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The Link between Teacher Professional Development and Student Achievement: A Critical View

Mouna Abou-Assali

Emirates College for Advanced Education, United Arab Emirates

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Abstract: Teacher professional development (TPD) plays an essential role in enhancing teachers' professionalism, performance and knowledge. Teachers all over the world have been and are still involved in professional development programs and activities. Some of those programs are sought out by teachers themselves, but many other activities and workshops might be imposed on them. This paper is an attempt to critically review the crucial relationship between teacher professional development in primary and secondary schools and students' achievement. It will also shed light on the status of professional development programs in the United Arab Emirates (UAE), and will conclude with an attempt to suggest some solutions which may benefit those in authority positions in making their decisions about designing and planning such programs.

Keywords: professional development; student achievement; training; United Arab Emirates.

Introduction

Teacher professional development has been viewed as a set of programs or workshops planned for teachers and designed to develop their skills and knowledge at different levels. Educational leaders and policy makers have operated and planned teacher professional development programs under the supposition that those programs are naturally good, and the more of them, the better for teachers (Guskey & Sparks, 2002), rather than a multi-faceted collaborative practice involving the active participation of individuals and groups together (Hardy, 2012).

Effectiveness of these programs has been debated in literature from a variety of perspectives. The main issue that draws one's attention in particular is the argument raised by some researchers and educators about the impact of teacher professional development programs on students' achievement (Carey, 2004; Markley, 2004; Hardy, 2012; Reeves, 2010).

The central argument of this paper, therefore, is about teacher professional development programs and activities in primary and secondary schools in terms of the influence they have on students' learning outcomes. The rationale behind focusing on the relationship between professional development and student achievement is the assumption originated by those in charge of professional development that those programs have direct impact on students' learning. This relationship, however, has not been supported with enough evidence by specialized researchers (Goldstein, 2001).

Literature review

Adopting Pennycook's (2001) rejections of the so-called 'givens' in applied linguistics, the aim of this paper is to shed light on some literature in which 'teacher professional development' has been defined and examine the assumptions that some researchers have advocated about the direct link between teacher professional development programs and activities and student achievement. A discussion on the status of professional development programs in the United Arab Emirates (UAE), in primary and secondary schools, will be provided in addition to suggested solutions which may benefit those in authority positions in making their decisions about designing and planning such programs.

- **Why is teacher professional development?**

Good teachers are supposed to make good students, or this has been the premise adopted by policymakers and educational leaders (Gratz, 2009). Therefore, the need for professional development has been one of the most critical components in the majority of educational reforms. It is believed that improving teachers' classroom practices, performances, knowledge and skills are the fundamental processes for improving classroom teaching and students' learning outcomes

E-mail address: massali@ecae.ac.ae

(Cohen & Hill, 2000; Kent, 2004). However, there is little direct proof on the extent to which teacher professional development programs relate to positive student learning outcomes or teachers' improvements (Garet et al, 2001).

In order to make the argument of this paper clear, it is necessary at this point to consider what 'professional' and 'development' mean. Both of these commonly-used terms contain vital questions to ask: what kind of professionalism do we mean? If certain definitions are agreed upon, then who provides them and on what basis? What kind of development do teachers need? Who decides what teachers need and who supports these needs and follows up the post professional development practices?
To start, we live in a rapidly changing era, which extraordinarily affects our knowledge base in education. Everything is changing around us, and it is logical that expected changes are to occur in subject areas and contents of curricula. Therefore, as Harrison (2003, p.30) states, "the knowledge on which professionals base their actions has become less stable and secure, and the ways it is acquired have become more diverse". Consequently, the more this knowledge base is expanding, the more our need of new skills, expertise and understanding of the adaptation processes is required by all educators in the field.

Guskey (2000, p.3) believes that "like practitioners in other professional fields, educators must keep abreast of this emerging knowledge and must be prepared to use it to continually refine their conceptual and craft skills". Yet, the question is once again one of power and authority. No one can deny that teachers, as professionals, serve and operate in educational systems according to predetermined political, social and cultural policies. Hence, if the new knowledge that teachers are directed to is supposed to help them refine and polish their skills for later and better use in their classrooms, we probably would like to ask: how real is their sense of professionalism as teachers or educators in a system that frames their classroom practices and moulds their attitudes in response to these policies?

This ever-accelerating change, reflected by the current high degree of competitiveness in the industrial and economic fields all over the world, is essentially viewed by policy makers and those of power as one of the most challenging factors that affects education. Adapting to this change entails increasing the efficiency of those responsible for positive student learning outcomes and in this case, the teachers. In order to achieve their educational goals which necessitate a match with the massive change in the knowledge base, policy makers and those of power over educational systems call for the urgent need of high-quality professional development programs which should reflect the transformational needs of societies, and consequently those of teachers and their students from the authority's and policy makers' perspectives.

Obviously, transitional phases in educational reforms proposed have included intensive incorporation of technology in the curriculum, changing of teachers' attitudes and responsibilities towards the teaching-learning processes and an integration of new advances in knowledge into the curriculum (Harrison, 2003). This in return should affect students' learning outcomes by enhancing their thinking, problem solving and technology skills. However, even within these promising and broadly agreed changes lie the seeds of a dilemma. Required changes are well-planned and organized by power and authority, and there lies the group of 'professionals' called teachers to implement, apply and follow instructions without having a say, while in fact, as Zepeda (2013, p.4) states "teachers need to have a tremendous voice-they need to be heard and supported in their learning endeavors".

Clear enough that teacher professional development should be a principal component to any promising educational reform. However, from the previous argument, one might like to know what is it that educational leaders and policy makers call 'professional development'? And how do they think this might influence students' achievement?

- **What is teacher professional development?**

No one can decisively and thoroughly define what constitutes professional development, how professional knowledge is shaped or how professionals learn what they learn. Definitions of this kind are always open to question, challenged and constrained by the cultural, political or social contexts. However, professional development of any person who has a career or a profession is generally perceived as a development and improvement in the role and responsibilities this person plays in his/her position. In a more specific cycle, Guskey (2004, p. xiii) proposes that teacher development "is not about particular forms of activity but rather about a range of activities -formal and informal- that meet the thinking, feeling, acting, context and change purposes of teachers over the span of their careers".

In fact, for a long time teacher professional development has taken the form of in-service training that includes workshops or short courses on topics that were often irrelevant to teachers' work (Ganser, 2000; Villegas-Reimers, 2003). This type of professional development, however, has been criticized by Ball and

Cohen (1999, pp.3-4) for being "intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented, and non-cumulative". It is believed that such programs rarely build on teachers' previous or existing experience, knowledge or skills and thus fail to improve their performance or positively affects their students' learning outcomes (Guskey & Sparks, 2002).

Furthermore, teachers need to reflect on and evaluate their practices, skills and knowledge. They need to reflect on their own practices, identify, analyze, solve their classroom problems and look for alternatives (Liu, 2011).They need to recognize their strengths, weaknesses, successes and shortcomings to improve their performance and their students' academic achievement as well. Therefore, the need for urgent positive professional development has created a dramatic shift that recent literature on teacher development describes as 'a new model', 'a new image', 'a new paradigm' and 'a revolution' (Villegas-Reimers, 2003). This new model of teacher professional development has supposedly recognized the shortage in supplying teachers with learning opportunities that may affect students' learning outcomes. As a result, the No Child Left Behind Act of 2001 emerged. All children according to this act are entitled for equal learning opportunities regardless of race, economic status and class (Hayes, 2011). It also insisted, as Yoon and colleagues (2007, p.1) suggest on providing teachers with high-quality programs which are "sustained, intensive, and content-focused to have a positive and lasting impact on classroom instruction and teacher performance".

Contrary to the conventional teacher training that did not have links to actual classroom experiences, where teachers are passive learners and content of the teacher professional program is irrelevant to their teaching practices (Reynolds et al, 2010; Reeves, 2010), the new models of professional development have emphasized the role of schools as learning, inquiry and professional communities (Bubb and Earley, 2007; Townsend and Bates, 2006). Villegas-Reimers (2003) believes that the teacher in such new models "is conceived of as a reflective practitioner, someone who enters the profession with a certain knowledge base, and who will acquire new knowledge and experiences based on that prior knowledge" (p.14). Top-down training has been replaced with a variety of activities that ensure teachers' collaboration, exchange of experience and ideas. More purposeful activities have been proposed to provide teachers with better learning opportunities such as teacher networks, study groups, peer reviews and on-line learning activities (Darling-Hammond, 1998; Smylie et al., 2001).

Nevertheless, with all these seemingly promising perceptions of teacher professional development, one might feel that a missing link is still hidden. These new models of professional growth are essentially, on the surface, for the teachers' own benefit, their students' learning outcomes and the educational reforms processes in general. They are planned to actively engage the teachers in a variety of collaborative and reflective tasks that are supposed to contribute to their professional growth. Yet, granted that teachers in any educational institution have come from different backgrounds which entail different cultures, teaching experiences, education and qualifications, questions that rise here are about the 'what' and 'whose' agenda is operating through all these types of professional development approaches, programs and activities? Whose knowledge is required or adopted in planning for those programs? Furthermore, who are the trainers who train the teachers and whose experience is built upon in these programs: the teachers' or the trainers'?

If those new programs have been viewed as a 'revolution' in the educational fields, one may wonder, as Guskey (2000, p.125) states "if [these programs] led to higher levels of student achievement, more positive attitudes or perceptions, or more appropriate student behaviors". In other words, we still need to know why it is not surprising within this formula of teacher professional development programs to find teachers who feel uninspired, demotivated and unenthusiastic to participate in such programs (Hill, 2009). Why has data about students who outstandingly achieve in their academic learning as a result of their teachers' professional development not been clearly presented in literature? Is student achievement only measured by standardized tests? What about other variables like students' motivation, interests, individual differences, social status, school participation, etc.? (Reeves, 2010).

In addition, if teacher professional development is intended to benefit teachers and improve their classroom performances and practices, why do these programs prepared for teachers ignore an essential fact of learning: that different teachers learn in different ways? Is not 'individual differences' an issue that school leaders, policy makers and teacher supervisors always insist that teachers attend to in their classrooms? Is not it unfair to group teachers in one big or small hall to attend the same workshop or course regardless of their learning/ teaching styles, interests and experiences?

While many studies manifest that some teachers surpass their peers by the way they affect their students' performance and learning, research has not

been very productive in providing evidence on a number of variables that may interrelate with professional development activities and have a direct effect on student achievement, such as the teacher's experience, qualifications, or personal attitudes and beliefs.

It is obvious from the above discussion that students' achievement cannot be the product of only one variable; namely teachers. Many other factors may contribute positively or negatively to the students' academic performance, i.e. parents, school principals, teacher supervisors and most importantly students' potential. More research, however, is required to tangibly demonstrate the factor(s), if any, in teachers' professional growth programs that affect students' learning outcomes and the tool, other than standard exams, that should be used to actually measure their academic achievement.
This following section examines some studies that link professional development to student achievement from different perspectives.

- **Professional development and student achievement**

It is only recently that there has been a growing awareness about teachers as agents who play significant roles in students' achievement (Carey, 2004). It seems, as Markley (2004) notes that researchers have taken student learning outcomes for granted and believed "that effective teaching techniques would automatically yield positive student achievement" (p.2). The problem that lies in this assumption is that teachers have been viewed as executors who need to deal with policy makers' wills. Teachers have rarely been given the choice to work as professionals who decide for themselves and their students. Another significant issue that rises here is about the measurements that have been used to examine student achievement. In fact, one might like to know how valid, reliable and transparent these measurements are and, most importantly, how does professional development influence student achievement?

Mathematics, Science and English/Language arts are three content areas that have been the focus of every educational reform as they are generally thought to be solid basics for new advances and changes. Therefore, most research studies (McCutchen et al, 2002; Saxe et al, 2001) that have examined the relationship between teachers' professional growth and students' achievement have focused on one or all of these three areas. Undoubtedly, demonstrating the effect of professional development on student achievement is immensely challenging. Consequently, there has been a lack of rigor in studies that directly examine the interrelatedness between these two factors in the three content areas. Not surprisingly then with this restriction that the findings of most of these studies have confirmed a moderate effect of professional development on student learning outcomes and classroom performance (Yoon, 2007).

Most teacher professional development programs failed due to different reasons, one of which was the adoption of a 'one-shot approach', e.g. one-day workshop. Such an approach ignored the fact that learning and professional growth are long life processes which accumulate and build upon previous experiences, skills and knowledge. For this reason, it is not possible to reap positive results immediately after a certain course or program. Moreover, researchers such as Colbert, Brown, Choi and Thomas, 2008; Ryan and Cooper, 2008) have perceived such programs as something done to teachers rather than by them. They are, in many cases, top-down programs that are planned and designed by higher authorities whose aims and objectives have never been discussed or shared with teachers at the planning stage. However, other researchers have shown optimistic results in the studies they have conducted about teacher professional development and their impact on student achievement (Garet et al, 2001, Reeves, 2010). But to have one final word about what does and does not go well is impossible. The question then, is how do we know that a certain professional course has worked well, without being doubtful about which element in particular in that course has affected the teachers, the students or both?

Apparently, designing effective professional programs is mandatory to enhancing teachers' knowledge, skills and performance. Yet, fulfilling this big aim is by no means simple. Policy makers and professional development planners use "backward planning" as Guskey (2000) claims. That is to say, they sketch out what they think students need to learn and acquire, then they think of the "How?" to achieve this immense objective. It is obvious that such a decision needs much collaboration among the stakeholders including the students' teachers, students themselves, school principals and parents. Students, for example, need to learn and acquire new problem-solving skills in mathematics, science and English. They need to discover for themselves what works and what does not in different contexts and circumstances. But above all, teachers need to be willing to implement new practices and need to be ready to adapt or adopt new techniques. They also need to feel appreciated for changing their attitudes and for the time they will spend in the new

training in a way that will lead to a positive effect on their students' achievement.

Researchers who investigated the link between teacher training and student learning outcomes have concentrated on certain variables and studied this relationship from different aspects. Most of the efforts were focused on individual case studies that applied only to certain settings and specific learning environments with thought-to-be promising professional development programs (Richardson, 2003).

Guskey and Sparks (2002), for instance, believe that the relationship between professional development and improvements in student achievement is multi-dimensional. They proposed a theoretical model of teacher professional development and claim that it was more inclusive than other previous models in the field. This model has been examined in five professional development programs in schools via in-depth case studies. The model is based on the assumption that teachers' learning is not independent. Dimensions like 'content and context characteristics' and 'process variables' play major roles in affecting the quality, validity and effectiveness of any professional growth program. These dimensions, as Guskey and Sparks (2002) view them, refer to the 'what', 'how', 'who', 'when', 'where' and 'why' of professional development. The interrelatedness and centrality of these dimensions provide any program with its desired strength. Guskey (2003a, p.75) believes that "professional development's on students is accomplished principally through its direct effect on teacher and administrator knowledge and practices".

In short, it is a model that emphasizes the need for all stakeholders in the teaching-learning process to come together and cooperate for the benefit of teachers and students. Thus, the knowledge and practices of teachers, school principals, supervisors, parents and students are all required. However, this model does not claim that coordination among all of these factors will directly affect students' achievement (Guskey, 2003b). And such a view probably suggests that a change in all these stakeholders' knowledge will lead to a change in students' learning outcomes. This assumption by itself is a dilemma with all those involved in the model.

Without too much elaboration on Guskey's and Sparks' (2002) model, some interesting points need to be mentioned about their findings. The two researchers declared that the quality of their professional development program plays significant roles in strengthening or weakening the bond among the three major factors mentioned earlier: content, context and process. Hence, understanding the nature of the professional development program at all levels is essential. This includes the schools' or the higher authorities' policies at the implementation stage. Conflicts in policies may negatively affect the accountability and expectations of both parts. Likewise, other models of effective professional development have been proposed by other researchers and assumed that teacher's knowledge and classroom practices are crucial components which have influence on student achievement (Reeves, 2010; Garet et al., 2001; Fisherman et al., 2003).

Conversely, other researchers base their argument on the assumption that professional development is a dual process that requires knowledge of subject-matter content and knowledge of how student learn. Yoon and colleagues (2007) believe that professional development is a three-step process which requires:

a) enhancement of teacher knowledge and skills.
b) improvement of classroom practices.
c) high student achievement.

These steps operate in a chain-like approach. That is to say, the weakness or absence of any one of them may negatively and directly/indirectly affect student achievement. According to Joyce and Showers (2002) what matters most among these steps is the teacher's ability to transfer the learning into the classroom in a way that can improve student achievement. Once again, these proposed models emphasize the necessity of high quality professional development programs. This quality, as it was claimed by some researchers, can be obtained by planning and designing 'intensive', well-defined', 'content focused' and 'sustained' programs (Guskey,2003b; Garet et al, 2001). Yet, one might wonder here how well is the teacher prepared to teach what he/she teaches? Are teacher qualification and a number of professional courses alone enough? Has teachers' or planners' knowledge been considered in the preparation process for quality reasons?

From a different perspective, it was found that professional development programs which train teachers on specific content and include other activities that help teachers learn how their students learn this content had more positive impact on students' conceptual understanding than other general programs (Kennedy, 1998; Marzano, 2000). Other researchers who believe in the crucial link between teacher professional development and student learning outcomes have also insisted on paying attention to teacher learning and the validity of curricular materials utilized in these programs (Richardson & Placier, 2001; Hiebert & Grouws, 2007).

Literature has shown that any professional development approach should have an effect on teachers' beliefs and behaviors (Villegas-Reimers, 2003; Young, 2001). However, more research is still needed on the effect of specific aspects of such professional growth programs on teachers' knowledge, practices and skills. In addition, valid and reliable measurement needs to demonstrate the effect of certain variables of such professional programs on student achievement.

Furthermore, a number of researchers (e.g. Loucks-Horsley et al., 2002; Parsad et al., 2001) argue that the effectiveness of professional development programs lie in a variety of vital components including: form, active learning of teachers, duration, collaboration, and action research, etc. To show examples, comments will be restricted to the first three components only.

1. **Form:** it is believed that new professional development types like workshop, study group, teacher networks and other cooperative efforts have proved to affect teachers' practices and classroom teaching successfully (Odden, 2011). Although such types of training do not guarantee a positive effect on students' achievement, they have been viewed as impacting teachers' knowledge and skills more effectively than previous traditional professional development in-service courses and workshops.
2. **Active learning:** this form should be designed to ensure the active learning of teachers, where teachers are trained by other experts; senior teachers or other professional specialized trainers, on effective teaching strategies during their school hours. Several researchers have reported that teachers are more willing to change and improve their classroom practices when they are allowed to participate actively in the activities offered to them. Yet, further research is still needed to confirm such an assumption and examine the extent to which teachers' engagement in their learning activities affect their students' academic performance (Garet et al, 2001).
3. **Duration:** studies suggest that the more time (longer overall time span) is specified for professional growth, the better teachers' practices become and the more positive effect they have on their students' learning outcomes (Parsad et al., 2001; Garet et al, 2001). However, Wenglinsky (2002) claims that when teachers spend time in professional development courses and activities that are irrelevant to their content area, less effect can be noticed on those teachers' students' learning. In fact, reality has shown that time alone does not mean success. The actual learning that takes place in a certain amount of time is what might cause a change.

Having the above discussion in mind, it is within the aims of this paper to shed light on the relationship between professional development programs and student achievement in a more specific context; namely the United Arab Emirates (UAE), where I have been working for 17 years now.

Professional development and student achievement in the UAE

Education is one of the UAE's most leading priorities (Bell, 2014). A variety of initiatives have been launched at all educational levels in aspiration for full preparation of students who are expected to encounter the new challenging era in the Arab and global market place. Endeavors have focused on high performance and proficiency.

Policy makers have recognized the importance of better education in enhancing the economic growth of the country. Gonzalez et al (2008, p.125) states within this context that "because of the direct links to the job market and the nation's economic growth, higher education and training received attention from policymakers earlier, whereas the attention to reform at the primary and secondary levels is more recent". That is why most of the recent calls for educational reforms have brought about more focus on the foundation of the learning cycles which start from the primary schools onwards. It has been decided that teacher training courses that have focused on traditional irrelevant topics for so long need to be revised and replaced with more advanced and up-to-date materials (Gitsaki, Donaghue and Wang, 2012). For this purpose, long term aims have been developed to compete with the global market place. Yet, the question that might arise here is about the dimensions considered in planning for and designing professional development programs in the UAE. In other words, have all parts concerned with the educational teaching\learning process been involved? Have all dimensions been consulted?

Though the UAE education system is comparatively new, educational reforms have centered all the efforts on improving teachers' professionalism, students' learning outcomes and accountability (Mograby, 1999, Kannan, 2009). These promising sights have lead to several significant procedures in the education system.

As a start, more interactive teaching techniques and forms have replaced the traditional rote instruction. Technology has invaded most of the schools,

universities and learning institutions, if not all of them, all over the country. It is believed that "schools need to be equipped with a network and good bandwidth with access to mobile devices and laptops" (Ahmed, 2010b). New ways of learning have been integrated into the classrooms such as 'Blackboard', the 'Moodle' or the 'Twitter' especially at the university level. In addition, a new radical change has been implemented into the Science and Math subjects which are currently taught using English as the medium of instruction in a number of elementary public schools. These types of reforms and many others have been planned and assigned by three main governmental organizations: 'The Abu Dhabi Education Council' (ADEC), 'The Dubai Education Council' (DEC) and 'The Ministry of Education'.

These three sources of power have recently realized that the current education system is unable to keep up with the future development with its huge amount of technological advances, communications and information speed and the labor market. Many school reform plans have been announced since 2006. Nevertheless, it has been found that students in the UAE "have average or below-average English writing, communication and math skills" (Gerson, 2010). In addition, "of the students in any single grade, 47 per cent fail in the annual exams and are forced to sit in the same grade and 21 per cent drop out" (Ahmed, 2010a). These shocking results have been reported by specialized educators periodically and budgets in millions dirham have been set to solve the dilemma.

Dr Abdulla Al Karam, director-general of the Knowledge and Human Development Authority (KHDA) in the UAE (as cited in Ahmed, 2010a) believes that there is an urgent "need to work with wider community and social authorities…the education system alone cannot be blamed and the different departments will work collectively on a comprehensive solution for the matter."

The UAE Ministry of Education, for example, has launched "a new research and support division intended to give school administrators the information they need to continue reforming the state education system" (Lewis, 2009). By establishing this new center it is hoped that successful reform programs would be designed and customized according to sound research which fits into the UAE cultural demographic and students' learning needs and interests. Its main focus is curriculum, assessment and special education.

In this context, it is notable that any report by any educational organization can simply and easily show data about students' grades. These grades in any educational reform have been considered as the major factor that refers to students' achievement. In other words, students' knowledge and learning have been measured by the grades they obtain in their school standard-based exams. Other factors like those mentioned earlier in this paper have not been taken into consideration, i.e. students' interests and motivation.

Reports analyzing the status quo have shown teachers as the main reason behind students' low achievement. Consequently, initiatives have been launched as part of the educational reform all over the country. In addition to the conventional forms of teacher professional development (e.g. peer observation, teacher portfolio, school-based workshops and seminars), a new teacher professional growth program has been designed to train 60 teaching supervisors who will be assigned to schools in the northern emirates to fix what has been identified as a 'failing system' (Samaha, 2009). This project aims at improving the teaching-learning standards by training teachers who work in public schools and lack educational qualifications.

School principals have been also involved in professional growth programs prepared by ADEC and aimed at training them on how to raise the teaching standards and the learning outcomes in their schools.

All of the previous programs and many other future proposed ones have been designed to bridge the gap between teachers' knowledge and classroom practices. To achieve this goal, teachers in these programs are provided with a variety of educational materials and resources that should facilitate the improvement process, e.g. on-line services (blogs and forums), books, teachers' guides and audios. All of these resources are expected to allow more enrichment of experience, interaction and exchange of ideas among teachers. Yet, a number of missing elements have not been noticed. Unfortunately, the amount of money spent to improve the quality of education seems to be unable to assure better classroom practices and high student achievement. One reason might be, as Aubrey and Coombe (2011) propose, is that Emirati students lack motivation for learning and many of them are disinterested.

As an educator and a previous teacher supervisor, teaching students in two different foundation programs in one of the higher education institutions in the UAE, I still have many questions that occur to my mind once professional development courses are introduced. One advantage that I always appreciate since I have joined this teaching career is the procedures taken in planning and designing any professional development course for

teachers. A survey is usually circulated to all teachers with a suggested list of topics and interests that a teacher needs to choose from. The list usually includes pedagogical topics such as classroom management, group work, active/cooperative learning, and individual differences, or IT-related courses (e.g. Windows applications, Smart board or Blackboard). There is also a space in that survey for teacher's own suggestions, which are often not delayed or cancelled due to the unavailability of the specialized trainer, time among the scheduled timetable or irrelevance to other participants' interests. Although joining one of these courses seems to be apparently voluntary, the teacher has to choose from this list whatever fits into his/her free time in the full load schedule as he/she will be given certificates of completion at the end of the course. This certificate would automatically be credited to the teacher's/faculty's annual appraisal report as a proof of the teacher's interest in long-life learning.

Out of my experience, this kind of professional development in whatever form has never been followed up by any kind of research to validate it or examine its effect on students' learning outcomes. My students, for example, have studied English for 12 years in their schools before being admitted into the college's foundation program. Yet, it always takes me at least the first three or five months of the year to teach them the basics of the English language like pronouns, the tenses, or sometimes even the alphabet. Is it possible then to assume that those students' teachers in the primary, preparatory and secondary schools have never been exposed to any professional development courses? Do we expect a teacher who teaches 24 hours per week in the primary and sometimes preparatory school to enjoy an imposed after-school professional development workshop or course? Is it logical to expect a change in the students' achievement as a result of one-shot teacher training, which in some or many cases would be irrelevant to the taught curriculum or the teacher's teaching experiences and interests? Is not learning a long-term process? Have not students had different motivations, social backgrounds, learning abilities and learning styles? Most importantly, have teachers been asked about what skills or knowledge they or their students need to gain to obtain better results at the achievement level?

For these questions to be answered, the teacher's voice needs to be heard at the decision-making stage, which is not currently the case. And an adoption of Pennycook's critical approach to the "givens" would probably be viewed as an explicit violation of policies, or simply resistance to change and novelty. A well-planned coordination and collaboration among all the stakeholders in the teaching-learning process can be the starting point. Guskey's and Sparks' (2002) multi-dimensional model might be another helpful clue if it is well-examined and implemented. Yet, all of these proposed suggestions require a lot of flexibility, transparency and a change of attitudes.

In fact, huge efforts are exerted to enhance the teaching quality via professional development programs and courses, but most of them have proved to be of less interest to the teachers or in most cases, irrelevant to their classroom teaching practices (Al Banna, 1997, p. 104). Furthermore, teachers are not given time to reflect on their own practices, skills and knowledge, nor have they been provided with chances to have a say and propose solutions which may contribute to teaching quality and their students' academic performance to those of power and authority. Not to mention the noticeable absence of most of the students' parents and the social communities from the evaluation criteria of the low achievement of students.

Recommendations for policy makers

Based on the previous discussion, this paper contributes with a set of guidelines that may be of help to policy makers, educational leaders and professional development planners if quality of education is their ultimate goal.

It is no secret that teacher professional development is an essential element in the teaching-learning process and should have an effect on student performance. It is supposed to help teachers improve their skills, knowledge and teaching practices. Yet, most of the programs and courses planned for this purpose lack the engagement of teachers in the planning process. What matters at the end is what teachers learn and acquire and the way they transfer this new knowledge into the classroom. Therefore, the take-away message can be summarized in the following points:

- One main aspect that policymakers have not probably well-considered in planning for educational reforms throughout the world in general and in the UAE in particular is the lack of research studies in education. This shortage makes it difficult to conceive real faults and shortcomings of any reform. Local studies based on real data in the UAE schools contexts are essential if solutions for more promising outcomes are the ultimate goal of the reform.

- Researchers of human resources believe that every effect is linked to a specific cause in terms of performance problems. One tool that is claimed to be effective and powerful in

analyzing a certain problematic situation is the 'five Whys technique'. This approach, as stated by Rothwell, Hohne, and King (2007, p.73), "forces the analyst to think through potential causes and to drill down to deeper levels that are more representative of the root cause". Serrat (2009, p.1) claims that in many cases, "when a problem appears, the temptation to blame others or external events is strong. Yet, the root cause of problems often lies closer to home". This technique simply calls for examining any problem in a five-chain question. The more accurate the question, the closer the answer is.

If this technique is applied to the situation where teachers are always in the spot, the process of educational reform would probably reap more benefits in terms of goals fulfillment; especially when policy makers and all stakeholders, e.g. teachers, students, parents, school administrators and social community take part in the questioning stage. (See appendix A for an example).

- Teacher professional development is planned and designed to help teachers improve their pedagogical knowledge and skills and then to translate their new understanding into classroom teaching and practices. Consequently, this improvement is expected to impact positively on students' learning outcomes. Therefore, it is of high importance to investigate teachers' existing knowledge and experiences and build on them at the planning phase of any professional growth program. Programs need to be customized to fit into the individual and subject-knowledge requirements. As it is the case with accommodating to students' learning styles, literature is also replete with research studies that emphasize the necessity to match one's teaching styles to his/her learning styles. The one-size fits all approaches would not probably be in right proportion with the time, efforts and money spent.

- The previous review of literature in this paper underscores the fact that teachers should be no more seen as passive recipients or transmitters of information. Current research view teachers within more significant roles and responsibilities. Teachers have to be leaders in their classrooms and planners of their own learning. Therefore, to ensure the effectiveness of teachers' leadership skills, policy makers need to actively engage teachers in the planning process for professional development programs or curriculum development, and thus give them the chance to contribute to their own improvement and the quality of education.

- Teachers' beliefs and attitudes are major factors in the educational reform. Unless policy makers and educational leaders are clear about the conditions under which teachers may be ready to change their classroom practices, any professional development program would probably be deemed to failure. In other words, teachers need to be convinced with the rational of the change imposed on them. They need to believe in the credibility of any designed training course in providing them with new opportunities for learning, recertification and salary increments, individual growth besides schools' and parents' support.

- Last but not the least; policy makers should be aware that learning is a long-term process. Assuming immediate positive results of students' performance after a well-planned professional development program is by no means possible. Variables other than any specific program might have larger impact on students' academic performance such as parents' educational and social backgrounds, students' motivations and interests, students' learning styles or the classroom size. More importantly, the link between what teachers have learned and acquired in a certain professional development program does not necessarily have a direct impact on students' academic performance. Teachers might have developed and gained other skills and knowledge that would affect the classroom teaching and practices in a different aspect. As a result, a well-designed follow up strategy of teachers' development might provide a better understanding of what worked well in the training programs and highlight aspects of more concern and care.

Conclusion

To sum up, a deeper understanding of teachers' and students' learning, attitudes, motivation and interests may contribute to better success of future professional development programs. All of these factors coupled with policymakers', curriculum planners' and other stakeholders' collaborative efforts in improving the

education system would lead to better teaching quality and better student academic performance.

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Appendix A

Example of "The Five Whys Technique":

The main issue is 'student low achievement'. Questions to ask:

1. Why do we have low student achievement?
   Possible answer: because we have low quality teaching.
2. Why do we have low quality teaching?
   Possible answer: because teachers are not well-prepared for the new millennium's challenges.
3. Why have teachers not been well-prepared?
   Possible answer: because they do not have enough time to attend all professional courses planned to upgrade their knowledge and skills.
4. Why do teachers not have enough time?
   Possible answer: because they have a full load.
5. Why do teachers have a full-load?
   Possible answer: because school management feels busy teachers make better teachers
   Another possible answer: because there simply are not enough teachers to better share a sizable load of contact hours.