Teacher Education: The Relevance and Efficiency of Current Syllabi in Preparing Teachers for a Real Classroom

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Abstract

Teacher education refers to policies and processes aimed at providing teachers with the information and skills they need to be effective educators and teach effectively; however, this is easier said than done. Therefore, comprehensive preparation of student-teachers would aid them performing well in educational and teaching contexts. Students of Tishk International University, Faculty of Education study for four years to go into real classrooms and teach. They go through many different phases, take different theoretical and practical courses, attend various extracurricular activities, and carry out practice teaching program in order to become effective teachers in our age of speed. This study endeavored to find the sufficiency and effectiveness of the program offered at the faculty via senior students and graduates' perceptions. To do so, data were collected both quantitatively and qualitatively. In the quantitative part, the study population comprised of seventy-one senior students and graduates from the Faculty of Education, whereas eight participants responded to the interview questions for the qualitative phase. The data were collected using a questionnaire and open-ended questions. The collected data were analyzed using SPSS and descriptions. The result indicated that the overwhelming majority of the participants are satisfied with the whole program they received. A strong majority of the participants showed that they have gained a lot from the curriculum in many of the aspects necessary for teachers in the twenty-first century. Moreover, results unveiled positive attitudes of the respondents towards content, pedagogical, technological, and methodological knowledge they collected during years of study.

Keywords: Education, Pre-Service Teaching, Student Teacher, Curriculum, Teacher Skills

Introduction

Faculties of education worldwide prepare students to become flourishing teachers. Student-teachers are taught strategies of transferring knowledge to learners, ways of treating them, dealing with their mental health, etc. Luckily, now it is clear that this

transmission of pedagogical knowledge through theory cannot actually work (Wideen, Mayer-Smith, & Moon, 1998). Universities follow many different curriculums and instruction programs as they work on preparing teachers. For decades, the traditional curriculum and methods of teaching future teachers has been dominant (Sprinthall, Reiman, & Thies-Sprinthall, 1996; Imig & Switzer, 1996, p. 223). This dominant traditional teacher education is the university providing future-teachers with theory, methods and type of skills, then the school setting for implementation of what they have learned theoretically and application of the knowledge. With many sources proving its limitations and not having strong effects on students such as studies presented by Wideen, Mayer-Smith, and Moon (1998). And Research Panel on Teacher Education of the American Educational Research Association (Cochran-Smith & Zeichner, 2005). Those teachers in training as proven in the mentioned studies, face struggles to control classes, get frustrated and angry, rather than going through a process of learning, they mostly just want to survive the experience.

Majority of education today focuses on specific courses learners take to learn factual information. "Students' minds are thought of like a box. If you put a hundred-dollar bill, the system expects you to take out the same amount of money during the 'exam'. But the human brain is supposed to think, create, and build on ideas not just save the information and give it back during tests (Wahab, 2014). As future teachers are taught all these methods and pedagogies, we cannot expect those to help them deal with their classrooms. Teaching is more of a creative/artistic process rather than science; "Teaching is an art form by learning from its scientific application in the classroom" (What is teaching, 2018). Our teachers need more in-classroom time for practice to face real situations and gain the experience of how to act in real time and get used to the art of teaching. Prospective teachers spend years learning about the "ideal" classroom, treating learners as individuals whose psychological and mental issues, multiple intelligences, behaviors...etc. should be of major concerns to the teacher of a single lesson. This being the mindset of future teachers, overwhelms them and can cause shock to further create the thought of disability or lack of experience as shown in the cited studies.

It is also important to consider these Future-Teachers are in the process of learning themselves. Educating people of any age and aspiration to take full responsibility for the consequences of their purposeful and habitual actions in other people's lives may be said to be an unmet challenge—though it may also be said to lie at the heart of the democratic assumption and its expression in universal public schooling. Educating people, including prospective teachers just barely adults themselves (Virginia Richardson, 2005).

Prospective teachers need an integration bridge between university's theoretical classes and real classroom for the implementation of what they learn theoretically (Sekar, 2020). This connection is currently carried out through practice teaching in senior year in some colleges. Student-teachers go to schools to observe and teach, with help from their

department, supervisor, the school staff and a mentor teacher in the school. In other words, one way to achieve this aim, and to well prepare teachers for a real classroom and to enable them with necessary competencies, faculties of education follow a program of practice teaching or school experience.

Based on previous studies, (Sekar, 2020) "The majority of students who attend schools for practice teaching give very positive feedback on how it helps with improvement of their pedagogical skills."

This research focuses on how much teacher education, real classroom experience in addition to other practical extracurricular activities offered at Tishk International University, Faculty of Education well produce future teachers and prepare them for teaching and educational carries. It further focuses on finding the benefits of the curriculum of TIU, Education Faculty. Thus, the study intends to answer the following research questions:

- 1. How well TIU-Education Faculty students are prepared for teaching after graduation.
- 2. What requires change in the curriculum of TIU Education Faculty?
- 3. What are the perceptions of current senior students and graduates working as teachers regarding the program offered at the faculty?

In short, this research aims to find out to what extend real classrooms and university curriculum of TIU, Faculty of Education are interlinked.

Scope of the Study

This study focuses on the curriculum of Tishk International University, Faculty of Education regarding how well it prepares students for teaching in real classrooms and labor market of education.

Significance of the Study

The present study would be significant in several ways:

- 1. It would help to have a clear picture of the current status of the issue under investigation;
- Based on the results, educators, curriculum designers, and practice-teaching decision
 makers would adjust and respond to the process of pre-service teachers in TIU
 Education Faculty.

Novelty

The novelty of the study concerns its setting in which no other studies, to the best knowledge of the researchers, investigated this issue at TIU, faculty of education. Thus, the study findings contribute to educational progress in the faculty and, might, elsewhere.

Literature Review

The Work of Teaching

There are many different debates about what teaching, and its roles are. "Teaching is relational work" (Lampert, 2001). "Process of human improvement" (Cohen, 1988). Many people say it is an art, "The simultaneity of thought and action in the classroom and the moral nature of the relational decisions compel a particular form of judgment that relies, in part, on the acquisition of practical knowledge gained from experience" (Richardson & Roosevelt, 2005). On the other hand, some say it is an act of philosophy, and others say it is "an act of service or public trust" (Richardson & Roosevelt 2005). Parents put their children in schools trusting their system, teachers, and environment to raise their children the best way that suits them and their world. "Teaching is highly context-specific work" Richardson & Roosevelt (2005). Classrooms are formed by the people in it. What students and teachers bring, the different intelligences, cultures, traditions, and ways of communication that come from all the differences each individual in the class has. When and where to teach what, based on students' needs. That is why there are many debates of what teaching really is. As mentioned by Riley, Secretary of Education under Clinton, "We are preparing children for jobs that yet do not yet exist... Using technologies that have not yet been invented... in order to solve problems we don't even know are problems yet" Trilling & Fadel (2009). Schools should help prepare learners for the age of technology. "Not prepare them or educate them based on what we want them to become, what kind of future adults we want to raise or how we want our society to be" Richardson & Roosevelt (2005). Teaching is not only a process of information pass on to learners. "Teaching is work that has moral significance" (Fenstermacher, 1990; Hansen, 2001; Noddings, 1992; Sockett, 1993; Tom, 1984; Barzani, 2021). Teachers' responsibility is educating learners about life. With the process of information transformation, teach them "critical thinking and problem solving, communication and problem solving, creativity and innovation. These are the most important 21st century skills for future citizens to be acquainted with" Trilling & Fadel (2009).

The Essence of Teacher Attitudes for Teaching in a Real Classroom

Teachers' attitudes and beliefs is clearly quite effective on his/her performance. The work of teaching becomes more professional and satisfying when the teacher has a positive favorable attitude towards instructing. In addition to that, a negative attitude makes the job more difficult, and it will reflect on the students' interest in learning as well as making the job more difficult for the teacher. Students' interest can be gained through teachers' interest and their desirable attitude for teaching as stated by (Sarkar & Behera 2016). In a study conducted by Assor, Kaplan and Roth (2002) show the effect of teacher

attitude and behavior on students' attitude towards learning. "Children and early adolescents can differentiate among six types of autonomy-affecting teacher behaviors. Thus, it appears that children do not simply classify teachers as good or bad, and they do seem to perceive the different ways by which their teachers support or suppress their need for autonomy in schoolwork."

The Faculty's Program

The Education Faculty of Tishk International University (TIU) has been serving society since 2008 when the University was founded. This faculty offers a variety of courses. The most comprehensive education in the field of education and humanities is therefore offered. Additionally, to enable its graduates, a variety of elective courses, in addition to the main ones, as well as extracurricular activities are therefore offered. Indeed, the Education Faculty has enjoyed phenomenal growth in terms of people, programs, facilities, and research over the past few years. This is achieved through its development with the most recent trends and technologies in teaching and education. It aspires to be a leading faculty both in the study and practice of education in the region and to graduate students who are committed to their professions. Besides other practical courses, faculty of education of TIU offers and requires its senior students to take a two semester practical courses entitled "Practice Teaching-first semester and School Experience-second semester". These courses, with its well-designed program and nature prepares future teachers for real educational contexts as well as expose them to realities of their profession.

Preservice Teacher Program at TIU

In TIU, faculty of Education, senior students visit schools two days a week from the start of the fourth academic year until the end. Each student chooses a school with help from the department and teachers. The first semesters (Practice Teaching Course) requirements are six to eight lessons observation a week. The second semester (School Experience Course) requisites are four hours' observation and two hours teaching each week. Teacher-Learners receive a students' handbook about the requirements and tasks. The tasks include specific observations during lessons to help learners pay attention and notice teaching pedagogies. Student-Teachers from each school have a supervisor assigned by their department who visits them at school weekly, checks their tasks, sets their marks, keeps contacts between the school, the mentor teacher and the department. Lastly, each student has a mentor in the school to help with planning their lessons. Student-Teachers have an attendance sheet, which will be signed be their mentor teacher after each lesson they observe or teach. This is given to their supervisor by the end of each semester (School Experience Handbook, 2022).

Practice Teaching in the practice handbook of Tlokweng College of Education

teaching (2011) (p.5) is defined as "the practicum, field experience or internship". According to Marais and Meier (2004, p. 221) "the term teaching practice represents the range of experiences to which student teachers are exposed when they work in classrooms and schools." "It is an integral component of teacher training and refers to students' placements to schools to practice lesson planning, classroom organization and most importantly classroom teaching. It is an essential part of effective professional training" (Kiggundu & Nayimuli, 2009). When student-teachers are put inside the school environment, they feel as if they are a part of this new environment. They start to think, and act based on the practical reality they now live in. This act supports creativity and growth in their careers as professionally trained teachers. To support that, Ngidi and Sibaya (2003) and Marais and Meier (2004) say that practice teaching is one of the crucial steps into becoming a teacher due to giving them the experience of what the real teaching environment is like.

The Purpose behind Preservice Teacher Program

Practice teaching is the work and level of experience teachers in progress get before they start their actual work of teaching. To help preservice teachers put the knowledge they gain into the course of four years through theoretical lessons in use, the departments provide the Practice-Teaching Program. Student-Teachers are expected to observe different teachers and be familiar with different ways of teaching. They also get involved in the administration work of the. They will be with the mentor teacher for preparing exam papers, invigilation and grading the papers. Prospective teachers get the opportunity to try different ways of teaching to see what works and what doesn't reflect on their teaching pedagogies and find their own style.

All of these, aim to help future teachers become familiar with school and classroom environment in real life, get experience, recognize different teaching pedagogies, get confidence as teachers, and put what they learn theoretically into practice.

Importance of Preservice Teacher Preparation

According to Richardson & Roosevelt (2005) "In every profession, there are basic information, skills and rules the person should know before they start the occupation. After some time of using these basic rules, the person will get used to the work environment, start getting experience and will get pass the basics to make their own rules to match the environment they work in. Good teacher training programs provide preservice teachers with basics to help them become professionals over time" Teachers could have the prior knowledge in ways of teaching, know the ways of teaching and how to match the system and curriculum, but have not met problems in the real classroom, they have not been in situations to make decisions on the go about things they have not studied in theory. If they

go to schools in order to practice their occupation, they will see real situations and issues, they will learn how to think quickly and make decisions on the go while facing a problem they have not heard of. "Teachers without strong preparation programs will have a remarkably difficult time in the classroom and may not stay there very long" (Darling-Hammond & Sykes, 2003). Thus, carrying such trainings shall be considered a must.

Elements Required for Teacher Workforce Improvement

One of the biggest issues in education system today is lack of teachers. According to Richardson & Roosevelt (2005) "There are shortages in teachers of specific professions such as Mathematics and special education. There is also a very low-quality teaching for predominantly poor students and students of color" (Darling-Hammond & Sykes, 2003). "Disagree with those who say there is a shortage of qualified teachers... rather, the qualified teachers do not choose to teach in these special school districts. Even if they are hired, they can only stay for a short period of time" "One way to solve the problem of lack of professional teachers in special school districts is for a national movement to distribute qualified teachers equally on all the districts. Allow all states to designate teachers whether Prospective teachers or they are a part of an alternative certification program" (Richardson & Roosevelt, 2005). Although the correct distribution of teachers on the different areas and keeping them there is crucial, that doesn't mean teacher preparation programs do not need improvement anymore. Teacher education programs still need much improvement. That may be accomplished through fostering and enhancing the quality of intentional and methodical conversation aimed at advancing teacher education. We must understand what "learning to teach" means and how it happens. We also must know what it means for it to misfire.) A research by Watt & Richardson (2003) found if the teacher has intrinsic motives such as moral and intellectual value, their ability to teach are stronger than their external motives, it is easier to keep them in the teaching profession. It is also believed that mixing community activists with moral and intellectual value to education can decrease lack of teachers in some areas Richardson & Roosevelt (2005).

Impact of Extracurricular Activities on Preparing Future Teachers

Extracurricular activities are school-sponsored activities that take place outside of the regular school day. Sports like football and hockey, clubs like music and language Club and National Honors Society, and other activities like tutoring, theater, and leadership groups are all examples of this. Mahoney et al. (2003) asserted that extracurricular activities include unique factors: kids deciding to engage, structure imposed by an adult leader, and the requirement that participants put in some form of effort in their study on school success through extracurricular participation. In the same line, extracurricular activities, according to Shernoff and Vandell (2007), are after-school activities that fall into

numerous categories, including sports, arts, socializing, and academic enrichment activities. Therefore, it is essential to remember that extracurricular activities highly impact on the development of professionalism of teachers and educators. In this regard, "Extracurricular activities can give new aspects for learning and development and allow students opportunity to further explore the areas they prefer," according to the National Education Association (2017, para. 9). The impact of such activities could have either immediate impact or long-term one. However, generally, they do results in positive ways. In conducting extracurricular activities, students are exposed to real situations and issues while teaching in classrooms and get to gain experience in teaching. Luckily, students at TIU, faculty of education are offered with various extracurricular activities. Students are very active in such activities and found them very interesting and beneficial. The positive influence of such activities could be seen in the high-level performance of the graduates.

Research Design

As stated earlier, the current study attempted to find the extent to which students of Education Faculty in Tishk International University receive the type of education on how to become well qualified teachers that suit the twenty first century requirements and find how prepared they are when they finish college and enter real classrooms. The present study used a mixed method research design which indicates that data were collected both quantitatively and qualitatively. Such research design implementation is helpful in reaching the answers for the research questions. This methodology also is useful to include a reasonable population and to collect in-depth responses regarding the issue under investigation.

Participants and Setting

Since data for the present study were collected using two different instruments, the participants comprised of two groups as well. For the quantitative part, 71 participants (31 male & 40 female) responded to the questionnaire; whereases regarding the qualitative part, 8 (3 male & 5 female) participants were interviewed. Table 1 and 2 below display information regarding the participants.

The study considered certain characteristics for the two sets of participants. In this regard, participants were all from Tishk International University, Faculty of Education, including the departments of English Language Teaching, Biology Education, Physics education, and Mathematics Education. Additionally, all of the respondents were both either graduates and currently teaching at schools or fourth grade students in which experiencing two semesters of practice teaching at schools. A purposive sampling population was used; however, participants were given enough freedom of participation, in which they were participated based on their willingness. The study was conducted at Tishk International University-Erbil in the academic years 2021-2022.

Department	Current St	atus	Gender	•	Number
	4th grade	4th grade Graduated I		Female	_
ELT	30	10	16	24	40
Biology E.	6	4	5	5	10
Physics E.	7	2	4	5	9
Math E.	10	2	6	6	12
Total	57	14	31	40	71

Table 1: A summary of participants in the quantitative method

Table 2: A summary of participants in the qualitative method

Department	Current St	atus	Gende	r	Number
	4th grade	Graduated	Male	Female	-
ELT	2	3	2	3	5
Biology E.	0	1	1	0	1
Physics E.	1	1	0	2	2
Math E.	0	0	0	0	0
Total	3	5	3	5	8

Data Collection Tools

Data collection devices for the current study included a questionnaires and semistructured interviews. The questionnaire consisted of 23 items on 5 Likert-Scale bases starting from strongly agree to strongly disagree. The items were divided into four different domains, namely Content Knowledge (item 1-5), Pedagogical Knowledge (item 6-14), Pedagogical Content Knowledge (item 15-18), and Technology Knowledge (item 19-23).

As stated earlier, qualitative data was then gathered in order to further investigate the study topics and provide more accurate responses. In this regard, semi-structured interviews were utilized. The semi-structured interviews consisted of 12 open-ended interview questions. The responses to these questions were audio-recorded.

Data Analysis

Analysis of data was carried out once the collection of both quantitative and qualitative data was completed. The quantitative data were numeric in nature; thus, SPSS was used to analyze them. Regarding the qualitative data, such analysis requires at most caution since the process is more prone to subjectivity and bias. Therefore, the collected

data through open-ended interview questions were analyzed using certain steps suggested by Miles and Huberman (1994) "Transcribing recordings, reviewing transcripts many times, coding transcripts, producing a summary of the coded material, and ultimately drafting a memo" (as cited in Griffee, 2012, p.165).

Pilot Study

As Van Teijlingen and Hundley (2001) suggests, through piloting, flaws in the study design may be identified, as well as the techniques and tools used for data collection can be evaluated for applicability and usability. Therefore, instruments for data collection were first piloted before going into full use. The questionnaire was piloted including 15 participants and open-ended interview questions were piloted using two participants. The results indicated that some amendments are required in terms of wording, comprehensibility and in-depth investigations. Thus, the amendments were applied with the help of an expert in the field; in which this helped to achieve the validity and reliability of the data.

Ethical Considerations

Confidentiality and ethical considerations were one of the priorities of the researchers while conducting this study. There are three main areas of importance for ethical concerns according to Diner and Crandall (1987). These are "1. The relationship between society and science. 2. Professional matters. And 3. Research participants' treatment." Therefore, these three mentioned issues were carefully considered throughout this study for collection of important data, their interpretation and analyzation. Throughout the process of data collection, complete freedom of speech or withdrawal right was given to the participants during the interviews. Confidentiality of the participants' personal data such as names, place of work and recoded voice responses was considered important and kept a secret. Furthermore, participants were made sure that their names will not be mentioned in any way, instead, codes that represent each participant will be used. As well as all the recorded responses being deleted after the completion of this study.

Results and Discussions

Quantitative Results

As stated earlier two sets of data (quantitative and qualitative) are collected. Thus, first the results of the quantitative date will be illustrated based on the four main domains, and then those of qualitative will be presented.

Perceptions toward Content Knowledge

Table 3: Content knowledge data illustration

Items	SD	D	Total	N (3)	A (4)	SA	Total
	(1)	(2)	(1+2)	%	%	(5)	(4+5)
	%	%	%	70	70	%	%
I received sufficient knowledge relevant to my field of study.	2.8	2.8	5.6	12.7	49.3	32.4	81.7
I was given sufficient knowledge about a range of topics needed for teaching in a real classroom.	3.8	5.6	9.4	4.2	48.3	38	86.3
I am enabled with a competence to transform knowledge into practice.	5.8	7	12.8	14.1	38	35	73
The content knowledge I received was very helpful to perform well in a real teaching setting.	4.4	6.6	11	5.6	31.2	52.1	83.3
I was exposed to various ways and strategies for developing and keeping up to date my content knowledge.	1.4	4.2	5.6	7	46.5	40.8	87.3

The first domain of the questionnaire (5 questions) addressed the knowledge received by students to become teachers throughout their four years of studying in TIU. As shown in the table above, a strong majority of 81.7% (S. Agree and Agree) agree that they have received sufficient knowledge in relevance to their fields. For further clarification, 86.3% (S. Agree and Agree) have taken sufficient knowledge to teach in classrooms. In addition to that, 83.3% (S. Agree and Agree) that the content knowledge received has been very helpful to perform in real classrooms. A large number of 87.3% of applicants said they have had exposure to various strategies for development and keeping up to date their content knowledge. Ability of transformation of knowledge into practice was the one which received the least (S. Agree and Agree) compared to the other questions with a rate of 73%, but it is still quite high.

Perceptions toward Pedagogical Knowledge

Table 4: Pedagogical knowledge data illustration

Items	SD (1)	D (2)	Total (1+2)	N (3)	A (4)	SA (5)	Total (4+5)
	(1) %	(2) %	(1+2) %	%	(4) %	(3)	(4+3) %
I received enough skills regarding assessment.	_	5.6	5.6	19.7	40.8	33.8	74.6
I had taught well about how to adapt my teaching based-upon what students currently understand or do not understand.	2.8	2.8	5.6	14.1	45.1	35.2	80.3
I received enough theoretical and practical knowledge to adapt my teaching style to different learners.	4.8	1.4	6.2	8.5	48.7	36.6	85.3
I received enough practical knowledge to adapt my teaching style to different learners.	5.6	7.6	13.2	5.8	43.7	34.6	78.3
I received ways of how to properly transfer theory into practice.	5.6	4.2	9.8	12.7	39.4	38	77.4
I received various assessment tools to assess students' learning in multiple ways.	2.8	7	9.8	14.1	38	38	76
I received a wide range of teaching approaches in a classroom setting.	1.8	5.2	7	5	45.9	40	85.9
I was familiarized with common student understandings and misconceptions.	3.8	7	10.8	10.3	47.9	31	78.9
I was well taught how to organize and maintain classroom management through practice.	2.8	10	12.8	6.9	42.3	38	80.3

Regarding the pedagogical skills received, a good number of 74.6% participants (S. Agree and Agree) that they received enough skills to help them assess their students well. 80.3% of participants (S. Agree and Agree) they have been taught to adapt their teaching based on students current understanding level. In addition to that, 85.3% (S. Agree and Agree) the practical and theoretical information received was enough to adapt teaching styles according to different learners. As well as 78.3% who (S. Agree and Agree) they received enough practical knowledge to adapt their teaching styles to different learners. Another 78.3% (S. Agree and Agree) they learned how to properly transfer theory into practice. 77.4% responded to (S. Agree and Agree) that they received various assessment tools to assess students learning in multiple ways. A wide majority of 85.9% (S. Agree and Agree) they received a wide range of teaching approaches in the classroom setting. 78.9% of the participants (S. Agree and Agree) to being familiarized with common student understandings and misconceptions, and further 80.3% (S. Agree and Agree) that they were well taught about organization and maintaining classroom management.

Perceptions toward Pedagogical Content Knowledge

Table 5: Pedagogical content knowledge data illustration

Items	SD (1)	D (2) %	Total (1+2)	N (3)	A (4) %	SA (5)	Total (4+5)
	%		%			%	%
I received knowledge about how to select effective teaching approaches to guide student thinking and learning.	5	4.2	9.2	14.1	49.3	26.8	76.1
Our education program well prepared us regarding pedagogical content knowledge.	4.2	7	11.2	11.3	39.4	38	77.4
I received sufficient knowledge about different curriculums.	6.2	8	14.2	16.3	43.7	25.8	69.5
I received sufficient knowledge about different types of learners.	2.8	5.6	8.4	2.8	47.9	40.8	88.7

The third domain was participant's perception toward pedagogical content

knowledge. To that, 76.1% of the participants (S. Agree and Agree) to receiving knowledge about how to select effective teaching approaches to guide student thinking and learning. In regard to the education program preparing them for pedagogical content knowledge, 77.4% (S. Agree and Agree). The least agreement in this domain was for receiving sufficient knowledge about different curriculums in an average of 69.5% (S. Agree and Agree). Further, 88.7% (S. Agree and Agree) on receiving sufficient knowledge about different types of learners.

Perceptions toward Technology Knowledge

Table 6: Technology knowledge data illustration

Items	SD (1) %	D (2) %	Total (1+2) %	N (3) %	A (4) %	SA (5) %	Total (4+5) %
I have received enough technological knowledge to solve the technical problems a novice teacher might face in class.	5.6	7	12.6	11.1	36.6	39.6	76.2
I received knowledge about a lot of different technologies needed for teaching.	4.2	9.6	13.8	10.1	35.2	48.8	84
I received the technical skills I need to use technology in class.	6	1.7	7.7	9.5	43.4	39.4	82.8
I have had received sufficient opportunities to work with different technologies.	7.2	6.9	14.1	12.7	32.4	40.8	73.2
I was enabled with necessary technologies that I can use for understanding and teaching.	4.2	5.6	9.8	12.7	33.8	43.7	77.5

The final domain of the questionnaire was about participant's perceptions toward technology knowledge. 76.2% (S. Agree and Agree) to having received enough technological knowledge to solve the technical they might face in class. 84% responded as (S. Agree and Agree) to receiving knowledge about a lot of different technologies needed

for teaching. For further clarification of that, 82.8% (S. Agree and Agree) said they received the technical skills needed for use of technology in class. As well as 73.2% (S. Agree and Agree) to receiving sufficient opportunities to work with different technologies. Another 77.5% also (S. Agree and Agree) to having been enabled with necessary technologies that they could use for understanding and teaching.

Qualitative Results

Like the quantitative data, the qualitative ones aimed at addressing students' perceptions towards the four main domains (Content Knowledge, Pedagogical Knowledge, Pedagogical Content Knowledge, and Technology Knowledge).

The findings indicated that, generally, they are in line with those of quantitative ones. Regarding the content knowledge, the results showed that the strong majority of the respondents stated they received a sufficient content knowledge. This is mainly done through both the practical and theoretical courses offered in the curricula. For instance, S1 stated: "the courses that needed implementation, the chance of practice was given, especially the courses of TEFL. Theory is given to us then we have to implement whatever we have learned through microteaching which I believe is a great chance for students to practice as teachers."

In TIU, in addition to the courses offered, a special program is in action to prepare future teachers and equip them with the necessary requirements and abilities in which a real classroom requires. This is called Practice Teaching and School Experience in which senior students, for two semesters, would attend schools and do observations, teachings as well as other various tasks. In this line, the overwhelming majority of the respondents indicated they really benefited from the program. For example, S6, uttered: "I think we can't have the ability to progress our knowledge or background without providing the practice in our learning approach because that will promote the growth of that experience, we will obtain during the teaching method." Yet, all of the participants favored the idea of increasing the duration of the program and to start from earlier stages. For example, S7 stated: "more would have been better. Practice should be started in 3rd stage so that in 1 and 2 you can gain knowledge to be used in 3 and 4." Similarly, G4 indicated: "maybe starting with observation in school from stage 3 one day a week and all of senior year to be teaching in schools would be more beneficial." In the same line, G4 said: "Absolutely, as mentioned above. I felt amazing when I gave my first lesson in one the schools of the city. I realized that this is the job that I can do something great with. This is what makes teaching fun and not something that you repeatedly do the same thing...... I started liking the profession when I saw that could touch people's lives in way or another, especially, when you see your students learn. You only see that when practice kicks in."

Another question addressed the perceptions of the students regarding the amount of theoretical and practical courses offered. The responses were varied, yet the majority are

for the balance between the two as they think, normally, they need both theory and practice to perfume well in a real classroom. For example, S5, stated: "I think keeping balance between the two is important. I believe we can also learn the theory when practicing as it has scientifically been proved by Jhon Dewey suggesting the idea of "learning by doing" or "experiential learning". Similarly, S4 stated:

"Both were equally important. If I had not received the theoretical courses, methods of teaching specific courses, I would not have been able to teach well when I tried to implement them."

Regarding the pedagogical knowledge, the results are also in line with those found quantitatively. An overwhelming majority of the participants stated most of the technology they use know and are familiar with is leaned at university. For example, G5 stated: "Yes, I always loved tech and we were immersed with projects that would make us use tech enormously. And that led us to receive what we need now. However, we need to always update ourselves constantly." Yet, there were also responses indicating that despite the amount they received, it could have been better if more attention is given to technology knowledge. Additionally, six out of eight participants said the technological information they received from the university were great and now they implement it for their students. They also agreed that although there are courses such as IT or ICT in second or third stage, which are helpful; but when the students are asked to use online apps or websites when doing assignments and projects starting from stage one by different teachers to use different sources those are quite helpful and majority of them now use the same apps with their students.

Finally, in regard to the pedagogical content knowledge, the majority of the respondents stated they received a good knowledge in this regard. For instance, S4 stated: "I think the TEFL courses were good to connect theoretical and practice since half of it was theory and the other were students' microteaching." Similarly, G3 said: "Yes, they were helpful because it was about applying that information you have got before, in that case, you will be more familiar with the school atmosphere."

However, it should not be unstated that despite the rich curricula, as they mentioned, senior students and graduates still face some challenges when it comes to teaching in real contexts. These, include all the four main domains and, thus, university shall amend the programs that would match the developments of the 21 century and the rapid advances in educations.

Conclusion

Faculty of Education students in TIU receive four years of training and practice until they are ready to become teachers. During those four years, they get both practical and theoretical courses to help them learn about different methods of teaching and various

technical as well as professional skills to perform well in real classrooms. The aim of this study was to find how much students take benefit from those courses in which enables them to be ready for teaching. The focus of the study was on content knowledge, pedagogical knowledge, pedagogical content knowledge and technological knowledge, which, to a great extent, might be considered the fundamental skills a teacher needs in teaching settings. The outcomes of the study showed that the vast majority of participants have received a sufficient amount of knowledge throughout their four years, and when they graduate, they are prepared to teach in real classrooms. The study findings further showed positive attitudes of the respondents regarding the education as well as other skills they received during these years of study.

Pedagogical Implications

Based on this research's findings following recommendations are provided:

- 1. Researchers recommend that the university start practice teaching program from stage three in order to extend the duration of teaching in real contexts.
- 2. More lessons of guidance are needed for the prospective teachers.
- 3. More practical and elective courses to be offered to respond to the 21 century demands.

Limitations of the Study and Suggestions for Further Research

- 1. The results of the present study should be interpreted with caution since the sample size was small owing to the sampling criteria. Research conducted with a more representative sample may produce unlike results.
- 2. This study was only concerned with four domains, namely content knowledge, pedagogical knowledge, pedagogical content knowledge and technological knowledge. Therefore, further research may include and investigate other areas.
- 3. More in-depth research into the areas of development of student-teachers as creative future educators is needed.
- 4. Further research might investigate faculty teachers' perceptions concerning the issue under investigation.

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