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FIRST YEAR SEMINAR FOSTERING 21ST CENTURY SKILLS: A STUDY OF QATAR UNIVERSITY FRESHMEN PERSPECTIVES

BY

MOHAMED SABER KISHTA

A Thesis Submitted to

the Faculty of the College of Education

in Partial Fulfillment of the Requirements for the Degree of

Masters of Arts in Curriculum and Instruction

June 2019

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ABSTRACT

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Title: First Year Seminar Fostering 21st Century Skills: A Study of Qatar University Freshmen Perspectives

Supervisor ofThesis: Randa, A., Almahasneh.

The overarching purpose of the present study was to investigate the perspectives of first-year students who are enrolled in First-Year Seminar (UNIV 100) course offered at Qatar University, with regard to the successfulness of the course in fostering 21st century skills; namely, study skills, critical thinking, problem solving, personal growth, collaboration, communication, digital information literacy, and civic engagement skills. A quantitative method design was utilized. A questionnaire including close-ended items was developed and administered online to all first-year students enrolled in the course during Fall 2018 semester. The close-ended questions comprised Likert-scale and rating scale multiple-choice items. A number of 307 first-year students voluntarily completed the questionnaire. SPSS V. 25 was used to run data analysis. Frequencies, percentages, means, standard deviation, Welch's test and ANOVA were used to analyze the data.

The findings yielded that the majority of participants agreed that the course was successful in fostering the set of the 21st century skills being investigated. Results show statistical significant differences attributed to the variable of gender; in particular, differences among means of gender groups were significant for study skills, personal growth, collaboration and communication, digital information literacy, and social

responsibility. However, no statistically significant differences among gender groups were reported in problem solving skills. It was noticed that the differences among means of students' groups based on their nationality or college were not significant for all the skills. The study also revealed that the majority of first-year students perceived that the course was useful to them. Overall, the findings of this study suggest that the course was successful in fostering the 21st century skills. Implications and recommendations for further practice and future research are presented.

DEDICATION

This thesis is wholeheartedly dedicated to my beloved parents for their endless love. It is also dedicated to my beloved wife and children, who have been a constant source of support and encouragement throughout this thesis journey.

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My first and foremost limitless thanks go to almighty Allah for His infinite help, mercifulness and blessings to allow me finalizing this thesis.

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CHAPTER 1: INTRODUCTION

This chapter sheds lights on the background and purpose of the present study. It discusses the overarching goal and the rationale behind offering a First-Year Seminar course to first-year students in light of the stated research questions. It will also elaborate on the operational definitions for the key terminologies being used, the problem statement and the significance of the study.

1.1 Background of the Study

Education is globally perceived as a means that unlocks the human potential and helps nations bring about a drive for economic and societal change. To thrive in a dynamic world and innovation-driven economy, students must be adept at the 21st century's skills such as critical thinking, problem solving, creativity, communication and collaboration (World Economic Forum, 2015).

Although educational systems usually put efforts on cultivating various skills and attributes into students as they navigate throughout their educational journey, many students usually face challenges as they move from high school to higher education. This is due to their unpreparedness for post-secondary education as they are not yet sufficiently equipped with the skills, dispositions and attributes that could facilitate their transition to post-secondary learning environment. In this regard, Venezia and Jaeger (2013) argue that the majority of high school students pursuing higher education are usually unprepared for higher education coursework and lack basic knowledge and skills necessary for their academic and social adjustment and success at their higher education studies. Accordingly, these students usually experience many issues, difficulties and stressors during this

transition period. These new comers are exposed to new spectrum of cultures, wider educational and diversified community, and teaching and learning practices that are more rigorous and sophisticated. These difficulties result from the variances between the education systems at high schools and university (Venezia & Jaeger, 2013). Experiencing such issues may lead them to be less motivated and being unable to adjust academically and socially. These students will most likely perform poorly in their classes and would probably drop out (Permzadian & Credé, 2016). Supporting that, Yan and Sendall (2016) also highlighted that dropout rates can rise dramatically when students feel overwhelmed and disengaged.

It is well perceived also that higher education is no longer an option or a luxury. This awareness led to increased numbers of enrolled students in higher education. These growing numbers brought some issues to students. There is a substantial growing in the number of students accessing higher education in the United Kingdom during the last decades, which led to issues pertaining to bigger class sizes, low student engagement levels, and diverse learning needs, among others (Blair, 2017). These issues would surely affect the smoothness of freshmen transition to university. Universities invest in a lot of resources and efforts in order to maintain and enhance their university's "image" and increase their financial benefits. To that end, much effort is exerted to increase students' completion rates toward graduation and lessening their withdrawal and dropout rates. The first year is a critical point where students would take their decisions on either progressing toward their sophomore status and continue to graduation or helplessly dropout if they fail to adjust academically and/or socially during the transition period. These incoming first-year students are the most vulnerable to these transition issues and difficulties, which may

lead them, if not being addressed properly and in a timely manner, to drop out from college or university (Yan & Sendall, 2016).

The issue of dropping out of education during first-year at college is a widespread concern, which gained importance and steam in debates on higher education. Credé and Niehorster (2012); Willcoxson, Cotter and Joy (2011) reported, (as cited in Zanden, Denessen, Cillessen, 2018), the majority of students drop out during their transition year at university. An average of 21% of incoming freshmen in the United States universities did not proceed to their sophomore year (Swanson, Vaughan, Wilkinson, 2017). Another report stated that one in every four freshmen in USA does not continue for sophomore year (Jaijairam, 2016). Vossensteyn et al (2015) reported that that the majority of students in European countries dropout before they obtain a degree in higher education. Similarly, Ryan (2004) reported (as cited in Chen, 2012), the national data in the United States constantly report that around 20% to 25% of students drop out from college as they complete their first year. This would count for the importance of this stage in student's educational journey.

The challenges and issues experienced by first-year students during the transition period are addressed by higher education institutions which come up with solutions to enhance college readiness through various initiatives and intentional programs, such as new "student orientation programs, student support centers, service learning, learning communities, undergraduate research initiatives, academic advising, and first-year seminars, among others" (Kutlu, 2013, p. 4). In this regard, Skipper (2017) valued these initiatives, which would help first-year students fulfil the essential attributes required to

excel in the job market, such as critical thinking skills, personal growth, civic engagement and citizenship, among others.

Countries, policy makers and educational researchers had to set goals, gain more insight and develop strategies to tackle these challenges and issues during the transition period. For example, Europe 2020 Strategy developed goals to decrease attrition and dropout rates and increase completion rates in higher education - a goal that is seen as critical for fostering the 21st century skills that Europe needs to nurture its knowledge-based economy and productivity (Vossensteyn et al, 2015). Reducing dropout rates and increasing students' progression toward graduation is regarded as an indicator of higher educational attainment levels. A number of countries such as Netherlands, Denmark, Scotland and Germany have taken initiatives to increase the students' completion rates through widening the access to more attractive, efficient and diversified higher education opportunities. These countries have implemented policies to ascertain the quality of their academic offerings to cater the needs of their students and prepare them with the necessary skills, dispositions and abilities in response to the needs of their nations (Vossensteyn et al, 2015).

1.2 Historical Overview of the Education Reform in the State of Qatar

The State of Qatar has embarked on key reforms to its educational system since 1990. The quality of education then was not up to the international standards. One of these key reforms was the overall enhancement of all levels of Qatar's education system (Moini et al, 2009). The main purpose was to support the economic growth of the Qatari nation and produce well-rounded citizens who are able to lead and contribute to the societal change toward the end goals of Qatar's prosperity. In 2001, the Qatari Leadership has asked

RAND Policy Institute - a US-based non-profit institution to conduct a comprehensive assessment and analysis of the educational system in Qatar (Zellman, et al., 2011). RAND concluded that this system has an outdated curriculum that emphasizes memorization and rote learning, among others (Brewer, et al., 2006).

Accordingly, RAND Corporation articulated the need for vibrant curriculum standards geared to cater the targeted learning outcomes and that the new curriculum, assessment techniques and professional development should be aligned with these newly created standards. RAND proposed three options for the Qatari Leadership to change the prevailing educational system: (1) a revised Centralized Model that improves the present then educational system, (2) a Charter Decentralized School Model with a school system independent of government control, and (3) the Voucher Model, where parents were given the opportunity to private schools (Brewer, et al., 2007). The Qatari Leadership decided to go with the second option.

1.2.1 The Post-Secondary Education System in Qatar

Qatar's pre-existed Supreme Education Council has approached RAND Education to conduct a rigorous analysis of the current situation of the post-secondary educational offerings and recommend initiatives to maximize the quality of post-secondary education to serve the expanding local job market needs (Stasz et al; 2007). To that end, RAND Education worked on assessing the effectiveness of the existing institutions in addressing the educational and training needs of the society. Stasz et al (2007) - as part of their RAND report – concluded that Qatari females are much keener than Qatari males on pursuing higher education.

1.2.2 Skills Gap in Post-Secondary Education in Qatar.

RAND Corporation identified prominent gaps in post-secondary education, including very limited opportunities for students who are in need of remedial academic course work (Stasz et al, 2007). This conclusion led the Qatari Leadership to restructure academic programs at Qatar University, establish a government-sponsored community college, establish a liberal arts college at the Education City of Qatar Foundation and establish a Core Curriculum Program and an Honors Program at Qatar University.

On the part of skills, RAND Corporation identified that Qatar's K-12 education system is very weak and behind standards, which means that students are insufficiently prepared for post-secondary study (Stasz et al, 2007). The results of employers' survey conducted by RAND showed a high demand for competent graduates who are sufficiently prepared with the necessary skills in areas such as English communication and business in addition to soft skills such as teamwork (Stasz et al, 2007). Both employers and higher education institutions were complaining that Qatar's government secondary school graduates are not prepared to pursue a career or higher education rigorous studies (Brewer, et al., 2007). The findings of the employers' interview conducted by RAND showed a high demand for sufficient skills in the English language, mathematics, science, communication, teamwork, creativity, ICT-related, critical and analytical thinking, research, business administration, management, clerical, marketing, accounting, teamwork attitude and willingness to learn. These employers were not satisfied by the quality of skills possessed by secondary school and even university graduates. They indicated that these graduates lack the necessary skills needed to pursue their professional careers (Stasz et al, 2007).

1.2.3 Investments in skills development in the Qatari post-secondary institutions.

Qatar embarked on investing in post-secondary / higher education in 1977 by establishing Qatar University (QU) as a public-funded institution. Qatar University was operating the Foundation Program (FP) before the Reform Project of Qatar University that lasted from October 2003 through January 2007. The (FP) is devoted to fostering students' mathematics as well as English language oral and written communication skills that are required to pursue their studies at university (Qatar University Foundation Program's website: http://www.qu.edu.qa/foundation/About-Us/VisionandMission).

Similarly, a key investment as part of the Qatar University Reform Project in QU's skills development endeavors was the establishment of a core curriculum initiative for all students irrespective of their majors (Moini et al; 2009). The Core Curriculum was established with a main goal to provide all undergraduate students irrespective of their majors with a breadth of knowledge and a set of 21st century skills that foster their academic and professional success, social integration and promote good citizenship through a wide array of multidisciplinary (Moini et al; 2009). All undergraduate students must complete a minimum of 33 credit hours to satisfy the Core Curriculum requirements (Qatar University Core Curriculum Program's website: http://www.qu.edu.qa/core/about-us). The program seeks to cultivate a set of common competencies, attributes and dispositions essential to shape well-rounded citizens.

Among the other options for postsecondary education is Qatar Foundation for Education, Science and Community Development – traditionally abbreviated as (QF). The Academic Bridge Program (ABP) was established by QF with a goal to prepare

distinguished high school graduates- who are willing to enroll at prominent international universities in the Education City - with mathematics, English, ICT, study skills and personal skills (Qatar Foundation Academic Bridge Program website: https://abp.edu.qa/).

There are also many other skills development investments for higher education, including the College of North Atlantic (CNA-Q) and the Community College of Qatar (CCQ). CNA-Q was established with an overarching goal to provide hands-on technical training as well as academic preparatory studies, among others. (CAN-Q website: https://www.cna-qatar.com/programs). Similarly, the Community College of Qatar (CCQ) was founded in September 2010 by the Ministry of Education and Higher Education as part of the national endeavors to invest in the human capital and in alignment with the Qatar National Vision 2030. It offers academic programs that prepare students to pursue four-year universities, other professional programs or short-term continuing education for those who wish to advance their knowledge, skills and abilities to accommodate the expanding job market needs and to meet the expanding needs of Qatar (CCQ website: https://www.ccq.edu.qa/English/AboutCCQ/Pages/VisionMission.aspx). Similarly, the Qatari Ministry of Education and Higher Education has recently approved the new University Foundation College, which offers preparation programs with a main goal to develop students' language, communication, and practical skills (University Foundation College, Qatar website: https://universityfoundationcollege.com/About-Us#section01f5.

1.3 Study Context

Higher education has gained more importance in the State of Qatar. This could be evidenced by the increasing number of registered students in Qatar University. According to the statistics obtained from Qatar University's *Book of Trends (Spring 2018)*, "The

number of registered students has been steadily increasing over the last 5 fall semesters. It reached 19,152 registered students in Fall 2017 which represents 7% increase over Fall 2016 and 29% increase over Fall 2013" (p. 5). These growing numbers would probably bring many issues pertaining to the quality of educational offerings, especially those provided to first-year students. Within this context, it can be claimed that very few studies have been conducted to investigate the issues with post-secondary students in Qatar. Khalifa et al (2016), for instance, reported that many Qatar University students had unpleasant experiences at their first-year pertaining to the academic advising and lack of essential skills needed for university-level education. Similarly, Stasz et al (2007) reported – as part of their RAND Corporation monograph – that Qatari students in transition to higher education lack generic transferable skills (such as problem solving, critical thinking, collaboration and teamwork skills); academic skills associated with subject-matter areas, and work-related attitudes and dispositions.

As part of its role to help with providing all Qatar University student community with the set of skills and attributes and increase retention rates, the Core Curriculum Program (CCP) was mandated in 2014 to develop and initiate a first-year seminar course. Although first year seminar initiative is quite booming in USA since the 1980s, it is newly born in the Qatari context. To the best of the researcher's knowledge, Qatar University is one of the precedent higher education institutions in Qatar to offer first year seminar. The CCP piloted (UNIV 100) for the first time in Fall 2015 with a main purpose to enable QU first-year students to foster the skills needed to help with their successful transition to university and promote their academic success in their respective majors. "The second-year retention rate for Fall 2016 cohort was %88; the same rate was observed for Fall 2015.

However, this rate represents an increase compared to Fall 2012 cohort (78%)" (Qatar University's Book of Trends, 2018, p. 5). There is also an increasing second year retention rate among Qatari students since 2012. According to Qatar University's *Book of Trends (Spring 2018)*, the "second-year retention rate among Qatari students increased to 90% for Fall 2016 cohort, compared to 87% and 75% for Fall 2015 and Fall 2012 cohorts, respectively" (p. 5).

1.4 Problem Statement

Qatar University "QU" capitalized on the importance of building students' skills for the 21st century through high impact practices, due to their "proven ability in enhancing the curriculum and improving student success," including first-year seminars, first-year experience, learning communities, among others (Qatar University, 2013-2016, p. 12). However, very limited published studies (e.g. Stasz et al, 2007; Khalifa et al, 2016) in the context of Qatar - to the best knowledge of the researcher - investigated or gauged if Qatar University students – especially freshmen - are acquiring such skills that are essential to enhance their preparedness for university studies. In Fall 2016, Qatar University offered a UNIV 100 course to the majority of QU students. After three years of continuous development and curriculum enhancements of the course, it is relevant, worthy and significant to investigate if the course –as one of the well-known high impact practices – has contributed to fostering QU first-year students' 21st century skills, from first-year students' perspectives.

To that end, the researcher conducted a benchmark exercise of the 21st century skills identified by current well-known conceptual frameworks developed by various key organizations for the 21st century skills, such as the American Association of Colleges and

Universities (AAC&U), World Economic Forum, the United Nations Educational, Scientific and Cultural Organization "UNESCO", and The Partnership for 21st Century Learning, among others. This benchmarking exercise yielded a list of 21st century skills, upon which these organizations reached a consensus. These defined skills were utilized to develop the questionnaire being used for the present study. That being said, the present study aimed to gauge if the UNIV 100 course was successful in fostering these 21st century skills, from first-year students' perspectives. This study may lay a foundation for further analysis and investigation of these skills given their importance to Qatar University first-year students' learning and success. By acquiring such skills, students will succeed academically and acclimate to university environment. Increased student retention rates and progression toward graduation will be achieved in return.

1.5 Purpose of the Study and Research Questions

The overarching purpose of the present study is to examine the perspectives of Qatar University's first-year students, who are registered in (UNIV 100) course for Fall 2018. The study investigates their perspectives about (1) how this course fosters 21st century skills; (2) if students' evaluation of the course is affected by their gender, nationality and college, and (3) gauge the degree of usefulness of the course. The purpose of the study is informed by the research questions that follow:

1) To what extent does the First Year Seminar Course foster 21st century skills as perceived by QU students?
2) Are there statistically significant differences in students' evaluation of the First Year Seminar Course based on their gender, nationality and college?

3) What is the degree of usefulness of the First Year Seminar course as perceived by QU first year students?

1.6 Significance of the Study

Although first-year seminar is a heavily researched topic, a specific examination and evaluation of such courses from students' perspectives remain under-researched in the context of Qatar. Moreover, empirical evidence relating the enrollment in first year seminars to the development and improvement of 21st century skills such as critical thinking and problem solving are missing in the research agenda pertaining to first year seminars (Padgett & Keup & Pascarella, 2013, p. 135). The context of Qatar is not an exception.

This study is significant as it provides information about the first-year seminar being offered at Qatar University (QU) and its potentiality to foster QU first-year students' 21st century skills – an area that has not been captured in previously published data or reports in the context of Qatar, to the best knowledge of the researcher. Furthermore, it will contribute to the canon of information available on how first-year seminars support students' success at college through the set of skills and dispositions that are articulated and addressed in the course. In addition, this study sheds lights on such courses and their roles in facilitating first-year students' successful transition to and retention at university and enhancing their academic, personal and professional success. It contributes to the growing body of research on first year seminars and their connection with first year students' academic achievement and social adjustment. The results yielded from this study may also provide recommendations to the decision makers at Qatar University on addressing the challenges raised by the participants. This may help them do necessary

enhancements, improvements or interventions to ensure attaining the targeted goals in support of Qatar University's strategic goals and financial benefits.

1.7 Definition of Terms

Some terms were employed in this study, which need to be defined as following:

First Year Student is defined by Qatar University as the "student admitted to Qatar University who either has never attended a university or has earned less than 24 credit hours at another university" (Qatar University, 2018, p. 19).

First Year Seminar *is* designed to “equip first-year students with the knowledge and skills needed for their personal growth and academic success, while transitioning from high school to university” (Qatar University, 2018, p. 476).

CHAPTER 2: LITERATURE REVIEW

This chapter will examine the historical background and characteristics of first year seminars, including their working definitions, types, objectives and theoretical background. It includes a review of well-known frameworks for 21st century skills. This chapter ends with thematic review of studies pertaining to first-year seminar. It will critically evaluate the pertinent studies in literature in relation to the purpose and research questions of the study.

2.1 First Year Seminars

First Year Seminars have been defined the same by various institutions. According to the National Resource Center of the University of South Carolina (Keup, 2018, 2014), first year seminars are small-size groups of students brought together with their faculty members regularly to assist with first-year students' academic and social and development. Such courses strongly emphasizes on "critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies" (2014:8). Similarly, Barefoot (1992) (as cited in Young and Keup, 2016) defined first-year seminars as courses that engage students and foster their acclimation to university academic rigors and social adjustments through a wide array of topics and essential skills for college success. NguyenVoges & Lyons (2017) also defines first-year seminar as a course that aims to help new freshmen as they transit into higher education and provide learning experiences to assist with their college success.

2.2 Historical Overview of First Year Seminars

Although first year seminar is new to the context of Qatar, its origins date back to 1911 when it was first introduced at Reed College in Oregon, USA (Coch & Gardner, 2014, p. 16). However, Barefoot and Fidler (1996) and Gordon (1989) argued (as cited in Young and Keup, 2016:58) that student success courses has emerged at John Hopkins University in 1877 and that Lees College offered the first student success seminar to their freshmen in 1988. Many universities in the US followed Reed's model from 1915 through 1938, however as of 1930, this course faced issues for claims pertinent to its non-academic nature and consequently waned by early 1960s (Coch & Gardner, 2014, p. 16).

During the late 1960, many student activists were staging large violent protests and riots on higher education campuses due to racial inequality issues in the United States, which drove many US post-secondary institutions to curb student unrest (Watts, 1999, p. I). These riots resulted in terminating many first year seminars (Mamrick, 2005, p. 15).

However, by the beginning of 1970 there was many calls by campuses to reinstate first year seminar for some reasons. Dwyer (1989) (as cited in Mamrick, 2005, p. 15) summarized these reasons. First, educators recognized that first year students are not sufficiently prepared to acclimate with the new rigorous academic and social college environment. Second, freshmen did not get adequate support from their peers. Third, students remained helpless with the university sophisticated curricular requirements and policies (as cited in Mamrick, 2005, p. 15).

In 1972, the University of South Carolina took the initiative and helped curb this turbulence as it launched a first-year seminar course named University 101. This action placed this university at the frontline of the first-year experience new movement in higher

education (Koch & Gardner, 2014, p. 16). In 1975, the University of South Carolina appointed John Gardner as the University 101 course director, who together with his faculty colleague Paul Fidler enriched the content of the course with an academic rigorous content. Collaboratively, they managed to prove that there are statistically significant difference on retention variable between freshmen took the course and those who do not (Coch & Gardner, 2014, p. 17). In 1981, Gardner decided to host a national and later a regional conference on a regular basis about the University 101 course, which led the course to gain a momentum in favor of the first-year experience movement the years that follow (Coch & Gardner, 2014, p. 18). Gardner widely promoted the University 101 concept and Freshman Year Experience movement throughout the United States, Canada, Europe and Australia through a consulting network, conferencing, and many publications (Watts, 1999, p. I).

The First year of college has gained a significant momentum into the American higher education since 1980. In 1984, the Study Group on the Conditions of Excellence in American Higher Education issued a report titled, "Involvement in Learning: Realizing the Potential of American Undergraduate Education." This report was precedent to shed lights on the first-year experience movement (Hunter, 2006).

The increased attention to student retention and the quality of university offerings in the United States starting 1980 especially during the Administration of President Ronald Regan, has led John Gardner to initiate a resource center for first year experience at the University of South Carolina in 1987. This center is so-called nowadays, the National Resource Center for First-Year Experience and Students in Transition. Most of the research on first-year seminars is mainly attributed to this center. This center became a resource for

all institutions aspiring to initiate such a course that is aligned with best educational practices.

Since its onset, first year seminars serve a common overarching purpose; Torres and LePeau (2013) (as cited in Keup, 2018, p. 11) made this purpose clear; that is to "have a greater influence on setting the tone for what it means to be an educated individual and the responsibilities that come with gaining a postsecondary education". This will count for the high percentage of American universities and colleges offering first year seminars, which amounted 73.5% of the (*N=386*) universities and colleges participating as evidenced in the 2017 U.S National Survey of First Year Experience (National Resource Center of First-Year Experience and Students in Transition, 2018, p. 24).

Figure 1 shows the prevalence of offering first year seminars in American institutions covering the period from 1988 through 2017.

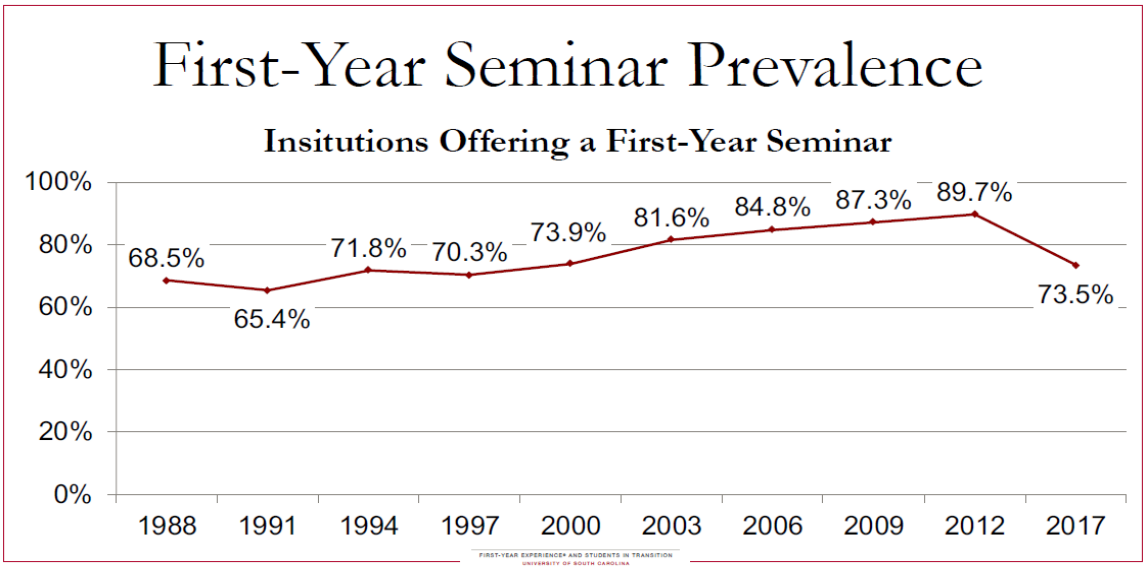


Figure 1 Prevalence of First-Year Seminars in U.S Institutions (1988-2017), (National Resource Center of First-Year Experience and Students in Transition, 2018, p. 35)

Although first year seminar has established itself on the top of most common first year experience programs initiatives being adopted in the context of the American higher education, such courses are not exclusive for the American context; it has been offered in various parts of the globe and the state of Qatar is not an exception. In Qatar, there are some first year seminar courses being currently offered in both public and international universities. Qatar University - a public university in Qatar - offers this course to serve different general education purposes. First, HONS 100: Honors Freshman Seminar, which facilitates students' transition to the university and its Honors Program and equip them with the key research skills needed for writing a research paper (Qatar University, 2017, p. 377). Second, HONS 101: Honors Freshman Seminar for Humanities, which equips students with thinking and analytical skills they need to utilize in at least one specific humanities discipline (Qatar University, 2017, p. 377). Third, INTA 100: First Year Seminar, which is an interdisciplinary course designed to cultivate critical thinking, reading and writing skills necessary for the rigor of the International Affairs curriculum (Qatar University, 2017, p. 380). However, these HONS 100 and HONS 101 and INTA 100 course are tailored to the needs of specific departments; HONS 100 series to serve the students enrolled in the Honors Program and INTA 100 to serve the students in the International Affairs Program.

In contrast, Qatar University offered UNIV 100: First Year Seminar in Fall 2015 to serve the majority of Qatar University students. In 2015, it was piloted on the colleges of Business and Economics and the College of Law. In Fall 2016, it was generalized to all students enrolled in the colleges of Arts and Sciences, Education, Business and Economics, Sharia and Islamic Studies and the College of Health Sciences. As informed by researcher's current job at the Core Curriculum Program, this course should have been offered to the

remaining colleges of Engineering, Pharmacy and Medicine; however, due to accreditation purposes pertaining to these colleges, there is no credit hour space in the study plans of these colleges' students to accommodate this course. The UNIV 100 course serves the educational needs of Qatar University freshmen with regard to equipping them with the skills and dispositions needed for successful transition to university, academic success, and personal growth.

2.3 Theoretical Framework behind First Year Seminars

The first year at college proves to be the most stressful for many undergraduate students (Yan & Sendall, 2016, p. 35). This situation invited many universities, especially in the United States, to initiate interventional programs and services to help with this issue. One of the key interventions is first year seminars that are designed to develop the skills essential for facilitating successful transitions of first year students to colleges and helping with their academic success and social adjustment at university. First year seminar established itself on the top of the research agenda of higher education. Cuseo (2014) argued that there is no such a course in the context and history of higher education gaining steam with rigorous research and empirical evidence than first year seminars.

With the abovementioned preamble given, the theoretical framework on first-year student learning such as transitions, 21st century learning, retention, engagement and motivation are important to understand (Hanley-Dafoe & Bruce, 2018). To that end, first year seminar lends itself to a number of theories, including student development, success and retention theories. Theories such as Tinto's Student Departure theory is among the theories guiding the implementation of first year seminars.

The notion of retention and persistence at college are frequently associated in the literature with the context of first year experience, first year seminars and is grounded in student success. Astin (1993) and Tinto (2002) (as cited in Howard and Flora, 2015) argued that the most crucial factors to increase student retention and completion toward graduation are constructive and interactive communication with the campus community members, in addition to successful student acclamation into the new campus environment.

Tinto's Student Departure Theory.

Student persistence and retention at colleges gained a steam in the literature of higher education research. Tinto (1999:5) argues that the efforts exerted on the majority of campuses are not sufficient to promote student retention, especially for freshmen. Tinto's Model of Student Departure suggested that freshmen join college with personal qualities, attributes, skills, abilities and initial attitudes and dispositions toward college, which will later be subsequently modified as they interact with members of the campus community (Clemson, 2015). In his article titled, "Stages of Student Departure: Reflections on the Longitudinal Character of Student Leaving" Tinto (1989) argues that the institutional persistence process involve "three major stages – separation, transition, and incorporation, through which the student has to pass and surpass in order to persist at college and progress toward graduation" (p. 442). Figure 2 illustrates Tinto's three stages of institutional persistence.

For the *Stage of Separation*, Tinto (1988) argues that for most of the students, the process of separation from the past associations is very stressful and less rewarding, especially for those who leave their families for the first time in their lives. Tinto continues to argue that by having separating themselves from the past physical and social

environment, first year students are eligible for the *Transition Stage*, where they need to acquire the norms, necessary knowledge, skills and dispositions that facilitate their adjustment into the new environment.

With the adjustment issues that this stage entails, most of the students are vulnerable to experience academic and social stressors and failures that will lead, if not being addressed properly and in a timely manner, to student drop out early from college of university. Colleges and universities can do much more at this stage through various interventions, including first year seminars.

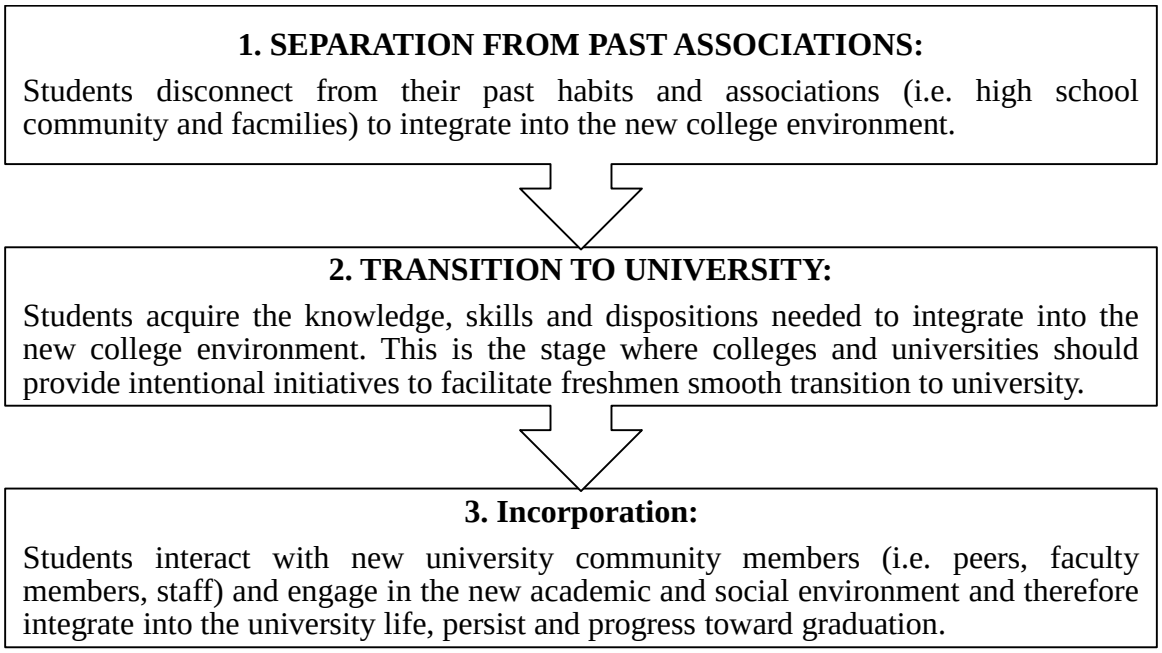


Figure 2 Tinto's Illustrative Model of the Stages of Student Departure Adapted into Figurative Description. Adapted from Stages of Student Departure: Reflections on the Longitudinal Character of Student Leaving (p. 443) by Vincent Tinto (1988).

For the Incorporation Stage, Tinto (1988) argues that by passing the first two stages of separation and transition, students are faced with the task to be integrated, where they are required to adopt norms and dispositions of the new environment through building communication channels with members of the new environment, including peers, faculty and staff members (p. 445). Without assistance during all the three stages, students will eventually dropout.

Tinto's *Student Departure Theory* has implications to educational institutions as they initiate their retention programs, especially for first year students. These institutions should consider concentrating their intervention efforts at the very beginning of student's college life given the stressors facing these students at these stages.

Clark & Cundiff (2011, p. 618) (as cited in NguyenVoges, Lyons, 2017, p. 5) argued that colleges and universities in the U.S endeavor to help with these stages. These institutions utilize first year seminars to teach the basic study skills as well as other 21st century skills to facilitate freshmen smooth transition to higher education.

2.4 Characteristics of First Year Seminars

Riess (2016) argues that first year seminars are courses developed to help with integrating freshmen by introducing them to various topics that differs according to seminar type as well as promoting essential skills for success. Such courses are initiated by various colleges and universities to increase students' persistence and retention, as it prepares students with the breadth of knowledge, dispositions and skills that are needed to confront the transitional and developmental issues they face during their first year at university (Permzadian & Credé, 2016, p. 278).

Types of first year seminars

First year seminars vary largely in the voluminous literature; however, their types could be seized to six basic classifications: academic with thematic sections; academic with uniform content across all sections; extended orientation and pre-professional / discipline-based types (Keup, 2018, p. 33; 2014, p. 15; 2011, p. 5).

Table 1 briefly describe the basic types of first year seminars as demonstrated by the National Resource Center of First-Year Experience and Students in Transition (2018, p. 33; Keup, 2016, p. 62; Keup & Petschauer, 2011, p. 5-15).

Figure 3 shows the findings of the 2017 U.S National Survey of First Year Experience, which indicate that extended orientation seminar type was on the top of all other seminar types used by U.S institutions with a 47.6 %. Academic seminar (on various topic) type stands as second top frequent with a 33% followed by academic uniform content, hybrid, pre-professional and basic study skills types respectively. When combined, the two academic seminars will be more prevalent than extended orientations. This mostly consistent with the findings of the 2012/ 2013 U.S National Survey of First Year Experience with regard to the ranking of extended orientation type and the two academic seminar types.

Table 1 Basic Types of First Year Seminars

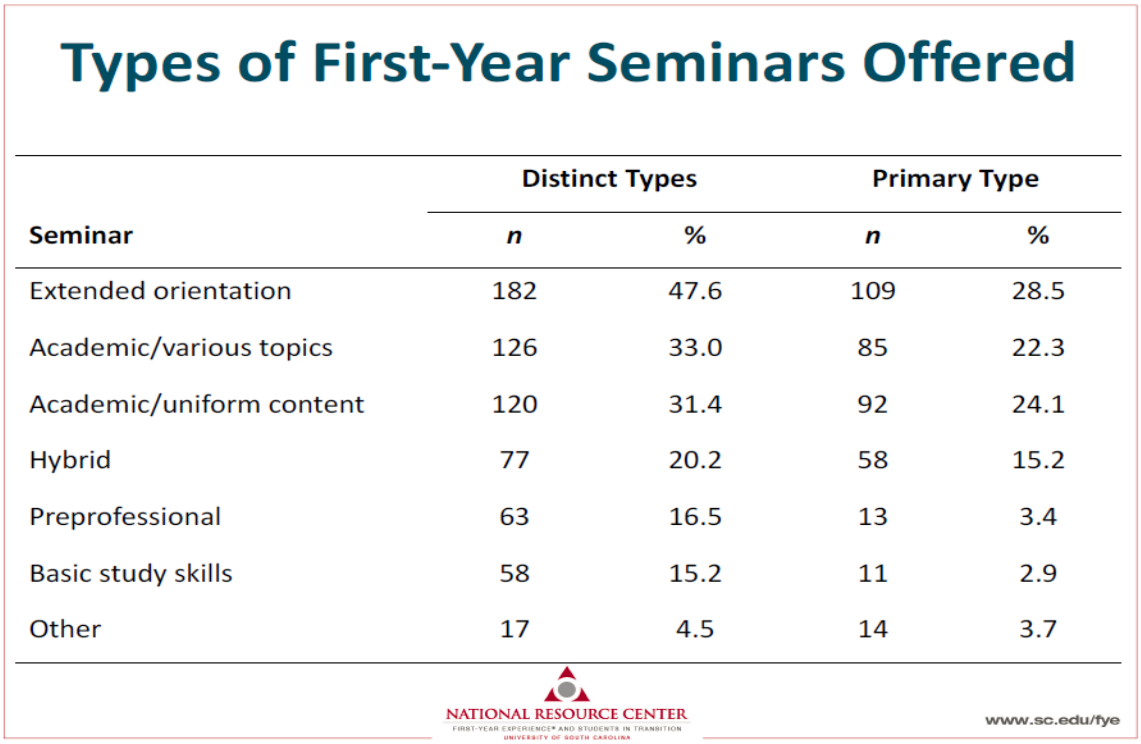
First Year Seminar Type	Description
Extended Orientation	This is the most common and the one with the longest history. U.S national survey data reported that the top three objectives for this type of seminar are orientation of students to resources and services available at university, promotion of academic and personal development skills. It frequently convers time management skills and university policies and procedures.
Academic with Thematic Content	It stands in the ranking next to extended orientations. It is offered with different themes varying from section to section and from instructor to the other. This type depends on faculty members' choice and areas of expertise on how to introduce students to college life. University of Colorado is one of the well-known universities offering such type.
Academic with Uniform Content	It stands on the third place after extended orientations and academic with constant content types respectively. It is offered with a uniform academic content along all sections. The main goal behind offering this type is to generate a uniform first-year experience for all students.
Pre-professional	This type is used to introduce students to their specific majors or future professions.
Basic Study Skills	This type aims to prepare first year students with the study skills needed to excel in their academic studies, including presentation, note-taking as well as effective reading and writing skills and strategies.
Hybrid	This type is an amalgamation of the topics addressed in certain or all of the mentioned seminar types.

Note. Adapted to figurative description from the National Resource Center of First-Year Experience and Students in Transition (2018, p. 33); Keup (2016, p. 62); Keup (2011, p. 5-15). This is based on the classification of the National Resources Center of First-Year Experience and Students in Transition (2018)

Qatar University invests in the hybrid type of seminar, which combines the characteristics of the following seminars types described by Keup (2011):

1) Extended Orientation Type: The course reports study skills, orientation to Qatar University campus resources and services, coverage of time management skills and universities policies (p. 8).
2) Academic Type: The course includes academic skills such as problem solving and critical thinking skills (p. 8). The national data in the U.S. reports that promoting academic skills are among the top frequent objectives in academic seminar types (Keup, 2011, p.9)
3) Basic Study Skills Type: The course integrates a set of study skills that prepare students academically during the transition period. These skills include, note-taking, effective reading and writing strategies, search strategies, goal setting, time management, information literacy, library information and search, health and wellness, personality traits, learning preferences, oral presentation, and technology skills (Keup, 2011, p.11).

In spite of variations among first year seminar types, they have also some factors in common. The U.S national data indicate that most of these courses last one full term, offered for a letter grade and maintain smaller sizes (16-24 students per section) (Keup, 2011, p. 5)



Types of First-Year Seminars Offered

	Distinct Types		Primary Type	
Seminar	***n***	**%**	***n***	**%**
Extended orientation	182	47.6	109	28.5
Academic/various topics	126	33.0	85	22.3
Academic/uniform content	120	31.4	92	24.1
Hybrid	77	20.2	58	15.2
Preprofessional	63	16.5	13	3.4
Basic study skills	58	15.2	11	2.9
Other	17	4.5	14	3.7

Figure 3 Types of First-Year Seminars Offered at U.S Institutions, based on the U.S. 2017 National Survey of the First Year Experience (National Resource Center of First-Year Experience and Students in Transition, 2018, p. 34).

First year seminar courses should address the 21st century skills required for college success and developing students' growth mindset. Keup (2018) argues that the top quality first year seminars capitalizes on essential skills such as frequent writing, critical inquiry, collaboration, information literacy, among others (p. 10).

2.5 First Year Seminars and 21st Century Skills and Outcomes

2.5.1 The 21st century skills defined and Identified.

Although the 21st century skills notion and importance has gained a momentum in the voluminous literature base, there is no consensus on how they are defined and identified (NguyenVoges & Lyons, 2017, p. 4). In this regard, Lamb, Marie and Doecke (2017) argued that the concept of "21st century" key skills is rather vague and not easy to define; there is no universal framework to organize them (p.11). Given this lack of consensus on an identified list of 21st century skills, Ananiadou et al (2009) - as part of their working paper no. 41 for OECD - broadly defined the 21st century skills as those skills that young people need to acquire to be responsible citizens in the knowledge-based society of the 21st century.

Following an extensive review of literature, major frameworks and prominent organizations for 21st century skills, competence and outcomes were found and investigated, including the following:

1. The US Partnership for 21st Century Learning (p21),
2. Assessment and Teaching of 21st Century Skills Framework,
3. Association of American Colleges and Universities (AAC&U),
4. Organization for Economic Cooperation and Development (OECD),
5. United Nations Educational, Scientific and Cultural Organization (UNESCO),
6. World Economic Forum,
7. Center for Universal Education at BROOKINGS,
8. Ministry of Education at Ontario, and
9. the National Resource Center of First Year Experience and Students in Transition

The recommendations derived from OECD and the Partnership for 21st Century Learning (P21) are of the most generic framework that provide a conceptualization of 21st century competencies and constitute the base for other frameworks in the area of 21st century skills and learning (Voogt & Roblin, 2012, p. 306). Moreover, the P21 is included in most reviews of existing frameworks (Voogt & Roblin, 2012, p. 13). The Assessment and Teaching of 21st Century Skills Framework was initiated to produce clear operational definitions of 21st century skills and competences (Voogt & Roblin, 2012, p. 302; Lamb et al, 2017, p. 14). In 2015, the Association of American Colleges and Universities (AAC&U) has developed a 21st Century Framework for Quality College Learning.

Table 2 is a benchmark developed by the researcher, where the 21st century skills investigated in the present study were mapped against the current well-known conceptual frameworks developed by various organizations for the 21st century skills and learning. This benchmarking was developed to validate that skills surveyed are real 21st century skills. These skills were also validated by the findings of an extensive and comprehensive review of 32 major frameworks for 21st century skills conducted by Voogt and Roblin in 2012. Voogt and Roblin (2012) concluded that the majority of 21st century skills frameworks tend to have a consensus on certain 21st century skills, including communication, collaboration, ICT literacy, critical thinking, problem solving, creativity, productivity, among others. These skills are in alignment of the skills investigated in the present study. In their analytical report prepared for the State of New South Wales (NSW) Department of Education and titled, *Key Skills for the 21st Century: An Evidence-based Review*, Lamb et al (2017) conducted a careful review and analysis of international frameworks for learning and 21st century skills. They identified the following list of the

skills that received the most up-to-date momentum in the work and research of policy makers and researchers and the most frequently found in these frameworks as well as think-tanks and government reports; those are critical thinking, creativity, problem solving, collaboration, among others.

Table 2 Benchmark of 21st Century Skills

List of Skills Addressed in First Year Seminar Evaluation Questionnaire (FYS-EQ)	National Resource Center (2018)	Assessment and Teaching of 21st Century Skills	World Economic Forum	UNESCO (2015)	OECD (2015)	AAC&U (2015)	The Partnership for 21st Century Learning (P21) (2019)	Center for Universal Education at BROOKINGS (2018)	Ministry of Education, Ontario (2015)
Problem Solving	X	X	X	X	X	X	X	X	X
Critical Thinking	X	X	X	X	X	X	X	X	X
Creative Thinking				X	X	X	X	X	X
Collaboration and Teamwork	X	X	X	X	X	X	X	X	X
Communication (oral and written)		X	X	X	X	X	X	X	X
Digital / Information Literacy	X	X	X	X	X	X	X	X	X
Social Responsibility, Civic Engagement, Citizenship	X	X	X	X	X	X	X	X	X

2.5.2 Twenty-first century skills: the need for education, job market and societies.

The "21st century skills" is a widely used theme that gain a steam in today's higher education contexts. There is an increased emphasis nowadays on how students can utilize knowledge rather than acquiring the knowledge itself (Silva, 2009, p. 630). Cultivating and imparting these skills is no longer an option in today's higher education. In the meanwhile, earning an undergraduate degree is not seen as an add-on or luxurious anymore. Rotherham and Willingham (2010) (as cited in Vista et al, 2018) highlighted that the diverse set of 21st century skills are in high and frequent demand in today's workplace. As part of their article, belonging to the Center for Universal Education at Brookings, Vista et al (2018) highlighted that the educational ingredients must be geared toward fostering these 21st century skills.

With the busiest ever job markets nowadays, only well-educated and skilled graduates will find a place onboard. Business leaders now prefer to hire well-rounded and competent high school or university graduates who are well equipped with the 21st century's skills, attributes and dispositions and who are able to face complex challenges and lead a positive change for their entities and societies. Results of a study by the Association of American Colleges and Universities (AAC&U) in 2015 shows that 93% of employers say that job seekers who demonstrate a strong ability to communicate effectively and think critically are more important than graduates who score high in their academics only (Schneider & AAC&U, 2015). The same study also reported, employers also state that they are asking employees to assume much larger roles and responsibilities and possess much broader skills than ever (Schneider & AAC&U, 2015, p. 1). Hart Research Associates

(2013:4) also reported that employers emphasize the need for educational practices and initiatives that promote internships, community engagements, research, collaborative problem solving and senior projects. Hart Research Associates also highlighted (as cited in Andrade, 2016) that (93%) of employers surveyed revealed that it is more important to hire graduates who are able to communicate efficiently, think critically and solve complex problems. This led colleges and universities to exert more efforts toward cultivating these skills in their students in different ways.

Countries nowadays address their needs of skills differently in fulfilment of the prosperity of their nations. They also differ in the level of efforts they exert and the resources they spend to equip their people with the skills they need to advance themselves, fulfil their potential and be socially responsible citizens who are capable of shaping the well-being of their countries. The Organization for Economic Cooperation and Development (OECD), an official United Nations Observer, is one of the leading international organizations that assumed responsibility to help governments around the world ensure that their people have the ability to foster their skills toward a meaningful production (OECD website: https://www.oecd.org/about/).

2.5.3 First year seminars promoting 21st century skills and outcomes.

OECD (2018) highlighted that the most prepared students for the future are in need of a wide array of skills. These skills include "cognitive and metacognitive skills (e.g. creative thinking, critical thinking, and self-regulation); social and emotional skills (e.g. self-efficacy, teamwork and collaboration); and practical and physical skills (e.g. using new devices for communication technology)" (OECD, 2018, p. 5). There is a wide array

of intentional and interventional programs designed to cultivate and impart such skills in the context of first year students, including first year seminars.

NguyenVoges and Lyons (2017) argues that there are many recent calls and much attention on promoting 21st century skills, such as problem solving, critical thinking, cultural awareness, particularly within the first-year seminar context (p. 5). Clark and Cundiff (2011, p. 618) (as cited in NguyenVoges & Lyons, 2017, p. 5) highlighted that higher education institutions across the United States utilize first year seminars as intervention programs to teach basic study skills, time management, academic planning, as well as other 21st century skills such as critical thinking, problem solving, group communication/collaboration, and digital/technology literacy.

2.5.4 The 21st century skills in institutional & first year seminar course objectives.

Objectives for first year seminar vary depending on the institutional needs and outcomes for which these intentional programs are created. Young and National Resources Center for the First Year Experience and Students in Transition (2017) reported the frequency of using 21st century skills in First Year Experience initiatives in the universities surveyed as follows (p. 20-21):

1) Analytical, critical thinking or problem solving skills (49.2%) for a frequency of (*N= 264*),
2) Oral communication skills (33.9%) for a frequency of (*N= 182*), and
3) Project planning, and teamwork or management skills (22.3%) for a frequency of (*N= 120*)

Keup (2018) argues that the top quality first-year experiences emphasizes essential 21st century skills that foster students' practical and intellectual skills (Keup, 2018). The data from the 2017 U.S National Survey of First-Year Experiences indicate that among the first year seminar objectives in the surveyed universities, academic success strategies ranked on the top of course objectives with a (48.1%) (Young & National Resources Center for the First Year Experience and Students in Transition, 2017). Similarly, the three most frequently reported objectives for first-year seminars as per the results of the 2013 National Survey of First Year Seminar were: (a) connect with the college or university, (b) orient students to campus resources and services, and (c) develop academic success skills (National Resources Center for the First Year Experience and Students in Transition, 2013, p. 1).

2.6 Previous Studies on First Year Seminars

First-year seminar is probably the most ever researched course with more compelling empirical evidence in the context of higher education (Cuseo, 2014; Padgett et al, 2013). Following a thematic review method, the studies from literature reported herein are organized around themes pertaining to first-year seminar. To be specific, the paragraphs that follow will review the pertinent literature with respect to first-year seminars and its influence on student outcomes and predictors for first-year student success; namely retention, persistence, academic success, student engagement and satisfaction, which are all prevalent in most of the studies (Padgett et al, 2018, p. 135). Literature pertaining to the influence of such courses on fostering 21st century skills will be reviewed, with more emphasis on study skills, critical thinking and problem solving, personal growth,

collaboration and communication, digital and information literacy, social responsibility and civic engagement.

First-Year Seminars & Student Success

To begin with, the majority of studies on first year seminar investigated the connection between this course and first-year students' success, which is usually examined by students' persistence, retention, student satisfaction and grade point average (GPA) (Yorkshire, 2016, p. 1). Given the importance of first-year students' persistence and retention to institutions as it directly connected with student academic success and the university's image and financial benefits, the impact of first-year seminars on students' persistence and retention at university was a common theme and gained a steam in numerous studies in the first year seminar's context. The terms retention and persistence are frequently employed interchangeably; retention used by institutions as measure of student success and persistence to reflect students' measure of success (as cited in Voigt & Hundrieser, 2008, p.2). Simply, "students do not seek to be retained; they seek to persist" (Tinto, 2017, p. 254).

Student retention

Findings of various studies concluded the positive correlation between first-year seminar and the likelihood of student retention (e.g. Tinto, 1988; Porter & Swing, 2006; Jamelske, 2009; Clark &Cundiff, 2011; Klatt & Ray, 2014; Lafferty, 2015; Howard & Flora, 2015; Clemson, 2015; Swanson et al, 2017; Jenkins-Guarnieri et al, 2015; Permzadian & Credé, 2016; Florence, 2017). Student retention is among the most ever researched areas found in the higher education context and extensive body of literature (Tinto, 2007). Cuseo (2011) argues that the most commonly assessed learning outcomes associated with first year

seminar is the impact of the course on students' retention and academic performance. The findings of the U.S 2107 National Survey of First-Year Experience show that retention is one of the most frequent institutional objectives for the first year (Keup, 2018, p. 19). "Retention" came on the top two assessed outcomes of first year seminar, representing (47.2%) of the U.S colleges and universities usage (Keup, 2018, p.42).

In their careful synthesis of 2600 post-secondary studies, Pascarella and Terenzini (1991) (as cited in Cuseo, 2014, P. 2) concluded that the evidence suggests the positive correlation between first- year seminars and first-year student persistence and degree completion. However, some studies (e.g. Permzadian & Credé, 2016) concluded that first-year seminars have a minor average effect impact on one-year retention.

In their study to evaluate the effectiveness of college first year seminar course, Clark and Cundiff (2011) compared two samples; one comprised of 109 first-year students who took the course and the other comprised 326 first-year students who did not enroll in the course. They concluded that those students who are enrolled in the course were most likely to pursue toward graduation. These findings are consistent with the findings of the study by Lafferty (2015) on the effect of first-year seminar course on first to second semester persistence, which show that the students attending the course were more committed to complete toward second semester. In their study to investigate the attained student outcomes after students complete a first-year seminar course, Klatt & Ray (2014) concluded that the students who finished the course obtained higher GPA, much less time to graduate and higher student retention at college.

On the other hand, some other studies indicated that enrollment in this course had less or no effect on student persistence (e.g. Permzadian & Credé, 2016; Yorkshire, 2016;

Hendel, 2007; Barton & Donahue, 2010). A study by Permzadian and Credé (2016) concluded a small impact of first year seminars on student persistence. The meta-analytic findings of their study conducted to determine the impact of first-year seminars on college grades and retention show that first year seminars have a small impact on first-year grades and retention rate. Similarly, some other studies (e.g. Yorkshire, 2016; Hendel, 2007) found that enrollment in first-year seminar did not predict student retention or persistence. Similarly, in his longitudinal study to examine the effect of first-year seminar on first-year students' success as measured by grade point average, persistence and retention, Yorkshire (2016) found out that enrollment in the FYS course were not substantial predictors of student retention. Aligned with these results are the findings of a study conducted by Edwards (2018), who conducted a longitudinal study to explore the relationship of retention rate and institutional GPA between freshmen completing a first year seminar course and those who did not. The findings of this study reported no significant difference in retention rates between both groups.

Student satisfaction appeared on the agenda of student success as well. Some studies have measured the impact of first-year seminars on student satisfaction, including (e.g. Hendel, 2007; Al-Sheeb et al, 2018). Hendel (2007) studied the effectiveness of first year seminar on student satisfaction. He compared among first-year seminar participants and a random sample of participants who did not enroll in this course on their satisfaction with the first-year experience. The findings yielded that enrollment in first-year seminars had an impact on some domains of satisfaction of first year students. The findings also reported statistically significant differences between both groups on many items pertaining to satisfaction. One of the limitations of this study is that it was conducted at times when the

course was first introduced and so the results might have improved in the years to come. Another study in the context of Qatar University was conducted by Al-Sheeb et al (2018) to study the effect of a first-year seminar course on student awareness, engagement, and overall attitudes and dispositions toward higher education. The findings revealed that the course had a positive impact on student overall satisfaction and attitude toward higher education.

Continuing on the concept of students' success, Van Der Zanden et al (2018, p. 57) developed a conceptual framework and domains for academic success based on first-year students' critical thinking skills, academic achievement, and social emotional adjustment and well-being. Findings of various studies concluded the positive correlation between first-year seminar and the likelihood of academic success (e.g. Tampke & Durodoye, 2013; Ray, 2014; Jenkins-Guarnieri et al, 2015 and Van Der Zanden et all, 2018). In their systematic review of 80 studies on predictors of academic success, Van Der Zanden et al (2018, p. 57) concluded that enrollment in first-years that are focusing on students' academic and social adjustment has contributed to student success and academic achievement. Jenkins-Guarnieri et al (2015) conducted a quantitative evaluation of a first-year seminar course in order to assess the impact of the course on students' academic success and persistence, where 2,188 first-year students were surveyed. This study yielded that enrollment in this first-year seminar course promoted student academic success, persistence, increased motivation levels and thus increased personal academic performance expectations. With such an evidence in hand, first-year seminars promoting practical skills have a positive effect on first-year students' academic success and persistence.

Despite the link between enrollment in first-year seminars and promotion of 21st century skills is under researched, very few studies were found to indirectly relate first-year seminars to the a number of 21st century skills, including study skills, critical thinking and problem solving, growth mindset, collaboration and communication, civic engagement and civic responsibility.

Study Skills

Very few studies (e.g. Jairam, 2019; Porter & Swing, 2006) investigated the effect of first-year seminars on study skills. Jairam (2019) acknowledged this gap in literature connecting first-year seminars to study skills; few studies has examined study habits after completing a first-year seminar course. As part of their study on the impact of the course on students' persistence, Porter and Swing (2006) measured five students' learning outcomes in a first-year seminar using a survey of students at 45 institutions and examined their effect on students' intention to persist. They concluded that among the five learning outcomes, study skills and academic engagement had significant impact on early student intention to persist at university.

However, a study conducted by Jairam (2019) to investigate the first-year students' study habits after completing a first-year seminar course, concluded that first-year seminars had a minor effect on students' study habits. The results also indicates that female students reported more frequent utilizing of study skills compared to male students.

Critical Thinking, Problem Solving Skills and Life-long Learning

Very limited studies (e.g. Kilgo et al, 2015; Padgett et al, 2013) examined the connection between high impact practices and skills such as critical thinking, problem solving, and lifelong learning. Whereas outcomes on high-impact practices have been

anecdotal largely, recent scholarly work of Kilgo offered longitudinal data on the positive impact of these practices on students learning (Stebleton & Jehangir, 2016, p.2). Kilgo et al (2015) investigated the connection between high impact practices, including first-year seminars, and student learning. They used data from Wabash National Study of Liberal Arts Education – a longitudinal, pretest/posttest design that aimed at evaluating the effects of ten high impact educational practices endorsed by the Association of American Colleges and Universities (AAC&U). Findings from their study suggest that among the used high impact practices, only active and collaborative learning and undergraduate research had positive impact on skills such as critical thinking. This study concluded that first-year seminars, writing intensive courses and academic learning community were not substantial predictors of any of skills as critical thinking, intercultural effectiveness and the need for cognition. They also suggested that it is wrong to interpret this lack of statistical evidence of first-year seminars as having no impact on students' learning outcomes. They also suggest that further research should investigate first-year seminars more closely to examine how the impact of participation in such courses would vary in relation to other factors such as student characteristics, facilitation or administration.

First-year seminar capitalizes on important skills such as critical thinking, information literacy, and other skills that develop students' intellectual as well as practical skills (AAC&U, 2015). Despite its importance in improving knowledge, skills and competence, very few studies (e.g. Padgett et al, 2013; Kilgo et al, 2015) examined the impact of high impact practices such as first-year seminars on first-year students' lifelong learning. A key role of colleges and universities is to cultivate these skills in their students,

especially those who are on transition from high school to university, through various intentional programs such as first-year seminars.

Similarly, utilizing longitudinal data from Wabash National Study of Liberal Arts Education that encompassed 48 U.S. colleges and universities, Padgett et al (2013) measured the impact of first-year seminars on students' lifelong learning. They concluded that first-year seminars foster student lifelong learning orientations.

Growth Mindset Skills

Dweck (2015) argues that students' growth mindset plays a key role in first-year students' motivation to learn and achievement and concluded that students who believe that they can develop their intelligence (growth mindset) outperformed those who believe that their minds and mentalities are set and cannot be further developed (fixed mindset). Yet, growth mindset is not exerting more efforts; instead, it is more of trying new strategies and solicit help when being stuck.

The research from studies of first-year seminar courses suggest that building first-year students' growth mindset through first-year seminars will potentially improve first-year students' academic self-efficacy and adjustment, and college student success (North Wolfe, 2017). Some studies (e.g. Seabrook, 2017; North Wolfe, 2017) have studied the impact of growth mindset skills and strategies on undergraduate and first year students' academic achievements. Seabrook found out a negative correlation between academic growth mindset and higher GPA. North Wolfe (2017) hypothesized that first-year seminar with a growth mindset skills component would probably help with student retention; however, the data did not support this hypothesis.

Social Responsibility, Civic Engagement, Social Integration

Schamber and Mahoney (2008) argued that one of the overarching purposes of general education for 21st century is to foster civic engagement, citizenship and social responsibility. The main purpose is to prepare students to be active leaders to make a societal change. Civic engagement is all about social integration of first-year students. Social integration was identified by Kuh (2016, p. 51) (as cited in Lafferty, 2015, p. 76) as a predictor of academic success. Social integration happens when students are highly attached and involved in meaningful learning experiences. This concept has been addressed in various studies (e.g. Lafferty, 2015; Malik, 2011; Al-Sheeb, 2018). In his study to investigate the impact of first year seminars on students' academic and social integration and engagement, Lafferty (2015) conducted a control design of a cross-sectional posttest only where data was obtained from a convenience sample. Lafferty concluded that students enrolling in first year seminars were reported to be more academically engaged, socially integrated, and attached to the university environment than those who did not enroll in the course. This is consistent with the findings of a study in the context of Qatar University being conducted by Al-Sheeb et al (2018, p. 2). The findings of this study suggest the potential of first-year seminars to foster students' academic and social adjustment during the first-year and that the course had a highly significant effect on student attitudes toward higher, overall satisfaction and awareness of university services and resources. In a study conducted by Malik (2011) on the effectiveness of first-year seminar on the academic and social adjustment of freshmen, he concluded that participation in the first-year seminar course provided first-year students with greater opportunities for campus involvement. The findings of the 2017 National Survey of first year experience show that the most common

objectives utilized by these institutions for first year seminar are academic success strategies (48.1%), connection with the institution (34.7%), knowledge of resources (30.4%), introduction to academic expectations (24.4%), academic planning (21.2%) (Keup, 2018, p. 48).

The literature is rich in the connection between first-year seminars and first-year students' social integration in campus, which might establish a connection with social and civic engagement and responsibility. However, some studies established a strong connection between first-year seminars and civic engagement and civic responsibility if these seminars integrate curriculum components such as service learning and community-based learning.

Jacoby Associates argues that civic engagement has been associated with service learning component (as cited in Mayhew & Engberg, p. 20). Some studies (e.g. Mayhew & Engberg, 2011) confirmed that structured curriculum components such as service leaning was reported to have a positive impact on promoting civic engagement and responsibility if infused and integrated in first-year seminars. In their longitudinal study of 173 students enrolled in 10 first-year seminars where five of them integrated service learning while the other five do not, Mayhew and Engberg (2011) concluded a positive impact on the social responsibility gains in the first-year seminars that infuse service learning. Similarly, Schamber and Mahoney (2008) investigated the impact of community-based learning program, a unique type of service learning, addressed for a short duration in first-year seminars on first-year students' civic learning outcomes. Their definition of community-based learning component is not focused on service, but on students working in pedagogy-based partnership with local non-profit organizations. This will enable

students gain real-world insights of societal problems. One of the learning objectives of the first-year seminar course investigated was to analyze social issues critically. This objective was addressed through various curricular activities, including reading, discussing and analyzing articles on contemporary civic issues, teaching students how to find relevant information about a particular social issue and ensure credibility of this information, then a team of four to six students research and write a twenty-five-page group policy paper on this particular social issue. Results of this study revealed that experiences in the community along with academic research, represented in writing the group policy paper, helped students realize the relevance of social issues. Students were reported to be interested in participating in community activities in the future.

Communication, Collaboration and Digital Literacy Skills

Clark & Cundiff (2011) (as cited in NguyenVoges and Lyons, 2017, p. 5) argued, U.S. high education Institutions utilize first year seminars that focus on teaching the 21st century skills like group communication/collaboration, digital technology literacy critical thinking, and problem solving. Similarly, Keup (2018, 2014) stated that the highest quality first-year seminars emphasizes on information literacy and collaborative learning. Chambers et al (2013, p.53) argued that students of current digital age are often thought to be adept with technology, and thus skillful in information retrieval and usage. The World Economic Forum (2015) also highlights that 21st century students should be adept at skills such as collaboration and collaboration that requires collaboration with others to solve problems.

Critique on Previous Studies

Previous studies have yielded positive findings on the impact of first year seminars on student retention, persistence, grade point average (GPA), academic success and social adjustment and increased awareness and usage of campus resources (e.g. Howard & Flora, 2015; Clemson, 2015; Jenkins-Guarnieri et al, 2015; Permzadian & Credé, 2016; Florence, 2017; Tampke & Durodoye, 2013; Ray, 2014; Jenkins-Guarnieri et al, 2015 and Van Der Zanden et all, 2018; Padgett et al, 2013). However, there has been a limited research and empirical evidence to connect elements of first-year seminars to outcomes that go beyond persistence, retention, GPA, and satisfaction, such as providing empirical evidence regarding the connection between first-year seminar characteristics and practices to skill development, 21st century learning outcomes and skills, or other student development and student success metrics. This gap in literature is evidenced in studies conducted by (Padgett et al, 2013; Van Der Zanden et al, 2018; Keup, 2018), who concluded that empirical evidence relating enrollment in first-year seminars to 21st century outcomes, skills such as critical thinking are generally absent on the ongoing research agenda of first-year seminars. This is despite that critical thinking is among the most important first-year seminar characteristics for approximately one third of institutions especially in academic type first-year seminars according to the U.S. national data (Padgett et al, 2013, p. 135). The potential reason behind this gap in literature is that policy makers of institutional effectiveness often rely on quantifiable outcomes such as student GPA.

This study will bridge this gap in literature as it connects first-year seminars to fostering 21st century skills, as perceived by first-year students. This study will contribute to the research agenda and knowledge in the context of Qatar since this area has not been captured

in previously published research or government in the context of Qatar. Furthermore, it will contribute to the canon of information available on how first-year seminars support students' success through the set of skills and dispositions that are articulated and addressed in the course. In addition, this study highlights the importance of such courses in facilitating first-year students' successful transition to and retention at university and enhancing their academic, personal and professional success. It contributes to the growing research body on first year seminars and their effect on first year students' academic achievement and social integration. The findings of this study may also guide and inspire the decision makers at Qatar University in order to address the challenges raised by the participants. This may help them do necessary enhancements, improvements or interventions to ensure attaining the targeted goals in support of Qatar University's "image" and financial benefits. More implications and recommendations for further practice and research are presented.

CHAPTER 3: METHODOLOGY

This chapter describes the specific methodology employed by the researcher to achieve the study objectives. It presents the research design and method, a description of the study participants and the selection process, instrumentation procedures, reliability and validity, data collection methods and data analysis.

3.2 Study Design and Research Method

The present study examined the perspectives of first-year students registered in UNIV 100 course offered at Qatar University (QU) during Fall 2018 semester, with regard to their attainment of 21st century skills. To answer the study research questions, a quantitative method design was used. A self-report questionnaire (FYS-EQ) developed by the researcher was utilized. The FYS-EQ includes close-ended questions that took the form of multiple-choice Likert-scale and rating scale items. Upon obtaining the official ethical approvals, the questionnaire was administered online to all of the students registered in the course, including sections offered in English language.

The population targeted for this study was all QU male and female first-year students (N= 2115) who are registered in UNIV 100, regardless of their gender, nationality, socioeconomic status and language of instruction. The participants of the study were from QU's colleges of Education, Arts and Sciences, Law, Health Sciences, Sharia and Islamic Studies and the College of Business and Economics, who are registered in UNIV 100.

During Fall 2018 semester and following a thorough literature review, the questionnaire was developed by the researcher, discussions and consultations with the

course development team and with investigation and analysis of students' course satisfaction surveys being administered before at QU and Program levels.

3.3 Participants

The main purpose of the present study is to investigate the perspectives of first year students at Qatar University attending UNIV 100 during Fall 2018 with regard to the effectiveness of the course in fostering the 21st century skills pertaining to academic success. A number of 76 UNIV 100 sections were offered during Fall 2018, including 21 male sections and 55 female sections from different disciplines. A number of 72 sections were offered in Arabic and only 4 sections in English. The maximum enrollment capacity per section is 30 students. A total of (*N=682*) students started the survey and (*N= 307*, 45 %) fully completed the survey. The self-reporting First-Year Seminar Course Evaluation Questionnaire (FYS-EQ) has been administered online via QUALTRICS Surveys to all of the first year students registered in the course.

3.3.1 Demographics

Descriptive statistics were performed to examine demographics of the participants of the present study in terms of gender, nationality and college. The demographic profiles of the samples are presented in Table 3.

Table 3 Descriptive Statistics for Participants' Demographic Characteristics

		Frequency	Percent
Gender			
	Male	81	26.4
	Female	226	73.6
Nationality			
	Qatari	223	72.6
	Non-Qatari	84	27.4
College	College of Arts and Sciences	128	41.7
	College of Business and Economic	72	23.5
	College of Education	47	15.3
	College of Health Sciences	4	1.3
	College of Law	38	12.4
	College of Sharia and Islamic Studies	18	5.9

(N=307)

Participants' Gender

As shown on Table 3, the survey respondents of the present study were *(N= 81)* males which represent 26.40 % and *(N= 226)* females which represent 73.60% of the sample, with *(N = 307)* students in total. This is mostly in line with the trend in Qatar University (QU) as the number of registered male students in QU for the academic year 2017/2018 was *(N=5,079)* male students which represent 32.14 % compared to *(N=15,801)* female students which represent 67.85% of the total registered students (Qatar University's Book of Trends, 2018, p. 8). The total registered female students during the academic year 2016/2017 represent (75%) while male students represent (25%) of the total registered students (p. 35). (Qatar University's Book of Trends, 2017).

Participants' Nationality

As shown on Table 3, the survey respondents of the present study were *(N= 223)* Qatari students which represent 72.6% and *(N= 84)* non-Qatari students which represent 27.40% of the sample. This is relatively in line with the trend in Qatar University (QU) as the number of registered students in QU for the academic year 2017/2018 was *(N=13,544)* Qatari which represent (64.9 %) compared to *(N=7,336)* non-Qatari which represent 35.1 % of the total registered students (Qatar University's Book of Trends, 2018, p. 8). Qatar University's Fact Book (2017) also shows that the total registered Qatari students represent (63%) while non-Qatari students represent (37%) of the total registered students (p. 35).

College

The participants of the present study are drawn from the aforementioned QU six colleges where UNIV 100 course is offered. Table 3 shows that the vast majority of participants (*N=128*) which represent 41.7% are enrolled in the College of Arts and Sciences (CAS), which established itself as the largest college at Qatar University. The undergraduate enrollment statistics obtained from Qatar University's *Book of Trends (Spring 2018)* shows that (N=6,210) students were enrolled in CAS as opposed to (N=4,502) in the College of Business and Economic, (N=1,990) in the College of Education, (N=1,592) in the College of Law, (N=1,133) in the College of Sharia and Islamic Studies and (N=478) in the College of Health Sciences (p.15-16). This is typically in line with the response trend from the concerned colleges: *(N= 128)* responses from CAS, *(N= 72)* from the College of Business and Economics, *(N= 47)* from the College of Education, *(N= 38)* from the College of Law, *(N= 18)* from the College of Sharia and Islamic Studies, *(N= 4)* from the College of Health Sciences.

3.4 Instrumentation

Developing First-Year Seminar Course Evaluation Questionnaire (FYS-EQ) followed a structured process to ensure the questionnaire design addresses the research questions. This process is in line with Burgess (2001), whose basic process of survey research is summarized below:

- identify research aims and objectives and purpose of inquiry,
- select the survey type, population and sample,
- decide how to collect responses,
- design the questionnaire,
- carry out the survey,
- and finally analyze the data.

Similarly, the researcher defined the research objectives and questions that target measuring first year students' perspectives on UNIV 100 course and their attainment of the 21st century skills. The student rating self-report survey type was selected. Course evaluation surveys and student rating of first year seminar courses has become widely used in assessing such courses. Barefoot & Fidler (1996) reported that Student ratings of the course are the most common and frequently used strategy for assessing the first year seminars (as cited in Cuseo, 2011, p. 12). All students in the identified population were offered the opportunity to participate voluntarily in the survey. The researcher has decided to administer and collect responses of the survey online. The following sections elaborate on the design the questionnaire, data collection procedures and data analysis. Figure 4 summarizes the research design stages.

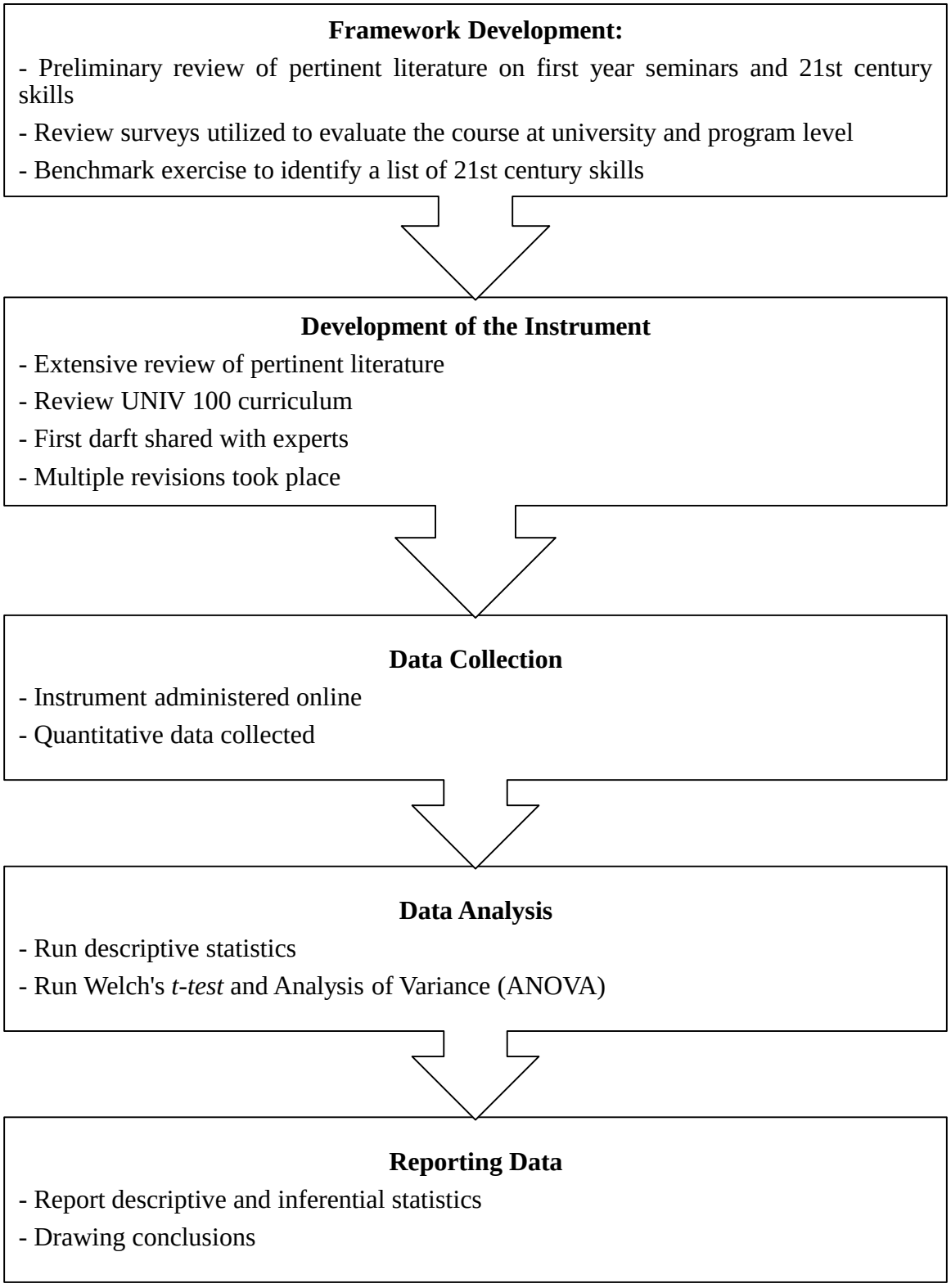


Figure 4 Overall Research Design Stages (adapted from Kutlu, 2013, p. 45).

3.4.1 Development of the Study Instrument

The First-Year Seminar Course Evaluation Questionnaire (FYS-EQ), a self-report questionnaire was self-developed by the researcher following an extensive review of literature and investigations of relevant surveys that have been conducted at the QU Core Curriculum Program's level or QU level and surveys that measures student perspectives. Consultations were made with course designers, curriculum and assessment specialists and the faculty members teaching the course. Literature from key organizations in the field of general education such as the Association of American Colleges and Universities (AAC&U) as well as many colleges and universities that offer first year seminars have been thoroughly checked. To identify the pool of 21st century skills for higher education, many official articles and reports belonging to the Organization for Economic Co-operation and Development (OECD) have been checked. OECD's work on education supports nations identify and foster an array of knowledge and skills that drive prosperity and meaningful lives of individuals and nations (OECD's website: http://www.oecd.org/education/). Key reports, surveys and documents from these organizations were analyzed to understand the purpose of first year seminars and the key 21st century skills addressed in such courses. Numerous relevant published thesis projects and dissertations were examined. The UNIV 100 course syllabus, textbook, *Keys to College Success* and the course curriculum plan were examined to investigate the skills that students were exposed to during their course of study. In addition, the researcher's background with the Core Curriculum Program at Qatar University was utilized to serve the overall purpose of the present study.

The FYS-EQ consists of 55 items, 10 of which pertain to participants' demographic information, including direct questions about participants' gender, nationality, college, language of instruction for the course, field of study, section number, section timing, additional education support needs (AESN) status and high school attended. This demographic information will provide a general understanding and framing of participants' responses. The remaining items falling under six domains/subscales were developed to evaluate students' responses pertaining to acquiring 21st century skills. These six domains are (1) study skills (13 items); (2) problem solving and critical thinking skills (13 items); (3) personal growth skills (8 items); (4) collaboration and communication skills (7 items); (5) digital and information literacy (6 items) and (6) social responsibility and civic engagement skills (8 items). The FYS-EQ was developed in both Arabic and English languages since the course is offered in both Arabic and English languages.

3.5 Reliability and Validity

Questionnaires are one of the most widely used data collection measures in the area of social sciences. These questionnaires should collect data and information in a very reliable and valid manner. Reliability and validity are essential elements in the evaluation of any instrument, including questionnaires.

3.5.1 Reliability of the Instrument

The researcher used Cronbach's Alpha Coefficient to gauge the internal reliability of the questionnaire and determine if questions that are measuring the same factors / construct are correlated in order to produce consistent responses. The Cronbach's Alpha Coefficient is the most commonly used objective measure and index of reliability (Tabaco

& Dennick, 2011, p. 53). The analysis was performed through SPSS (version 25) to determine the internal consistency of all the questionnaire items and for all subscales.

As shown on Table 4, the analysis produced a Cronbach's Alpha Coefficient value of 0.988 for the questionnaire as a whole, which indicates that 98.8% of the variance in that score will be considered true score variance or internally consistent reliable variance. This also implicates that the fraction of a test score that is attributable to error will decrease (Tavakol & Dennick, 2011, p. 53.) However, Tavakol and Dennick (2011) also highlighted that the high alpha coefficient scores is not always attributable to high degree of internal consistency; it might be affected by the length of the test (p.53).

Table 4 Reliability Statistics for Survey Items

Items	Cronbach's Alpha	N of Items
All Items	0.988	55
Study Skills	0.971	13
Problem Solving Skills	0.960	13
Growth Mindset Skills	0.968	8
Collaboration and Communication Skills	0.964	7
Digital / Information Literacy Skills	0.949	6
Social Responsibility Skills	0.958	8

3.5.2 Validity of the Instrument

Following a careful review of the questionnaire by the thesis supervisor and with frequent and ongoing consultations with experts in the field, many items have been replaced, cleared or edited for better clarity, formatting, feasibility and relevance to its respective construct and to the instrument as a whole.

The final Arabic and English versions of the FYS-EQ were confirmed for face and content validity by curriculum and assessment experts at Qatar University, including the UNIV 100 course design and development team, who are teaching the course as well (See Appendix A for experts' names and affiliations). As for the face validity, these experts carefully reviewed the final Arabic and English versions of the instrument and assured its feasibility, readability and clarity both in language and formatting. They also assured its relevance to the level students. The curriculum and assessment experts as well the course design and development team reviewed the instrument and confirmed that it adequately covers all the content required to measure all of the variables.

3.5.2.2 Construct Validity

Confirmatory Factor Analysis (CFA) technique was used to investigate construct validity of the questionnaire. (See Appendix B for factor analysis results and Appendix C for the final version of the questionnaire). This statistical analysis is commonly used in social sciences research. The 55 items related to the 21st century skills were factor analyzed using principle component analysis with Varimax rotation. The analysis yielded 6 factors explaining a total of 76.9% of the variance. This allowed for the most interpretable solution due to the theoretical framework the assessment tool was developed on. The first factor explained 22% of the variance. Factor 1 was labeled Study Skills with 13 items (e.g., the course assisted me to record effective lectures notes, acquire research skills). The second factor was labeled Problem Solving and (Critical, Creative and Practical) Skills which included 13 items (e.g., the course assisted me to think about different solutions to a problem, distinguish fact from opinion). The variance explained by this factor was 18.87%. The third factor was labeled Personal Growth Skills, which explained 14 % of the variance,

and included 9 items (e.g., the course assisted me to feel responsible for own actions and face fears and failures with optimism). The forth factor was labeled Collaboration and Communication Skills, which explained 9.5 % of the variance, and included 7 items (e.g., the course assisted me to participate well in group work and establish positive relationship with others). The fifth factor was labeled Digital/Information Literacy, which explained 6.3% of the variance, and included 6 items (e.g., the course assisted me to use Blackboard, Banner and University e-mail and use search e-resources in the library). The sixth factor was labeled Social Responsibility, Civic Engagement and Citizenship, which explained 6% of the variance in students' responses, and included 8 items (e.g., the course assisted me to investigate issues related to the Qatari community and participate in my community activities).

3.7 Data Collection Procedure

The self-report FYS-EQ developed by the researcher was administered online via e-mail through QUALTRICS Surveys to all first year students enrolled in UNIV 100: First Year Seminar course as they completed their course assignments toward the Fall 2018 final exam. The participants were from the Colleges of Arts and Sciences, Education, Sharia and Islamic Studies, Law, Business and Economics and Health Sciences, where the course is offered. They were informed about the purpose of the study. The researcher sought help from instructors who are teaching the course to remind participants to complete the survey. Moreover, some reminders were sent via e-mail to all participants. The instrument were originally developed in English and was translated by the researcher using back translation to validate the Arabic version. The estimated time to complete the questionnaire was 15 to

20 minutes in average. The data were exported from QUALTRICS Surveys to SPSS (version 25) and Microsoft Excel 2013 for analysis.

3.7 Data Analysis

The FYS-EQ comprised of close-ended questions. Therefore, the data was analyzed quantitatively. A total of (n=307) completed the questionnaire. The data was screened for any missing responses or outliers. The data was exported into SPSS (V. 25) software for analysis. Descriptive statistics in the form of frequencies, percentages, and means and standard deviations were used to analyze the data collected, and to answer questions 1 and 3. Further, inferential statistics in the form of a Welch's t-test and Analysis of Variance (ANOVA) were used to analyze the data for question 2.

Correction Criteria

Participants responded on the study instruments items based on Likert five scale (5= strongly agree, 4= agree, 3= neutral, 2=disagree and 1= strongly disagree). However, respondents' scores were divided into three levels (high, medium and low) depending on the following formula as a correction criterion:

Correction criterion = Higher value – Lower value \ Number of levels = 5-1\3=1.33.

Thus, students' perspectives toward the successfulness of the first year seminar course in fostering 21st century skills can be classified as follows:

First range: 1+1.33=2.33, which indicates that scores of 2.33 or less reflects low level of appropriateness of the course, and hence it needs urgent revision.

Second range: =1.33+2.33=3.66, which indicates that scores of more than 2.33 and less than or equal 3.66 reflects moderate level of appropriateness of the course, and hence it is acceptable but need slight revision.

Third range: more than 3.66 reflects high level of appropriateness of the course, and hence the course is not in need for any revision.

3.8 Ethical Considerations

Prior to conducting the present study, the researcher sought Qatar University's ethical approval given that the research is conducted on Qatar University students. Institutional Review Board (IRB) certification from Qatar University's Institutional Review Board (QU-IRB) exemption letter was obtained with research ethics approval number QU-IRB 986-E/18. Meanwhile, the ethical part has been taken into account throughout the study procedures. The inclusion and exclusion criteria are as follows:

- All students in the identified sample will be offered the opportunity to participate.
- Participation in this study is voluntary and anonymous.
- No personal information will be collected.
- Participants were given the chance to participate in either the Arabic or the English version of the FYS-EQ.

It is worth mentioning that one of the key limitations of this questionnaire is administering it online at a time while students prepare for their end-of-semester exams. Frequent reminders were sent to all students via QUALTRICS Surveys online system and through course instructors. The frequent reminders from instructors might have led participants to complete the survey in a rush manner.

CHAPTER 4: RESULTS

The overarching purpose of the present study is threefold: to investigate QU first-year students' perspectives on (1) how UNIV 100 course was successful in fostering 21st century skills; (2) whether students' evaluation of the First Year Seminar course is affected by their gender, nationality and college; and (3) the degree of usefulness of the course. The study explored the perspectives of the QU first-year students registered in the course Fall 2018 semester.

4.1 Results of Research Question One

To what extent does the First Year Seminar Course foster 21st century skills as perceived by QU students?

To address the first research question, close-ended items directly asking participants to evaluate their level of attaining the set of skills in the six domains of the FYS-EQ was used. Students self-reported their responses through a five-point Likert-type ranging from (5) = Strongly Agree to (1) = Strongly Disagree and their responses were analyzed accordingly. Descriptive statistics were performed for each of the six dimensions. Tables 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6 present the results in terms of frequencies, percentages, means and standard deviations per each domain. Mean scores were arranged from highest to lowest in each domain.

A. Participants' Evaluation of their Attainment of Study Skills

Table 5 shows participants' responses (*N=307*) with regard to their attainment of the study skills as they completed the UNIV 100 course. While all the mean scores are high for this domain, it was noted that the four most learnt strategies to develop study skills are "learning

about different learning styles" (*M = 4.13, SD = 1.041*), "writing a research report / paper" (*M = 4.13, SD = 1.0*52), "setting SMRT goals" (*M = 4.13, SD = 1.0*87), and "acquire research skills" (*M = 4.09, SD = 1.0*73).

To be more specific, more than (75%) of participants agreed or strongly agreed that the UNIV 100 course was successful in enabling them to learn about different learning styles (*N= 252, 82%*), write a research paper/ report (*N= 249, 81%*), acquire research skills (*N= 242, 79%*) and set SMART goals (*N= 240, 78%*). These strategies were closely followed by "collecting and analyzing information from different resources" (*N= 235, 77%*), "benefiting from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University" (*N= 230, 75%*), "recording effective lectures notes and use them to prepare for tests" (*N= 232, 76%*), "pick out the important points in the material they read" (*N= 231, 75%*) and "finding information about a topic from the library" (*N= 220, 72%*).

Although the lowest mean score noticed in this domain is (*M = 3.89),* which is not far below the highest mean reported for this domain (*M = 4.13),* the four study skills strategies slightly less learnt as per first-year students are reading effectively using SQ3R strategy (*M* = 3.89, *SD* = 1.196), adjusting to different teaching styles of different instructors (*M* = 3.92, *SD* = 1.149), improving own learning preference / style (*M* = 3.94, *SD* = 1.159) and managing own time and control time traps (*M* = 3.95, *SD* = 1.121).

On the other hand, some students strongly disagreed or disagreed that the course was successful in enabling them to acquire SQ3R reading strategy (*N=41, 13%*), learn how to adjust to different teaching styles of different instructors (*N*=39, *13%*), manage their time and control time traps (*N=37, 12%*). Detailed results are shown on table (4.1).

Table 5 Descriptive Statistics of Students' Perspectives of Attaining Study Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
1	Learn about different learning preferences / style	15	4.9%	9	2.9%	31	10.1%	117	38.1%	135	44.0%	4.13	1.04
5	Set SMART goals.	14	4.6%	13	4.2%	40	13.0%	91	29.6%	149	48.5%	4.13	1.08
13	Write research report/ paper.	14	4.6%	12	3.9%	32	10.4%	111	36.2%	138	45.0%	4.13	1.05
10	Acquire research skills.	13	4.2%	17	5.5%	35	11.4%	107	34.9%	135	44.0%	4.09	1.07
12	Collect and analyze information from different resources.	13	4.2%	15	4.9%	44	14.3%	102	33.2%	133	43.3%	4.07	1.07
8	Benefit from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University.	14	4.6%	14	4.6%	49	16.0%	104	33.9%	126	41.0%	4.02	1.08

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
7	Record effective lectures notes and use them to prepare for tests.	16	5.2%	17	5.5%	42	13.7%	109	35.5%	123	40.1%	4.00	1.11
6	Easily pick out the important points in the material I read.	18	5.9%	18	5.9%	40	13.0%	105	34.2%	126	41.0%	3.99	1.14
11	Find information about a topic from the library.	14	4.6%	23	7.5%	50	16.3%	89	29.0%	131	42.7%	3.98	1.14
4	Manage my time and control time traps.	16	5.2%	20	6.5%	44	14.3%	110	35.8%	117	38.1%	3.95	1.12
2	Improve my own learning preference / style.	19	6.2%	20	6.5%	41	13.4%	107	34.9%	120	39.1%	3.94	1.15
3	Adjust to different teaching styles of different instructors.	20	6.5%	15	4.9%	51	16.6%	106	34.5%	115	37.5%	3.92	1.14
9	Read effectively using SQ3R strategy.	19	6.2%	22	7.2%	57	18.6%	84	27.4%	125	40.7%	3.89	1.19
	Overall Means												

Arranged from Highest to Lowest Mean Scores (N=307)

B. **Participants' Evaluation of their Attainment of Problem Solving and (Critical, Creative and Practical) Skills**

Table 6 shows participants' responses (N=307) with regard to their attainment of problem solving and critical, creative and practical thinking skills. The mean scores noticed for this domain are high, ranging between (*M= 3.93- 4.08*). The most problem solving and thinking strategies being learnt by participants are "questioning how useful, truthful and logical information is before deciding whether to take or leave this information" (*M = 4.08, SD = 1.0*35), "distinguish fact from opinion" (*M = 4.06, SD = 0.093*), "explore information by asking and answering questions" (*M = 4.05, SD = 1.077*) and "generate options for solving a problem" even if it seems like there is only one way to solve it (*M = 4.05, SD = 1.045*). These strategies are closely followed by "thinking about different solutions to a problem before choosing one and take action" (*M = 4.04, SD = 1.055*) and "having a strong belief to develop creative abilities" (*M = 4.03, SD = 1.004*). To be more specific, more than (80%) of participants strongly agreed or agreed that the UNIV 100 course was successful in enabling them to "distinguish fact from opinion" (*N= 252, 82%*), "question how useful, truthful and logical information is before taking a decision regarding this information" (*N= 248, 81%*), and "have a strong belief that they are able to develop their creative abilities" (*N= 253, 82%*).

Although the lowest mean score noticed in this domain is (*M = 3.93),* which is not far below the highest mean recorded for this domain (*M = 4.08),* the problem solving and thinking strategies slightly less learnt by participants are making necessary connections between the different parts of a problem (*M* = 3.*93, SD* = 1.090), breaking down information into different parts or main ideas (argument) (*M* = 3.*93, SD* = 1.101),

examining and evaluating the different parts of a problem effectively (*M* = 3.*95, SD* = 1.113) and learning methods to collect information (*M* = 3.*96, SD* = 1.083).

On the other hand, some students strongly disagreed or disagreed that the course was successful in enabling them to learn how to break down information into different parts or ideas (*N=33, 11%*), learn how to seek out new information and experience to build creative ideas (*N=32, 10%*), learn to effectively examine and evaluate different parts of a problem (*N=31, 10%*).

Table 6 Descriptive Statistics of Students' Perspectives of Attaining Problem Solving and Critical Thinking Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
2	Question how useful, truthful, and logical information is before I decide whether I take it or not.	15	4.9%	9	2.9%	35	11.4%	124	40.4%	124	40.4%	4.08	1.04
8	Distinguish fact from opinion.	13	4.2%	11	3.6%	31	10.1%	141	45.9%	111	36.2%	4.06	0.99
1	Explore information by asking and answering questions	15	4.9%	14	4.6%	38	12.4%	113	36.8%	127	41.4%	4.05	1.08
3	Generate options for solving a problem even if it seems like there is only one way to solve it.	14	4.6%	12	3.9%	40	13.0%	120	39.1%	121	39.4%	4.05	1.05
4	Think about different solutions to a problem before I choose one and take action.	16	5.2%	9	2.9%	41	13.4%	121	39.4%	120	39.1%	4.04	1.06

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
11	Have a strong belief that I can develop my creative abilities.	16	5.2%	8	2.6%	30	9.8%	150	48.9%	103	33.6%	4.03	1.00
9	Examine if the evidence is biased.	14	4.6%	14	4.6%	41	13.4%	122	39.7%	116	37.8%	4.02	1.05
13	Learn from mistakes, failures and experience.	14	4.6%	15	4.9%	26	8.5%	148	48.2%	104	33.9%	4.02	1.02
12	Seek out new information and experience to build creative ideas.	16	5.2%	16	5.2%	36	11.7%	125	40.7%	114	37.1%	3.99	1.08
5	Learn methods to collect information.	17	5.5%	12	3.9%	47	15.3%	120	39.1%	111	36.2%	3.96	1.08
7	Examine and evaluate the different parts of a problem effectively.	16	5.2%	15	4.9%	56	18.2%	100	32.6%	120	39.1%	3.95	1.11
6	Break information into different parts – main ideas (argument) and the evidence that supports them.	15	4.9%	18	5.9%	52	16.9%	109	35.5%	113	36.8%	3.93	1.10
10	Make necessary connections between the different parts of a problem.	16	5.2%	13	4.2%	58	18.9%	109	35.5%	111	36.2%	3.93	1.09

C. Participants' Evaluation of their Attainment of Growth Mindset Skills

Table 7 shows participants' responses (N=307) with regard to their attainment of growth mindset skills. The mean scores noticed for this domain are high, ranging between (*M = 3.95 - 4.15*). The most strategies learnt by participants in this domain are "practicing academic integrity by taking own actions based on ethics" (*M = 4.15, SD = 1.0*37), "feeling responsible for own actions" (*M = 4.12, SD = 1.090*) and "facing fears, challenges and failures with optimism" (*M = 4.12, SD = 1.061*). These strategies were closely followed by learning strategies to "transit smoothly from high school to university" (*M = 4.02, SD = 1.114*), "build self-control" (*Mean = 4.00, SD = 1.101*), "understand own emotions and act accordingly" (*M = 3.99, SD = 1.114*) and "understand others' emotions and act accordingly" (*M = 3.95, SD = 1.094*).

To be specific, more than 80% of participants agreed or strongly agreed that they have learnt growth mindset skill, competencies and strategies. A number of (*N= 251, 82%*) participants reported that they learnt to practice academic integrity (take actions based on ethics), (*N= 248, 81%*) learnt strategies to face fears challenges and failures with optimism and (*N= 247, 80%*) learnt to feel responsible about own actions. However, (*N= 37, 12%*) participants reported that the course was not successful in enabling them to build their growth mindset (attitude, perspectives and beliefs), (*N= 33, 11%*) did not learn strategies to understand own emotions and act accordingly, (*N= 31, 10%*) did not learn strategies to build self-control.

Table 7 Descriptive Statistics of Students' Perspectives of Attaining Growth Mindset Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
3	Practice academic integrity (take actions based on ethics).	15	4.9%	7	2.3%	34	11.1%	112	36.5%	139	45.3%	4.15	1.04
2	Feel responsible for my actions.	15	4.9%	15	4.9%	30	9.8%	104	33.9%	143	46.6%	4.12	1.09
4	Face fears, challenges and failures with optimism.	15	4.9%	11	3.6%	33	10.7%	111	36.2%	137	44.6%	4.12	1.06
1	Build my growth mindset (attitude, perspectives or beliefs).	20	6.5%	17	5.5%	32	10.4%	107	34.9%	131	42.7%	4.02	1.16
5	Transit smoothly from high school to university.	18	5.9%	10	3.3%	49	16.0%	101	32.9%	129	42.0%	4.02	1.11
8	Build self-control.	16	5.2%	15	4.9%	45	14.7%	109	35.5%	122	39.7%	4.00	1.10
6	Understand my emotions and act accordingly.	16	5.2%	17	5.5%	44	14.3%	106	34.5%	124	40.4%	3.99	1.11
7	Understand others' emotions and act accordingly.	16	5.2%	13	4.2%	56	18.2%	107	34.9%	115	37.5%	3.95	1.09

D. Participants' Evaluation of their Attainment of Collaboration And Communication Skills

Table 8 shows participants' responses (N=307) with regard to their attainment of collaboration and communication skills. The mean scores noticed for this domain are high, ranging between (*M = 3.94 4.15*). The most learnt strategies for collaboration and communication as reported by participants are establishing positive relationships with others (*M = 4.15, SD = 1.093*), respecting the diversity of perspectives while working on group projects (*M = 4.11, SD = 1.056*), expressing own ideas clearly (*M = 4.10, SD = 1.077*), communicating effectively in oral and written forms (*M = 4.09, SD = 1.103*) and participating well in group work (*M = 4.08, SD = 1.132*).

Although they are not very much far from the highest mean score in this domain (*M = 4.15*), the less learnt strategies for collaboration and communication skills are managing conflict among group members (*M = 3.94, SD = 1.143*) and contributing to peers' learning in collaborative projects (*M = 4.02, SD = 1.092*) .

On the other hand, an average of (10%) of participants reported that the course did not help them to enhance collaboration and communication skills; a high of (*N=40, 13%*) reported that they did not learn strategies to manage conflict among group members and (*N=30, 10%*) did not learn to express ideas clearly.

Table 8 Descriptive Statistics of Students' Perspectives of Attaining Collaboration and Communication Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
3	Establish positive relationships with others.	12	3.9%	14	4.6%	32	10.4%	108	35.2%	141	45.9%	4.15	1.04
5	Respect the diversity of perspectives during group project.	15	4.9%	12	3.9%	30	9.8%	118	38.4%	132	43.0%	4.11	1.06
7	Express my ideas clearly.	14	4.6%	16	5.2%	31	10.1%	109	35.5%	137	44.6%	4.10	1.08
6	Communicate effectively in oral and written forms.	15	4.9%	17	5.5%	32	10.4%	103	33.6%	140	45.6%	4.09	1.10
1	Participate well in group work.	21	6.8%	7	2.3%	38	12.4%	102	33.2%	139	45.3%	4.08	1.13
2	Contribute to my peers' learning in collaborative projects.	18	5.9%	10	3.3%	42	13.7%	116	37.8%	121	39.4%	4.02	1.09
4	Manage conflict among my group members.	16	5.2%	24	7.8%	41	13.4%	106	34.5%	120	39.1%	3.94	1.14

E. Participants' Regarding the Attainment of Digital / Information Skills

Table 9 shows participants' responses (N=307) with regard to their attainment of digital and information literacy skills. The highest mean score recorded for the entire questionnaire is recorded in this domain (*Mean = 4.32*), which represents a great level of agreement. The lowest mean for this domain is (*Mean = 4.09*).

To begin with, most of participants (*M = 4.32, SD* = 0.937) strongly agreed or agreed that the UNIV 100 course was successful in "encouraging them to use the university systems (Blackboard, Banner, and University e-mail)", closely followed by "learning to develop technology skills including using (Microsoft Word and PowerPoint)" (*M = 4.16, SD* = 1.085), and "using the available digital technology effectively to access information" (*M = 4.14, SD* = 1.008). To be more specific (*N = 266, 87 %*) of participants strongly agreed or agreed that the course motivated them to use the university systems (Blackboard, Banner, and University e-mail) effectively and (*N = 253, 82 %*) strongly agreed that the course enabled them to develop technology skills, including using Microsoft Word and PowerPoint.

However, a number of participants strongly disagreed or disagreed that the course was successful in helping them search e-resources in the library (N = 29, 9 %) and learn to utilize information from the university website (*N = 24, 8%*).

Table 9 Descriptive Statistics of Students' Perspectives of Attaining Digital and Information Literacy Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
3	Use QU systems effectively (Blackboard, Banner, and University e-mail).	10	3.3%	5	1.6%	26	8.5%	102	33.2%	164	53.4%	4.32	0.94
4	Develop technology skills including using Microsoft Word, and PowerPoint.	16	5.2%	13	4.2%	25	8.1%	106	34.5%	147	47.9%	4.16	1.09
1	Use digital technology effectively to access information.	13	4.2%	5	1.6%	44	14.3%	109	35.5%	136	44.3%	4.14	1.01
2	Use technology to create, manage, and integrate information.	12	3.9%	11	3.6%	39	12.7%	114	37.1%	131	42.7%	4.11	1.02
6	Utilize information from university website.	15	4.9%	9	2.9%	37	12.1%	111	36.2%	135	44.0%	4.11	1.05
5	Search e-resources in the library.	13	4.2%	16	5.2%	38	12.4%	102	33.2%	138	45.0%	4.09	1.08

F. Participants' Perspectives Regarding the Attainment of Social Responsibility, Civic Engagement and Citizenship Skills

Table 10 shows participants' responses (N=307) with regard to their attainment of social responsibility, civic engagement and citizenship skills. The mean scores for this domain are ranging between (*M = 3.85)* and (*M = 4.15).*

The participants mostly agreed that the UNIV 100 course was very successful in helping them investigate issues related to the Qatari community (*M = 4.15, SD* = 1.024), accessing university facilities (*M = 4.14, SD* = 0.976) and pursuing new ideas to meet the needs of the Qatari community (*M = 4.03, SD* = 1.087). These strategies are closely followed by enabling them to be aware of their role as citizens (*M = 3.99, SD* = 1.114), participating in community activities (*M = 3.95, SD* = 1.110), and connect with university human resources (faculty, staff, mentors and academic advisors) to help with college transition (*M = 3.93, SD* = 1.123).

To be specific, more than 75 % of participants agreed that the UNIV 100 course was very successful in enabling participants to learn and practice social responsibility, civic engagement and citizenship skills. Participants strongly agreed or agreed that the course enabled them to access university facilities (N = 257, 84 %), investigate issues related to the Qatari community (N = 253, 82 %), be aware of their own role as citizens (N = 236, 77 %), pursue new ideas to meet the needs of the Qatari community (N = 235, 77 %), connect with human resources (faculty, staff, mentors and academic advisors) (N = 226, 74%).

Although their mean scores are not very far from the highest mean score recorded for this domain (*M = 4.15*), "engage in campus activities" (*M = 3.92, SD* = 1.141) and

"investigating issues related to the global community" (*M = 3.85, SD* = 1.170) represent the lowest mean scores for this domain.

On the other hand, a number of = 48 (16 %) of participants self-reported that the course was not successful in helping them investigate issues related to the global community, while (N = 37, 12 %) reported that the course did not help them engage in campus activities, connect with university human resources (faculty, staff, mentors and academic advisors) to help with college transition, or be aware of their roles as citizens.

Table 10 Descriptive Statistics of Students' Perspectives of Attaining Social Responsibility, Civic Engagement and Citizenship Skills

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
1	Investigate issues related to the Qatari community	11	3.6%	16	5.2%	27	8.8%	115	37.5%	138	45.0%	4.15	1.02
7	Access university facilities	13	4.2%	6	2.0%	31	10.1%	131	42.7%	126	41.0%	4.14	0.98
4	Pursue new ideas to meet the need of Qatari community.	13	4.2%	20	6.5%	39	12.7%	109	35.5%	126	41.0%	4.03	1.09
3	Be aware of my role as a citizen.	16	5.2%	20	6.5%	35	11.4%	115	37.5%	121	39.4%	3.99	1.11
8	Participate in my community activities	16	5.2%	17	5.5%	49	16.0%	108	35.2%	117	38.1%	3.95	1.11
5	Connect with university human resources (faculty, staff, mentors and academic advisors) to help with my college transition.	17	5.5%	19	6.2%	45	14.7%	113	36.8%	113	36.8%	3.93	1.12
6	Engage in campus activities	17	5.5%	20	6.5%	50	16.3%	103	33.6%	117	38.1%	3.92	1.14

Item No.	UNIV 100 assisted me to:	Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree		Mean	Std. Deviation
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
2	Investigate issues related to the global community.	15	4.9%	33	10.7%	47	15.3%	100	32.6%	112	36.5%	3.85	1.17

4.2 Results of Research Question Two

Are there statistically significant differences in students' evaluation of the First Year Seminar Course based on their gender, nationality and college?

To answer the second research question and to assess the effect of certain background variables, namely participants' gender and nationality on dependent variables, namely first year students' evaluation of their attainment of the 21st century skills, a Welch's *t*-test (known an Unequal Variance *t*-Test) was performed instead of Independent *t*-test. The Welch's *t*-test was chosen because the condition of homogeneity of variance is violated. The Welch's t-test was more relevant to use in the present case since as the violation of the assumption of homogeneity would make the independent *t*-test severely biased and leads to invalid statistical inference (Delacre et al, 2017, p. 2). The results of the independence sample Welch's t-test are presented below per each sub-scale.

Table 11 shows descriptive statistics for the two gender groups as yielded from the Welch's t-test. It shows that the mean for males are slightly higher than that of females for all skills. It can also be seen that the variations for data are little wider for females than males in all of the skills. However, the variations were much higher for females (*SD= 1.009*) than males (*SD= .893*) in the Personal Growth Skills and for females (*SD*= 1.03) than males (*SD*= .794) in the Collaboration and Communication skills. With the mean scores having no equal dispersion of scores, the homogeneity condition of the Independent t-test has not been met.

Table 11 Descriptive Statistics for Students' Evaluation of the Attainment of 21st Century Skills by Gender

Group Statistics					
Skill Type	Gender	N	Mean	Std. Deviation	Std. Error Mean
Study Skills	Male	81	4.26	0.88	0.10
	Female	226	3.93	0.97	0.06
Problem Solving	Male	81	4.11	0.79	0.09
	Female	226	3.98	0.89	0.06
Personal Growth	Male	81	4.31	0.89	0.10
	Female	226	3.95	1.01	0.07
Collaboration and Communication	Male	81	4.37	0.79	0.09
	Female	226	3.96	1.03	0.07
Digital / Information Literacy	Male	81	4.43	0.74	0.08
	Female	226	4.06	0.96	0.06
Social responsibility	Male	81	4.25	0.90	0.10
	Female	226	3.90	0.97	0.06

Table 12 shows the results of Welch's t-test by gender. By comparing the means of the two groups, it was noticed that the mean scores for males are significantly higher than females. The differences among means were significant at $P \leq 0.05$, for study skills t (154.452) = 2.795, for personal growth t (158.284) = 3.025, for collaboration and communication, t (182.251) = 3.603for digital / information literacy t (181.35) = 3.630, and for social responsibility t (150.664) = 2.931. However, there is no significant mean difference noticed among gender groups in problem solving skills $P \geq 0.05$, t (158.429) = 1.219.

Table 12 Results of Welch's t-test for Students' Evaluation of the Attainment of 21st Century Skills by Gender

	Independent Samples Test				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Study Skills	2.80	154.45	0.01	0.33	0.12
Problem Solving	1.22	158.43	0.23	0.13	0.11
Personal Growth	3.03	158.28	0.00	0.36	0.12
Collaboration and Communication	3.60	182.25	0.00	0.40	0.11
Digital / Information Literacy	3.63	181.35	0.00	0.38	0.10
Social responsibility	2.93	150.66	0.00	0.35	0.12

** P > .05*

Table 13 shows descriptive statistics as yielded from the Welch's t-test by nationality. It shows that the mean for Qatari are slightly higher than that of non-Qatari for all skills except for problem solving skills, in which they represent much closer but a slightly lower mean score. It can also be seen that the variations for data are little wider for non-Qatari (*N=84*) than Qatari (*N=223*) participants in all of the skills.

Table 13 Descriptive Statistics for Students' Evaluation of the Attainment of 21st Century Skills by Nationality

Group Statistics					
	Nationality	N	Mean	Std. Deviation	Std. Error Mean
Study Skills	Qatari	223	4.04	1.00	0.07
	Non-Qatari	84	3.97	0.84	0.09
Problem Solving	Qatari	223	3.96	0.88	0.06
	Non-Qatari	84	4.14	0.82	0.09
Personal Growth	Qatari	223	4.07	1.00	0.07
	Non-Qatari	84	3.97	0.97	0.11
Collaboration and Communication	Qatari	223	4.09	0.99	0.07
	Non-Qatari	84	4.01	0.99	0.11
Digital / Information Literacy	Qatari	223	4.20	0.92	0.06
	Non-Qatari	84	4.03	0.92	0.10
Social responsibility	Qatari	223	4.02	0.99	0.07
	Non-Qatari	84	3.92	0.87	0.09

Table 14 shows the results of Welch's t-test by nationality. By comparing the means of the two groups, it was noticed that the differences among means were not significant $P \geq 0.05$ for all the skills. Therefore, there is no significant difference between Qatari and non-Qatari participants with regard to their evaluation of all of the 21st century skills measured.

Table 14 Results of Welch's t-test for Students' Evaluation of the Attainment of 21st Century Skills by Nationality

Independent Samples Test					
	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Study Skills	0.57	177.60	0.57	0.06	0.11
Problem Solving	1.71	160.37	0.09	0.18	0.11
Personal Growth	0.82	154.50	0.41	0.10	0.12
Collaboration and Communication	0.65	148.92	0.52	0.08	0.13
Digital / Information Literacy	1.48	149.76	0.14	0.17	0.12
Social responsibility	0.89	169.96	0.37	0.10	0.12

Further, an Analysis of Variance (ANOVA) test was performed to assess the effect of students' colleges on their evaluation of the attainment of 21st century Skills. Table 15 shows descriptive statistics as yielded from the ANOVA test. It has been noticed that the mean scores for the College of Sharia and Islamic Studies are slightly higher than the other colleges in all of the skills except for the problem solving skills; namely, (*M= 4.33, SD=.53*1) for study skills, (*M= 4.361, SD*=.570) for personal growth skills, (*M= 4.38, SD*=.649) for collaboration and communication skills, (*M= 4.42, SD*=.632) for Digital / information literacy skills, (*M= 4.39, SD*=.572) for social responsibility skills. The College of Health Sciences came on the top of colleges for their evaluation of the problem solving skills (*M= 4.76, SD*=.461), followed by the College of Sharia and Islamic Studies (*M= 4.29, SD*=.330) and the College of Business and Economic (*M= 4.02, SD*=.876). It was also noticed that out of the six colleges, the participants from College of Sharia and Islamic Studies, the College of Business and the College of Education agreed that the UNIV 100

course was successful in cultivating study skills, personal growth skills, collaboration and communication skills and social responsivity skills. Table 15 shows the descriptive statistics based on students' college.

Table 15 Descriptive Statistics yielded by ANOVA test for Participants' Evaluation of the Attainment of 21st Century Skills by College

		N	Mean	Std. Deviation
Study Skills	College of Arts and Sciences	128	3.95	.94
	College of Business and Economic	72	4.10	.97
	College of Education	47	4.06	.93
	College of Health Sciences	4	3.92	.47
	College of Law	38	3.90	1.19
	College of Sharia and Islamic Studies	18	4.33	.53
Problem Solving	College of Arts and Sciences	128	4.02	.88
	College of Business and Economic	72	4.03	.88
	College of Education	47	3.98	.80
	College of Health Sciences	4	4.77	.46
	College of Law	38	3.80	1.03
	College of Sharia and Islamic Studies	18	4.29	.33
Personal Growth	College of Arts and Sciences	128	3.99	.97
	College of Business and Economic	72	4.14	.94
	College of Education	47	4.06	1.04
	College of Health Sciences	4	3.81	.30
	College of Law	38	3.93	1.27
	College of Sharia and Islamic Studies	18	4.36	.57
Collaboration and Communication	College of Arts and Sciences	128	3.92	1.05
	College of Business and Economic	72	4.23	.80
	College of Education	47	4.14	.94
	College of Health Sciences	4	4.07	.44
	College of Law	38	4.04	1.25
	College of Sharia and Islamic Studies	18	4.39	.65

		N	Mean	Std. Deviation
Digital / Information Literacy	College of Arts and Sciences	128	4.07	.97
	College of Business and Economic	72	4.28	.82
	College of Education	47	4.12	.86
	College of Health Sciences	4	3.83	.33
	College of Law	38	4.15	1.13
	College of Sharia and Islamic Studies	18	4.43	.63
Social responsibility	College of Arts and Sciences	128	3.87	.97
	College of Business and Economic	72	4.06	.96
	College of Education	47	4.10	.83
	College of Health Sciences	4	3.75	.35
	College of Law	38	4.01	1.21
	College of Sharia and Islamic Studies	18	4.40	.57

Results of ANOVA test is shown in Table 16. As shown in the table, *F* scores were not significant. Specifically, even though a difference was noticed among the six different colleges with regard to their evaluation of the attainment of the 21st century skills, differences were not statistically significant.

Table 16 Results yielded by ANOVA by College

ANOVA						
		Sum of Squares	D.f	Mean Square	F	Sig.
Study Skills	Between Groups	3.46	5	.69	.752	.595
	Within Groups	277.04	301	.92		
	Total	280.50	306			
Problem Solving	Between Groups	5.54	5	1.11	1.482	.195
	Within Groups	225.14	301	.75		
	Total	230.68	306			
Personal Growth	Between Groups	3.64	5	.73	.736	.597
	Within Groups	297.45	301	.99		
	Total	301.09	306			
Collaboration and Communication	Between Groups	7.05	5	1.41	1.452	.206
	Within Groups	292.55	301	.97		
	Total	299.61	306			
Digital / Information Literacy	Between Groups	3.89	5	.78	.917	.470
	Within Groups	255.24	301	.85		
	Total	259.13	306			
Social responsibility	Between Groups	6.05	5	1.21	1.317	.257
	Within Groups	276.80	301	.92		
	Total	282.86	306			

4.2 Results of Research Question Three

What is the degree of usefulness of the First Year Seminar course as perceived by QU first year students?

To address the third question, a close-ended item directly asking first-year students registered in UNIV 100: First Year Seminar course to evaluate the degree of usefulness of the First Year Seminar course from their perspective. In order to probe participants' perception of the usefulness of the course, they were asked to reflect their perspectives on five-Likert scale type rating scale ranging between "(5) = Extremely Useful" to "(1) = Useless."

Descriptive statistics were computed. The mean score for students' responses was *(M = 4.11*), (*SD = 1.162*), indicating that students perceived that the course is useful. See Table 4.17.

Table 17 Descriptive Statistics for Students' Evaluation of the Level of Usefulness of the First Year Seminar course

Scale	Frequency	Percent
Useless	16	5.2
Slightly Useful	20	6.5
Moderately Useful	35	11.4
Useful	78	25.4
Extremely Useful	158	51.5
Total	307	100.0

The vast majority (N= 158, 51.5 %) of the participants expressed that the course was extremely useful to them, while (N= 78, 25.4 %) stated that the course was useful. When combined, (N= 236, 76.9 %) stated that they the course was extremely useful to them. A very small percentage reported that the course was useless (N= 16, 5.2 %) or slightly useful (N= 20, 6.5 %). Given these responses, it could be assumed that the vast majority of participants have the tendency to highly evaluate the usefulness of UNIV 100: First Year Seminar.

CHAPTER 5: DISCUSSION

This chapter presents a discussion of the findings yielded from the present study and the drawn conclusions with regard to first-year students' evaluations of the successfulness of UNIV 100: First Year Seminar in fostering the 21st century skills. The research findings are discussed in relation to research questions as well as the existing literature on first year seminars. This section will also provide the study limitations as well as insights and recommendations for further practice and research.

Although first-year seminar was booming a in USA since 1980, it is very new to the context of Qatar. UNIV 100 has been offered in Qatar University during Fall 2015 in response to needs of Qatar University first year students. In line with its strategic plan and goals for the cycle (2013-2016), Qatar University capitalized on the importance of building students' skills for the 21st century through high impact practices due to their "proven ability to improve student success," including first-year seminars, first-year experience, learning communities, among others (Qatar University Strategic Plan, 2013, p. 12).

By this study, the researcher endeavors to find potential connections between UNIV 100 and the acquisition of 21st century skills as perceived by Qatar University's first year students who are enrolled in the course during Fall 2018. A self-report developed by the researcher was administered online to all participants to investigate their opinions on how the course was useful in fostering selected 21st century skills.

5.2 Discussions of the results of Research Question One:

To what extent does the First Year Seminar Course foster 21st century skills as perceived by QU students?

Taken as a whole, the results of the present study suggest that the students' evaluations of the course were positive in all domains; namely, study skills, problem solving, critical, creative and practical thinking, growth mindset, collaboration and communication, digital and information literacy and social responsibility.

As previously stated in literature, the incoming first-year students are usually unprepared for rigorous post-secondary coursework and lack the basic knowledge, skills and dispositions necessary for their academic success, social adjustment and smooth transition to university. This is consistent with the results of various studies (e.g. RAND, 2007; Brewer et al, 2007; Venezia and Jaeger, 2013; Hickinbottom-Brawn & Burns, 2015; Khalifa et al, 2016; OECD, 2015, 2018; Keup, 2018). The preparedness of students for higher education and their competence are seen as major predictors of academic success (OECD, 2015, 2018; Venezia & Jaeger, 2013).

A. Study Skills

Taken as a whole, more than (68%) of the participants had the tendency toward "agreeing" that the course was successful in cultivating study skills. It was noted that some study skills strategies were perceived to rank on the top of others. The four most learnt strategies reported to develop study skills are learning about different learning styles, writing a research report / paper, setting SMART goals, acquire research skills and benefiting from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University. On the other hand, some strategies tend to be under acquired by participants; namely, reading effectively using SQ3R strategy, adjusting to different teaching styles of different instructors, improving own learning preference / style, and managing own time and control time traps.

Limited research has investigated student actual study habits and skills acquired after completing first-year seminar (Jairam, 2019). However, research has shown that study skills predict academic success and retention (Van Der Zanden et al 2018; Jenkins-Guarnieri et al, 2015; Jairam, 2019). The findings from the present study, with regard to the study skills, are consistent with (Porter & Swing, 2006; Jenkins-Guarnieri et al, 2015; Jairam, 2019) who concluded a positive correlation existing between first-year seminars and the acquisition of study skills and that the study skills being addressed in the first-year seminar had substantial impact on early first year students' intention to persist in university. Similarly, Jenkins-Guarnieri et al (2015) concluded that the participation in a first-year seminar course, designed to develop study skills and strategies, promoted student academic success, persistence, increased motivation levels and thus increased personal academic performance expectations.

On the other hand, the findings of the present study are inconsistent with the finding of a study being conducted by Jairam (2019), who concluded that first-year seminars have little impact on students' study habits. The results also indicates that female students reported significantly more frequent use of study skills than male students did. These findings suggest that female students might spend much more time on studying than male students do.

The literature is rich with regard to positioning first-year seminars as being designed to foster study skills to help with first-year students' academic success, persistence and transition to university. As part of his definition of first-year seminars, Jaijairam (2016) highlights that first-year seminar is designed to develop first-year students effective study skills and techniques to help with their academic success. Similarly, NguyenVoges &

Lyons (2017) argues that academic institutions utilize first-year seminars to teach students the basic study skills, academic planning along with several 21st century skills to facilitate first-year students transition to university. Keup (2011, 2018) also mentioned that among first-year seminar types is a basic study skill type to support unprepared students during the transition period as it integrates a set of study skills, including notetaking, effective reading and writing strategies, search strategies, goal setting, time management, information literacy, library information and search, oral presentation and technology skills. However, as mentioned in the literature, UNIV 100 is a hybrid course that combines different types of seminars, including study skills type. The National Resource Center of First-Year Experience and Students in Transition (2018) stated that first year seminars as a high impact education practice is designed to prepare first-year students with the study skills they need to excel academically, including note-taking as well as effective reading and writing skills and strategies. Clark and Cundiff (2011, p. 618) highlighted that higher education institutions across the United States utilize first year seminars as intervention programs to teach basic study skills, academic planning, and time management as well as other 21st century skills such as critical thinking, problem solving, group communication/collaboration, and digital/technology literacy (as cited in NguyenVoges & Lyons, 2017, p. 5). In their systematic review of 80 studies on predictors of academic success, Van Der Zanden et all (2018, p. 57) concluded that some predictors contributed to higher academic achievement and success, including study skills, motivation, social integration, and participation in first-year programs.

Ranking on the top four strategies for study skills, first-year students at Qatar University tend to have a positive attitude toward attaining research skills through UNIV

100 course. The instructional practices being implemented in the course might have created research-oriented first-year students. The UNIV 100 course plan for Fall 2018 as well as course textbook, "*Keys to College Success*" were made accessible to the researcher. As per the course plan, first-year students should practice research skills, as they are required to do their research project accumulatively throughout the semester under the guidance of the instructor, where they investigate an issue related to the Qatari community. Additionally, every semester, including Fall 2018 while this study is conducted, the Core Curriculum Program holds a "Student Poster Showcase" event where all UNIV 100: First Year Seminar students are invited to participate and all poster templates, guidelines and rubrics are announced to all students via their instructors. Posters are evaluated and announced during the event. This habit and learner-engaging and scaffolding instructional practices may have created research-oriented first-year students and contributed to develop their study skills as well as critical thinking and problem solving skills and accordingly develop a positive attitude toward attaining these skills. This is consistent with a study conducted by Snyder and Snyder (2008), which suggest that skills such as critical thinking are attained through using instructional strategies that actively engage students in the learning process rather than by rote memorization.

First-year students also "benefited from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University." The Scavenger Hunt assignment could have helped first-year students become familiar with and knowledgeable about university resources. First-year students are required by this assignment to initiate documented visits to student support centers and resources at Qatar University and to reflect on the services provided by these centers. Their reports are assessed against a set

rubric. This is consistent with the findings of studies (e.g. Malik, 2011; Lafferty, 2015; Al-Sheeb, 2018) who concluded a positive connection between the course and college preparedness, students' social adjustment to university, and increased usage of campus resources (e.g. Lafferty, 2015; Malik, 2011; Al-Sheeb, 2018).

B. Problem Solving and Critical Thinking Skills

More than (72%) of participants perceived that the course was successful in fostering problem solving and critical thinking skills. They expressed a high level of agreement on learning certain strategies, including questioning how useful, truthful and logical information is before deciding whether to take or leave this information, distinguishing fact from opinion, exploring information by asking and answering questions, and generating options for solving a problem even if it seems like there is only one way to solve it. However, some participants expressed that the course failed in fostering some strategies, including learning how to break down information into different parts or ideas, learning how to seek out new information and experience to build creative ideas, learning to effectively examine and evaluate different parts of a problem.

To date, there has been very limited research and less work (e.g. Padgett et al, 2013; Kilgo et al, 2015) connecting first-year seminars' characteristics and practices to skill development, 21st century learning outcomes and skills or other student development and student success metrics. This gap in literature is evidenced in some studies (e.g. Padgett et al, 2013; Van Der Zanden et al, 2018; Keup, 2018). These studies concluded that empirical evidence connecting participation in first-year seminars to 21st skills such as critical thinking and cognitive complexity are generally absent on the ongoing research agenda of first-year seminars. According to Keup (2018), this is contradicting with the existence of

critical thinking and problem solving on the top of first-year seminar content and measured learning outcomes as being articulated in the 2017 U.S. national data. Van Der Zanden et al (2018) argues that empirical evidence of the impact of first year seminars on student graduate attributes, skills and competencies will provide insight into these skills and its impact on student success and persistence. NguyenVoges and Lyons (2017) argues that there are many recent calls and much attention on promoting 21st century skills particularly within the first-year seminar (FYS) context.

The findings yielded from the present study with regard to critical thinking component are inconsistent with the findings of (Kilgo et al, 2015) who examined the link between 10 high impact practices adopted by the Association of the American Colleges and Universities (AAC&U), including first-year seminars and student learning outcomes. They concluded that among the high impact practices being assessed; only undergraduate research and collaborative learning had a significant impact and positive effects on critical thinking. Amazingly, it also revealed first-year seminars were not significant predictors of any of the liberal arts educational outcomes, such as critical thinking.

Although the findings of (Kilgo et al, 2015) suggest that first year seminars had not a significant impact on critical thinking, the study also suggests that it is wrong to interpret this lack of statistical evidence of first-year seminars as having no impact on students' learning outcomes. They also suggest that future research should investigate first-year seminars more closely to investigate how the impact of participation in such courses would vary in relation to other factors such as student characteristics, facilitation or administration.

Reasonably, findings of study of (Kilgo et al, 2015) cannot determine that first-year seminars are not fostering 21st century skills, including critical thinking and problem solving, especially with the much attention on the course and attributing it to promoting 21st century skills, such as critical thinking, cultural awareness, and mindfulness (NguyenVoges & Lyons, 2017). This is consistent with the calls initiated by the World Economic Forum (2015) and the Organization for Economic Cooperation and Development (OECD) (2018) that today's students must be adept at the so-called 21st century's skills and competencies such as critical thinking, problem solving, persistence, collaboration, creativity and curiosity.

Turning into the Qatari context, imparting 21st century skills is inevitable, especially for first-year students. This is consistent with Stasz, Eide, & Martorell (2007), who reported that Qatari students in transition to higher education lack generic transferable skills (such as critical thinking skills, communication skills, teamwork skills). This is the reason why Qatar University created the Core Curriculum Program (CCP) as part of its Reform Project (Moini et al, 2009, p. 29). The CCP was established with a main goal to promote essential 21st century essential skills such as critical thinking, analytic skills and effective communication to bridge the gap in skills between high school and university (Stasz et al, 2007). Of course, the CCP should have contributed to impart these skills; yet, such endeavors should continue in order to fulfil the aspirations of the country, which capitalizes on developing the skills of all the people of Qatar (Ministry of Development Planning and Statistics, 2015, p. 16). Similarly, these calls are aligned with Qatar University's strategic plan (2013-2016), which highlighted the importance of building students' skills for the 21st century through high impact practices due to their proven ability to improve student

success, including first-year seminars, first-year experience, learning communities, among others (Qatar University Strategic Plan, 2013, p. 12).

Continuing on the Qatari context, the findings of the present study are also inconsistent with the findings of Khalifa et al (2016), who concluded that many Qatar University first-year students are not prepared to handle with advanced knowledge and deal with problem-solving skills, higher order thinking skills and other 21st century skills that the learning at university highly requires.

The findings of two studies conducted by Padgett et al (2013) and Kilgo (2015) suggested that first-year seminars foster student lifelong learning orientations. The study conducted by Padgett (2013) also proved that participation in first year seminars also has an indirect effect pertaining to increased students' likelihood to integrate ideas, information and experiences as well as academic challenges.

In light of these findings and given the gap in literature connecting first-year seminars to 21st century skills development, there is a need to focus on these skills in the context of UNIV 100. More efforts should be initiated to measure the impact of such a course on fostering critical thinking and problem solving skills through standardized measures yielding in empirical evidence.

C. Growth Mindset Skills

Taken as a whole, more than (70%) of participants strongly agreed or agreed that the course was successful in developing their growth mindset that helped with facilitating their transition from high school to university. This is evident by being exposed to learning strategies pertaining to self-responsibility, learning how to face fears, challenges and failures with optimism, learning about academic integrity practices, building self-control

and understanding own and others' emotions. However, a low of (10%) did not acquire strategies to build self-control.

Many educators have established first-year seminars as essential vehicles for student development (Padgett et al, 2013, p. 134). Dweck (2015) argues that students' growth mindset plays a key role in first-year students' motivation and achievement. To the best knowledge of the researcher, very few studies (e.g. North Wolfe, 2017; Seabrook, 2017) have been conducted to connect first-year seminars to growth mindset. The findings of the present study are consistent with the research from previous studies (e.g. North Wolfe, 2017) of first-year seminar courses, which suggest that building first-year students' growth mindset through first-year seminars will potentially improve first-year students' academic self-efficacy and adjustment, and college student success. On the other hand, the findings from the present study are inconsistent with Seabrook (2017) who found out a negative correlation between academic growth mindset and higher GPA. Similarly, North Wolfe (2017) hypothesized that first-year seminar with a growth mindset skills component would probably help with student retention; however, the data did not support this hypothesis.

D. Collaboration and Communication Skills

More than (74 %) expressed their agreement that the course much helped them establish positive relationships with others, respect the diversity of perspectives while working on group projects, express own ideas clearly, communicate effectively in oral and written forms, participate well in groups, manage conflict among group members, and contribute to peers' learning in collaborative projects. However, a low of (10%) had trouble in managing conflict among groups.

Torenbeek et al (2011) argued that attention for collaboration skills during the first 10 weeks of a college showed positive effect on students' achievement. They concluded that the first-year seminar is positively related to basic skills and collaboration skills. However, no studies were found to examine the correlation between first-year seminars and communication and collaboration skills. The available literature links first-year seminars with collaboration and communication skills in the context of a service learning injected in first-year seminars.

Studies (e.g., World Economic Forum, 2015; Organization for Economic Cooperation and Development, 2018) highlights that 21st century students should be adept at skills such as collaboration and communication that involve collaborating to solve problems in addition to other solutions such as facilitating group work, peer-to-peer learning and peer feedback. These skills can be further fostered through project-based and experiential learning pedagogical approaches, where students can collaborate on assignments using interactive simulations, games and digital communication tools such as *Google Apps for Education* (World Economic Forum, 2015). In consistence with this concept of collaborative learning and as stated in the UNIV 100 course plan, the first-year students are allocated groups during week 4 for the purpose of collaborative research project. Students work collaboratively along the semester as they choose their research topic, formulate research questions, develop introduction and literature review, develop the survey, collect data, do the data analysis, discuss research results and draw conclusions and finally submit their project and present it collaboratively in class during week 14. These collaborative learning practices are consistent with the National Resource Center of the

University of South Carolina (2018, 2014), which stated that the highest quality first-year seminars place a strong emphasis on information literacy and collaborative learning.

Evans et al (2015) concluded that business leaders have been complaining that graduates often lack soft skills such as teamwork, communication skills and critical thinking. There is a wide array of intentional and interventional programs designed to cultivate and impart such skills in the context of first year students, including first year seminars. Keup (2018) argues that the highest quality first year seminars place an emphasis on essential skills such as critical inquiry, frequent writing, information literacy and collaboration, among others (p. 10).

E. Digital / Information Literacy Skills

Although more than (78%) of participants expressed that the course was successful in enabling them to use university systems (Blackboard, Banner, and University e-mail), developing technology skills including using (Microsoft Word and PowerPoint) and using the available digital technology effectively to access information, students' digital / information literacy skills can be further fostered through a variety of tools. The World Economic Forum (2015), for instance, provided a number of recommendations to address 21st century skills gaps, including collaborative assignments using digital tools such as *Google Apps for Education*, creating and sharing digital notebooks through tools such as *OneNote*; and discuss assigned readings through such sites as *Ponder* (p.8). Similarly, the Core Curriculum Program encourages UNIV 100 instructors to utilize digital communication tools that helps engage students (QU Core Curriculum website: http://www.qu.edu.qa/core/resources/communication.

F. Civic Engagement and Citizenship Skills

More than (69%) of participants expressed their agreement that course was successful in cultivating strategies to develop the social responsibility skill. These strategies include the ability to investigate issues related to the Qatari community, access university facilities, pursue new ideas to meet the needs of the Qatari community, awareness of their role as citizens, participate in community activities, and connect with university human resources (faculty, staff, mentors and academic advisors) to help with college transition.

As participants demonstrate a high level of engagement, especially with items pertaining to investigating issues related to the Qatari community, this might suggest also a high level of social integration. This is consistent with the purpose of general education for twenty-first century to promote social responsibility and civic engagement (Schamber and Mahoney, 2008). Social integration is also a predictor for academic success (Kuh, 2016, p. 51). The concept of the positive impact of first year seminars on student engagement and social integration is consistent with the findings of many studies (e.g. Lafferty, 2015; Malik, 2011; Al-Sheeb, 2018). Lafferty, (2015), for example, concluded that students attending first year seminar course were reported being more socially integrated and attached to the university environment. Participants of the present study reported a high level of participating in community activities. This is consistent with the findings of a study in the context of Qatar University being conducted by Al-Sheeb et al (2018), which suggest the potential of first-year seminars to foster students' social and academic integration during the first-year at university. Similarly, Malik (2011) concluded that participation in the first-year seminar course provided first-year students with greater opportunities for campus involvement. The findings of the 2017 U.S. National Survey of

first year experience initiated by the National Resource Center for the First-Year Experience and Students in Transition (2018, p. 48) suggest that "connection with the institution" has been used as an objective for first-year seminars in 34.7% of U.S. institutions.

As stated, many studies have investigated the connection between first-year seminars and first-year students' social integration in campus, which might connote commitment to civic engagement and responsibility. However, some studies (e.g. Mayhew & Engberg, 2011; Schamber and Mahoney, 2008) established a direct strong connection between first-year seminars and civic engagement and civic responsibility if these seminars integrate curriculum components such as service learning and community-based learning. These studies suggest a positive impact of these curriculum components on promoting civic engagement and responsibility if infused and integrated in first-year seminars.

The course that Schamber and Mahoney (2008) investigated is similar to UNIV 100. One of the learning objectives of the first-year seminar course investigated by Schamber and Mahoney (2008) was to analyze social issues critically. This objective was addressed through various curricular activities, including reading, discussing and analyzing articles on contemporary civic issues, teaching students how to find relevant information about a particular social issue and ensure credibility of this information. As part of this course, a team of 6 students research and write a twenty-five-page group policy paper on this particular social issue. Results of this study revealed that experiences in the community along with academic research, represented in writing the group policy paper, helped students realize the relevance of social issues. Students were reported to be interested in participating in community activities in the future. Similarly, one of the UNIV 100

outcomes is to "engage critically with issues related to the Qatari community through the application of research skills." As previously stated in the discussion of study skills, first-year students do a research project where they investigate an issue related to the Qatari community. This research is done accumulatively throughout the semester and their product is a research paper as well as a poster presentation. However, (16 %) of participants reported that the course failed to help them investigate issues related to the global community. This component should be further enhanced by the course.

5.3 Discussion of Results of Research Question Two

Are there statistically significant differences in students' evaluation of the First Year Seminar Course based on their gender, nationality and college?

As a general notice, the findings of the present study suggest that the differences among means between genders were significant for study skills, personal growth, collaboration and communication, digital / information literacy and social responsibility. In other words, it is less likely that the groups being studied are the same for these skills. This is inconsistent with studies (e.g. Boudreau & Kromrey, 1994; Starke et al., 2001; Sidle & McReynolds, 1999) (as cited in Padgett et al, 2013), which concluded that the benefits of first-year seminar participation on educational outcomes appear to be consistent across gender, race, and ethnicity, and major.

Although the present study shows that the mean for males are slightly higher than that of females for all skills, however, the findings pertaining to study skills are inconsistent with the findings of a study conducted by Jairam (2019), who concluded that female students reported significantly more frequent use of study skills compared to male students. These findings suggest that females also might spend more time studying than male

students. This is also inconsistent with a study conducted by RAND Education (2007), who concluded that Qatari females are much keener than Qatari males on pursuing and achieving in post-secondary education and that this trend is most probably will continue given that twice as many female students as male students indicated that they plan to pursue for post-secondary studies.

The present study also suggest that the differences among means were not significant at for all the skills. Therefore, there is no significant difference between Qatari and non-Qatari participants with regard to their evaluation of all of the 21st century skills measured. This could be attributed to the fact that both Qatari and Non-Qatari students are exposed to the same learning experiences; non-Qataris are not segregated during their educational journey, except for K.G. stage in government schools, where it is only allocated for Qatari pupils. This is consistent with studies (e.g. Boudreau & Kromrey, 1994; Starke et al., 2001; Sidle & McReynolds, 1999) (as cited in Padgett et al, 2013), which concluded that the benefits of first-year seminar participation on educational outcomes appear to be consistent across gender, race, and ethnicity, and major.

5.4 Discussion of Results of Research Question Three

What is the degree of usefulness of the First Year Seminar course as perceived by QU first year students?

The majority of participants (76.9 %) expressed their level of agreement that the course was useful. This could be indicative of first-year students' overall satisfaction with and positive attitude toward the course and their entire first-year experience. This result is consistent with the findings of (Hendel, 2007; Kutlu, 2013; Lafferty, 2015; Al-Sheeb et al, 2018; Van Der Zanden et al, 2018). It is also aligned with the study conducted by Van Der

Zanden et al (2018, p. 59), who used the term "student satisfaction" to connote students' integration or adjustment to university environment. Lafferty (2015) also concluded that students attending first-year seminar course are reported being more academically engaged and more attached to the university environment. Interestingly, the findings of a research conducted by Al-Sheeb et al (2018) yielded that first-year seminar course had a significant positive impact on Qatar University's first-year students' satisfaction and attitude toward higher education.

By having 21st century skills on the "satisfaction agenda" of first-year students at Qatar University, this may suggest that the UNIV 100 course contributed to addressing the goals stipulated in the Qatar University strategic plan (2013-2016) pertaining to building students' skills for the 21st century through high impact practices due to their proven ability to improve student success (Qatar University Strategic Plan, 2013, p. 12). Similarly, the course could have helped with filling the notable skills gap identified by RAND in 2007 and helped with preparing the incoming freshmen with the necessary skills such as critical thinking, analytical skills, communication and teamwork that they need to pursue higher education (RAND Corporation, 2007).

Conversely, these results are not aligned with the findings of the qualitative study conducted by Khalifa et al (2016) in the context of Qatar University, which investigated student perspectives on their persistence in Qatar University. The study concluded that many Qatar University students had unpleasant experiences and issues during their first year and they are unprepared to deal with advanced knowledge, problem-solving skills, higher order thinking skills and other 21st century skills that the learning at university highly requires (p 18). However, this study was done at times while this course was piloted

at only the College of Business and the College of Law. The UNIV 100: First-Year Seminar course was fully offered to all students registered in six colleges as of Fall 2016. Given that, the course under study could have helped changing the beliefs of first year students with regard to their first-year experience. The present study findings may support this hypothesis. However, further research with empirical findings is needed to reach a sound conclusion in this regard.

5.5 Limitations of the Study

The following limitations were identified in the study:

1) The researcher did not have a control over the research setting since the questionnaire has been administrated online. Although the instructions to administer the questionnaire were stated clear on the preamble of the questionnaire, lack of control over the setting might have led that some instructions were not clear to participants. However, to help with this issue, the researcher sought the help of course instructors to ensure answering the questionnaire during class time and were any questions were answered immediately by these instructors.
2) The questionnaire has been administrated in coincidence with another regular evaluation survey for the same course. Students thought that this survey might have been duplicated.
3) The data collection tool is a self-report questionnaire, which may suggest a researcher as well as participants' response bias with regard to their perspectives of the course.
4) The questionnaire has not been piloted due to time constraint. However, it was tested for reliability using Cronbach's Alfa coefficient. The analysis produced a

Cronbach's Alpha Coefficient value of 0.988 for the questionnaire as a whole, which demonstrates high level of consistency among items. The questionnaire has been tested for validity. Moreover, consultations have been made with curriculum and assessment experts in Qatar University who are teaching the course as well. Accordingly, the final Arabic and English versions of the FYS-EQ were confirmed for face and content validity by these experts. As for the face validity, these experts carefully reviewed the final Arabic and English versions of the instrument, which were subject to frequent revisions, where many items have been replaced, cleared or edited for better clarity, formatting, feasibility and relevance to its respective construct and to the instrument as a whole. Finally, these experts assured that it is feasible, readable and clear in both Arabic and English languages and in formatting. Moreover, relevance of the questionnaire to the level of students who take the questionnaire has been also assured by these experts. In the meantime, the questionnaire was also tested for construct validity where all of the 56 items related to the 21st century skills were factor analyzed using principle component analysis with Varimax rotation. The analysis yielded 6 factors explaining a total of 76.9% of the variance.

5) This study did not include open-ended questions or interviews with students to give a qualitative dimension to the study. This would have consolidated researcher's insight and deeper understanding of the subjects' perspectives. The combination of both qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone (Creswell, 2014, p. 32)

6) One of the limitations is that the present study has collected data on the perspectives of first-year students enrolled in a 4-year mid-sized public university in Qatar on how a first-year seminar course helped foster 21st century skills. Future research should incorporate perspectives of students from other local or private colleges and universities the same attitude or not. This will help understand if this attitude or perspectives are due to the implementation of such a course or if there are other factors, which may be institution-specific. This is aligned with Padgett et al (2013), who highlighted that one of the limitations of previous studies on first-year seminars are that "previous studies on these seminars tended to rely upon single institution studies, which significantly reduce the generalizability and application of these research findings."

5.6 Implications

The overarching purpose of the present study was to examine the perspectives of first-year students on how the UNIV 100 was successful in fostering 21st century skills. The findings from the study have a number of implications and recommendations for future practice as well as further research.

5.6.1 Recommendations for Future Practice

The findings yielded from the present study suggest a number of recommendations for practitioners and policy makers at Qatar University. Although participants of the present study reported high level of agreement on all of the 21st century skills investigated, yet, there are still some strategies that need further focus and to be addressed sufficiently in the course teaching and learning practices.

First, first-year students are less satisfied with regard to learning effective reading strategies, managing own time effectively and control time traps in order to consolidate their study skills. Although, they were exposed to SQ3R reading strategy and learning activities pertaining to time management as shown on the course plan, course instructors should further focus on these strategies.

Second, first-year students demonstrated less satisfaction with learning some of the problem solving and critical thinking strategies, such as developing an argument and learning different methods to collect information. It is suggested that course instructors develop an assignment as part of the research project to measure critical thinking skills and support first-year students toward the completion of this assignment through modeling the critical thinking process and behaviors and using effective questioning techniques (Snyder & Snyder, 2008) while students are engaged in their collaborative research project required by the course. When teaching critical thinking component, it is suggested that instructors should ensure using instructional strategies that actively engage students in the learning process rather than by rote memorization. Pertinent training in this area would help instructors. It is suggested that policy makers, researchers and instructors at Qatar University place more emphasis on measuring these 21st century outcomes, especially with skills-based courses such as first-year seminars. More efforts should be initiated to measure the impact of such a course on fostering critical thinking and problem solving skills through standardized measures yielding in empirical evidence.

Third, first-year students are also less satisfied with learning some strategies that build their growth mindset skills, including strategies to build self-control. Previous studies (e.g. North Wolfe, 2017) of first-year seminar courses suggest that building first-year

students' growth mindset through first-year seminars will potentially improve first-year students' academic self-efficacy and adjustment, and college student success. Accordingly, course instructors should place an emphasis on teaching these strategies that gained less satisfaction of first-year students.

Fourth, participants demonstrated less satisfaction with some strategies that develop communication and collaboration skills, such as managing conflict among group members and learning to express ideas clearly. It is suggested that as instructors form groups during week 4, they need to utilize best practices in forming groups to help students be organized and effective communicators, including project charters declaring project objectives, roles and responsibilities. Instructors also may involve students in role-play activities where they speak much. This should help with lessening their feeling of confronting public. Collaboration and communication skills can be attained through practices such as peer-to-peer learning and peer feedback. As suggested by the World Economic Forum (2015), these skills can be further fostered through project-based and experiential learning pedagogical approaches, where students can collaborate on assignments using interactive simulations, games and digital communication tools such as *Google Apps for Education.*

Fifth, first-year students also were less satisfied with learning how to search e-resources in the library. Instructors are in need to highlight this further when teaching research skills. It is recommended to use a number of recommendations to address digital literacy skills, including creating and sharing digital notebooks through tools such as *OneNote*; share related information and keep up with classroom announcements through

social networking sites such as *Facebook*; and comment on and discuss assigned readings through such sites as *Ponder* (World Economic Forum, 2015, p.8).

Sixth, participants demonstrated less satisfaction with some civic engagement techniques, including engaging in campus activities and investigating issues related to the global community. To that end, instructors are in need to place more emphasis on involving students in more campus activities and student-focused co-curricular activities. However, the CCP organizes a successful story series each semester, where leaders from the Qatari society come on board to inspire students to be leaders in society and motivate them to be more socially-responsible and civically engaged (CCP website: http://www.qu.edu.qa/core/Media/News). In addition to addressing local societal issues in their research project, first-year students should also be exposed to issues pertaining to global issues. This will further activate their awareness as global citizens.

5.6.2 Recommendations for Future Research

Although there has been very limited research and less work (e.g. Padgett et al, 2013; Kilgo et al, 2015) connecting first-year seminars' characteristics and practices to 21st century learning outcomes and skills, such as critical thinking, the present study begins to address this lacuna through examining first-year students' perspectives on the successfulness of the first-year seminar course in fostering these skills. Given that first-year seminar is designed to provide unprepared students with the skills that can foster their engagement, academic success, persistence, retention and progression toward graduation and facilitate their transition to university (Hickinbottom-Brawn & Burns, 2015; Permzadian & Credé, 2016), and in light of the findings yielded in the present study, some implications and recommendations for future research are presented below:

1. To complement the findings of the present study, future research should examine the impact of UNIV 100: First Year Seminar course on fostering important 21st century outcomes and skills, especially critical thinking. It is suggested to utilize standardized measures.
2. Future research should examine first-year seminars more closely to investigate how the impact of participation in such courses would vary in relation to other factors such as classroom pedagogical practices, student characteristics or administration.
3. Future research may use institutional data, findings of survey results, Core Curriculum Program data to investigate the impact of the course on student learning outcomes.
4. The present study investigated the perspectives of first-year students enrolled in Qatar University on how a first-year seminar course helped foster 21st century skills. Future research should incorporate perspectives of first-year students in other local institutions to explore to what extent the study will yield the same findings. This will help understand if these findings are due to the implementation of such a course or attributed to other factors.

To conclude, first year seminar is a return on investment tool that help with student retention and hence bring financial benefits to the institution. Therefore, such an intentional practice should receive institution's close focus and funding.

REFERENCES

Al-Sheeb, B. A., Abdulwahed, M. S., & Hamouda, A. M. (2018). Impact of first-year seminar on student engagement, awareness, and general attitudes toward higher education. *Journal of Applied Research in Higher Education*, *10*(1), 15-30.

Ananiadou, K., & Claro, M. (2009). 21st century skills and competences for new millennium learners in OECD countries.

Andrade, M. S. (2016). Curricular Elements for Learner Success--21st Century Skills. *Journal of Education and Training Studies*, *4*(8), 143-149.

Association of American Colleges & Universities. (n.d.). Value Rubrics. Retrieved April 09, 2019, from https://www.aacu.org/value-rubrics

Barton, A., & Donahue, C. (2010). Multiple assessments of a first-year seminar pilot. *The Journal of General Education*, *58*(4), 259-278.

Blair, A. (2017). Understanding first-year students' transition to university: A pilot study with implications for student engagement, assessment, and feedback. *Politics*, *37*(2), 215-228.

Brewer, D. J., Augustine, C. H., Zellman, G. L., Ryan, G. W., Goldman, C. A., & Ryan, G. (2007). *Education for a New Era: Design and Implementation of Kâ€“12 Education Reform in Qatar*. Rand Corporation.

Brewer, D. J., & Goldman, C. A. (2006). 10 An introduction to Qatar's primary and secondary education reform1. *Trajectories of education in the Arab world: Legacies and challenges*, 226.

Burgess, T. F. (2001). A general introduction to the design of questionnaires for survey research. *Leeds: University of Leeds*.

Chambers, W. L., Smith, L. P., Orvis, J. N., & Caplinger, C. (2013). Developing a topic-centered first-year seminar with an emphasis on information literacy at a large regional university. *College & Undergraduate Libraries*, *20*(1), 52-71.

Chen, R. (2012). Institutional characteristics and college student dropout risks: A multilevel event history analysis. *Research in Higher education*, *53*(5), 487-505.

Clark, M. H., & Cundiff, N. L. (2011). Assessing the effectiveness of a college freshman seminar using propensity score adjustments. Research in Higher Education, 52(6), 616-639.

Clemson, C. L. (2015). The Effect of a Student Success Seminar on Student Retention at A Regional University.

College of North Atlantic - Qatar. (n.d.). College of North Atlantic Qatar: Programs. Retrieved April 9, 2019, from https://www.cna-qatar.com/programs

Community College of Qatar. (n.d.). About the Community College of Qatar. Retrieved April 9, 2019, from https://www.ccq.edu.qa/English/AboutCCQ/Pages/VisionMission.aspx

Core Curriculum Program: About Us. (n.d.). Retrieved April 9, 2019, from http://www.qu.edu.qa/core/about-us/

Cuseo, J. (2014). The empirical case for the first-year seminar: Promoting positive student outcomes and campus-wide benefits. In *The first-year seminar: Research-based recommendations for course design, delivery, and assessment*. Dubuque, IA: Kendall/Hunt.

Cuseo, J. (2011). Assessment of the First-Year Seminar: Research-Based Guidelines For Course & Program Evaluation.

Delacre, M., Lakens, D., & Leys, C. (2017). Additional file to "Why Psychologists Should by Default Use Welch's t-test Instead of Students t-test." (in press for the International Review of Social Psychology). doi:10.31219/osf.io/dqck7

Dweck, C. (2015). Carol Dweck revisits the growth mindset. Education Week, 35(5), 20-24.

Edwards, C. (2018). First-Year Seminars and Student Expectations: A Correlational Study of Retention and Success.

Evans, J., Epps, A. V., Smith, M., Matei, S., & Garcia, E. (n.d.). A Transdisciplinary Approach for Developing Effective Communication Skills in a First-year STEM Seminar. 2015 ASEE Annual Conference and Exposition Proceedings. doi:10.18260/p.23468

Florence, K. M. (2017). Understanding College Preparedness of First-Semester College Students.

Hanley-Dafoe, R., & Bruce, C. (2018). A Study of the First-Year Academic Experience at a Growing Liberal Arts Institution. *Collected Essays on Learning and Teaching, 11*, 96-108.

Hendel, D. D. (2007). Efficacy of participating in a first-year seminar on student satisfaction and retention. Journal of College Student Retention: Research, Theory & Practice, *8*(4), 413-423.

Hickinbottom-Brawn, S., & Burns, D. P. (2015). The Problem of First-Year Seminars: Risking Disengagement through Marketplace Ideals. *Canadian Journal of Higher Education*, *45*(2), 154-167.

Howard, J. S., & Flora, B. H. (2015). A comparison of student retention and first year programs among liberal arts colleges in the mountain south. *Journal of Learning in Higher Education*, *11*(1), 67-84.

Hunter, M. S. (2006). Fostering student learning and success through first-year programs. Peer Review, 8(3), 1-32.

Jaijairam, P. (2016). First-Year Seminar (FYS)--The Advantages That This Course Offers. *Journal of Education and Learning*, *5*(2), 15-23.

Jamelske, E. (2009). Measuring the impact of a university first-year experience program on student GPA and retention. *Higher Education*, *57*(3), 373-391.

Jenkins-Guarnieri, M. A., Horne, M. M., Wallis, A. L., Rings, J. A., & Vaughan, A. L. (2015). Quantitative evaluation of a first year seminar program: Relationships to persistence and academic success. *Journal of College Student Retention: Research, Theory & Practice*, *16*(4), 593-606.

Keup, J. (2014). *National Research and Trends on High-Impact Practices in the First Year Seminar* (pp. 1-41, Presentation). Washington, U.S.A: National Resources Center of the University of South Carolina.

Keup, J. (2018). *Research, Trends, and Issues: What We Can Do About Institutional Practices and Priorities for the First-Year Experience* [Presentation]. National Resources Center of the University of South Carolina.

Keup, J. (2016). *Setting a Foundation for Critical Thinking in the First Year of College*

[Presentation]. National Resources Center of the University of South Carolina.

Keup, J. R., & Petschauer, J. W. (2011). The First-Year Seminar: Designing, Implementing, and Assessing Courses to Support Student Learning and Success. Volume One: Designing and Administering the Course. National Resource Center for The First-Year Experience and Students in Transition. University of South Carolina, 1728 College Street, Columbia, SC 29208.

Khalifa, B., Nasser, R., Ikhlef, A., Walker, J. S., & Amali, S. (2016). A qualitative study of student attitudes, perspectives, beliefs, outlook and context in Qatar: Persistence in higher education. *Near and Middle Eastern Journal of Research in Education, (1), 2.*

Kilgo, C. A., Sheets, J. K. E., & Pascarella, E. T. (2015). The link between high-impact practices and student learning: Some longitudinal evidence. *Higher Education*, 69(4), 509-525.

Klatt, J., & Ray, R. (2014). Student academic outcomes after completing a first-year seminar. *NACTA Journal*, *58*(4), 288-292.

Koch, A., & Gardner, J. N. (2014). A history of the first-year experience in the United States during the twentieth and twenty-first centuries: Past practices, current approaches, and future directions. *The Saudi Journal of Higher Education*, *11*, 11-44.

Kuh, G. D. (2016). Making learning meaningful: Engaging students in ways that matter to them. New Directions for Teaching and Learning, (145), 49-56.

Kutlu, E. M. İ. N. E. (2013). Perspectives of first-year university students on first-year on-campus seminar course at METU-NCC. *Retrieved from etd. lib. metu. edu.*

tr/upload/12616190/index. pdfLang, DL (2007). The impact of a first-year experience course in the academic.

Lafferty, K. (2015). The impact of participation in a first-year seminar on increased usage of campus resources, academic and social integration and first-to-second-semester persistence at a two-year community and technical college.

Lamb, S., Maire, Q., & Doecke, E. (2017). Key Skills for the 21st Century: an evidence-based review.

Malik, T. (2011). *College success: First year seminar's effectiveness on freshmen academic and social integration, impact on academic achievement and retention at a southern institution*. Johnson & Wales University.

Mamrick, M. (2005). The first-year seminar: A historical perspective. In The 2003 national survey on first-year seminars: Continuing innovations in the collegiate curriculum (pp. 15-45). University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.

Mayhew, M. J., & Engberg, M. E. (2011). Promoting the development of civic responsibility: Infusing service-learning practices in first-year" success" courses. *Journal of College Student Development*, 52(1), 20-38.

Ministry of Education. (2015). *Education Curriculum Standards* (pp. 1-34) (Qatar).

World Economic Forum. (2015). *New vision for education: Unlocking the potential of technology*. British Columbia Teachers' Federation.

Ministry of Development Planning and Statistics. (2016). *Education in Qatar Statistical Profile* (pp. 1-75) (Qatar).

Ministry of Development Planning and Statistics. (2016). *Woman and Man in the State of Qatar* (pp. 1-86) (Qatar).

Ministry of Development Planning and Statistics. (2015). *Realizing Qatar National Vision 2030: The Right to Development* (1-178) (Qatar).

Moini, J. S., Bikson, T. K., Neu, C. R., & DeSisto, L. (2009). *The Reform of Qatar University. Monograph*. RAND Corporation. PO Box 2138, Santa Monica, CA 90407-2138.

National Resources Center of the University of South Carolina. (2013). *2012-2013 National Survey of First-Year Seminars* (pp. 1-4, Rep.).

NguyenVoges, S. R., & Lyons, L. M. (2017, April). 'Being Here Now'as a First-Year Student: Cultivating Global Citizenship and Mindfulness on the Move in a Co-Curricular Learning Adventure. In *International Forum of Teaching and Studies* (Vol. 13, No. 1, pp. 3-10). American Scholars Press, Inc..

North Wolfe, S. (2017). Effects of a Growth Mindset Intervention on First-Year College Student Academic Performance.

Padgett, R. D., Keup, J. R., & Pascarella, E. T. (2013). The impact of first-year seminars On college students' life-long learning orientations. *Journal of Student Affairs Research and Practice*, *50*(2), 133-151.

Permzadian, V., & Credé, M. (2016). Do first-year seminars improve college grades and retention? A quantitative review of their overall effectiveness and an examination of moderators of effectiveness. *Review of Educational Research*, *86*(1), 277-316.

Porter, S. R., & Swing, R. L. (2006). Understanding How First-year Seminars Affect Persistence. Research in Higher Education, 47(1), 89-109. doi:10.1007/s11162-005-8153-6

Qatar Foundation. (n.d.). About Qatar Foundation. Retrieved April 9, 2019, from https://www.qf.org.qa/about

Qatar Foundation. (n.d.). Academic Bridge Program. Retrieved April 9, 2019, from https://abp.edu.qa/

Qatar University. (n.d.). About Qatar University. Retrieved April 9, 2019, from http://www.qu.edu.qa/about

Qatar University. (n.d.). Foundation Program's Vision and Mission. Retrieved April 9, 2019, from http://www.qu.edu.qa/foundation/About-Us/VisionandMission

Qatar University. (2018). *Qatar University Book of Trends (Spring 2018)* (pp. 1-190, Rep.).

Qatar University. (2016). *Annual Report Academic Year 2015-2016* [Internal Report]. Qatar University, Doha, Qatar.

Qatar University. (2017). *Annual Report Academic Year 2015-2016* [Internal Report]. Qatar University, Doha, Qatar.

Qatar University. (n.d.). Inclusion and Special Needs Support Center at Qatar University. Retrieved April 09, 2019, from http://www.qu.edu.qa/students/support-and-development/special-needs

Qatar University Core Curriculum Program. (2019, April 9). Online Teaching Tools. Retrieved from http://www.qu.edu.qa/core/resources/communication

Qatar University. (n.d.). Qatar University Strategic Plan (2013 - 2016) (pp. 1-38).

Qatar University. (2018). Undergraduate Student Catalog 2017 - 2018. Retrieved April 09, 2019, from http://www.qu.edu.qa/static_file/qu/students/documents/students-undergraduate-catalog-2017-2018-en.pdf

Riess, J. N. (2016). *Students' Perspectives of the Impact and Value of First-Year Seminars At a Hispanic-Serving Institution* (Doctoral dissertation).

Schamber, J. F., & Mahoney, S. L. (2008). The development of political awareness and social justice citizenship through community-based learning in a first-year general education seminar. The Journal of General Education, 57(2), 75-99.

Schneider, C., & Association of American Colleges & Universities. (2015). *A 21st Century Framework for Quality College Learning Already Exists*. Association of American Colleges & Universities, USA.

Seabrook, A. L. (2017). Fixed and Growth Mindset in Undergraduate Students: Impacts on Academic Achievement and Resilient Behaviors (Doctoral dissertation, The University of Mississippi).

Silva, E. (2009). Measuring skills for 21st-century learning. *Phi Delta Kappan*, *90*(9), 630- 634.

Skipper, T. L. (2017). *What makes the first-year seminar high impact? An exploration of effective educational practices.* (Research Reports No. 7). Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience & Students in Transition.

Snyder, L. G., & Snyder, M. J. (2008). Teaching critical thinking and problem solving skills. *The Journal of Research in Business Education*, *50*(2), 90.

Stasz, C., Eide, E., Martorell, F., Constant, L., & Goldman, C. A. (2007). *Post-secondary*

education in Qatar: Employer demand, student choice, and options for policy (Vol. 644). Rand Corporation.

Stebleton, M. J., & Jehangir, R. (2016). Creating communities of engaged learners: An analysis of a first-year inquiry seminar. *Learning Communities Research and Practice, 4*(2), 5.

Swanson, N. M., Vaughan, A. L., & Wilkinson, B. D. (2017). First-year seminars: Supporting male college students' long-term academic success. *Journal of College Student Retention: Research, Theory & Practice*, *18*(4), 386-400.

Tampke, D. R., & Durodoye, R. (2013). Improving Academic Success for Undecided Students: A First-Year Seminar/Learning Community Approach. *Learning Communities: Research & Practice*, *1*(2), 3.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, *2*, 53.

The Organisation for Economic Co-operation and Development (OECD). (n.d.). OECD Education. Retrieved April 09, 2019, from http://www.oecd.org/education/

The Organisation for Economic Co-operation and Development (OECD). (n.d.). About The Organisation for Economic Co-operation and Development (OECD). Retrieved April 9, 2019, from https://www.oecd.org/about/

Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, *19*(3), 254-269.

Tinto, V. (1988). Stages of Student Departure: Reflections on the Longitudinal Character of Student Leaving. The Journal of Higher Education, 59(4), 438-455. doi:10.1080/00221546.1988.11780199

Tinto, V. (1999). Taking retention seriously: Rethinking the first year of college. *NACADA journal*, *19*(2), 5-9.

van der Zanden, P. J., Denessen, E., Cillessen, A. H., & Meijer, P. C. (2018). Domains and predictors of first-year student success: A systematic review. *Educational Research Review*, *23*, 57-77.

University Foundation College- Qatar. (n.d.). University Foundation College: About Us. Retrieved April 9, 2019, from https://universityfoundationcollege.com/About-Us#section01f5

Venezia, A., & Jaeger, L. (2013). Transitions from high school to college. *The future of children*, 117-136.

Yan, Z., & Sendall, P. (2016). First year experience: How we can better assist firstyear international students in higher education. *Journal of International Students*, *6*(1), 35-51.

Young, D. G., & Keup, J. R. (2016). Using Hybridization and Specialization to Enhance the First-Year Experience in Community Colleges: A National Picture of High-Impact Practices in First-Year Seminars. *New Directions for Community Colleges*, *2016*(175), 57-69.

Vista, A., Kim, H., & Care, E. (2018). Use of data from 21st century skills assessments: Issues and key principles.

Voigt, L., & Hundrieser, J. (2008). Student success, retention, and graduation: Definitions, theories, practices, patterns, and trends. *Noel-Lewitz Retention Codifications. November*, 1-22.

Voogt, J., & Roblin, N. P. (2012). A comparative analysis of international frameworks

for 21st century competences: Implications for national curriculum policies. *Journal of curriculum studies*, *44*(3), 299-321.

Vossensteyn, J. J., Kottmann, A., Jongbloed, B. W., Kaiser, F., Cremonini, L., Stensaker, B., & Wollscheid, S. (2015). Dropout and completion in higher education in Europe: Main report.

Watts, E. I. (1999). *The freshman year experience, 1962-1990: An experiment in humanistic education* (Doctoral dissertation, Doctoral dissertation, Queen's University, Kingston, Ontario (Canada.)).

World Economic Forum. (2015). New vision for education: Unlocking the potential of technology. British Columbia Teachers' Federation.

Yorkshire, K. (2016). *Examining the Impact Of A First-Year Seminar Course on The Success Of Community College Developmental Students* (Unpublished doctoral dissertation). Morgan State University.

Young, D., & National Resource Center for the First-Year Experience and Students in Transition. (2017). *Presenting Data from the 2017 National Survey of First-Year Experiences*. National Resource Center for the First-Year Experience and Students in Transition, University of South Carolina, USA.

Zellman, G. L., Constant, L., & Goldman, C. A. (2011). K-12 education reform in Qatar. *Gulf Comparative Education Society*, 33.

APPENDICES

Appendix A: Experts' Names and Affiliations

Name	Affiliation
Dr. Wael Shaher M Yousef	Assistant Professor and Assessment Coordinator, (UNIV 100 Course Design and Development Team Member) Core Curriculum Program, Qatar University
Dr. Abdel Hamid Mohamed Ahmed	Lecturer of First-Year Seminar, (UNIV 100 Course Design and Development Team Member) Core Curriculum Program, Qatar University

Appendix B: Factor Analysis Results

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	33.988	60.694	60.694	33.988	60.694	60.694	12.351	22.056	22.056
2	4.298	7.675	68.368	4.298	7.675	68.368	10.569	18.872	40.928
3	1.800	3.214	71.583	1.800	3.214	71.583	7.922	14.147	55.075
4	1.141	2.037	73.620	1.141	2.037	73.620	5.328	9.515	64.590
5	0.986	1.761	75.381	0.986	1.761	75.381	3.546	6.332	70.922
6	0.881	1.574	76.954	0.881	1.574	76.954	3.378	6.032	76.954

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]						
	Component					
	1	2	3	4	5	6
Study Skills						
Learn about different learning preferences / style	0.696	0.321				
Improve my own learning preference / style	0.769					
Adjust to different teaching styles of different instructors	0.728					
Manage my time and control time traps	0.738					
Set SMART goals	0.694	0.338				
Easily pick out the important points in the material I read	0.718	0.324	0.305			
Record effective lectures notes and use them to prepare for tests	0.726	0.342				
Benefit from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University.	0.698		0.317			
Read effectively using SQ3R strategy	0.736					
Acquire research skills	0.673					

Find information about a topic from the library.	0.660			0.403
Collect and analyze information from different resources	0.664	0.303		0.393
Write research report/ paper	0.595		0.300	0.390
Problem solving and (Critical, Creative and Practical) Thinking Skills				
Explore information by asking and answering questions		0.697		
Question how useful, truthful, and logical information is before I decide whether I take it or not.		0.737		
Generate options for solving a problem even if it seems like there is only one way to solve it.		0.758		
Think about different solutions to a problem before I choose one and take action.		0.783		
Learn methods to collect information.		0.737		
Break information into different parts – main ideas (argument) and the evidence that supports them.		0.747		
Examine and evaluate the different parts of a problem effectively.		0.740		
Distinguish fact from opinion.		0.755		
Examine if the evidence is biased.		0.750		
Make necessary connections between the different parts of a problem.		0.773		

Have a strong belief that I can develop my creative abilities.		0.801				
Seek out new information and experience to build creative ideas.		0.756				
Learn from mistakes, failures and experience.		0.786				
Personal Growth (Growth Mindset)						
Build my growth mindset (attitude, perspectives or beliefs).	0.532		0.340		0.457	
Feel responsible for my actions.	0.486	0.345	0.332		0.535	
Practice academic integrity (take actions based on ethics).	0.488	0.302	0.306	0.315	0.501	
Face fears, challenges and failures with optimism.	0.453	0.308			0.535	
Transit smoothly from high school to university.	0.461		0.317	0.385	0.461	
Understand my emotions and act accordingly.	0.502		0.353		0.515	
Understand others' emotions and act accordingly.	0.493		0.366		0.516	
Build self-control.	0.457		0.399	0.300	0.534	
Understand the potential rewards of a college.	0.421	0.307	0.379	0.439	0.380	0.222
Collaboration and Communication						
Participate well in group work.	0.330		0.783			
Contribute to my peers' learning in collaborative projects.	0.376		0.709			

Establish positive relationships with others.			0.763			
Manage conflict among my group members.	0.352		0.756			
Respect the diversity of perspectives during group project.			0.755			
Communicate effectively in oral and written forms.	0.355		0.716			
Express my ideas clearly.	0.361		0.696			
Digital / Information Literacy						
Use digital technology effectively to access information.	0.402		0.405			0.570
Use technology to create, manage, and integrate information.	0.382		0.397	0.318		0.572
Use QU systems effectively (Blackboard, Banner, and University e-mail).	0.391		0.398	0.292		0.567
Develop technology skills including using Microsoft Word, and PowerPoint.	0.439		0.348			0.563
Search e-resources in the library.	0.368		0.366	0.322		0.550
Utilize information from university website.	0.454		0.321	0.380		0.489
Social Responsibility, Civic Engagement and Citizenship						
Investigate issues related to the Qatari community	0.334	0.314	0.410	0.519		
Investigate issues related to the global community.	0.378		0.313	0.556		
Be aware of my role as a citizen.	0.403		0.309	0.601		

Pursue new ideas to meet the need of Qatari community.	0.437	0.356	0.583	
Connect with university human resources (faculty, staff, mentors and academic advisors) to help with my college transition.	0.458		0.595	
Engage in campus activities	0.528		0.532	
Access university facilities	0.453	0.361	0.508	
Participate in my community activities	0.485	0.372	0.535	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Appendix C 1: Questionnaire (English version)

First-Year Seminar Course Evaluation Questionnaire (FYS-EQ)

Dear First-Year Students,

My name is Mohamed Keshta from the Curriculum, Instruction and Assessment Master Program at the College of Education, Qatar University.

I invite you to participate in my Master's research study titled "First-Year Students at Qatar University Evaluating the Alignment of the First Year Seminar Course with 21st Century Skills" by completing a survey. The purpose of this study is to investigate the opinions of all first-year students taking UNIV 100: First Year Seminar course offered at Qatar University in Fall 2018.

This questionnaire is divided into two sections that survey student's perceptions on UNIV 100 course. The first section includes demographic information. The second section includes items related to the UNV 100 course alignment to 21st century skills in addition to an overall course evaluation.

Remember there is no right or wrong answer and that your participation is voluntary and anonymous. It is expected that this questionnaire should not take more than 20 minutes to complete. No personal information would be collected or required from you as a participant. The information collected will be kept confidential and used for the purpose of this study. It is important to say that you can participate or withdraw from the study at any time without any consequences or harm of any kind. You will not be exposed to any kind of risk, pressure or harassment. Participating in this study will contribute to the

understanding of the elements of this particular study.

Thank you for your contribution in advance.

Should you have questions or concerns regarding this survey or study, you are most welcome to contact Dr. Randa Ali Shaker Almahasneh (Associate Professor of Educational Psychology, College of Education) at ralmahasneh@qu.edu.qa or contact me at mk1002043@student.qu.edu.qa. This survey has received clearance by the Office of Qatar University Academic Research (OAR) and the Institutional Review Board (IRB).

By signing this consent form or electronically participating in this study, you understand the nature of the research study, and that participation is voluntary and your identity will be kept confidential. You will be given the access to results of this questionnaire upon your request.

Thank you for your cooperation and contribution in fulfillment of the goals of this study.

Mohamed Saber Keshta

MA Student, Curriculum, Instruction and Assessment MA Program

College of Education, Qatar University

Participant's Signature

_____ _____

(Signature) (Date)

Demographic Information

Age	
Gender	☐Male ☐Female
Nationality	☐Qatari ☐Non-Qatari
College	☐ College of Arts and Sciences ☐ College of Business and Economics ☐ College of Education ☐ College of Health Sciences ☐ College of Law ☐ College of Sharia and Islamic Studies
Language of Instruction	☐ Arabic ☐ English
Field of Study	
Section Number	
Section Timing	
Special Needs Student	☐ Yes ☐ No
High School Attended	☐ Government School ☐ Private School

Evaluation of UNIV 100: First Year Seminar Course:
The following questions pertain to UNIV 100: First Year Seminar course.

Choose the best option that reflects your level of interest in UNIV 100: First Year Seminar course.

☐ (5) I was extremely interested in the course.
☐ (4) I was very interested in the course.
☐ (3) I was interested in the course.
☐ (2) I was slightly interested in the course.
☐ (1) I was not interested in the course.

The attainment of 21st century study skills due to taking the course are given below. Please, choose the best option reflecting your opinions on them.

Item Description	(5) Strongly Agree	(4) Mostly Agree	(3) Agree	(2) Slightly Agree	(1) Strongly Disagree
UNIV 100 course assisted me to….					
learn about different learning preferences / styles.	☐	☐	☐	☐	☐
improve my own learning preference / style.	☐	☐	☐	☐	☐
adjust to different teaching styles of different instructors.	☐	☐	☐	☐	☐
manage my time and control time traps.	☐	☐	☐	☐	☐
set SMART goals.	☐	☐	☐	☐	☐
easily pick out the important points in the material I read.	☐	☐	☐	☐	☐
record effective lectures notes and use them to prepare for tests.	☐	☐	☐	☐	☐
benefit from academic resources, such as Student Learning Support Center and Center for Academic Advising at my University.	☐	☐	☐	☐	☐
read effectively using SQ3R strategy.	☐	☐	☐	☐	☐
acquire research skills.	☐	☐	☐	☐	☐
find information about a topic from the library.	☐	☐	☐	☐	☐
collect and analyze information from different resources.	☐	☐	☐	☐	☐
write research report/ paper.	☐	☐	☐	☐	☐

The attainment of 21st century skills due to taking the First Year Seminar course are given below. Please, rate your level of agreement with the statements below:

Item Description	(7) Strongly Agree	(6) Agree	(5) Somewhat Agree	(4) Neither agree nor disagree	(3) Somewhat Disagree	(2) Disagree	(1) Strongly Disagree
Problem solving and (Critical, Creative and Practical) Thinking Skills							

UNIV 100 course assisted me to….							
explore information by asking and answering questions	☐	☐	☐	☐	☐		
question how useful, truthful, and logical information is before I decide whether I take it or not.	☐	☐	☐	☐	☐		
generate options for solving a problem even if it seems like there is only one way to solve it.	☐	☐	☐	☐	☐		
think about different solutions to a problem before I choose one and take action.	☐	☐	☐	☐	☐		
learn methods to collect information.	☐	☐	☐	☐	☐		
break information into different parts – main ideas (argument) and the evidence that supports them.	☐	☐	☐	☐	☐		
examine and evaluate the different parts of a problem effectively.	☐	☐	☐	☐	☐		
distinguish fact from opinion.	☐	☐	☐	☐	☐		
examine if the evidence is biased.	☐	☐	☐	☐	☐		
make necessary connections between the different parts of a problem.	☐	☐	☐	☐	☐		
have a strong belief that I can develop my creative abilities.	☐	☐	☐	☐	☐		
seek out new information and experience to build creative ideas.	☐	☐	☐	☐	☐		
learn from mistakes, failures and experience.	☐	☐	☐	☐	☐		

Item Description	(5) Strongly Agree	(4) Mostly Agree	(3) Agree	(2) Slightly Agree	(1) Strongly Disagree
Personal Growth (Growth Mindset)					
UNIV 100 course assisted me to….					
build my growth mindset (attitude, perceptions or beliefs).	☐	☐	☐	☐	☐
feel responsible for my actions.	☐	☐	☐	☐	☐
practice academic integrity (take actions based on ethics).	☐	☐	☐	☐	☐
face fears, challenges and failures with optimism.	☐	☐	☐	☐	☐

transit smoothly from high school to university.	☐	☐	☐	☐	☐
understand my emotions and act accordingly.	☐	☐	☐	☐	☐
understand others' emotions and act accordingly.	☐	☐	☐	☐	☐
build self-control.	☐	☐	☐	☐	☐
understand the potential rewards of a college.	☐	☐	☐	☐	☐
Collaboration and Communication					
participate well in group work.	☐	☐	☐	☐	☐
contribute to my peers' learning in collaborative projects.	☐	☐	☐	☐	☐
establish positive relationships with others.	☐	☐	☐	☐	☐
manage conflict among my group members.	☐	☐	☐	☐	☐
respect the diversity of perspectives during group project.	☐	☐	☐	☐	☐
communicate effectively in oral and written forms.	☐	☐	☐	☐	☐
express my ideas clearly.	☐	☐	☐	☐	☐
Digital/ Information Literacy					
use digital technology effectively to access information.	☐	☐	☐	☐	☐
use technology to create, manage, and integrate information.	☐	☐	☐	☐	☐
use QU systems effectively (Blackboard, Banner, and University e-mail).	☐	☐	☐	☐	☐
develop technology skills including using Microsoft Word, and PowerPoint.	☐	☐	☐	☐	☐
search e-resources in the library.	☐	☐	☐	☐	☐
utilize information from university website.	☐	☐	☐	☐	☐

Item Description	(5) Strongly Agree	(4) Mostly Agree	(3) Agree	(2) Slightly Agree	(1) Strongly Disagree
Social Responsibility, Civic Engagement and Citizenship					
UNIV 100 course assisted me to….					
investigate issues related to the Qatari community	☐	☐	☐	☐	☐
investigate issues related to the global community.	☐	☐	☐	☐	☐
be aware of my role as a citizen.	☐	☐	☐	☐	☐
pursue new ideas to meet the need of Qatari community.	☐	☐	☐	☐	☐

connect with university human resources (faculty, staff, mentors and academic advisors) to help with my college transition.	☐	☐	☐	☐	☐
engage in campus activities	☐	☐	☐	☐	☐
access university facilities	☐	☐	☐	☐	☐
participate in my community activities	☐	☐	☐	☐	☐

Overall Evaluation of the Course Effectiveness and Usefulness

	(5) extremely useful	(4) useful	(3) moderately useful	(2) Slightly useful	(1) useless
I would rate the general usefulness of this course	☐	☐	☐	☐	☐
What are your suggestions to improve the course? …… ……					
What other skills you would like to be addressed in First Year Seminar Course? …… ……					

First-Year Seminar Course Evaluation Questionnaire (FYS-EQ) ends here.
Thank you for your contribution to this research study.

Appendix C 2: Questionnaire (Arabic version)

استبيان تقييم مقرر سيمينار السنة الأولى (UNIV 100: First Year Seminar)

عزيزي الطالب / عزيزتي الطالبة،

يطيب لي أن أعرفك بنفسي. اسمي محمد قشطة باحث ببرنامج ماجستير المناهج وطرق التدريس والتقويم بكلية التربية جامعة قطر.

يسرني دعوتكم للمشاركة في هذه الدراسة التي تحمل عنوان " طلاب السنة الأولى بجامعة قطر يقيّمون مدى اتساق مقرر سيمينار السنة الأولى مع مهارات القرن الواحد والعشرين"، وذلك من خلال تعبئة استبيان صُمّم لهذا الغرض. تجدر الإشارة إلى أن الغرض من هذه الدراسة هو استقصاء آراء طلبة السنة الأولى المسجلين في المقرر لفصل خريف 2018 بجامعة قطر.

ينقسم هذا الاستبيان إلى قسمين، الأول يحتوي على بيانات ديموغرافية، ويحتوي القسم الثاني على أسئلة ذات صلة بتقويم هذا المقرر من حيث توافقه مع مهارات القرن الواحد والعشرين بالإضافة إلى تقييم عام للمقرر.

تذكر بأنه لا توجد إجابة صحيحة أو إجابة خاطئة وأن مشاركتك في هذا الاستبيان طوعية واختيارية ولن يتم تجميع أي بيانات خاصة بك فهويتك ستبقى سرية وسيتم استخدامها لأغراض هذه الدراسة فقط. يتوقع ألا تستغرق الإجابة على هذه الاستبيان أكثر من عشرين دقيقة. كما يمكنك المشاركة أو الانسحاب من هذه الدراسة في أي وقت شئت دونما أي مخاطرة أو ضغوطات أو عواقب أو أضرار من أي نوع. فمشاركتك في هذه الدراسة ستساهم في فهم عناصر هذه الدراسة.

جزيل الشكر لك مقدما.

إذا كانت لديك أية أسئلة أو استفسارات بخصوص هذا الاستبيان أو الدارسة، فيسرني الترحيب بتواصلك مع الدكتورة / رندة المحاسنة (أستاذ مشارك – علم النفس التربوي بكلية التربية) على ralmahasneh@qu.edu.qa أو التواصل معي على عنوان البريد الإلكتروني التالي: mk1002043@student.qu.edu.qa.

حصل هذا الاستبيان على تصريح من مكتب البحوث الأكاديمية ومجلس المراجعة المؤسسية بجامعة قطر.

بتوقيعك على نموذج الموافقة هذا أو المشاركة فيه إلكترونياً فأنك تقر بفهم طبيعة الدراسة البحثية والمخاطر المترتبة على مشاركتك وأن مشاركتك طوعية وأن هويتك ستبقى سرية. كما سيتم منحك حق الوصول إلى نتائج هذا الاستبيان

بناءً على طلبك.

شكراً لتعاونك ومساهمتك تحقيقاً لأهداف هذه الدراسة.

محمد قشطة

طالب الدراسات العليا ببرنامج ماجستير المناهج وطرق التدريس والتقويم

كلية التربية -جامعة قطر

نموذج توقيع المشارك:

_____ _____

التوقيع التاريخ

المعلومات الديموغرافية

العمر	
الجنس	☐ ذكر ☐ أنثى
الجنسية	☐ قطري ☐غير قطري
الكلية	☐كلية الآداب والعلوم ☐كلية الإدارة والاقتصاد ☐كلية التربية ☐كلية العلوم الصحية ☐كلية القانون ☐ كلية الشريعة والدراسات الإسلامية
لغة التدريس	☐اللغة العربية ☐ اللغة الإنجليزية
التخصص	
رقم المجموعة	
وقت المجموعة	
من ذوي الاحتياجات الخاصة	☐نعم ☐لا
نوع المدرسة الثانوية التي اجتزتها	☐ مدرسة حكومية ☐ مدرسة خاصة

تقييم مقرر سيمينار السنة الأولى (UNIV 100: First Year Seminar)

تتعلق الأسئلة التالية بمقرر سيمينار السنة الأولى (UNIV 100: First Year Seminar).

اختر الخيار الأفضل الذي يعكس مستوى اهتمامك بمقرر سيمينار السنة الأولى على مقياس من 1 (أقل اهتماماً) إلى 5 (أكثر اهتماماً).

☐ (5) كنت مهتماً للغاية بمقرر سيمينار السنة الأولى

☐ (4) كنت مهتماً جداً بمقرر سيمينار السنة الأولى

☐ (3) كنت مهتماً بمقرر سيمينار السنة الأولى

☐ (2) كنت مهتماً بدرجة قليلة بمقرر سيمينار السنة الأولى

☐ (1) لم أكن مهتماً بمقرر سيمينار السنة الأولى

الأسئلة أدناه تتعلق بمدى اكتسابك لمهارات الدراسة للقرن الواحد والعشرين من خلال دراستك لمقرر سيمينار السنة الأولى. من فضلك اختر الخيار الأفضل الذي يعبر عن رأيك في كل منها.

وصف السؤال	(7) موافق بشدة	(6) موافق	(4) محايد	(2) غير موافق	(1) غير موافق بشدة
ساعدني مقرر سيمنار السنة الأولى (First Year Seminar) على:					
تعلم تفضيلات وأنماط تعلم متنوعة.	☐	☐	☐		
تحسين نمط التعلم الخاص بي.	☐	☐	☐		
التكيف مع أنماط التدريس المتنوعة لأعضاء هيئة التدريس.	☐	☐	☐		
إدارة وقتي والسيطرة على الأمور المضيعة للوقت / لصوص الوقت.	☐	☐	☐		
تحديد أهداف ذكية (SMART).	☐	☐	☐		
تحديد النقاط المهمة بسهولة في المادة التي أقرأها.	☐	☐	☐		
تدوين ملاحظات فعالة للمحاضرات واستخدامها للتحضير للاختبارات.	☐	☐	☐		
الاستفادة من المصادر الأكاديمية في الجامعة مثل مركز دعم تعلم الطلاب ومركز الإرشاد الأكاديمي.	☐	☐	☐		
القراءة بفاعلية باستخدام استراتيجية SQ3R.	☐	☐	☐		

اكتساب مهارات البحث.	☐	☐	☐		
العثور على معلومات حول موضوع من مكتبة الجامعة.	☐	☐	☐		
جمع وتحليل المعلومات من مصادر مختلفة.	☐	☐	☐		
كتابة تقرير أو ورقة بحثية.	☐	☐	☐		

الأسئلة أدناه تتعلق بمدى اكتسابك لمهارات القرن الواحد والعشرين من خلال دراستك لمقرر سيمينار السنة الأولى.

من فضلك قيم مستوى موافقتك على العبارات التالية.

وصف السؤال	(7) موافق بشدة	(6) موافق	(4) محايد	(2) غير موافق	(1) غير موافق بشدة
مهارات حل المشكلات والتفكير (الناقد والإبداعي والعملي)					
ساعدني مقرر سيمنار السنة الأولى (First Year Seminar) على:					
استكشاف المعلومات من خلال طرح الأسئلة والإجابة عليها.					
التساؤل عن مدى فائدة وصدق ومنطقية أي معلومة قبل اتخاذ القرار بشأن استخدامها أو أخذها في الاعتبار.					
توليد عدد من البدائل لحل مشكلة محددة حتى لو بدا أن هناك طريقة واحدة فقط لحلها.					
التفكير في حلول متنوعة لمشكلة محددة قبل اختيار واحد من هذه الحلول والبدء في تنفيذه.					
تعلم طرق جمع المعلومات.					
تقسيم المعلومات إلى أجزاء مختلفة: أفكار رئيسة (الحُجّة) والأدلة التي تدعمها.					
دراسة وتقييم المكونات المختلفة للمشكلة على نحو فعال.					
تمييز الحقيقة من الرأي.					
فحص ما إذا كانت الأدلة متحيزة أم لا.					
إجراء الربط اللازم بين المكونات المختلفة للمشكلة ببعضها البعض.					
أن يصبح لدي إيمان قوي بأنه يمكنني تطوير قدراتي الإبداعية.					
البحث عن معلومات وخبرات جديدة من أجل بناء أفكاري الإبداعية.					
التعلم من الأخطاء والفشل والخبرات.					
التطور الشخصي (العقلية القابلة للتطور)					
بناء عقلية متطورة خاصة بي (والمتمثلة في بناء الاتجاه والمعتقدات نحو موضوع معين).	☐	☐	☐		
الشعور بالمسؤولية تجاه أفعالي.	☐	☐	☐		
ممارسة النزاهة الأكاديمية (اتخاذ القرارات على أساس الأخلاق)	☐	☐	☐		
مواجهة المخاوف والتحديات والفشل بالتفاؤل.	☐	☐	☐		
الانتقال بسلاسة من المرحلة الثانوية إلى الجامعة.	☐	☐	☐		

فهم مشاعري والعمل وفقاً لذلك.	☐	☐	☐		
فهم مشاعر الآخرين والعمل وفقاً لذلك.	☐	☐	☐		
التحكم والضبط الذاتي.	☐	☐	☐		
فهم فائدة الالتحاق بالجامعة.	☐	☐	☐		

وصف السؤال	(7) موافق بشدة	(6) موافق	(4) محايد	(2) غير موافق	(1) غير موافق بشدة
التعاون والتواصل					
المشاركة بشكل جيد في العمل الجماعي.	☐	☐	☐		
المساهمة في تعلم زملائي في المشاريع التعاونية.	☐	☐	☐		
بناء علاقات إيجابية مع الآخرين.	☐	☐	☐		
إدارة الخلاف بين أعضاء مجموعة العمل.	☐	☐	☐		
احترام تنوع وجهات النظر خلال المشروع الجماعي.	☐	☐	☐		
التواصل بفاعلية شفهياً وكتابةً.	☐	☐	☐		
التعبير عن أفكاري بوضوح.	☐	☐	☐		
معرفة التكنولوجيا الرقمية ومحو الأمية المعلوماتية.					
استخدام التكنولوجيا الرقمية بفاعلية للوصول إلى المعلومات.	☐	☐	☐		
استخدام التكنولوجيا لإنشاء وإدارة وتنظيم المعلومات.	☐	☐	☐		
استخدام الأنظمة الإلكترونية في الجامعة (مثال بلاك بورد، بانر، البريد الإلكتروني) بفاعلية.	☐	☐	☐		
تطوير مهارات تكنولوجية بما في ذلك استخدام مايكروسوفت وورد (WORD) وباوربوينت (PowerPoint).	☐	☐	☐		
البحث عن المصادر الإلكترونية في مكتبة الجامعة.	☐	☐	☐		
الاستفادة من المعلومات المتاحة على موقع الجامعة.					
المسؤولية الاجتماعية والمشاركة المدنية والمواطنة					
البحث في القضايا المتعلقة بالمجتمع القطري.	☐	☐	☐		
البحث في القضايا المتعلقة بالمجتمع العالمي.	☐	☐	☐		
أن أكون على وعي بدوري كمواطن.	☐	☐	☐		
متابعة الأفكار الجديدة لتلبية حاجة المجتمع القطري.	☐	☐	☐		
التواصل مع الموارد البشرية الجامعية (من أعضاء هيئة تدريس وموظفين وموجهين ومرشدين أكاديميين) وذلك للمساعدة في انتقالي للجامعة.	☐	☐	☐		
الانخراط في أنشطة الحرم الجامعي.	☐	☐	☐		
الوصول إلى مرافق الجامعة.	☐	☐	☐		
المشاركة في أنشطة المجتمع المحيط بي.	☐	☐	☐		

تقييم عام لمدى فاعلية وفائدة مقرر سيمينار السنة الأولى.

وصف السؤال	(5) مفيد للغاية	(4) مفيد	(3) مفيد بعض الشيء	(2) مفيد بشكل طفيف	(1) غير مفيد
أقيم الفائدة العامة لهذا المقرر بالشكل التالي:	☐	☐	☐	☐	☐
ماهي مقترحاتك لتحسين المقرر؟ …… … ……					
ماهي المهارات الأخرى التي ترغب في أن يتناولها مقرر سيمينار السنة الأولى؟ …… ……					