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PARTICIPANT SATISFACTION WITH PROFESSIONAL DEVELOPMENT IN THE ABU DHABI SCHOOL MODEL (ADSM)

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Abstract

Education in Abu Dhabi is in a period of substantial reform. A key component of the reform effort is the provision of professional development (PD) for teachers. The present study examines the results of a teacher satisfaction survey given to all Tamkeen: Empowering Educators PD program participants. Areas of examination include: differences in overall satisfaction among various demographic groups of teachers (i.e., gender, grade level taught, teacher nationality (Emirati/expatriate), and demographic region); satisfaction with various program components (i.e., use of training time, organization, comprehensibility, utility, practicality, and trainer knowledge); and the relationship between participants' satisfaction with the training time and their overall satisfaction. Findings show that there are significant differences in overall satisfaction levels among demographic groups, with male teachers, expatriate teachers, and those in the Western region having higher mean satisfaction levels than other groups. Program components with the highest satisfaction are the training venue (at school sites) and trainer knowledgeableness. Areas of lowest satisfaction are the timing for training and "overall satisfaction." A significant relationship exists between participants' satisfaction with the

training time and their overall satisfaction. The study provides information for decision makers to enhance future program decision-making.

Keywords

Professional Development, Education, UAE, Abu Dhabi

1. Introduction

The United Arab Emirates is an oil-rich state located in the Arabian Peninsula. The country is comprised of seven Emirates, which include Abu Dhabi, Dubai, Sharjah, Ajman, Umm al Qaiwan, Ras al Khaimah, and Fujarah. Abu Dhabi is the most resource-rich of the seven Emirates. In the early days of public education in the UAE, literacy rates were low (below 50% for men and below 30% for women) (Davidson, 2008) but today the literacy rates for the population overall are about 90% for both men and women (World Bank Data Bank, 2012).

The late Sheikh Zayed bin Sultan Al Nahyan became the ruler of Abu Dhabi in 1966, and was instrumental in the federation of the emirates. Sheikh Zayed, the founding father of the UAE and Emir of Abu Dhabi, stated that "The real asset of any advanced nation is its people, especially the educated ones" (UAE Embassy, 2012). Significant education reform is underway in Abu Dhabi, under the guidance of the Abu Dhabi Education Council. The purpose of this study is to explore participant satisfaction with a major professional development initiative in Abu Dhabi, the Tamkeen: Empowering Educators program. The professional development is offered as a component of a major school improvement initiative called the Abu Dhabi School Model (ADSM).

The Abu Dhabi Education Council (ADEC) is the government entity responsible for education in Abu Dhabi, in collaboration with the UAE Ministry of Education (MoE). All Emirati students are entitled to free public education, including KG1/KG2 (ages 3-5 years) up to undergraduate tuition at the state colleges. Public schools are organized according to cycle (KG, Cycle One (grades 1-5), Cycle Two (grades 6-9), Cycle Three (grades 10-12), and Common Cycle (multiple cycles in a school). All KGs and some Cycle 1 schools are mixed gender. Students are taught in a single-gender environment for Cycles 2-3. KG and Cycle 1 schools are mostly staffed by female teachers; Cycle 2 and 3 are mostly taught by teachers of the same gender as the students. Education in the UAE, in Abu Dhabi especially, is in a period of

tremendous change and growth. The focal point of reform in Abu Dhabi is the Abu Dhabi School Model (ADSM).

In 2006, ADEC launched "an ambitious school reform plan" called the New School Model (NSM), now called the Abu Dhabi School Model (ADSM). In addition to a "range of ongoing pedagogic, curricular and leadership reforms, a major departure is the introduction of English as an additional medium of instruction alongside the existing medium of Arabic" (Gallaher, 2011). To facilitate these changes, teachers from Western countries now teach most English Medium Subjects (English, Math, and Science in KG-C2 and English in C3) alongside some National teachers and expatriate Arab teachers who meet language requirements. The ADSM is "a comprehensive foundation for learning that will enable desired student outcomes by developing major components of the educational experience: teaching quality, learning environment, school leadership, and parental involvement" (ADEC, 2013a). H.E Dr. Amal Al Qubaisi, Director General of Abu Dhabi Education Council (ADEC), states that:

Over the last five years, Abu Dhabi schools have made significant progress at all levels of the education process. […] But the world is not standing still. The race to the top is getting more and more competitive. A holistic view encompassing all aspects of the education system from P-12 to Post-Graduate Master's and Doctoral Education, as well as on-hands job market experience are all required" (Gulf Times, August 2015).

The pervasiveness of change associated with the NSM/ADSM cannot be overstated, in terms of its relevance to any study of education in the Abu Dhabi context. Former Director General of ADEC, H.E. Dr. Mugheer Al Khaili said, "we don't just want to improve our education system, our schools and the performance of our schools… we want to be ranked as one of the best education systems in the world" (quoted by Blaik-Hourani, 2011). A key component of the ADSM is the provision of professional development, through a major initiative conducted in collaboration with five provider companies and one U.S. University partner, called the Tamkeen: Empowering Educators program, which started in February 2012.

ADEC states that "The *Tamkeen: Empowering Educators* program supports the development of qualified and skilled school leaders and teachers who can support the Emirate as it aims to enhance the quality of educational outcomes achieved by students." With regard to Tamkeen, H.E. Mr. Mohammad Salem Al-Dhaheri, ADEC's Executive Director of School Operations states that "High quality professional development for teachers and school leaders is

an essential component of the New School Model and ADEC reform efforts. Professional development supports the development and growth of the National workforce and ensures sustainability and high-quality education for the future." The program provides training for 99% of school leaders and 97% of teachers; leaders receive between 30-55 hours and teachers receive 25-30 hours of training, aligned to global best practices in teacher and leader practice and based on the demonstrated needs of the school and the participants, aligned to the ADSM (ADEC, 2013; ADEC, 2015; Al Taneiji, 2014). Professional learning is identified in the research literature as a key to successful school turnaround and improvement models (Guskey, 2000; Fullan, 2004; Murphy & Myers, 2008; Marzano & Toth, 2013). Guskey identifies participant satisfaction as an important component of quality program evaluation for professional development, which can be used to improve the design and delivery of programs (Guskey, 2000).

2. Purpose of the Study

The current study seeks to describe the results and identify relationships between variables in a teacher satisfaction survey conducted by the Abu Dhabi Education Council, to address the following research questions:

- Are there significant differences in overall satisfaction between demographic groups (i.e., gender, grade level taught, teacher nationality, geographic region) and overall satisfaction?
- What are the differences in satisfaction levels with various aspects of the PD (i.e., use of training time, organization, comprehensibility, utility, practicality, trainer knowledge, venue, timing)?
- Is there a statistically significant relationship between teachers' satisfaction with the timing for the PD and their overall satisfaction?

3. Review of Related Literature

3.1 Professional Learning in the UAE

Eleven major problems with education in UAE were identified in 2007, including: unsuitable curricula, ineffective teaching methods, inappropriate assessment methods, limited use of ICT, poor libraries and learning support, inadequate time spent in school (scheduling),

ineffective school culture, poor facilities, a low level of professionalism among teachers, ineffective school systems, and inadequate budgets (MacPherson, Kachelhoffer, & El Nemr, 2007). Steps taken by the Ministry of Education (Mo E) include: clarifying educational policy, setting internationally benchmarked performance expectations, launching a ten-year restructuring plan, restructuring educational management, and mobilizing appropriate resources and support. This article was written when ADEC was just starting, but it offers a historical perspective on challenges facing education in UAE.

The story of one UAE national teacher, Amal, is discussed by Gallagher, using an interpretative biographical narrative. Although Amal took part in an innovative B.Ed. teacher training program to become a qualified teacher in UAE government schools and obtained an M. Ed in education from a local university, her credential was rapidly rendered obsolete. After four years of teaching, the introduction of the New School Model and the Public Private Partnership (PPP) program was introduced, necessitating Cycle 1 teachers to teach not only English, but also Math and Science through the medium of English. Amal found that she was unqualified to teach. She took part in an overseas PGCE program and ultimately returned to the UAE to teach in private schools. Although Amal received intensive and high-quality professional development, she still ultimately chose to leave the government system, rather than teach in the NSM.

Gallagher focused on the bilingual education component of the NSM, concluding that bilingual education in Abu Dhabi is likely to have positive benefits for students; however, the literature regarding the proper age for the introduction of this type of schooling is inconclusive. She identifies the tension between embracing English as an international language and preserving Arabic language and culture (Gallagher, 2011). She calls for ongoing research into bi-literacy in the NSM/ADSM, as it is a unique approach to school reform, internationally.

The scope of educational reform in the UAE is addressed by Al-Zyoud, who interviewed 25 teachers to discuss their views on priorities for leadership in the current context of educational reform in Abu Dhabi. He found that the top three areas teachers believed to be of the utmost importance for leadership during the reform are: leading teaching and learning; improving the quality of facilities, resources, and infrastructure; and ensuring that teachers have access to high-quality and appropriate professional development (Al Zyoud, 2015).

In her ethnographic case study of a large-scale professional development project (focused on action research and communities of practice), Stephenson found that one factor which

negatively impacted the project was key staff turnover, due to the prevalence of short-term expatriate staff across all institutions. Factors which positively impacted the PD projects were: a distributive leadership style by school leaders and a focus on building relationships and fostering collaboration. Limiting factors were participants' desire for "templates or 'recipes' for how to do things" and an overreliance on stand-and-deliver workshops. In order to support successful PD, she recommends a focus on: fostering collaboration, defining learning outcomes, on-site PD, providing appropriate resourcing, and recognizing the limitations of PD (Stephenson, 2010).

Stephenson, Dada, and Harold used a longitudinal case study approach to identify themes and key content areas during the implementation of a teacher-leadership development program in two government schools. Shared leadership was found to be a key to success. A lack of trust (e.g., a fear that work would be "re-appropriated to others' credit"), fear that participants were being evaluated by supportive observers, and participants' need to "'maintain' face by claiming that they already knew everything and that the workshops included 'nothing new for them'" were observed to detract from the impact of the projects (Stephenson, Dada, & Harold, 2012).

Using an exploratory case study design, Thorne describes the lived experience of one principal during the initial phase of the NSM/ADSM, during the Public Private Partnership (PPP) project, which preceded the Tamkeen: Empowering Educators program as a component of the reform effort in ADEC schools. In the PPP project, professional development provider companies were assigned to schools to support school leaders in implementing reforms, through the use of full-time on-site educational advisors. Thorne describes the sweeping changes inherent in the introduction of the PPP and the NSM, particularly the introduction of English as the medium of instruction for Science and Math and the use of thematic units of instruction. Problems identified include: the micro-agenda of the PPP provider company versus the macro reform agenda, initiative overload, politics, and conflict between the school leadership's vision and the vision of the company. Suggestions for improvement include: greater centralization of decision-making by ADEC, intensive ongoing language and pedagogy PD for teachers and leaders, establishment of career pathways, and a greater focus on research as a part of the reform effort (Thorne, 2011).

The *Tamkeen* project is the focus of Al Taneiji's qualitative phenomenological study of teacher perceptions regarding their experience in the professional development program. The seven Cycle 1 and 2 teachers interviewed reported that the PD content addressed their needs and

the needs of the school, a variety of training formats were offered, and that they preferred the use of internal trainers (including school leadership) more than direct delivery from the PD provider. Teachers also reported that activities designed to measure growth as a result of the training had an impact on their teacher evaluations. Limiting factors included: the timing and length of the training, which took place after students left the school; some unsupportive colleagues; and some confusion over requirements for training hours. "Obvious improvement for student achievement" was reported, as a result of the training (Al Taneiji, 2014). Suggestions for improvement included: providing certificates/recognition, enhanced participation by school leaders, training on peer observations, fostering collaboration, clear expectations for training hours, and a consideration of other timings for the training.

Education in the United Arab Emirates is undergoing a period of profound reform. The research base on education in the UAE is still very narrow; however, the existing literature makes it clear that there is a need for meaningful professional development for teachers and school leaders throughout the emirate.

3.2 Participant Satisfaction with Professional Development (PD)

The methods used to identify characteristics of effective PD vary widely and are based on inconsistent and sometimes contradictory research (Guskey, 2003). However, research suggests that factors supporting effective PD include: adequate duration (within and across sessions), to allow for application of information (Garet, Porter, Desimone, Birman, & Yoon, 2001; Cocoran, 1995; Hunzicker, 2011); alignment of PD to individual and organizational improvement goals (Garet, et al, 2001; Guskey, 2009; Cororan, 1995; Hunzicker, 2011); and active learning and opportunities for collaboration (Garet, et al, 2001; Guskey, 2009; Cororan, 1995; Hunzicker, 2011).

Guskey states that it is essential to carefully gather and analyze data regarding participants' reactions to professional development, as an important first step in educational program evaluation (Guskey, 2000). According to the National Staff Development Council, evaluators should measure content, process, and context (Hirsch, 2007).Content questions should provide program evaluators with information about the comprehensibility, utility, applicability, and time management of the training. Process questions should address trainer knowledge ability, quality of the materials, planning and implementation of the training. Context questions should address the training facility and setting (Guskey, 2000). Demographic data can be used to

provide insight into differences in opinion within and among training groups (Guskey, 2000). The purpose of the satisfaction survey is to measure participants' opinions about their experience, as an essential first step toward overall program evaluation (Guskey, 2000).

4. Methods

The research sample was comprised of all teachers who took part in the *Tamkeen: Empowering Educators* program during the 2014/2015 school year. The survey was sent to 9,402 teachers' ADEC email addresses, by the ADEC Research Office. The survey remained active for approximately two weeks. Responses were received from 2,567 teachers, with a response rate of 27%. As the school year was over when the survey closed, no further activities to enhance response rates were possible. This is recognized as a potential limitation of the study. In collaboration with the ADEC Research Office, the researcher determined that although the preferred response rate was 30% (minimum), the current sample was adequate for purpose. However, response rates varied among groups, as per the table below. This is recognized as a limitation of the study.

Table 4.1 *Response Rates*

Group	Invited	Responded	Response Rate
Female	6461	1612	25%
Male	2941	954	32%
KG	1234	425	34%
C1	2353	619	26%
C2	1492	380	25%
C3	1325	314	24%
Common Cycle	2998	828	28%
Expat	6284	2088	33%
National	3118	478	15%
Al Ain	4419	1163	26%
Abu Dhabi	4012	1013	25%
Al Gharbia	962	386	40%

The instrument was developed in collaboration with ADEC stakeholders, an external monitoring agency (local university), and the ADEC Research Office. Survey content was based on Gus key's *Evaluating Professional Development* (Guskey, 2000). The survey utilized a four-point Likert scale (1=very unsatisfied, 2=unsatisfied, 3=satisfied, 4=very satisfied). The scale was based on the existing Key Performance Indicators as written in the *Timken* contract; the lack

of a neutral response is recognized as a limitation of the study. The survey was presented in Arabic and English. The researcher's inability to understand the Arabic translation of the questions is recognized as a limitation of the study. Steps taken to reduce this potential limitation included review by ADEC staff and the external monitoring agency.

Table 4.2 *Survey Questions*

No.	Question- English	Response Type
1	The use of time within your training sessions (i.e. Was the time well-spent?)	4-Point Likert Scale
2	The organization of the training materials (i.e., Were all required materials organized and ready for the training?)	4-Point Likert Scale
3	Comprehensibility of the training (i.e. Did the training make sense?)	4-Point Likert Scale
4	Training objectives (i.e., Was the purpose of the training clear?)	4-Point Likert Scale
5	Overall knowledgeableness of the trainer (i.e., Ability to explain material clearly and to assist in understanding how to apply the training)	4-Point Likert Scale
6	Applicability of training to daily work (i.e., teaching)	4-Point Likert Scale
7	Opportunity to apply learning through hands-on tasks	4-Point Likert Scale
8	Quality of feedback from trainer	4-Point Likert Scale
9	Potential of the training to positively impact student achievement	4-Point Likert Scale
10	Overall satisfaction with the training	4-Point Likert Scale
11	The timing for the training	4-Point Likert Scale
12	The venue for the training	4-Point Likert Scale
13	Please provide any feedback that you think would be helpful, as we plan future training.	Open Response

5. Results

5.1 Research Question One: Satisfaction Level Differences among Various Demographic Groups

5.1.1 Overall Satisfaction Level Differences between Males and Females

Sub-question one: Are there differences between the satisfaction levels of male and female teachers? After first using an F-test to identify unequal variance, the researcher conducted

a t-Test to identify if significant differences existed between the overall satisfaction of male and female teachers. Based on the results below, it is possible to reject the null hypothesis and conclude that there are significant differences between the reported overall satisfaction levels of male and female teachers. Overall, female teachers have lower mean satisfaction levels and greater variance in their satisfaction. When working with a large sample, it is essential to consider not only the p value, but also the effect size (Sullivan & Feinn, 2012). Cohen's *d* for these sub-question yields a value of .36, which is considered to be a small to medium but significant effect, showing that there is a significant difference between male and female overall satisfaction.

Table 5.1.1 *Overall Satisfaction by Gender*

Overall Satisfaction by Gender t-Test: Two-Sample Assuming Unequal Variances		
	Female-Overall Satisfaction Responses	*Male-Overall Satisfaction Responses*
Mean	2.5	2.9
Variance	0.8	0.6
Observations	1596	937
Hypothesized Mean Difference	0.0	
df	2218.0	
t Stat	-9.4	
P(T<=t) one-tail	0.00000000000000000007	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.00000000000000000015	
t Critical two-tail	1.96	

5.1.2 Overall Satisfaction Level Differences among Various Teaching Levels

Sub-question two: Are there significant differences between the satisfaction levels of teachers of different cycles (KG, C1, C2, C3, and Common Cycles)? The researcher conducted ANOVA to identify if significant differences existed between teachers at different levels. Using eta squared, $\eta 2 = .015$, which is a small but meaningful effect size. Based on the results below, it is possible to reject the null hypothesis and conclude that there are significant differences between the reported overall satisfaction levels of teachers at the KG, C1, C2, C3, and Common Cycles. Teachers in Common Cycle and Cycle 2 had the highest reported satisfaction.

Table 5.1.2 *Overall Satisfaction by Teaching Cycle*

Overall Satisfaction by Cycle

ANOVA: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
KG	422	1072	2.5	0.8
C1	610	1556	2.6	0.8
C2	375	1024	2.7	0.7
C3	310	812	2.6	0.7
Common	816	2274	2.8	0.7

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	28.8	4	7.2	9.7	0.000000083	2.4
Within Groups	1871.5	2528	0.7			
Total	1900.3	2532				

5.1.3 Overall Satisfaction Level Differences between National and Expatriate Teachers

Sub-question three: Are there significant differences between the satisfaction levels of national and expatriate teachers? After first using an F-test to identify that there is no significant difference in variance, the researcher conducted a t-Test to identify if significant differences exist between the overall satisfaction of national and expatriate teachers. Based on the results below, it is possible to reject the null hypothesis and conclude that there are significant differences between overall satisfaction levels for national and expatriate teachers. The mean satisfaction for expatriate teachers is higher than for national teachers and the variance for expatriate teachers is slightly smaller, although the f-test showed that this was not significant. Cohen's *d* for this sub-question yield a result of .25, which is considered to be small, but above the generally accepted level of significance (.20).

Table 5.1.3 *Overall Satisfaction between National and Expatriate Teachers*

Overall Satisfaction by National/Expatriate Teachers		
t-Test: Two-Sample Assuming Equal Variances		
	National	*Expatriate*
Mean	2.5	2.7
Variance	0.8	0.7
Observations	473	2060
Pooled Variance	0.7	
Hypothesized Mean Difference	0	
df	2531	
t Stat	-5.0	
P(T<=t) one-tail	0.00000034	
t Critical one-tail	1.6	
P(T<=t) two-tail	0.00000068	
t Critical two-tail	2.0	

5.1.4 Research Question Four: Overall Satisfaction Level Differences in Various Regions

Sub-question four: Are there significant differences between the satisfaction levels of teachers in different geographic regions (Al Ain, Abu Dhabi, Al Gharbia)? The researcher conducted ANOVA to identify if significant differences existed between teachers in different regions. Using eta squared, $\eta 2 = .034$, which is a small but meaningful effect size. Based on the results below, it is possible to reject the null hypothesis and conclude that there are statistically significant differences between the overall satisfaction of participants in Al Ain, Abu Dhabi, and Al Gharbia. The mean satisfaction in Al Gharbia is highest, followed by Al Ain, and then Abu Dhabi, with the lowest mean satisfaction. The variance within the sample from Abu Dhabi is higher than the other regions, as well.

Table 5.1.4 *Overall Satisfaction by Region*

Overall Satisfaction by Region						
ANOVA: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Al Ain	1149	3121	2.7	0.7		
Abu Dhabi	997	2477	2.5	0.8		
Al Gharbia	383	1126	2.9	0.6		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	64.4	2	32.2	44.4	0.000000000	3.0
Within Groups	1832.1	2526	0.7			

Total	1896.5	2528

5.2 Research Question Two: Satisfaction Level with Various Aspects of Professional Development (PD)

Using descriptive statistics, the researcher compared mean satisfaction levels with various aspects of the Tamkeen program.

Table 5.2.1 *Satisfaction with Various Aspects of PD*

No.	Question- English	Mean Response
1	The use of time within your training sessions (i.e. Was the time well-spent?)	2.75
2	The organization of the training materials (i.e., Were all required materials organized and ready for the training?)	2.96
3	Comprehensibility of the training (i.e. Did the training make sense?)	2.87
4	Training objectives (i.e., Was the purpose of the training clear?)	2.91
5	Overall knowledgeableness of the trainer (i.e., Ability to explain material clearly and to assist in understanding how to apply the training)	2.97
6	Applicability of training to daily work (i.e., teaching)	2.77
7	Opportunity to apply learning through hands-on tasks	2.76
8	Quality of feedback from trainer	2.84
9	Potential of the training to positively impact student achievement	2.75
10	Overall satisfaction with the training	2.66
11	The timing for the training	2.58
12	The venue for the training	3.06

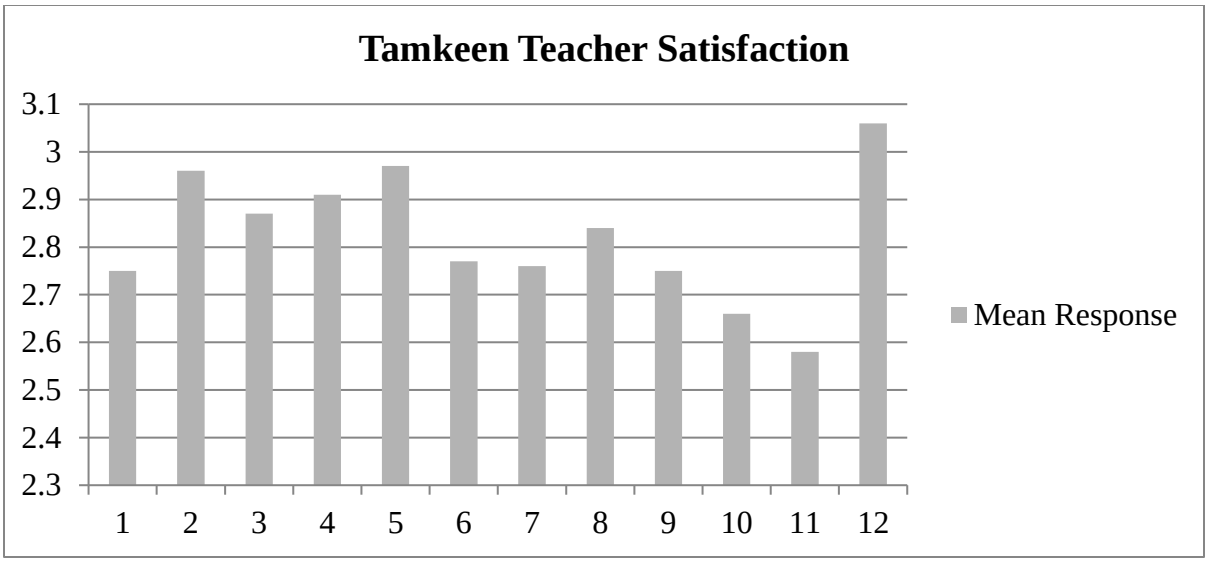

Figure 5.2.1 *Satisfaction with Various Aspects of PD*

5.3 Research Question Three: Timing for Professional Development and Overall Satisfaction

Is there a relationship between teachers' satisfaction with the timing for the PD and their overall satisfaction? The researcher utilized Pearson's *r* correlation to determine if there was a statistically significant relationship between participants' satisfaction with the timing for the training and their overall satisfaction. Only responses which addressed both questions (*n*=2,503) were included in the analysis for this question.

An *r* value of .58 and a *p* value of <0.00001 were found, which provides evidence that it is appropriate to reject the null hypothesis. This indicates that there is a statistically significant relationship between satisfaction with the timing of the training and overall satisfaction.

6. Conclusions

The results of the study confirmed that there are significant differences in overall satisfaction between demographic groups (i.e., gender, level taught, teacher nationality, geographic region) and overall satisfaction for teachers taking part in the *Tamkeen* program. Male teachers, teachers in the Western region, and expatriate teachers were all found to have higher satisfaction than female teachers, teachers in Abu Dhabi and Al Ain, and Emirati teachers.

It is unclear from the current study why specific training groups have differing satisfaction levels. Compounding the issue is overlap between the groups (for example, female teachers are much more likely to be National than male teachers). Abu Dhabi was found to have the lowest satisfaction of the three regions and greater variability in overall satisfaction; this may be related to the fact that there were more PD Provider companies in Abu Dhabi than in other regions (3 companies in Abu Dhabi, as opposed to 2 in Al Ain and 1 in each area of the Western Region). It is beyond the scope of the current study to contrast performance among/between PD Provider companies, but this is an area which is recommended for further research and program evaluation for ADEC. Teachers at Cycle Two and in Common Cycle Schools had higher reported satisfaction than teachers in other cycles, although the causation is unclear. It is possible that the recent introduction of the Abu Dhabi School Model into Cycle Two (in 2013/14) may have provided an incentive for teachers at these schools to seek out or engage more deeply with the PD. This is recommended as an area of future study. In general, further study is recommended to focus on the specific needs of teachers in demographic groups with lower overall satisfaction levels.

Satisfaction levels were shown to be highest for the training venue, the knowledgeableness of the trainer, and the organization of the training materials, while timing for the training was the area of lowest satisfaction. 2014/15 was the first year during which PD weeks were held during the school year, in two designated week-long periods during which students were not present. Additionally, KG-C2 schools are required to hold professional activity/PD periods during the work day after students leave the building twice per week. The current study does not differentiate between "time" during the day and "time" in the calendar; this is recommended as a future area of study, because timing has been shown to have a significant impact on teachers' satisfaction with the PD. Timing for the *Tamkeen* PD was identified by Al Taneiji as an area of great concern for the teachers in her study. Although correlation and causation are separate issues, this study adds to the qualitative data collected by Al Taneiji and provides evidence to support her assertion that the timing for the PD may have an impact on teachers' overall feelings about and satisfaction with the program. Al Taneiji also found that on-site training was preferred by the teachers in her study, which finding was reinforced by the current study.

The rapid pace of reform in education in Abu Dhabi often entails a fast turnaround on initiatives. It is essential for decision-makers to have research-based evidence upon which to base decisions about programming. This study is an initial step which will add to the (currently narrow) research base upon which future full-scale program evaluations for professional development in the Abu Dhabi School Model can be based.

References

Abu Dhabi Education Council. (2013a). Accessed November 15, 2015 from https://w ww.adec.ac.ae/en/mediacenter/news/pages/sheikh-tahnoun-bin-mohammad-opens-al-diwan-kg--al-jahili-school.aspx

Abu Dhabi Education Council. (2013b). Accessed November 15, 2015 from https://www.adec.ac .ae/en/MediaCenter/News/Pages/Tamkeen-program-continues-to-support-the-development-of-qualified-and-skilled-teachers-and-school-leaders-.aspx

Abu Dhabi Education Council. (2015). Accessed November 15, 2015 from https://ww w.adec.ac.a e/en/MediaCenter/News/Pages/Tamkeen-program-continues-to-support-the-development-of-qualified-and-skilled-teachers-and-school-leaders-.aspx

ADEC launches its strategy for knowledge production (2015, August 27). *Gulf Times*. Retrieved from http://gulftimes.ae/adec-launches-its-strategy-for-knowledge-production/

Al Taneiji, S. (2014). Professional development in the New School Model in the United Arab Emirates: Expectations and realities. *International Review of Social Sciences and Humanities*, 8(1), 99-112.

Al-Zayoud, M.S. (2015). Educational leaders and the prospective responsiveness to the vast drastic educational changes in the Abu Dhabi Emirate. *International Education Studies*, 8 (2).

Blaik-Hourani, R. (2011). *Constructivism and revitalizing social studies. Society for History Education*. Retrieved from https://search.ebscohos t.com/login.aspx?direct=tru e&db=aph & AN=59334614&site=ehost-live

Corcoran, T. C., & National Governors' Association, Washington, DC. Center for Policy Research. (1995). Transforming professional development for teachers: A guide for state policymakers. Washington, D.C.: National Governors' Association.

Davidson, C. M. (2008). From traditional to formal education in the lower Arabian gulf, 1820-1971. *History of Education, 37*(5), 633–643.doi:10.1080/00467600701430020

Fullan, M. (2004). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.

Gallagher, K. (2011). Becoming and rebecoming a teacher in the Arabian Peninsula: Amal's story of hope. *Teacher Development*, 15(2), 141-155.

Gallagher, K. (2011). Bilingual education in the UAE: Factors, variables, and critical questions. *Education, Business, and Society: Contemporary Middle Eastern Issues, 4*(1), 62–79.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.L. & Yoon, K.S. (2001). What makes professional development effective? Results from a national sample or teachers. *American Educational Research Journal*, 38(4), 915.

Guskey, T. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin.

Hirsch, S. (2007). NSDC standards and tools help strengthen professional development, developing a staff of learners. *SEDL Letter*, 19(1), 16-19.

Hunzicker, J. (2011). Effective professional development for teachers: A checklist. *Professional Development in Education*, 37(2), 177-179. doi:10.1080/19415257.2010.523955

Marzano, R.J. & Toth, M.D. (2013). *Teacher evaluation that makes a difference: A new model for teacher growth and student achievement*. Alexandria, VA: ASCD.

Macpherson, R., Kachelhoffer, P., & El Nemr, M. (2007). The radical modernization of school and education system leadership in the United Arab Emirates: Towards indigenized and educative leadership. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM)), 35*(1), 60–77.

Murphy, J. & Myers, C.V. (2008). *Turning around failing schools: Leadership lessons from the organizational sciences*. Thousand Oaks, CA: Corwin.

Stephenson, L., Dada, R. & Harold, B. (2012). Challenging the traditional idea of leadership in UAE schools. *On the Horizon, 20*(1), 54–63.doi:10.1108/10748121211202071

Stephenson, L. (2010). Developing curriculum leadership in the UAE.*Education, Business, and Society: Contemporary Middle Eastern Issues, 3*(2), 146–158.

Sullivan, G.A. & Feinn, R. (2012). Using effect size – Or why the *p*-value is not enough. *Journal of Graduate Medical Education*, 4(3), 279-282.

Thorne, C. (2011). The impact of educational reforms on the work of the school principal in the United Arab Emirates. *Educational Management Administration & Leadership*, *39*(2), 172–185.doi:10.1177/1741143210390058

UAE. Embassy of the United Arab Emirates cultural division in Washington, DC. (2011). Retrieved from http://uaecd.org