AN INNOVATIVE E-COMMUNITY OF PRACTICE TO ENHANCE THE COLLABORATIVE LEADERSHIP SKILLS OF UAE SCHOOL PRINCIPALS

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Abstract

This article investigates the use of an e-community of practice as a means to develop collaborative leadership skills among school principals in the UAE. Collaborative leadership skills are crucial for effectively leading future schools, and an e-community of practice provides a platform for school leaders to collaboratively acquire and exchange the necessary skills, knowledge, and information. Despite the anticipated growth of e-communities of practice, little research has been conducted in the UAE on this topic. Thus, the aim of this study is to gain a deeper understanding of developing an e-community of practice specifically tailored to enhance the collaborative leadership skills of UAE school principals, enabling them to utilize such platforms successfully and effectively. The research employs a quantitative approach, collecting data through an online survey completed by 116 school principals. The findings reveal that school principals demonstrate a preference for collaborative teamwork using an e-community of practice to enhance their collaborative leadership skills. They exhibit readiness and qualification to utilize such platforms and hold positive views regarding their usefulness. However, they require support from stakeholders to facilitate the adoption and application of e-communities of practice within their educational organizations.

Keywords: collaborative learning, collaborative leadership, e-learning, e-community of practice, educational leadership skills.

1. INTRODUCTION

1.1 Background to the study

This research is based on an extensive literature review which supports the concept of creating innovation and excellence opportunities for school principals, by providing an innovative e-community of practice platform to support and enhance collaborative leadership skills for school principals in United Arab Emirates (UAE) public schools. The reform and the changes of roles of school principals is in line with the UAE 2030 vision (ADEC, 2018) to achieve excellence and innovation in schools, which is aligned with international best practice. The level of innovation and excellence in schools depends on the type and quality of new leadership initiatives, activities, and programs (Barber et al., 2010). School principals need new updated skills and knowledge to perform their leadership roles effectively and make substantial impacts which address the changing needs of schools. Currently, the literature suggests that some schools struggle to provide the expected level of service of teaching and learning and high academic achievement and performance outcomes of students (Vuuren, 2016). Vice-principals and principals play an essential role in school leadership teams. The development programs which ensure effective leadership in schools need to

be strategically planned. Well informed, trained, and molded school principals enable better school performance. Day et al. (2009) state:

"*There are statistically significant empirical and qualitatively robust associations between heads' educational values, qualities, and their strategic actions and improvements in school conditions leading to improvements in student outcomes*" (p.57).

Many challenges face school principals in the UAE. However, these challenges are divided into two main categories for the purposes of this research: new learning technologies and globalization. New technologies are related to the diffusion of technologies that support teaching and learning in a variety of contexts and at every level. The second main challenge, globalization, relates to the adaptation and transfer of values, knowledge, and behavioral norms (Zahran et al., 2016). Alnowais (2016) agrees with Ibrahim (2012), declaring that more Emirati teachers and school principals will leave the education field because of these challenges. These challenges could be reduced by a well thought out system to support school principals who, in turn, would ensure a more supportive system within schools.

School principals in the UAE need support such as effective training, professional development programs, and effective ways to address the challenges they face, enabling them to lead effectively. One example of a challenge is effectively integrating technology into teaching and learning. Obviously, if school principals are not well equipped in this area, there will not be effective alignment of school improvement programs and their implementation using technology. Serhan (2007) studies the effectiveness of educational technology training programs in the UAE and shows that school principals get many benefits from such training. They can gain positive attitudes toward using technology in their schools, learn a lot from targeted professional development, and see positive effects on school performance and outcomes (Serhan, 2007).

The Educational Research Service (ERS), a European publication journal, reported in 2000 that school principals were the keystones of successful schools. Because of changes in the roles of school principals, they have to maintain a lifelong learning trajectory (DiPaola and Walther-Thomas, 2003).

Duncan and Stock (2010) present a survey measuring some issues relating to mentoring programs for school principals. The majority of the respondents, about 96.8% of school principals, believe that mentoring programs are very important for beginning school principals. One such mentoring program is an innovative e-community platform for school principals to share best practice, experience, and ideas.

The purpose of my study is to design an innovative e-community of practice to promote leadership skills. Therefore, this study focuses on enhancing the collaborative leadership skills and performance of school principals by working on an e-community of practice platform in UAE schools, to help principals transform schools to meet a 21st century vision and promote the concept of e-communities of practice in UAE schools.

1.2 Problem Statement

The research issue identified is a professional gap linked to the reported under-performance of school principals in the UAE, who do not meet the expectations of the government or stakeholders (ADEC, 2018). Macpherson, Kachelhoffer and El Nemr (2007) state that the main problem is:

" *…an ineffective school system. The Ministry is highly centralized, has no clear vision and suffers from job inflation. School principals need intensive training and continuous follow-up support if they are to lead the reforms*" (p.36).

Principals tend to keep a shared emphasis on school objectives. They organize the work within and across the teams to facilitate cooperative effort. Also, they ensure that resolutions are duly shared and applied school-wide by encouraging and directing the work and performance of educators and school staff across shared objectives. Another role of leadership is providing sufficient data so that the faculty can take informed decisions regarding instructional methods and the content of the curriculum on the basis of available research. Principals are meant to help the school improve by gathering and sharing data that drives the school to progress (Bagwell, 2019).

As accepted and recommended by the 2010 Harris Report, school principals are responsible for and influential in developing the performance and effectiveness of their schools and the impact on the wider educational contexts in which they operate. Their abilities, skills, experience, and knowledge are mostly gained through high quality professional development (Barber et al., 2010). Qualified staffs with knowledge and skills are essential for there to be a positive relationship between leadership styles and performance of both schools and students. There is a need for visionary leadership for effective school improvement.

School vice-principals and principals in the UAE need to be well qualified. Therefore, there are many procedures they have to go through to be selected to lead schools. Procedures can be divided into four main

stages. The first stage is academic, which means they should have at least a master's degree in school leadership and have an International English Language Testing System (IELTS) score between 6.5 and 7.5. The second stage is personality, which means they must have the specific skills and qualities of personality for a school principal (Bafadal et al., 2019). The third stage is that vice-principals and principles take a written test to measure some elements of education such as facing problems and evaluating teachers. The last stage is an interview to check they have the academic knowledge and ability to lead a school in the 21st century (ADEK, 2018).

The problem is that there is often a significant gap between the knowledge, skills, and practices of school principals, as reported by many research studies, e.g. Ahlquist (2014) and Youngs and King (2002). These studies indicate a need for professional communities where school principals can share values, experience, ideas, and solutions to support their continuous development.

The objectives of this research are to find the collaborative leadership skills that school principals in the UAE must acquire to lead future schools, to work out how an e-community of practice can be developed to enhance collaborative leadership skills, and to discuss the perceptions and beliefs of school principals on the use of such an e-community of practice.

1.3 Research Questions

There are two research questions (RQs) that arise from this research:

1. What are the collaborative leadership skills that school principals in the UAE must acquire to lead future schools?

2. What are the school principals' perceptions and beliefs about the use of an e-community of practice to enhance their collaborative leadership skills?

2. LITERATURE REVIEW

2.1 Collaborative leadership

Collaborative leadership is defined as the ability to take the opportunities presented for shared leadership, critical educator ownership, and sharing of instructional and pedagogical ideas. In the modern learning environment, collaborative education helps teachers grow and develop in their profession and enhances teacher preservation, as they feel more valued. Collaborative leadership establishes an education phenomenon known as group goals and norms, which are achieved through discussion and collective dialogue as well as management of group conflict (Chen, 2020).

Collaborative leadership is a new style of leadership in which people can participate in the decision-making processes that affect them and their colleagues and employees (Spillane and Diamond, 2007). It is defined by Chrislip (2002) as:

"Collaborative leadership refers to the leadership process that allows the stakeholders to actively initiate decision-making process in the environment" (p.8).

School principals and teachers learn more from each other when they work in a team than with a single advisor or supervisor. Ongoing collaborative communities provide the best ongoing professional growth for school principals, helping them to improve themselves and their schools. It is beneficial for school principals to learn from other school principals who are in similar circumstances (Fullan, 2000). In this regard, Carroll (2004) reports that most educational organizations in the 21st century work collaboratively in teams to discuss current and future trends and problems, to ensure that they find solutions, use best practice, and become more effective and successful.

According to Brindley, Blaschke, and Walti (2009), learning is a social activity which needs to be done in teams or groups. It should be noted that learning is a collaborative process and is not something that should be done only by students. An effective school leader is a person who engages the contributions of school faculty members while arranging the program so that teachers can effectively provide information to the administrator about the learning of the students and past classroom experiences. School principals talking to teachers ensure that both the minds and bodies of teachers and parents are properly invested in the development of children. Collaborative leadership in schools plays a lead role in helping administrators achieve their mission. It provides a chance for school teachers and parents, along with the school leader, to collaborate in their thinking and form solid decisions for the betterment of schoolchildren. Thus, it can be said that collaborative leadership refers to the form of leadership in which opportunities for shared leadership are present along with educator ownership and sharing of instructional and pedagogical ideas. This type of leadership helps schoolteachers to grow in their profession along with school leaders.

2.2 What is a Community of Practice?

A community of practice is defined by Wenger (2011) as:

"Groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (p.1).

It is formed by people who work in the same organization or different organizations or sectors, but who share the same interests and work in the same field. There are three characteristics of a CoP, the *domain*, the *community*, and the *practice*. The domain means that people share the same interest. The community means that when people share their interest with others, they join in with the same activities, discussions, and problems. The practice means people are practitioners who solve problems, share knowledge, and develop ideas and solutions (Wenger, 2011). Practice refers to the information and knowledge transferred within the CoP (Goldie, 2016). The term "*communities of practice*" was developed by Lave and Wenger in 1991.

There are various types of CoPs, and they can be classified into four categories. The first is problem-solving communities which focus on solving a specific problem or issue. The second is knowledge sharing communities which develop new knowledge to improve and increase the quality of performance through sharing, collaborating, and distributing new knowledge. The third type of community is a best practices community which shares, documents, and disseminates best practice to all members. The fourth type is the innovation community which focuses on new technology (Verburg and Andriessen, 2006).

As shown in Figure 1, CoPs have three main elements. The domain relates to the area of shared issues, interests, and topics, while the community is related to the people and relationships built through engagement, discussion, participation, activities, and learning. Because domain and community need a body of knowledge, methods, stories, and tools, practice plays this role. The three elements work together to create a CoP, as explained previously (Wenger-Trayner, E. and Wenger-Trayner, B.,2015).

Figure 1: Components of communities of practice (Garfield, 2019)

In CoPs, learning occurs in a social context. This type of learning emerges and evolves when people have common goals and interact as they strive for those goals. In simple words, a CoP refers to communities of practitioners in which beginners come to learn the social and cultural activities of the community as they interact with qualified and experienced colleagues (Gruenewald, 2005). A CoP is associated with knowledge management, as people start to see ways of evolving community capital, stimulating innovation, cultivating new knowledge, and sharing implicit knowledge in the organization (Stefanski et al., 2016). This process is now accepted as an important part of organizational development. Furthermore, CoPs are groups of people who share their views, issues, ideas, and desires for something, and they learn how to do things in a better way through interacting on a regular basis. The basic concept behind the CoP is that people learn in their everyday life from the communities in which they live and work or with which they are affiliated. CoPs are everywhere, as they are the places where people learn and develop understanding (Cámara de la Fuente and Comas-Quinn, 2016).

Current circumstances play a great role in creating CoPs. For example, COVID-19 changed the idea of learning for most people around the world. They now believe more in online learning, so exchanging experience and knowledge has become an urgent necessity, especially for school principals. Since the beginning of 2020, COVID-19 has spread sharply in most countries. According to Li et al. (2020), we need more time to find a good cure and stop the disease. Therefore, most schools around the world have changed

the location of teaching and learning from school buildings to distance learning to prevent infection. Therefore, creating an E-CoP for school principals has become an urgent priority, in order to discuss the problems and issues of implementing distance learning.

Communities of practice (CoPs) are necessary and important for all school principals for many reasons. They connect people who work in the same field. These people may not have opportunities to communicate or connect without this type of community. Also, CoPs provide shared context where people share experience, information, stories, problems, and new strategies. These communities stimulate learning by allowing coaching, collaboration, communication, and feedback. They generate new knowledge by creating solutions to problems, innovating new ideas and transferring practice into authentic learning. They also help people organize their work and schedules. A CoP helps them share what they do in an organized way. CoPs introduce a process of collaboration when participants share their problems, ideas, and suggestions with others, allowing them to improve and develop the performance and quality of their product (Wenger et al., 2002).

CoPs are important for supporting collaborative leadership skills. One way they do so is by engaging the educational principals of collaborative leadership skills in the CoP (Pedersen, 2017).

The CoP becomes an e-community of practice (E-CoP) if it is developed and maintained using an online platform following the principles of a CoP which are explained by Lave and Wenger (Smith et al., 2017).

E-CoPs are considered new paradigms, which face a lot of challenges before they can become effective, accessible, and usable. For CoPs to be operationalized and implemented successfully, organizations need to make a great deal of effort. One of the challenges is creating a suitable practical implementation framework for these E-CoPs. The framework has to give opportunities for all members of the E-CoP to participate effectively, facilitate collaboration, develop professional skills, diffuse the most effective practices, and increase ideas of innovation. Another challenge is knowing how to use modern technology effectively to make using E-CoPs easy and useful. If members of E-CoPs have enough knowledge of managing modern technologies, such as data files, appropriate methods, tools, and techniques, it would help them get the effective results and the best benefits from these communities. Moreover, E-CoPs need to be supported by the district management. Therefore, trust development from district management is needed for more effective E-CoPs. Support also means providing funds and suitable materials and tools. Members of these types of communities need to be motivated to participate and share knowledge (Venkatraman, 2018).

E-CoPs are intended to address school challenges, support school visions, and integrate technology into UAE schools. They help school principals obtain the necessary collaborative leadership skills. They encourage creative ideas and smart solutions through active learning environments. They support school principals in their efforts to get better performance results out of all members of the CoP, using an effective leadership style.

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This study investigates the impact and role of an E-CoP approach to enabling school principals to apply collaborative leadership styles effectively in UAE schools.

This study is conducted in order to answer two questions which arise from the problem:

- What are the collaborative leadership skills that school principals in the UAE must acquire to lead future schools?

- What are the perceptions and beliefs of school principals on the use of E-CoPs to enhance their collaborative leadership skills?

3.2 Research Design

This research uses a quantitative method to collect and analyze data. A Quantitative method is used to collect data via an online survey.

3.3 Target Population and Sample

The target population of this study is school principals in the UAE in private and public schools. According to Edarabia (2020), the number of government schools is 639, while the number of the private schools is 580. There are 1,310 vice-principals in government schools, as of the 2020-2021 academic year. There are about 2,500 lead teachers and heads of department, who are considered school principals. Demographic

information is used to analyze the results and develop recommendations. The most suitable sample size for this study is 100 school principals. The sample size is usually around 10% of the population if the population doesn't exceed 1,000. If the population is more than 1,000, the minimum sample size is 100 (Mundfrom et al., 2005). As the population is large in this case, the minimum sample size of 100 participants is used.

3.4 Data Collection Techniques and Instruments

An online survey is used to collect data from the school principals.

3.4.1 Online Survey

The objective of using an online survey is to identify the major skills of collaborative leadership that school principals need to be able to lead future schools in the UAE. This data is used to answer both questions of this study.

There are many schools in many faraway places, so an online survey is a suitable method. The online survey is distributed to school principals by email, with addresses provided by the MOE. School principals have the freedom to participate or not.

The survey is divided into two parts. Part one is the main part which is a pre-survey and part two is a post-survey .The pre-survey focuses on RQ1 about collaborative principalship skills. The post-survey focuses on RQ2. The post-survey is about the perceptions and beliefs of school principals about the use of an E-CoP to enhance their collaborative leadership skills.

All the questions are scaling questions. The survey has five sections. The first asks for demographic data. The second part is about collaborative leadership skills and has seven questions. The third part is about E-CoP platforms and has six questions. The fourth section is about the background school principals have in E-CoPs. The fifth section is about the readiness of the participants to use E-CoPs. There are eight questions in this part which discuss planning, quality assessment, technological and pedagogical support, teacher and staff performance, risk management, and other educational policy implementation issues. The fifth part is a post-survey, about the experience of school principals who participate in the virtual E-CoP.

The pre-survey dataset contains seventeen variables measured at the nominal level and fit the Likert-type ordinal variable. These ordinal variables are recoded to be used in statistical analysis and for data aggregation in the construction of the derived variables for groups of Likert-type variables that exhibit a degree of evidence of measuring the same construct (dimension), if that is the case.

The post-survey dataset contains seven variables measured at the nominal level and fit the Likert-type of ordinal variable.

3.5 Validity and Reliability

Research instruments must be both reliable and valid. If the correlations are high, the research instrument is considered reliable. The coefficient alpha (or Cronbach's alpha) is used. If it is more than 0.70, the research instrument is reliable. All questions in the survey are sent to qualified experts, who give their feedback and opinions. All the comments and feedback are applied, where applicable.

Table 1 shows that the Cronbach's alpha for the 17 items is 0.943, a fairly high value which far exceeds the commonly accepted threshold for acceptable reliability, which is 0.7. This result indicates that the 17 questionnaire items exhibit a strong degree of internal consistency.

Table 1: Reliability Statistics

Cronbach's alpha	No of items
.943	17

3.6 Data Analysis

The data are analyzed by using SPSS software. Various types of qualitative analysis are used. Descriptive statistics methods are used to describe the variables. The purpose is to provide an overall descriptive statistical analysis of the responses, by analyzing basic demographic factors, such as age, gender, experience, location, certificates, nationality, and position. Basic descriptive statistics are used to get an overall picture of the sample of school principals who responded to the survey, with the corresponding

measures of centers and dispersions (where appropriate). Some tables, charts and graphs are used to illustrate the results.

3.7 Ethical Consideration

The primary ethical issues are confidentiality and bias, which are addressed through express consent and objectivity (in both the researcher and the respondents). Informed consent, voluntary participation and respect for anonymity and confidentiality are ethical consideration issues relevant to this study. The code of ethics is important for the study. Participants should know and be informed about their rights. There are some values, standards and principles which are important in any study, and there are specific codes of ethics which relate to the UAE Ministry of Education and Hamdan bin Mohammed Smart University. In this study, the codes of ethics of these educational organizations are identified and followed.

4. FINDINGS

4.1 Pre-survey Results

The first part of the analysis is devoted to addressing RQ1, which is presented below. To this end, a dataset in csv format was collected from the survey responses of n = 116 school principals from the UAE. The survey includes 36 items of information from the respondents.

RQ1: What are the collaborative leadership skills that school principals in the UAE must acquire to lead future schools?

The first part of the data analysis for the pre-survey data consists of a thorough descriptive statistical analysis, which gives a clear idea of the distributional properties of the population being studied. The selection of descriptive statistics depends strongly on the level of measurement of the variables that need to be analyzed. In general terms, descriptive statistics mainly focus on measures of central tendency and measures of dispersion.

Table 2: Basic personal characteristics

		Age group	Gender	Work location	Position in school	Highest educational degree	Work experience in years	How long using profess-ional social media networks	Willing to participate in interview group
N	Valid	116	116	116	116	116	116	116	116
	Missing	0	0	0	0	0	0	0	0
Mode		3	0	2	3	1	5	3	1

Table 2 shows the modes of the basic personal characteristics of the school principals in the sample. The mode is the only measure of central tendency that is meaningful for these variables. The most common age of the school principals in the sample was 51-60 years, and they were female in the majority. Their most common work location was Al Ain. The most common school position among the school principals in the sample was principal, and the most prevalent highest education level was a bachelor's degree. The most common length of experience was over 25 years, which indicates a prevalence of very experienced school principals. Also, the most common case was for a respondent to have more than 10 years of social media experience with professional networks. Interestingly, a majority indicated that they were not willing to participate in an interview group.

Table 3: The means and standard deviations of the 17 Likert-type items in the survey

	N	Mean	Standard deviation
Item 1: To what extent do you understand the concept of 'collaborative leadership'?	116	3.66	1.135
Item 2: To what extent do you practice 'collaborative leadership' in your field?	116	3.90	.817
Item 3: To what extent do you engage your staff and your social society (community where the school is located) in the decision-making process?	116	4.21	.519
Item 4: To what extent do you involve teachers in decisions which affect them to ensure that actions are congruent with their concerns?	116	4.16	.504
Item 5: To what extent do you develop cooperative relationships among teachers and school stakeholders?	116	4.16	.574
Item 6: To what extent do you give members of teams support for their efforts?	116	4.38	.538
Item 7: To what extent do you believe that collaborative leadership could enable school staff to share power and work in partnership to build trust and conjoined skills, abilities, and experience to achieve common goals for the good of the school sector?	116	4.31	.483
Item 8: To what extent do you use social media and popular websites to exchange knowledge and information with other school principals?	116	3.66	.876
Item 9: To what extent do you recommend online platforms for discussion, exchanging knowledge and information?	116	3.65	.816
Item 10: To what extent you find more benefits from using online platforms for E-CoP than traditional ways of exchanging knowledge and information?	116	3.76	.693
Item 11: To what extent do you believe that the platform of E-CoP can save your efforts and time more than other ways?	116	4.29	.476
Item 12: To what extent do you find support and help to use online platforms of E-CoP?	116	2.01	.899
Item 13: To what extent do you know that a community of practice (CoP) is a group of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly?	116	3.47	1.145
Item 14: To what extent do you think that an E-CoP can benefit your daily work based on the relationships established?	116	4.22	.472
Item 15: To what extent can an E-CoP help you to achieve better results (productivity, quality, and stakeholder satisfaction) in your daily professional practices?	115	4.23	.479
Item 16: To what extent do you use an E-CoP more than a face-to-face community?	116	3.29	.633
Item 17: To what extent does an E-CoP motivate you to share work-related knowledge and experience?	116	4.17	.498

Table 3 presents the means and standard deviations for the 17 Likert-type items recorded in the survey. These calculations make senses as measures of central tendency and dispersion. A higher value of the mean represents stronger support or a warmer feeling towards the subject of the question. A higher value for the standard deviation indicates a higher degree of variability among the responses. Using these considerations, one can observe that the school principals have favorable perspectives about the questions, as a vast majority of the averages are above 3, and many are above 4. Question 12 (To what extent do you

find support and help to use online platforms of E-CoP?) is a singular case, in which the response is slanted toward "never" and "rarely". In fact, it is interesting to note that these school principals currently do not believe there is support or help for using online platforms or participating in e-communities.

It is clear that the collaborative leadership skills that school principals in the UAE must acquire to lead future schools are considerable. Some of these skills are engaging staff in decision-making processes, working collaboratively as a team, developing cooperative relationships among teachers, school stakeholders and other school principals, giving members of the team support for their efforts and encouraging them, building trust, and sharing power and work. School principals strongly believe in using E-CoPs and in their benefits. They believe that working collaboratively as a team and sharing power helps them achieve common goals effectively and successfully. School principals strongly believe that this style of collaborative leadership can achieve better results and higher performance by the members of their teams and social communities. On the other hand, there is a lack of support for school principals using online platforms and participating in E-CoPs.

4.2 Post-survey Results

The results presented in this section are devoted to addressing and answering the research question posed to those who took the post-survey, RQ2, which is:

RQ2: What are the perceptions and beliefs of school principals on the use of E-CoP to enhance their collaborative leadership skills?

RQ2 is addressed by asking the school principals about their perceptions and beliefs about how useful E-CoPs are in enhancing their leadership skills and, ultimately, improving the quality of the instruction imparted.

The sample size for the post-survey dataset is n = 10. The school principals who participated in the virtual platform are the sample for this post-survey. After participating in the virtual platform, they participated in the post-survey.

Table 4: Descriptive statistics

			Statistic	Std. Error
ECOP Usefulness Perception	Mean		30.8000	.69602
	95% Confidence Interval for Mean	Lower Bound	29.2255	
		Upper Bound	32.3745	
	5% Trimmed Mean		30.7778	
	Median		31.0000	
	Variance		4.844	
	Std. Deviation		2.20101	
	Minimum		28.00	
	Maximum		34.00	
	Range		6.00	
	Interquartile Range		4.25	
	Skewness		.003	.687
	Kurtosis		-1.571	1.334

The mean ECOP usefulness perception is 30.80, with a standard deviation of SD = 2.201, and a median of 31. The closeness between the mean and median suggests that the distribution is relatively symmetric, which is confirmed by the fact that the skewness is not significant, with a skewness coefficient of 0.003 (SE = 0.687). This level of symmetry is a good indication that the distribution is normal. From the results of the normality test above, it can be concluded that the sample does not depart significantly from normality, *KS = .193, p = .200 > .05*.
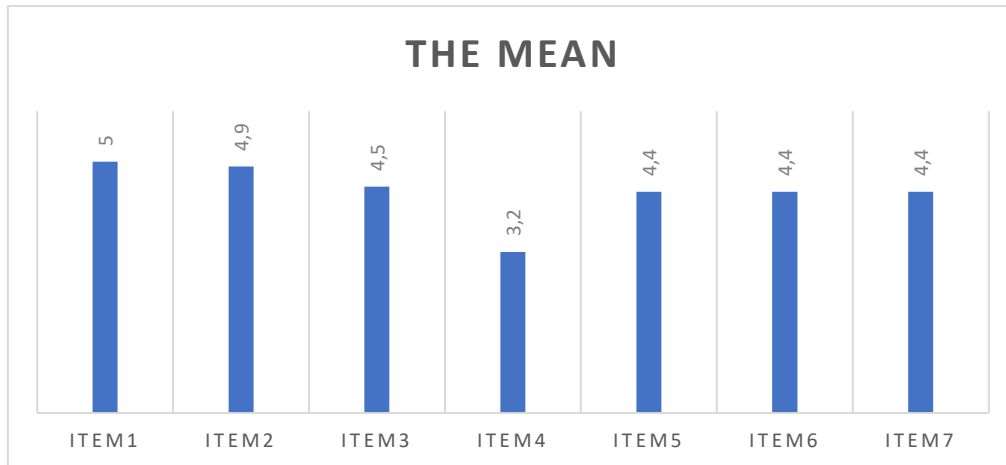

Figure 2: Means of the post-survey questions

From figure 2, the high values indicate a good appreciation of E-CoPs by school principals. School principals have positive views about the usefulness of E-CoPs in the professional and academic field. This proves that school principals are ready to use and participate in E-CoPs effectively and successfully.

5. DISCUSSION OF FINDINGS

5.1 Findings

The findings of the pre-survey are that many collaborative leadership skills are necessary and important for school principals to lead future schools in the UAE. School principals must engage their staff in decision-making processes, work and learn collaboratively in teams, develop cooperative relationships, build trust, and share power. School principals must support their teams in their efforts. School principals strongly believe in the benefits of an E-CoP. They also strongly believe in working collaboratively to meet their high expectations. In their opinion, a collaborative leadership style can achieve better results and higher performance on the part of their teams. On the other hand, school principals do not get any support or help when they participate in E-CoPs. The majority of the respondents in the survey were female. The majority were in the 51-60 year age group. Most school principals who participated in the survey were older than 40 years.

The findings of the post-survey indicate a positive appreciation for E-CoPs. School principals have positive views about the usefulness of E-CoPs. The findings of this post-survey prove that UAE school principals are ready to use E-CoPs in their organizations if they have the appropriate support and help from stakeholders.

5.2 Discussion of Findings

Comparing the 17 survey items across respondents, the multivariate statistical test shows that some leadership skills are deemed more important than others. Indeed, giving members of teams support in their efforts and the belief that collaborative leadership could enable school staff to share power and work in partnership are the ideas that are the most appreciated. On the other hand, finding support and help to use online platforms for E-CoPs is significantly the least appreciated. Other ideas which are considered less important are the knowledge that a CoP is a group of people who share a concern or passion for something they do and learn how to do it better as they interact more regularly using an E-CoP than in a face-to-face community.

These differences in perceptions and beliefs are found to be moderated by the highest degree achieved by the respondent. When adjusting for highest degree, fewer of the pairwise comparisons remain significant. Indeed, after controlling for highest degree, finding support and help to use online platforms of E-CoP remains the least appreciated item. However, giving members of teams support in their efforts and the belief

that collaborative leadership can enable school staff to share power and work in partnership are the most appreciated. On the other hand, finding support and help to use online platforms for E-CoPs is significantly the least appreciated by respondents. In lay terms, this indicates that the raw comparisons yield certain significant differences, but some of these differences cease to be significant when controlled for highest degree (that is, fixing highest degree to make the comparison).

6. CONCLUSION AND RECOMMENDATIONS

6.1 Recommendations for Stakeholders

There are some surprising results which should be considered high risk. These results should be taken as recommendations by stakeholders.

The first result is that the age of most school principals is high, so we do not have young school principals. This could be because of experience. In the UAE, experience is important and necessary. Young school principals are needed because they are the new blood to lead future schools. Young school principals have to work collaboratively with experienced school principals to exchange knowledge, skills, and experience.

The second result is that most school principals are less enthusiastic about giving power and sharing their experience and knowledge with others. This could be related to a lack of motivation on the part of these school principals. There should be more programs and training courses related to this topic, because it relates to the level of degree that school leaders have, as is clear from the results of this study.

The third result is that an E-CoP is greatly needed for our future schools, so it is highly recommended that the Ministry of Education implement it as soon as possible. An E-CoP, when is implemented effectively, has an effective impact on the performance of school principals.

6.2 Recommendations for Further Research

Future research could focus on how a new method of leadership can be conceived with the advent of serious artificial intelligence capabilities. Are the traditional collaborative leadership skills appropriate in light of the availability of serious artificial intelligence capabilities which are expected, and evidence shows are already available? If current leadership traits are not sufficient for a new world shaped by artificial intelligence, what new traits are relevant? Will the overall concept of E-CoPs change to a point that its study will no longer be relevant, as it shifts to something totally different? These are questions that would be interesting to address in future research.

Future research should consider a through formal validity analysis, both internal and external. There needs to be formal precision in the construct validity of the collaborative leadership traits that need to be measured, in order to make sure that such constructs are indeed measuring what they intend to measure. Future research should be able to provide a reasonable expectation of having its results generalized to a larger population or even the whole population of educators and school principals in the UAE. In order to achieve this goal, a more sophisticated sample collection plan would need to be implemented.

Another interesting line suitable for future research is the establishment of a fully validated instrument to measure leadership skills. Such an instrument should have a component specifically applicable to the reality of the UAE. A more ambitious project would include an instrument that measures leadership traits in the context of an E-CoP oriented towards an educational setting, which is valid globally, though it would be expected that the UAE would need its own instrument, considering its cultural specificities. As a first step, future research could develop an instrument that applies directly to the UAE reality, and then possibly open the field to look for partnerships with researchers from other areas and come up with a standardized instrument that makes sense globally. This might vary from what is valid in the UAE, but a similar methodology can be used to construct a global instrument.

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