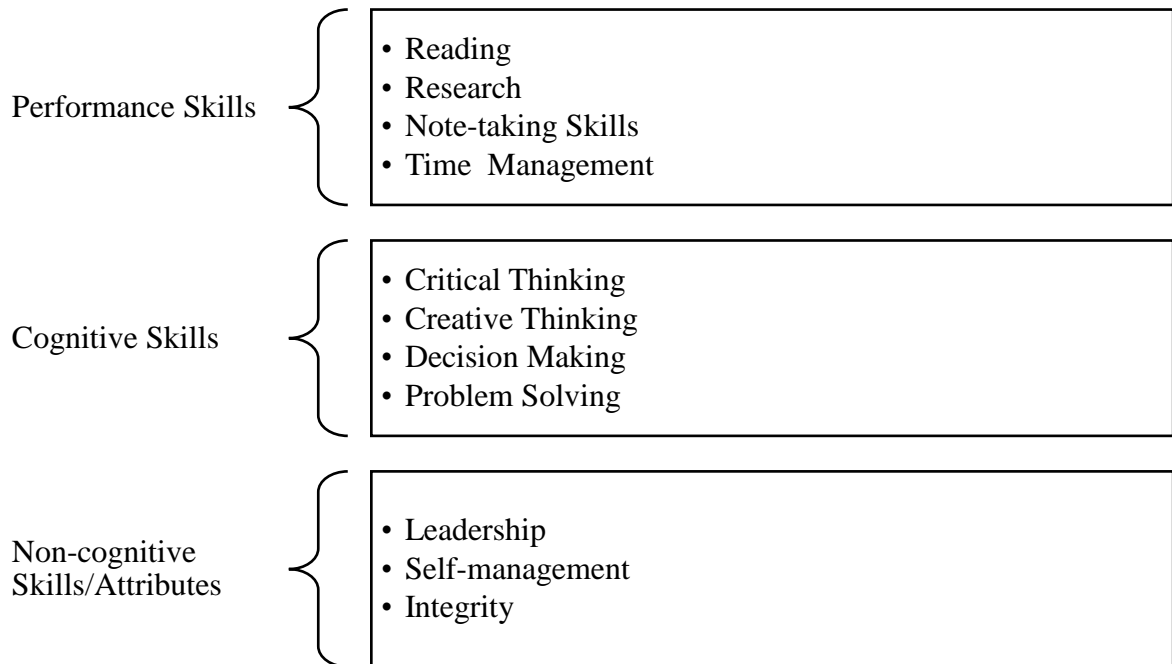


Figure 1. Summary of the different sets of skills taught by the First Year Seminar

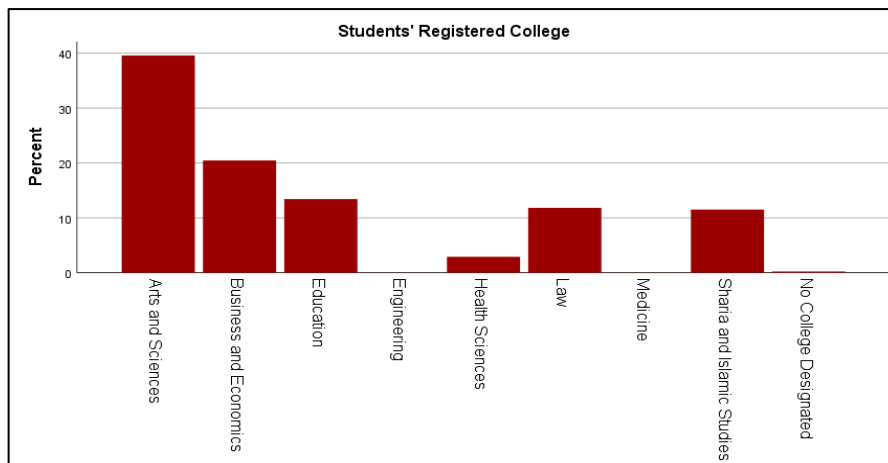


Figure 2: Colleges that students taking the FYS belong to

2. Method

Course Characteristics

The FYS is currently a requirement at QU for all colleges except for Pharmacy, Medicine, and Engineering. Students need to pass the course to graduate from QU. It is recommended that students complete the course during their first year at QU, and ideally during the first semester, so that they can begin their college life with a strong

foundation in terms of skills and knowledge on how to venture into academia. Students have the option of taking the course in English or Arabic, allowing them to overcome any potential language barriers. The course content, assessment and resources are exactly similar in both languages. The primary objective of the course is to prepare students to use performance skills, thinking skills, and explore their personal qualities as displayed in Figure 1. During course work, students are also exposed to the different on-campus resources that ease their transition into university life and help them achieve their academic goals. These include students counseling services, academic support services, advising services and other different departments aimed at supporting students at QU. In addition, students learn and apply research skills on a civic topic of their choice. This develops students' civic engagement within society and develops the research skills necessary for successful academic performance. To develop students' academic skills, a coaching approach is implemented to teach students how to apply academic skills during the semester. These skills include notetaking (Cornell), reading, self-study, presentation. Each week students are introduced to one or more skills and then during class time they apply, practice and are assessed on these skills. As for the non-academic skills, such as critical-thinking, problem-solving, time-management, goal-setting and decision-making skills, a similar approach is taken, i.e. practicing these skills using hands-on techniques in addition to assessing students' progress throughout the semester.

The main resource for the course content is the “Keys to College Success” textbook by Carol J. Carter and Sarah Lyman Kravits (2015), which was adapted and translated into Arabic specifically for Qatar University. The course was taught by qualified academic instructors who held either a PhD or master's degree. The faculty teaching the course had staff who were well-trained in skills for college success and had undergone a mentorship program within the department during their first course of teaching.

Procedure

This is a retrospective study as we compared cohorts who took the FYS in Fall 2017 and Spring 2018. Data for these students were extracted from Cognus Data Management over four academic semesters. This is the main online system that QU uses to record students' academic progress. We reviewed the cohorts who started their academic journey in Fall 2017 and those who registered in Spring 2018 in both the English and Arabic program plans. There were 3,891 students enrolled in total in the 2017/18 academic year, and 293 dropped out due to withdrawal, absence, or other enrollment issues. The latter dropouts were excluded from this study. We extracted the students' academic progress within the included cohorts across four semesters. During analysis the total number of students was split into two groups, those who took FYS and those who did not take this course during their first year. There may have been many reasons why students didn't take the FYS although it is recommended by advisors. For example, students may have wanted to transfer to the other four colleges that don't require FYS within their program; students may have opted to take other courses during their first year against their advisors'

recommendation to secure places on other courses; the timing of the FYS may not have fitted students' preferred schedule...etc. The final number of students within each group is presented in Table 1.

Statistical Analysis

First, we reported the descriptive statistics of our sample of admitted students. Then, we ran a group comparison of those who took the course and those who did not, based on different measures. These included retention rates and GPA. Using ANOVA, the retention rate was compared between the groups across three semesters to test if there was a significant difference between these groups. Significance was considered at $p < 0.05$. The GPA, after three years, for students who took the FYS was compared with that of those who did not take the FYS to test if any significant correlation existed using t-test statistics. Analysis was run using IBM SPSS.

3. Results

Table 1. Students registered for the FYS during the beginning of Fall 2017 and Spring 2018

	N	Student Per Section	Number of Instructors	Number of Male Students (percentage)	Admission Population First year	Language of Instruction (Arabic)
Fall 2017	2370	18-32	19	480 (20.3%)	2072 (87.4%)	2182 (92.1%)
Spring 2018	1521	19-28	16	304 (20%)	1104 (72.6%)	1441 (94.7%)
Total	3891		20	784 (20.1%)	3176 (81.6%)	3624 (93.1%)

The descriptive statistics per semester and the total numbers within groups are presented in Table 1. Most students enrolled in the FYS were females. In addition, more than 80% of the students were first-year students (admission population). Other registered students were either transfer students, visiting students, or students not working towards a degree. In the sample, 90% of the cohort attended the FYS course sections with Arabic as the language of instruction.

Colleges Including the FYS in Their Study Plan

As stated previously, all colleges, except Engineering, Pharmacy and Medicine, require students to register and complete the FYS course. Hence, as shown in Figure 2, the number of students from these colleges was quite low. As such, we assume that those from the aforementioned colleges want to transfer to other colleges and were guided by their advisors to take this course.

Retention Rate

Table 2 provides details on retention rates across semesters. According to QU, the letter grades range from D - A (corresponding to having a total grade of 60 - 100) are considered successful completion of the course. Letter grades F, FA, and FB stand for fail, fail due to absence on the final exam, and fail due to more than 25% absence during the semester. On the other hand, W means withdraw from the course and WF

is withdrawal from the semester. In general, the retention rate was significantly higher for students who passed the seminar during Fall 2017, and Spring 2018: at least 91% and at most 98% in the second term. Those who did not pass the seminar course had retention rates as low as 20% and 36% respectively in the first semesters. The retention rates for those who did not register were lower, reaching 71% and a maximum of 84%, compared to those who passed the seminar course. This trend was consistent over the semesters, as the higher retention rates persisted across semesters for those who passed the FYS course. Nevertheless, as mentioned in the introduction, research supports the importance of retention specifically during the first term, as the majority of students usually drop out during the first semester, and those who register in the second semester are more likely to stay in the university until they graduate.

The mean retention rate for students who passed the FYS across semesters was 94%, while that for students who did not register/did not pass the course, was 56.33%. The analysis of variance shows that there was a significant difference between groups on retention rate, $F(1, 16) = 5.26, p < 0.05$. T-test statistics also indicate similar results, $t(1, 15.69) = 5.06, p < 0.05$. This demonstrates that this seminar is indeed increasing retention rates.

Table 2. Retention rates across semesters

UNIV100 Indicator (as of the first term)	Total Admitted-Registered		% Retention 2nd Term		% Retention 3rd Term
	Fall 2017 Cohort	Spring 2018 Cohort	Fall 2017 Cohort	Spring 2018 Cohort	Fall 2017 Cohort
Passed UNIV100	1,903	717	98%	91%	93%
F Grade	25	9	80%	67%	60%
FA/FB Grade	60	52	20%	19%	17%
W Grade	89	74	31%	34%	34%
W/WF Grade	19	3	79%	100%	68%
Not Registered	891	214	84%	71%	81%
Total	2,987	1,069	90%	80%	86%

GPA

In addition to retention rates, the GPA during the different semesters was assessed and compared to see if students who took the seminar earned a higher GPA compared to those who did not take it. Table 3 highlights the GPA of students across different terms. Analysis of variance shows a significant difference in GPA between groups, $F(1, 16) = 42.04, p < 0.05$. T- test statistics also indicate similar results, t

(5.06,15.69) = 6.08, $p < 0.05$ indicating that there is significant correlation between the FYS course and students' GPA.

Table 3. GPA across semesters

UNIV100 Indicator (as of the first term)	Total Admitted-Registered		GPA 2nd Term		GPA 3rd Term
	Fall 2017 Cohort	Spring 2018 Cohort	Fall 2017 Cohort	Spring 2018 Cohort	Fall 2017 Cohort
Passed UNIV100	1,903	717	2.92	2.78	2.68
F Grade	25	9	0.78	0.45	1.12
FA/FB Grade	60	52	0.06	0.15	1.42
W Grade/W from Semester	89	74	-	-	2.37
W/WF Grade	19	3	2.23	0.67	2.24
Not Registered	891	214	2.64	2.28	2.66
Total	2,987	1,069	2.76	2.52	2.65

4. Discussion

To understand the impact of a hybrid FYS course on students' GPA and retention rates, this study compared educational outcomes (GPA and retention) of students who took the courses and who failed to take it across three years. The findings demonstrate that the FYS course in QU increased retention rates and GPA across four semesters. Our study supports the assumption of the positive impact of the hybrid FYS course at Qatar University on student success. Within Qatar University, this hybrid course, which was added as a requirement in six colleges at the university, covers academic, cognitive, non-cognitive and performance skills. In addition, the FYS includes activities that could be referred to as extended orientation for students. Most of the students selected the Arabic language course and this was expected as Arabic is the primary official and native language in Qatar. We reviewed the GPA and retention rates of more than 3000 students who were enrolled in this course; we then compared those results to the GPAs of students who had not taken the course. Using a large number as a sample representative of the students from different colleges, such as Business, Education, Science, Law, Art, Islamic Studies, and Health Science, can have several benefits when evaluating the impact of the FYS course on GPA and retention rates. Indeed, with a large and varied sample size, a study can capture a broader range of impacts on vital academic outcomes. This was a key aspect of evaluating the impact of the FYS course at QU that is compulsory for all first-year students across different academic disciplines at Qatar University.

Our retrospective data demonstrate that the FYS has increased retention rates and enhanced the GPA of students. This is in line with the results from several studies that show that certain skills are crucial for university success (Bowman et al., 2018). The retention rate was higher for those who had successfully completed the FYS,

reaching 98% at times. This was higher than the second year retention rate in previous years at QU which was 78.2 – 88.3 %[‡] as reported in the university's fact book 2017/18. On the other hand, the retention rate for those who did not register was lower, averaging around 71% with a maximum of 86%. This trend was consistent over the semesters, as the retention rate remained higher across semesters for those who passed the seminar course. Research supports the importance of retention during the first term specifically, as the majority of students who drop out do so during the first semester, and those who register for the second semester are more likely to stay at the university until they graduate (García-Ros et al., 2019).

In addition to the retention rate, there were clear differences in the academic scores of students who had passed the FYS course and those who had not. The GPA of students who took the course during the semester was higher than that of those who did not take it. There are two explanations for these results. The first possibility is that the seminar is a skills-based course and thus, with proper guidance from the faculty, students are able not only to pass it but also to earn good grades despite their pre-college academic preparedness. This increases their GPA. More so, staff delivering the FYS at QU are trained to notice “at-risk students”, focus on one-to-one meetings, and follow-up with students who need extra support. As such, it is normal for most first-year students to have good to excellent scores in the course. The second possibility is that part of the course included teaching students academic skills. These support the academic needs of students particularly “at-risk students”. Students also have clear expectations of university and faculty requirements in college. This has been shown to be a key factor in university success (Eisenberg et al., 2016). Our study cannot disentangle all the reasons why such students earn a better score and hence more in-depth investigation is needed to explore the issue further.

One of the strengths of this study is the inclusion of students across different disciplines and colleges. This allows for generalizability of the results. Students who are accepted in these colleges require different recommendations – in terms of school GPA and types of course completed during high school (Sciences or Arts etc.). Hence, accordingly, FYS seems to be associated with better academic performance for a range of different colleges and majors.

Let us now consider what may happen if students take the FYS course in their second or even third year, though the number of students who fall into this category is modest. Students who do not take this course during their first year may not find it as useful as those who do, and hence they will not benefit from it as much as first-year students. More research in this area would help explain the factors that contribute to student achievement during the first semester. Nevertheless, based on our findings and other research, we advise students to take FYS during their first year in order to get the most support possible from the course and learn tools that will support them in a successful transition to university life, increase their GPA and

[‡]<https://www.qu.edu.qa/offices/CSDO/departments/Institutional-Research-and-Analytic/studies-and-reports>

perhaps increase graduation rates. Research shows that the knowledge and abilities gained in this course are crucial for first-year students. These abilities are either left out of the school curriculum entirely or are taught at an insufficient level for their use in higher education.

Given that the course studied was hybrid, it is unclear which aspects of the course were the most important in terms of driving higher retention and GPA. The course covers various skills and further studies could highlight which of these are more important and which might not add to student success – if any. Qualitative research along with quantitative data from within-course assessment might help to answer these research questions. It is also worth noting that this is a retrospective study so we could not establish or conclude with certainty that there was a causal effect. Accordingly, future research might run experimental studies to help understand the underlying process by which students are benefiting from FYS. Students with different educational backgrounds and pre-college academic and non-cognitive skills usually have different outcomes during the first year of college (García-Ros et al., 2019). Hence, perhaps choosing randomly assigned students for experimental and control groups might rule out any confounding factors that contribute to the success of first-year students.

The strengths of this study were the inclusion of a large number of students from different disciplines and the fact that their study followed their academic progress across four semesters. Hence, our findings can be generalized to several disciplines across universities in the Middle East teaching Arabic and English FYS courses.

5. Conclusion

In conclusion, the analyzed data reveals the positive impact of an FYS course on the short- and long-term success of students. In light of our study's findings, the FYS is essential for students starting at QU in their first year. This is due to the positive impact and effect it has on GPA (higher across semesters for those who took this course) as well as on retention rates (higher retention rate especially in the first semester). The course studied and tested in this research was a hybrid course that embedded cognitive skills, non-cognitive skills and extended orientation; however, there was little to no evidence to clarify and, in turn, pinpoint which aspects of the course supported students the most. Consequently, it is possible that all the skills (both academic and non-academic) were important and played a crucial role. Even a simple extended orientation might be equally important. Hence, we recommend that future research considers the specific skills that are important in the FYS and focuses on them so that students might benefit more from this course. Finally, analysis has proven that the FYS course is one of the most effective practices that higher education systems can choose to adopt to support and ease students' transition from school to university. Hence, higher education across Middle Eastern countries should adopt this type of hybrid course for first-year students in order to support their transition to college. More so, we recommend that the FYS courses include both cognitive and

non-cognitive skills and that they are provided across all colleges within the institution.

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Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All the authors meet the criteria for authorship. All the authors have approved this version of the article for publication.

List of Abbreviations

APR&CE	Academic Program Review and Curriculum Enhancement Committee
FYS	First-year Seminar
GPA	Grade Point Average
QU	Qatar University

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