Teaching Methods as Reflected by Course Syllabi of Teacher Preparation Programs in Some of the Major Universities in Lebanon

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Abstract

This paper investigates the teaching methods used within the Teacher Preparation Programs (TPPs) in 12 Lebanese universities. The "document analysis" research method is used to analyze the collected documents: seven syllabi of pre-defined types of courses, and a survey for collecting general data from universities, without explicitly asking about the teaching methods they adopt. Simple descriptive statistics are used to map the participating universities based on frequencies, percentages and means of statements mentioning teaching methods or techniques in the analyzed documents. Results showed that, in addition to the macro-level practicum methods, and to the lecturing method, a variety of student-centered and active methods are reported to be used, to various extents. Inquiry, discussion, project and research appear to be most valued by the different programs. However, more practical and hands-on methods such as technology, group work, simulation, activities and applications, seem to be less used, or at least less intended in the syllabi. Thus "learning by investigating" is highly adopted, while "learning by doing" seems to be less valued. The paper concludes with some recommendations based on the process and results of the study.

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I. Introduction

The topic of teaching methods in tertiary education seems to be neglected or avoided by researchers, not only in local and Arab literature, but also world-wide. An overview of the international literature about higher education shows the scarcity of pragmatic studies on teaching methods. The few studies found have focused either on examining the efficacy of individual methods (Masingila & Doerr, 2002; Ragonis & Hazzan, 2009), or on investigating connections between theory and practice (Glassett, 2009; Latham, 1996; Olson & Hartter, 2006). It is to be noted that the privileged teaching methods investigated in most of those studies relate to the use of technology in teaching (Koç, 2005; Koç & Bakir, 2010; Polly & Moore, 2008).

According to Ghaith (2011), only two pragmatic studies on teacher education programs in Lebanese universities have been identified: Freiha (1997) and BouJaoude and Al-Mouhayar (2010). While the first study was concerned with curricula, namely purpose, degree requirements, and course content of teacher preparation programs, the second study focused on program requirements and theoretical perspectives on teacher preparation. None has specifically surveyed or analyzed the methods of teaching adopted in the university-level teacher education programs. On the other hand, the theme of teaching methods is completely overlooked in the book concerned with teacher preparation in the Arab countries (Moghaizel-Nasr, 2002), despite the richness and variety of issues discussed in its different chapters. Although this book is one of the rare valuable contributions to the field of teacher preparation in the Arab region, none of the contributing authors addressed teaching methods as one of the important aspects of teacher preparation programs.

Investigating teaching methods in higher education is in fact challenging. However, it is even more interesting and thrilling to study the methods of teaching in "Teacher Preparation Programs (TPPs)" than in any other higher education program. TPPs are par excellence a world of meta-teaching in which the (university) teachers teach prospective teachers about teaching and how to teach. This is because the methods and strategies of teaching are one of the subjects of study in those programs, in addition of being

the approaches used to build student-teachers' knowledge and skills. On the other hand, they are taught by specialists in various fields, all of which touch on teaching methods or on their foundations, be it cognitive, affective, psychological, pedagogical or more subject-based didactical.

Several studies have shown that teachers tend to use in their teaching the same approaches and methods that they experienced during their years of study. Educators maintain that improving teaching in schools requires that student-teachers learn through the approaches and methods that they are expected to use with their students in the future. Thus the mere definition of TPPs and their function raise high expectations from any survey of teaching methods in such programs, based on the fundamental assumption that teachers in TPPs actually practice what they preach and apply the alternative teaching methods that they advocate. It would then be useful and interesting to investigate the matter and examine the use of the range of teaching methods within various Lebanese TPPs and types of courses.

II. Purpose

The purpose of this paper is to investigate and compare the teaching approaches, methods and techniques used in the Teacher Preparation Programs (TPPs) in some of the major Lebanese universities.

III. Methodology

1. Participants

Participants included a total of 12 Lebanese universities that offer TPPs and agreed to participate in the research project about TPPs in Lebanon organized by the UNESCO Regional Office in Beirut. The abbreviated names of those universities as stated in the introduction of this book are used in the rest of the paper.

The method of "document analysis" is adopted to study the teaching methods used in the different BA-level TPPs of the 12 universities. Document analysis is the research method adopted by all other

component studies, upon recommendation of the global study Coordinator, for uniformity and ease of processing.

The author of this paper believes that more valid approaches for the specific topic of teaching methods would be through direct class observation and/or interviews with teachers and/or students of the studied programs. However, it is understood that such approaches would exceed the limits of the present research project.

2. Documents analyzed

As in all other components of the UNESCO study, the major document used as the basis for analysis is the "Data Collection Survey" (DCS) filled and submitted by all participating universities. Information provided in the DCS is extracted from official university documentation (i.e., website, catalog, etc.). While the DCS explicitly requests information about different aspects of the TPPs (structure, courses, admission requirements, practicum, etc.), it lacks any data request about methods of teaching. It was then expected that no, or very little, such information will be provided by universities.

Consequently, the author requested that the universities send samples of their course syllabi. Specifically, and based on an overview of the programs' structure and categories of courses, one course syllabus in each of the following categories was requested:

1. Course in educational psychology
2. Course in subject matter to be taught by student-teachers (Math, Language, Social Studies, etc.)
3. Course in educational assessment
4. Course in generic instructional methods
5. Course in subject-specific methods (Teaching of Science, of Language, etc.)
6. Course in specific methods for Early Childhood (if applicable)
7. Course in practicum (Observation, Internship, Practice Teaching, etc.)

3. Analysis technique

Simple descriptive statistics are used in order to present an overview of the teaching methods used by participating universities. Tables are used to map the participating universities against frequencies, percentages and means of statements mentioning teaching methods in the analyzed documents, namely the DCS and the syllabi.

It is understood that there is always some discrepancy between "intended" methods mentioned in a program or course documentation (e.g. syllabi) and the actually "implemented" methods. A method claimed in a syllabus may not be actually used at all in class; and vice versa, a course instructor may use teaching methods and techniques that are not reflected in the course syllabus. So, what do the results of this study tell us?

The author of this paper can claim that the results of this study provides a picture of the intended teaching methods, valued by each program/course developers, and perceived as being the right appropriate methods to achieve the course objectives and learning outcomes. The more a method is mentioned in clear and intended statements and the more it is reiterated in the course/program documentation, the stronger that belief is assumed to be.

4. Methodological Considerations

Many problems related to the nature of the topic and the kind of data available for analysis, made the choice of the analysis technique difficult and critical. Many decisions needed to be made. Following are the problems and the decisions:

1. The first problem (limitation) is the lack, in the DCS, of information specifically addressing methods of teaching. Such information might not explicitly appear in university public documents such as catalog or website, unlike, for example, the admission or graduation requirements, which are integral parts of all documentation. As such, it was decided to consider for analysis the documents submitted by universities, in their entirety. The analysis is conducted by detecting, in all the sections, any statement about

the teaching methods to be adopted in the program or the courses under investigation.

2. The different types, styles and amounts of information present in the documents submitted by the different universities make it difficult to detect in a uniform way the methods of teaching. For example, some universities submitted their whole catalog to stand for the DCS, while some others filled exactly the sections of the survey. Hence, it was decided to consider the documents submitted, with the provision that, when the document includes descriptions of all program courses, only the descriptions of seven courses representing the course categories 1 to 7 are to be considered.
3. Course syllabi include sections and components that are usually considered compulsory, such as "objectives", "content to be covered", "requirements" and "evaluation policy". However, "Methods of teaching" is not usually perceived as a necessary component. Departments or teachers may or may not include them in their syllabus templates. Consequently, it was decided to consider the syllabi in their entirety and to detect, in all sections, the indicators of various teaching methods. The basic assumption in support of this decision is the principle of internal coherence between the various sections of the programs, courses and syllabi. It is assumed that the syllabi are internally coherent. For example, if under the Assessment section, a percentage of the grade is allocated to a research paper, this would be an indicator of the fact that research is one of the approaches / methods adopted in the course for students' learning.
4. It was not possible to get from the different universities, all seven requested syllabi; partly because some of the course categories are not available in all universities' programs, such as the course in teaching methods at the Early Childhood Education level. Another reason is that some of the course categories reside in departments other than the departments of Education, such as the Psychology course. In order to address this imbalance in the number of syllabi from the different universities, it was decided to prorate the frequencies of statements tallied from syllabi of each university by a "prorating coefficient", equal to 7 divided by the number of syllabi received and analyzed (see last column of Table 1).

5. It is assumed that there is always some lecturing in any university course. On the other hand, lecturing is so much taken for granted that syllabus developers don't usually mention it among the instructional methods adopted. It was decided not to consider lecturing as one of the teaching methods/techniques to be investigated in the documentation. The aim is rather to investigate alternative, more active and constructivist methods.
6. A macro-overview of the TPPs of different universities shows that, structurally, all of them have a practicum component, including all or some of the following: class observation, internship, practice teaching, and preparation of student-teacher portfolio. These, of course, are part of the global practical teaching/learning approaches/methods devised at the level of the TPPs. But since practicum is separately investigated in one of the other components of the UNESCO global project and reported in another chapter of this book, the practicum macro approaches are not considered in the present study.

Table 1: Number and categories of syllabi received from each university

	University	number of syll	Categories of syllabi		Prorating coeff.
			received	missing	
1	KU	6	1,2,4,5,6,7	3	7/6
2	AUB	5	1,2,3,4,5	6,7	7/5
3	UOB	4	1,3,4,7	2,5,6	7/4
4	GU	6	1,2,3,4,5,7	6	7/6
5	HU	5	2,3,4,5,7	1,6	7/5
6	LAU	6	2,3,4,5,6,7	1	7/6
7	LU	7	1,2,3,4,5,6,7	--	1
8	MEU	3	1,3,7	2,4,5,6	7/3
9	MUBS	4	1,3,4,5,7	2,6	7/4
10	NDU	7	1,2,3,4,5,6,7	--	1
11	USEK	4	2,3,4,7	1,5,6	7/4
12	USJ	6	1,3,4,5,6,7	2	7/6

The vocabulary of teaching methods is not always specific or accurate. The same word may refer to different teaching methods in different communities / universities. On the other hand, the same method may be named differently by different (or the same) course instructor(s) at different times. For example, active learning, inquiry, discovery learning, teacher as facilitator, student-centeredness, etc. may refer to the same method / approach. To alleviate this problem, a list of the terms for the various teaching methods used in the analyzed documents was developed. It is presented below, with specifications of the other terms used for the same meaning.

Inquiry: Reflects student-centered methods whereby students are expected to explore and discover facts or relationships. Terms to be classified under inquiry are: discovery, exploration, analysis, and the like.

Discussion: Reflects less teacher-centeredness and more involvement of learners in the development of their knowledge. Terms to be classified under inquiry are: Interaction, brainstorming, and the like.

Project: Reflects the method known in the literature as project-based approach.

Research: Involves writing a paper based on data collection and/or literature review. Term paper is one of the terms included under this category.

Presentations: Focuses on students' organization and communication skills, in addition to synthesis of information.

Technology Use: Refers to the use of technology as a teaching tool and not as a subject.

Group work: Terms such as cooperative learning fall under this category.

Assignments: Reflects individual effort on the part of the student, not closely guided by the teacher. It is mainly identified under the Assessment sections of the syllabi.

Simulation: Refers to situations whereby a class is conducted by a student-teacher, while the teacher and peers play the role of learners. Terms such as micro-teaching and mini-teaching fall under this category.

Case Study: Refers to student-teachers' involvement in analyzing a teaching / learning situation, often watched on video.

Reflection: Refers to an analysis and/or evaluation conducted by student-teachers after a certain activity. Terms such as critique, self-evaluation or peer evaluation fall under this category.

Activities: Refers to situations whereby students are active and learning by doing. It is distinguished from assignments by its practical character.

Applications: Reflects putting in action already developed knowledge or skills.

Workshop: Reflects practical/constructive work conducted in group with exchange of expertise. It is to be distinguished from the term "workshop" referring to in-service teacher professional development sessions.

IV. Results

As mentioned before, a global macro-level of analysis showed that practical methods (class observation, internship, practice teaching, and preparation of student-teacher portfolio) are adopted and structurally integrated in most of the TPPs.

At a more analytical level, the different methods / techniques identified are

presented in Table 2, in decreasing order of their frequencies

Table 2: Frequencies and percentages of mentioned methods

	Method	Freq.	%	(%1 - %2)	
1	Inquiry	85.76	17.76		Block 1
2	Discussion	74.81	15.49	2.27	
3	Project	62.92	13.03	2.46	
4	Research	60.09	12.45	0.58	
5	Presentations	39.8	8.24	4.21	Block 2
6	Technology	37.63	7.79	0.45	
7	Group Work	35.59	7.37	0.42	
8	Assignments	30.64	6.35	1.02	
9	Simulation	22.31	4.62	1.73	
10	Case Study	9.48	1.96	2.66	Block 3
11	Reflection	7.64	1.58	0.38	
12	Activities	6.97	1.44	0.14	
13	Applications	6	1.24	0.2	
14	Workshop	3.17	0.66	0.58	
	Total	482.81	100		

Note: (%1 - %2) in the last column designates the difference between two consecutive percentages from the previous column. For example, 2.27 is (17.76 – 15.49), where 17.76 is %1 and 15.49 is %2. Similarly, 2.46 is (15.49 – 13.03), where 15.49 is now considered to be %1 and 13.03 is %2.

The running difference in Table 2 is used as an indicator of the distance between two methods as to their percentages. Small values of this difference help in identifying blocks of methods that have fairly close extent of use, and bigger values help in highlighting jumps in the extent of use between two consecutive methods, which also marks the beginning of

another block.
Inquiry is the most mentioned approach, with a frequency of 85.76 and a percentage of 17.76% of the total methods mentioned in the documents analyzed. Workshop is the least mentioned, with a frequency of 3.17 and a percentage of 0.66%. The range is then 85.1.

Based on the values in the (%1 - %2) column, three blocks of methods can be identified: The first block is that of methods heavily referred to in the analyzed documents. It includes inquiry, discussion, project and research, ranging from 85.76 (17.76%) to 60.09 (12.45%), with an average of 70.9 and a range of 25.67. The difference between two consecutive percentages within this block is no more than 2.5.

The second block is that of methods moderately referred to. It includes presentations, technology, group work, assignments and simulation. The frequencies range from 39.8 (8.24%) to 22.31 (4.62%), with an average of 33.19 and a range of 17.49. The difference between two consecutive percentages within this bock is no more than 2.

The third block is that of teaching methods rarely referred to in the documents. It includes case study, reflection, activities, applications and workshop. The frequencies range from 9.48 (1.96%) to 3.17 (0.66%), with an average of 6.65 and a range of 3.17. The difference between two consecutive percentages within this block is no more than 0.6.

From another perspective, Table 3 presents the extent to which alternative methods of teaching are made explicit in each university's documentation (DCS and the syllabi). The universities are listed by the decreasing order of frequencies.

Table 3 shows that there is a big difference between the highest and lowest numbers of occurrences, which gives a wide range of the distribution: 88 – 7.67 = 80.33

We can notice three blocks of universities. The first block, composed of NDU, LU and LAU, has the highest frequencies of alternative teaching

methods mentioned in their documentation, with an average of 81.61 and a range of 11.16. The column of differences of consecutive percentages (titled %1 - %2) shows that these universities are, two by two, at a distance of less than 2%.

Table 3: Frequencies and percentages of methods per university

Univ.	Freq.	%	%1 - %2	
NDU	88	18.23		Block 1
LU	80	16.57	1.66	
LAU	76.84	15.92	0.65	
Other Universities	38.33	7.94	7.98	Block 2
	36.75	7.61	0.33	
	32.8	6.79	0.82	
	29.34	6.08	0.71	
	28.66	5.94	0.14	
	25.5	5.28	0.66	
	23.75	4.92	0.36	
	15.17	3.14	1.78	Block 3
	7.67	1.59	1.55	
Total	482.81	100		

The second block of universities is distant from the first block by 7.98% and includes universities with relatively moderate numbers of methods mentioned, with an average of 30.73. They range between 38.33 and 23.75, with a range of 14.58. The percentages within this block are distant by less than 1%.

The third block is composed of two universities, with an average of 11.42

and a range of 7.5, and very close percentages.
It is important to note that the numbers do not necessarily reflect the extent to which the alternative teaching methods are actually used in the courses. They only reflect the extent to which the documents (DCS and syllabi) reflect the use of alternative teaching methods. Thus, they indicate the extent of importance that each university attributes to a-priori deciding on the intended teaching methods and to including them explicitly in the program documentation. They also indicate to which extent each university perceives these alternative methods of teaching as valued methods.

This being said, it would be useful and interesting to map the universities according each individual method of teaching. Following are tables by individual method, showing the distribution of occurrences over the universities. Each table is sorted, in a decreasing order, by frequencies

1-Inquiry		
Univ.	**Freq.**	**%**
NDU	20	23.4
LAU	16.33	19
LU	10	11.7
Other Universities	8	9.3
	7	8.2
	7	8.2
	6.6	7.7
	4.33	5
	2.75	3.2
	2	2.3
	1.75	2
	0	0
Total	85.76	100

2-Discussion		
Univ.	**Freq.**	**%**
NDU	17	22.7
LAU	15.17	20.3
LU	14	18.7
Other Universities	7	9.4
	6.6	8.8
	6.17	8.2
	4.2	5.6
	3.5	4.7
	1.17	1.6
	0	0
	0	0
	0	0
Total	74.81	100

and percentages.

Almost all universities include discussion and inquiry in their documentation. For both methods, the three universities NDU, LAU and LU have the highest frequencies, by far higher than other universities for the discussion method.

3-Project		
Univ.	**Freq.**	**%**
USEK	13.25	21.1
LAU	10	15.9
NDU	6	9.4
Other Universities	5.83	9.3
	5.83	9.3
	5.25	8.3
	4.2	6.7
	3.5	5.6
	3.33	5.3
	3.33	5.3
	1.4	2.2
	1	1.6
Total	62.92	100

4-Research		
Univ.	**Freq.**	**%**
MUBS	14	23.3
LU	9	15
UOB	8.75	14.6
Other Universities	5.83	9.7
	5.6	9.4
	5	8.3
	4.67	7.8
	3.5	5.8
	1.4	2.3
	1.17	1.9
	1.17	1.9
	0	0
Total	60.09	100

All universities mention project in their documentation, mostly under the Evaluation section where one or more "projects" are assigned a part of the course grade. USEK, LAU and NDU have the highest frequencies, with a difference of around 6 between their percentages.

As for the research method, it is mentioned by almost all, with MUBS having the highest frequency. LU and UOB come next with close frequencies.

5-Presentations		
Univ.	**Freq.**	**%**
NDU	9	22.6
UOB	7	17.6
LU	7	17.6
Other Universities	4.67	11.7
	3.5	8.8
	3.5	8.8
	2.33	5.9
	1.4	3.5
	1.4	3.5
	0	0
	0	0
	0	0
Total	39.8	100

6-Technology		
Univ.	**Freq.**	**%**
NDU	13	34.5
MUBS	7	18.6
LU	5	13.3
Other Universities	3.5	9.3
	3.33	8.8
	2.4	6.4
	2.4	6.4
	1	2.7
	0	0
	0	0
	0	0
	0	0
Total	37.63	100

Presentations are used by nine universities out of 12, mainly as evaluation requirements. NDU, UOB and LU have the highest frequencies.

As to the use of technology as a teaching approach (not including educational technology as a subject of study in separate courses), many universities explicitly mention this approach in their documentation. NDU puts far more emphasis on the use of technology than other universities. MUBS and LU come next with a smaller difference between them.

7-Group work		
Univ.	**Freq.**	**%**
LU	10	28.1
NDU	6	16.9
GU	5	14
Other Universities	4.67	13.1
	4.2	11.8
	2.8	7.9
	1.75	4.9
	1.17	3.3
	0	0
	0	0
	0	0
	0	0
Total	35.59	100

8-Assignments		
Univ.	**Freq.**	**%**
MEU	11.67	38.1
LAU	8.17	26.6
NDU	5	16.3
Other Universities	3	9.8
	1.4	4.6
	1.4	4.6
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	30.64	100

Although group work is usually much advocated in TPP courses as being an effective learning approach, and although student-teachers are usually encouraged to use it in their classes, it does not stand out as frequently used, or at least as explicitly mentioned and intended in the syllabi of the investigated teacher preparation courses. Eight universities out of 12 mention it explicitly, and among the 14 methods, it ranks seventh. It is most mentioned in LU's documentation. NDU and GU follow with a small difference between them.

Assignments, usually occurring under course requirements or evaluation schemes, are mentioned by six universities out of 12, with MEU having the highest frequency. LAU and NDU follow, with a remarkable difference of around 10 between the percentages of each consecutive two of the three universities.

9-Simulation		
Univ.	**Freq.**	**%**
LAU	9.33	41.8
GU	3.33	14.9
LU	3	13.4
Other Universities	2.33	10.5
	1.75	7.8
	1.4	6.3
	1.17	5.3
	0	0
	0	0
	0	0
	0	0
	0	0
Total	22.31	100

10-Case Study		
Univ.	**Freq.**	**%**
MEU	2.33	24.6
NDU	2	21.1
UOB	1.75	18.5
Other Universities	1.4	14.8
	1	10.5
	1	10.5
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	9.48	100

Class simulations are mentioned to be used by seven universities out of 12. LAU seems to use it most, with a percentage of 41.8%, which is by far higher than others. GU and LU come next with close percentages.

Case study is mentioned by six universities out of 12, MEU having the highest frequency. NDU and UOB follow, with a difference of around 3 between the percentages of each consecutive two of the three universities.

11-Reflection		
Univ.	**Freq.**	**%**
GU	3.33	43.6
LU	2	26.2
USJ	1.17	15.3
Other Universities	1.14	14.9
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	7.64	100

12-Activities		
Univ.	**Freq.**	**%**
LU	2	28.7
AUB	1.4	20.1
HU	1.4	20.1
Other Universities	1.17	16.8
	1	14.3
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	6.97	100

Reflection was found to be mentioned by only four universities. GU has by far the highest percentage. LU and USJ follow.

Activities are mentioned by five universities out of 12, with LU having the highest frequency. AUB and HU follow with equal frequencies.

13-Applications		
Univ.	**Freq.**	**%**
LU	4	66.7
NDU	2	33.3
Other Universities	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	6	100

14-Workshop		
Univ.	**Freq.**	**%**
NDU	2	63.1
LAU	1.17	36.9
Other Universities	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Total	3.17	100

Two universities, LU and NDU, mention the use of applications in their courses.

Two universities, NDU and LAU, mention the use of workshops as part of the teaching methods in their teacher preparation programs. It is important to reiterate that this is to be distinguished from the term "workshop" that usually refers to in-service teacher professional development sessions.

V. Conclusion and Recommendations

Studying the methods of teaching by only document analysis makes it difficult to identify the TPPs' orientations according to Feiman-Nemser's (1990) framework, which delineates academic, personal, critical/social, technological, and practical orientations. For instance, if group work is

used in a certain course, it is necessary to have more information about the nature of the tasks to be conducted in group by student-teachers and the procedures of their group interaction, in order to identify elements of any of the orientations devised by the framework. If student-teachers work in group to better understand the subject to be taught in the future, the group work would reflect the academic orientation; however, if they work in group to analyze problems or to resolve their conflicts, the group work would reflect the critical / social orientation.

However, it may be easier to identify Kennedy's (1990) distinction between 1) development of student-teachers' knowledge base, and 2) enhancing their thinking problem-solving skills. Approaches such as use of technology, applications, project and simulation may be classified under the first category, while reflection, research, case study, and inquiry, for example, may be classified under the second category.

Irrespective of the framework to be adopted, it is clear that further research is needed to investigate the teaching methods actually implemented in TPPs. The results obtained from this study of programs based on document analysis provided quite a large amount of useful information about the categories of approaches considered to be valued and effective by the TPP curriculum and syllabus developers. The "universities vs. methods" maps can play the role of "mirror" for the different universities to think back about their programs and their documentation in terms of teaching methods. These maps are hoped to be seen by TPP officials and educators as reflection tools about their own plans and about the consistency between those plans and their actual practice. I have personally learned interesting facts by looking into my university's syllabi, some of which I have developed. We usually look at our academic programs with practitioners' eyes. It is recommended to re-visit TPPs methods and documentation with researchers' eyes, and review them according to pre-set objective criteria and techniques.

The results of the study showed that Lebanese TPP university programs are clearly committed to active, interactive, and student-centered approaches. This was not an unexpected fact, given that the developers of

TPPs' documentation and syllabi are actually, through their own teaching, advocates of those approaches. Those approaches are also the core of their academic vocabulary in their research and writings. Consequently, having inquiry, discussion, project, research, etc. at the top of the list of methods mentioned to be used in the syllabi, does not come as a surprise. However, it raises the interesting and challenging question about the consistency between the intended methods, the formulation of educational plans and documentation on one hand, and the actually implemented teaching methods on the other, opening a wide perspective for field research.

To summarize, finally, the lessons learned during this research, following are a few recommendations:

1. Universities should have a coherent curriculum for their TPPs. Coherence is to be validated and maintained throughout the different levels of planning and implementation, from the program's mission and purpose, to the course list and objectives, to the classroom.
2. A major indicator of coherence and consistency in TPPs is the adoption of the teaching methods that are advocated and emphasized by the different courses. Student-teachers would learn through modeling much better than through lecturing. A widely recognized and demonstrated fact is that student-teachers usually use the methods through which they were taught rather than the methods they were theoretically taught.
3. TPPs' public documentation (website, catalog, brochures, etc.) should include explicit sections about the teaching methods to be adopted in the program. These methods would reflect the pedagogical philosophy underlying the programs and should be aligned with the methods taught and advocated by those programs.
4. A course syllabus should include a specific section about the teaching methods to be adopted in the course. A course syllabus reflects the program's and instructor's perception of the important components of the course. It is only natural and necessary that courses for teacher preparation attribute to teaching methods the importance they deserve.
5. The results of this study showed that the TPPs in the participating Lebanese universities adopt, in their course documentation, a variety

of teacher-centered methods. Inquiry, class discussion, project and research appear to be the most valued by the different programs (see Table 2). However, more practical and hands-on methods such as technology, group work, simulation, activities and applications, seem to be less used, or at least less intended in the syllabi, with far less frequencies and percentages. Thus "learning by investigating" is highly adopted, while "learning by doing" seems to be neglected. A balance between the two types of learning is strongly recommended, especially in TPPs for elementary teaching, which is the case in this study. If "learning by doing" and practical, concrete, cooperative and constructive activities are encouraged for elementary students, they should be encouraged for prospective elementary teachers to develop their skills in designing and implementing such activities.

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