

Teacher Education Programs in Lebanon: Innovations in the Past Decade (2011-2021).
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Abstract

Several studies have investigated the nature of teacher education programs in Lebanon. These studies described the requirements of Lebanese teacher preparation programs, identified the differences and similarities among these programs, and discussed the theoretical perspectives driving them. Other studies looked into the preparation of subject matter teachers such as mathematics and science teachers, among others. Exploring the similarities and differences among these programs was motivated by the fact that there are varieties of Lebanese private universities – in addition to Lebanon’s sole public university –that adopt American or French educational models to prepare teachers. Previously published studies on teacher preparation used qualitative and quantitative research designs. For example, a mixed-methods approach was used to investigate the structural and conceptual foundations of programs; another study used document analysis to identify the content of the programs, while a third analyzed course syllabi of teacher education courses to identify the types of mathematics teaching methods adopted. However, there has been no attempt to critically analyze and synthesize the extant research and identify the “innovations” that have been introduced in these programs over the past decade and in response to the pressures exerted on universities due to the COVID-19 pandemic and political turmoil in Lebanon. Consequently, the purpose of this chapter is to conduct a critical review of the literature on teacher education in Lebanon and supplement it with an analysis of the innovations implemented across a sample of the major existing teacher education programs.

Programs in Lebanon: Innovations in the Past Decade (2011-2021).

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Research has been conducted to investigate the requirements of Lebanese teacher preparation programs, identify the differences and similarities among these programs, and discuss the theoretical perspectives driving them. Other studies looked into the preparation of subject matter teachers such as mathematics and science teachers, among others. Exploring the similarities and differences among these programs was motivated by the fact that there are varieties of Lebanese private universities that adopt American or French educational models to prepare teachers in addition to only one public university, specifically the Lebanese University which has branches across the country. However, there has been no recent attempt to critically analyze and synthesize the extant research on teacher preparation and identify the “innovations” that have been introduced in these programs over the past decade and in response to the pressures exerted on universities due to the COVID-19 pandemic and political turmoil in Lebanon. Consequently, the purpose of this chapter is to conduct a critical review of the literature on teacher education in Lebanon and supplement it with an analysis of the innovations implemented across a sample of existing teacher education programs in major universities. However, we start by describing the complex terrain of teacher education in Lebanon to provide a context for the rest of the chapter.

The Terrain of Teacher Education in Lebanon

According to El Amine (2012), teacher education programs in Lebanon were originally offered by a teacher training center which was established in 1931 in Beirut during the French

mandate. Later, similar centers were established across the country. Applicants to these centers were required to complete entrance exams and only those who passed the exams were accepted in the training centers. Some of these centers were responsible for preparing elementary and middle school teachers, while others were responsible for preparing secondary school teachers. Teachers who graduated from these centers were admitted to the teaching profession in the public sector. Another method for admitting teachers to the public sector was through hiring contractor teachers. This trend started in 1961 to respond to the needs of schools in geographically remote areas and became more prevalent following the 1975 civil war either to alleviate shortages of teachers in some areas or reward teachers for their political allegiance; both of which led to an over-supply of teachers who were inadequately prepared. In 1979, the implementation of law number 1833 was a major turning point in the preparation of secondary school teachers. This law substituted the five-year program for preparing secondary school teachers offered by the College of Education of the Lebanese University with a two-year program which required that applicants have a university undergraduate degree in a subject area and pass the civil service exam (El Amine, 2012). This change seemed to impact negatively the quality of teacher preparation especially that various issues were reported by teachers who were enrolled in the two-year training program including weak infrastructure, transportation issues, inadequate timing, limited resources, and the frequent use of traditional didactic methods in teaching, among others (Ballout, 2013).

Currently, preparing public school teachers is the responsibility of the College of Education of the Lebanese University; the only public university in Lebanon¹. On the other hand, several private colleges and universities offer programs that prepare teachers for the private

¹ The National Center for Educational Research and Development (CERD) as well as the Ministry of Technical and Vocational Education were involved in teacher preparation in the past but have not played this role recently.

sector. Overall, teacher education programs are offered by several higher education institutions (HEIs) which are under the supervision of the Ministry of Education and Higher Education (MEHE). Accordingly, there is a wide variety of teacher education programs in Lebanon in terms of their theoretical perspectives, requirements and characteristics, and the type of degrees they offer. This variety is justified based on the higher education model followed by the institution at which the programs are offered including American, French, Arab, or Lebanese models (BouJaoude, 2000; Freiha, 1997). Moreover, the differences among the teacher preparation programs in Lebanon become more evident in the absence of an independent-national quality assurance system of higher education (Ayoubi, 2007). Although a law for the creation of such a national-quality assurance system was approved in 2012 it has not been implemented.

The variety of Lebanese higher education institutions resulted in three major types of teaching qualifications. One type of qualification is modeled on the “Bachelor's - Master's - Doctorate” system (Licence-Master-Doctorat or LMD) model which resulted from the European Bologna process². The LMD model is sometimes referred to as the “3-5-8” model, where it takes three years to complete the “Licence”, two additional years to complete the “Master”, and three additional years beyond the Master to complete the “Doctorat”. This model is adopted by the Lebanese University and Université Saint Joseph (Saint Joseph University). The second type of qualification adopts the Bachelor’s (BA) model which is typically offered by American Universities. The third type of qualification is the Teaching Diploma (TD) which is a post Bachelor’s degree that is typically taken by students who decide to get a qualification when they are completing a bachelor’s degree in a content area or after completing the degree. Below please find a brief description with examples of the types of qualifications described above.

² Bologna Process: European Higher Education Area (EHEA) --
<https://web.archive.org/web/20160831020548/http://www.ehea.info/article-details.aspx?ArticleId=5>

Universities that Adopted the “Bachelor's - Master's – Doctorate (L-M-D)” Model

As indicated above, the two universities in Lebanon that have adopted the Bachelor's - Master's - Doctorate” model are the Lebanese University and Saint Joseph University. Those two universities have adopted the “European Credit Transfer and Accumulation System (ECTS)” which is different from the credit system used in American-style universities. According to European Commission, the “ECTS allows credits taken at one higher education institution to be counted towards a qualification studied for at another. ECTS credits represent learning based on defined learning outcomes and their associated workload”³. The European Commission has determined that a full year of study requires 60 ECTS credits. Since a typical year of study at American-style universities requires students to complete 30-semester credits, one credit hour was determined to be equal to 2 ECTS credits, consequently, a License in this system requires 180 ECTS credits. Another major difference between American and European style degrees is that the content matter is broken down into modules that are smaller than a semester course. Examples of the different degree programs offered at the Lebanese University and Saint Joseph University are presented below.

College of Education of the Lebanese University

The two programs that lead to teaching qualifications and are offered regularly at the College of Education of the Lebanese University are the “Licence” (Bachelor’s) and the Professional Masters (Table 1). Admission to the Professional Master’s requires students to have completed a Licence while its completion requires attendance for two years. Thus, completing the Licence requires 180 ECTS credits and the Professional Master’s 300 ECTS credits. Occasionally, and based on the need of the Lebanese Ministry of Education and Higher

³ Refer to https://ec.europa.eu/education/resources-and-tools/european-credit-transfer-and-accumulation-system-ects_en

Education, the College of Education of the Lebanese University offers the “Certificat D’aptitude Pour L’enseignement Secondaire (CAPES)” which is a secondary education certificate⁴.

Unfortunately, the website of the College of Education does not present details about this certificate. Table 1 presents programs offered regularly at the College of Education, Lebanese University along with the number of credits in each component of the two programs

Table 1

A. Programs Offered at the College of Education, Lebanese University: Licence (Elementary)

	General Pedagogy	Content	Teaching Methods	Fieldwork	Electives	Total
Teaching of Arabic, French, English, Mathematics, Science, and Social Studies (Elementary)	68	56	36	14	6	180
Pre-school education	70	62	12	10	26*	180

*Electives in the major and free electives

B. Programs offered at the College of Education, Lebanese University: Professional Masters (Secondary)

	General Pedagogy	Content	Teaching Methods	Fieldwork	Action Research	Thesis	Total
Professional Masters	54	30	6	21	3	6	120

College of Education of Saint Joseph University

The College of Education of Saint Joseph University offers three programs that lead to teaching qualifications: the Licence d’enseignement* (BA Teaching Degree, 60 credits), the Certificat D’Aptitude Pour L’Enseignement Secondaire (CAPES, 60 credits), a secondary teaching certificate, and the Professional Master’s (120 credits) (table 2). The prerequisite for the

⁴ Refer to <https://www.ul.edu.lb/faculte/regulations.aspx?facultyId=7&lang=3>

Licence d'enseignement is a three-year degree in a subject area while the pre-requisite of the CAPES the Licence d'enseignement. Finally, the Professional Masters is a two-year degree that requires the Licence d'enseignement as a pre-requisite.

Table 2

A. Programs offered at the College of Education of Saint Joseph University: Licence d'enseignement (BA Teaching Degree)*

	General Pedagogy	Content	Teaching methods	Fieldwork	elective in major	Total
Licence d'enseignement*	33	9	6	9	3	60

B. Programs Offered at the College of Education of Saint Joseph University: CAPES

	Pedagogy	Research methods	Thesis	elective	Total
CAPES*	9	13	5	3	60

*Secondary Education Certificate (Certificat D'Aptitude Pour L'Enseignement Secondaire (CAPES))

C. Programs Offered at the College of Education of Saint Joseph University: Professional Masters

	General Pedagogy	Research Methods	Thesis	Content	Teaching methods	Fieldwork	Elective in major	Total
Professional Master's	39	24	21	9	6	9	12	120

Examples of Universities that Adopted the BA Model

Table 3 presents programs offered at private Lebanese Universities that have adopted the BA model and the number of credits in each component of the programs. The numbers of credits required to complete the BA programs are different. However, it is to note that, as indicated above, equivalence to the "License d'Enseignement" requires a minimum of 111 credits.

Table 3

Examples of BA Programs Offered at Private Lebanese Universities and the Number of Credits in each Component of the Programs

Name of University	Level	General Pedagogy	Teaching Methods	Fieldwork	Subject Matter	General Education	Total
American University of Beirut	BA in Elementary Education	27	9	9	12	33	90
University of Balamand	BA in Elementary Education	33	18	3	12 ⁵	25	91
Lebanese International University	BA in Early Childhood Education	60 ⁶	15	6	--	18	99
	BA Teacher Education (Biology-Chemistry)	27	3	6	45	18	99
Notre Dame University	BA in Basic Education (Grades 1-9)	54	9	9	9	39 ⁷	120

Examples of Universities that offer the Teaching Diploma

Table 4 presents examples of teaching diploma programs offered at selected Lebanese universities and the number of credits in each component of the programs. It is worth noting that the Teaching Diploma is recognized by the government of Lebanon as equivalent to the “License d’Enseignement” (Education License) if an individual holds the Lebanese General Secondary Certificate, has a bachelor’s degree in a subject taught at the secondary level (Arabic, English, informatics, mathematics, science, and social studies), and has completed 21 credits in education (the 21 credits represent the requirements of the Teaching Diploma), over and above the total number required for a bachelor’s degree. Similarly, recognition of the diploma is granted by the government of Lebanon as equivalent to the “License d’Enseignement” in elementary education

⁵ Courses from outside the Department of Education.

⁶ Subject matter for Early Childhood education is integrated in pedagogy courses

⁷ Includes 9 credits of free electives.

if the person holds the Lebanese General Secondary Certificate, has completed a minimum of 111 credits, and has completed a minimum of 45 credits in the field of education (AUB University Catalogue, 2021-2022).

Table 4

Examples of Teaching Diploma programs offered at Selected Lebanese Universities and the Number of Credits in Each Component of the Programs

Name of University	Level	General Pedagogy	Teaching Methods	Field work	Subject Matter	Total
American University of Beirut	Elementary	12	6	3	BA/ BSc.	21
	Secondary	12	6	3	BA/ BSc	21
University of Balamand	Specialized	12	6	3	BA/ BSc	21
	General	12	6 ⁸	3	BA/ BSc	21
Lebanese American University	Elementary	15	6	0	BA in ⁹	21
					Elem. Ed.	
Notre Dame University	General	15	6	0	BA in Ed.	21

Review of the Literature on Teacher Education in Lebanon

Three studies investigated teacher education programs in Lebanon between 1992 and 2002 (BouJaoude, 2000; Farah-Sarkis, 1997; Freiha, 1997). However, there was an absence of research on this topic between 2003 and 2008 (BouJaoude, Abd-El-Khalick & El-Hage, 2009). From 2009 onwards, this line of research started to proliferate. Currently, with the increased need and calls for major curriculum reform in Lebanon, understanding the status of teacher preparation programs comes to the forefront. Consequently, one of the purposes of this study was to conduct a comprehensive overview of literature about teacher preparation programs in

⁸ These are two education courses selected by the student based on her or his interest.

⁹ The methods courses are taken in the BA in Education or the BA in Elementary Education.

Lebanon. Both Arabic (Shamaa.org) and English (Google Scholar, Education Research Complete, and ERIC) databases were searched, and data sources written in English and Arabic were collected and reviewed. These data sources included published research articles in peer-reviewed journals, chapters in refereed books, and paper presentations. The following sections present the findings of the reviewed studies which explored teacher preparation programs in terms of their degree requirements and content, teaching methods and assessment practices, as well as practicum/ fieldwork experience. This is followed by a section on the innovations implemented in the recent past based on online interviews conducted with program directors in seven major universities. The following sections describe research on the three themes identified in the reviewed research on teacher education programs: Degree requirements, teaching and assessment practices, and fieldwork experiences.

Degree Requirements and Content of Teacher Education Programs

Two studies (BouJaoude & El-Mouhayar, 2010; El-Mouhayar & BouJaoude, 2012) explored teacher education programs across Lebanese private and public universities to identify their structural components (the number of years to complete a program, the number of required credit hours of education, and content, and the duration of field-based experience) as well as their conceptual orientations (academic, practical, technological, personal, or critical/social). The sample included 15 private and public universities in Lebanon which offer teacher education programs. Data were collected from the program documents, institutional websites, catalogues, or brochures describing teacher preparation programs in the participating universities, as well as phone interviews with university and program administrators. Results showed that most programs adopted a combination of the academic and technological approaches to teacher preparation, without neglecting constructivism, reflective practice, thinking, and inquiry.

Feiman-Nemser (1990) submits that the technological orientation “focuses attention on the knowledge and skills of teaching. The primary goal is to prepare teachers who can carry out the task of teaching with proficiency. Learning to teach involves the acquisition of principles derived from the scientific study of teaching” (p. 223) while the academic orientation is concerned with transmitting knowledge and developing understanding. These results were similar to those reported by BouJaoude (2000) in his analysis of the requirements of science teacher preparation programs in Lebanon. Furthermore, BouJaoude and El-Mouhayar (2010) found that these programs included post-graduate ones that prepare secondary teachers with a significant amount of science background and three and four-year programs that prepare elementary classroom teachers or science/mathematics teachers with the absence of programs that prepare middle school teachers. Finally, many programs required the completion of a thesis but lacked significant periods of field-based experience.

Several recommendations were suggested including (1) changing the structure and content of teacher preparation programs, (2) designing special programs for the preparation of lower elementary, upper elementary, and intermediate teachers in-order to meet the diverse students’ needs associated with each stage of the new Lebanese educational ladder, and (3) putting more emphasis on fieldwork and collaboration with schools in the preparation of teachers.

Ghaith (2013) explored teacher preparation programs in Lebanon in terms of their structure and content in addition to exploring the perceptions of teachers, school principals as well as program directors about the teacher preparation programs and the extent to which they are aligned with the objectives of the Lebanese curriculum. The sample consisted of eleven private and public universities that offer teacher preparation programs and fifty selected schools

including eleven public and thirty-three private schools. Data were collected from program documents and surveys administered to program directors, student-teachers as well as school principals. The results indicated that most of the teacher preparation programs are in line with the general objectives of the Lebanese educational curricula, and they equip student-teachers with the necessary skills and competencies by providing them with a strong knowledge base including content knowledge, general knowledge, pedagogical content knowledge, and fieldwork. However, there exist some discrepancies in terms of the number of required courses from one program to another. In addition to that, the majority of the student-teachers provided positive feedback on the teaching and assessment practices that they experienced, and the majority of the school principals reported that student-teachers who are holders of a BA degree in education are better prepared than those holding diplomas in education in terms of their knowledge about the content of the Lebanese curricula, and the use of active-learning strategies. However, holders of diplomas in education are better prepared in terms of their pedagogical content knowledge as well as the use of various assessment practices. The study recommended the need for national standards to admit teachers to the teaching profession, formulating program-learning outcomes to evaluate teachers' performance and ensure quality teaching, and putting more emphasis on fieldwork by extending the field-work experience and increasing collaboration with the cooperating schools.

More specifically, Naccache (2016) investigated the requirements of Lebanese mathematics teacher preparation programs and whether there are similarities and differences among these programs. The sample consisted of nine Lebanese universities which offer mathematics teacher preparation programs. Data were collected from multiple sources including interviews with university and program administrators and mathematics teacher education

professors, syllabi of courses offered in each of the programs, and institutional websites describing teacher preparation programs of the participating universities. The results revealed that all programs emphasize subject matter preparation and introduce students to diverse teaching techniques and strategies in the methods courses, differences exist in field-work requirements among the programs which were justified based on the system they follow whether English or French and the absence of university-level programs for the preparation of intermediate school mathematics teachers.

In another study, Bahous and Nabhani (2011) assessed the learning outcomes of a teacher pre-service education program at a private-American-style university in Lebanon. The participants were fifty student-teachers enrolled in their senior practicum classes (last 2 years of the BA in education) that include observation, internship, and practice teaching classes. Data were collected from multiple sources including open-ended questionnaires, pre-and post-surveys of the fifty student-teachers as well as weekly-reflective journals of the student-teachers. The results showed that training positively affects student-teachers who emphasized that the practicum courses enriched their knowledge more than the theoretical ones. During these courses, they learned and applied innovative teaching strategies, and improved in their command of languages, lesson planning, effective behavior management, and communication skills. Moreover, the reflective thinking strategies helped them analyze teaching situations based on their acquired knowledge. The study recommended using learning outcomes as a framework for student-teacher achievement, implementing more rigorous student-teacher training, and using a clear and valid statement of outcomes with explicit tasks for assessing the tasks under each outcome.

More recently, Samra (2012) examined the general university-graduation requirements for the Bachelor's degree in education in nine Lebanese private American-style higher education institutions compared to requirements in American-style universities in Australia, Canada, and the United States. Results showed that, on average, general education requirements (languages, humanities, natural sciences and mathematics, arts, and information and communication technology (ICT)) represent 30.7% of the total credit hours required for graduation. These requirements, according to Samra, are similar to requirements in American, Australian, and Canadian Universities.

Along the same lines, Safiyiddeen (2012) explored whether gender has been integrated into teacher education programs at eleven universities in Lebanon. The data collected included the vision, mission, and program learning outcomes of the teacher education programs in the various participating universities as well as syllabi of seven different courses grouped under four-course titles: educational psychology, measurement, instructional methodology, and practicum. Results showed that none of the teacher education programs integrates gender into its policy, mission, curriculum, or resources. Some of the suggested recommendations were incorporating gender awareness into all aspects of the institution, reconstructing curricula to mainstream gender, and planning structured instruction on gender issues.

Other studies examined the status of citizenship education in teacher preparation programs. For instance, Abdel Kader (2012) explored the extent to which Lebanese higher education institutions incorporate citizenship education as a part of the curriculum of teacher education programs. The sample consisted of ten universities that offer teacher education programs in Lebanon. Data were collected from a questionnaire administered to the representatives of the programs in the participating universities. The results indicated that only

fifty-two percent of the participating universities integrate citizenship education into their teacher preparation programs within different courses, under different course titles such as sociology and political science, or in the form of extracurricular activities. It was recommended to enhance citizenship education in teacher education programs by providing pre-service teachers the opportunity to practice citizenship activities and citizenship values, and encourage communication among education departments to implement practices related to citizenship education. Using a similar approach, Khalife (2014) explored the extent to which teacher preparation programs integrate citizenship education and foster national identity. The results indicated that sectarianism continues to be emphasized in the curricula of teacher preparation programs at the expense of citizenship education.

Teaching and Assessment Practices in Teacher Education Programs.

Various teaching and assessment practices were identified in research studies on teacher education programs. Osta (2012) compared the teaching approaches and techniques implemented by 12 major universities in Lebanon, all of which offer bachelor's-level teacher preparation programs (TPPs). Data were collected by using a survey that included items about the different aspects of the teacher preparation programs in the participating universities such as the structure, admission requirements as well as nature of the field-based activities. Results indicated that a variety of student-centered and active methods were reported to be used in the programs to various extents. For example, inquiry teaching, discussion methods, projects, and research activities were reported to be used more often than practical and hands-on approaches in the different programs. The study recommended that universities develop coherent curricula for their teacher preparation programs, and adopt student-centered and active teaching methods in the different courses of the teacher preparation programs.

More recently, Du, Chaaban, Sabah, Mubarak Al-Thani, and Wang (2020), investigated Qatari, Chinese, and Lebanese student-teachers preferred active-learning strategies and those which they received during their teacher preparation programs. Participants were third-year student-teachers enrolled in teacher preparation programs in Qatar, Lebanon, and China; the majority of whom were females. Data were collected using the “Student Response to Instructional Practices” (StRIP) questionnaire administered to three-hundred-and-eight participants followed by focus group interviews with thirty-eight participants. Results revealed that there was a prevalence of and preference for passive approaches of instruction and assessment that favor memorization among student-teachers because, according to them, these approaches guarantee good grades. However, results showed several discrepancies between what is recommended in the courses and students’ preferences because courses emphasize the advantages of using active and learner-center teaching approaches while student-teachers prefer passive approaches. These inconsistencies may result in the reluctance of student-teachers to use learner-centered strategies in their future classrooms. Finally, results showed a prevalent traditional cultural ideology of the “authoritarian teacher” as the main source of knowledge in both the Chinese and Lebanese contexts. The study recommended developing a unified vision for good teaching to reconcile the theory-practice gap, changing perceptions towards alternative teacher roles, and realigning assessment procedures with innovative teaching methods, and use of inconsistencies revealed in the data as an incentive to improve classroom instruction not only in teacher preparation programs but also in higher education as well.

As for the assessment practices in teacher preparation programs, Shatila, Adada, and El-Chami (2012) examined the assessment practices in teacher education programs in Lebanon. The sample consisted of twelve private and public universities which offer teacher education

programs. Data were collected from multiple sources including an open-ended questionnaire administered to education program heads of the participating universities, the syllabi of seven different courses, as well as university and institutional catalogues. The results revealed the prevalence of paper-pencil exams, the absence of indirect assessment of program outcomes, minimal opportunities for self, authentic, and formative assessment, and evidence that alternative assessments are more prevalent in practicum courses as compared to other courses.

Recommendations included developing program outcomes and implementing indirect ways of assessment to evaluate these outcomes, adopting alternative assessment methods instead of paper-pencil exams, and providing more opportunities for self-assessment through the use of portfolios, reflective papers, and journal entries.

Practicum/ Fieldwork Experience in Teacher-Education Programs.

Two studies investigated the content of and characteristics of internships in Lebanese teacher education programs. Shatawi (2012) explored the content of the practicum courses in teacher education programs in twelve Lebanese universities that offer a BA degree in education. Data sources included: curriculum documents of programs, characteristics of the practicum/fieldwork component including the number of credits and their percentage, the total of required credits for a BA in education, the distribution of credits in the practicum course between observation and practice-teaching, the evaluation criteria, the follow-up system for student-teachers by their mentors (cooperating-teachers), as well as the nature of the relationship with the cooperating schools. Results revealed differences in the requirements of the practicum component among the teacher education programs in terms of the number of credits required for the practicum courses, which range between a maximum of 12 and a minimum of four credits, the number of hours required for the fieldwork experience, which range between 1275 hours and

less than 60 hours, and the uneven distribution between observation hours and practice-teaching hours with the latter being a maximum of six hours. Furthermore, results showed that the total number of classroom-observation visits by the university-supervisors range between six and 30 hours, and are usually done to evaluate the course learning outcomes rather than the performance of student-teachers in the fieldwork experience. The study recommends relaxing the rigid-organizational structures and laying the foundations for an interactive practicum experience that contributes to successful learning opportunities for student-teachers.

A more recent study conducted by Chaaban, Wang, and Du (2021) explored the characteristics of mentoring found in schools in which student teachers are placed, sometimes called cooperating schools, from the perspectives of both the cooperating teachers and student-teachers. Participants were twenty student-teachers registered for a practicum course and ten cooperating teachers in diverse school settings in Lebanon and China. Data were collected from multiple sources including weekly reflective journals of student-teachers and semi-structured interviews with both the student-teachers and the cooperating teachers at the end of the practicum experience. Results indicated that several mentoring approaches were adopted by the cooperating teachers in both the Lebanese and the Chinese contexts. While the Lebanese context revealed a dominant Laissez-faire mentoring approach characterized by a lack of meaningful interaction between the student-teachers and the cooperating-teachers, the Chinese context revealed a dominant apprenticeship approach characterized by a systematic progression into the teaching profession. These results were justified based on the culturally embedded authoritarian beliefs in the Chinese context and the presence of contextual obstacles which contribute to the kind of lack of support provided by the cooperating teachers in the Lebanese context. Additionally, the Lebanese context revealed a total incompatibility in the expectations and needs

of student-teachers with the dominant Laissez-faire mentoring approach. However, the Chinese context revealed compatibility in the expectations and needs of student-teachers with the dominant apprenticeship approach. The study recommended that teacher education programs should play a more active role in building connections between the university and the school context to contribute to successful mentoring experiences. Moreover, schools should become more responsible for supporting meaningful learning opportunities through the assignment of experienced and well-prepared cooperating teachers.

In summary, research on teacher education programs that explored the degree requirements and content of these programs reported discrepancies in the structural components of these programs, a combination of the academic and technological approaches to teacher preparation, and the absence of programs that prepare middle school teachers. Moreover, none of the programs integrated gender issues while some incorporated citizenship education. Furthermore, research that investigated teaching and assessment practices adopted in the programs revealed that even though a variety of student-centered methods were used, there was a predominance of and a preference for passive approaches of teaching and assessment. Finally, research that examined the practicum (fieldwork) experience in teacher education programs reported differences in the requirements in terms of the number of credits of the practicum courses, the mentoring approaches, the number of classroom-observation visits by the university supervisors as well as the evaluation criteria. However, this research has not investigated recent innovations in these programs and the effects of the disruptions faced in teacher education due to the COVID 19 Pandemic. The following paragraphs discuss a few innovations and the disruption due to COVID 16 with the hope that serious research is conducted on these topics.

Recent Innovations in Teacher Education

The major innovation since the publication of the last paper regarding teacher education in Lebanon by El Mouhayar and BouJaoude (2012) is the professional master's degree that is currently offered by the Lebanese University and the University of Saint Joseph. Recently, the Department of Education at the American University of Beirut has prepared a proposal for a professional master's degree in education that is being considered by the academic bodies at the university to get the necessary approvals and start the program during fall 2022-2023. The structure of the program, presented in Table 5 is different from those offered in other universities in that it uses the credit system of American universities rather than the ECTS. Like the professional master's degrees at other Lebanese universities, the purpose of the master's degree at the American University of Beirut is to prepare secondary school teachers.

Table 5

Professional Master's Program Offered at the Department of Education of the American University of Beirut

	Core pedagogical courses	Foundation Courses	Teaching Methods	Fieldwork	Research methods	Action Research Project	Total
Professional Masters in math, science, and TEFL*	6	9	6	3	3	3	30

*Teaching of English as a Foreign Language

The Bachelor's degree programs at the different universities have seen minor changes during the past decade. For instance, at the Lebanese American University, changes included submitting a proposal for approval by MEHE to change the degree from a Bachelor of Arts to a Bachelor of Science and include STEM courses in the programs. The purpose of this change was to emphasize the scientific and evidence-based nature of the field of education. In addition, at Notre Dame University the BA program of education was revised to include courses on

sustainability and psychology of the child with emphasis on mental health. The changes also included ensuring that technology was an essential tool in teaching and learning and thus considering a “technology across the curriculum” approach. Similarly, at the Lebanese International University, the BA program of education was revised to include an emphasis on STEM, STEAM (Science Technology, Engineering, Art, and Mathematics), and integrating technology in the teaching-learning process. Moreover, at the American University of Beirut the nature of the BA program of education changed from a three-year program in which students were prepared to become subject matter teachers for grades 1-6 to a program that allowed for the preparation of homeroom teachers; a move that was necessary because many schools in Lebanon and the region used this approach at the elementary school level. Specifically, in its current state, the revised program includes a new area of specialization required from all undergraduate education majors, the homeroom teaching track, which has two teaching methods courses and their practicums. In the design of the revised program, senior-year students select a subject matter specialization: Language arts (English/Arabic)/social studies, mathematics/ science where they take 2 teaching methods courses in their selected subject matter track and their practicum. Similar to BA programs, Teaching Diploma (TD) programs have seen minor changes limited to changes in the foci of some courses. For example, if a TD is offered in a university in which new education courses were developed, then students have access to these courses as core or elective courses. The implementation of the program started during fall 2020-2021.

Disruptions Faced in Teacher Education Due to the COVID 19 Pandemic

The aforementioned innovations were met by several disruptions due to the pressures exerted on universities due to the COVID-19 pandemic as well as the political and financial turmoil in Lebanon. Many of these universities either moved to partially-online classes during

Fall 2019-2020 or fully-online classes for at least three semesters (Spring 2019-2020, Fall 2020-2021, and Spring 2020-2021). Consequently, Lebanese university students spent two academic years online. Based on the first author's experience during this period, even though universities put huge efforts to continue the normal teaching-learning process, the disruptions during the first year affected negatively the nature of these programs especially that they require students to participate in fieldwork, which involves attending classes and teaching. Furthermore, university faculty members were not prepared to teach online and had to be trained on using online teaching tools on the job while students were forced to participate in online classes which were unfamiliar to them. The above problems were exacerbated by the limited access to online tools for many students, all of which harmed the quality of teacher education programs. The situation might have improved during the second year, however, there were no large-scale studies on the situation and thus the relative loss in learning during these two years is hard to estimate. However, the pandemic has resulted in a serious loss in the opportunity to teach and learn in many countries as demonstrated in a book entitled "Primary and secondary education during COVID-19: disruptions to educational opportunity during a pandemic" which reports on a comparative study conducted in Brazil, Chile, Finland, Japan, Mexico, Norway, Portugal, Russia, Singapore, Spain, South Africa, the United Kingdom and the United States (Reimers, 2021).

Conclusions

The past decade has seen some attempts to enhance the quality of teacher education by using recent teacher education models mainly from the USA and Europe. The major addition to qualification degrees is the professional master's degree, which prepares secondary school teachers to become reflective educational practitioners who have strong content matter

backgrounds and are capable of taking leadership roles. Those teachers will be well placed to produce useful and practical knowledge because they are prepared to conduct research and share it with other teachers. In addition, even though major changes have not happened in programs that prepare elementary school teachers, many such programs have implemented internal changes that have the potential to improve teaching quality to some extent, such as including courses on STEM, STEAM, sustainability, and homeroom teaching.

However, even though research on teacher education had identified several problems that need to be addressed, this research did not produce a comprehensive body of findings that provide the potential to reform teacher education. Several research studies focused on the structure of the programs, including this chapter, however, researchers have not analyzed the content of the programs, how this content is taught and assessed, and the quality of the graduates of the programs. These are all areas that need to be investigated to understand the conceptual orientations of the programs, the quality of the content covered in the programs, the extent to which the programs respond to the teachers' needs, the cultural relevance of the programs, and the philosophical and empirical grounding on which existing programs can be enhanced and new programs can be developed to improve student learning. What is more important, however, is how can researchers conduct research that has the potential to impact policy and practice? As emphasized by Espinet, et al. (2021), "we need to focus more on how our research benefits the participants. This involves listening more closely to their needs and exploring ways in which our research processes and findings can help address those needs" (p. 56).

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