THE PERCEIVED EFFECTIVENESS AND IMPACT OF EDUCATIONAL TECHNOLOGY FACULTY DEVELOPMENT ACTIVITIES IN THE COLLEGE OF EDUCATION AT SULTAN QABOOS UNIVERSITY

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Abstract

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Educational technology (ET) faculty development activities have experienced a notable growth in higher education intimately tied to the organizational development and quality of education. However, the questions of to what extent these activities are effective and whether they have remarkable impact still lack clear answer. This study contributed to addressing these concerns by conducting a qualitative evaluation that aimed to understand the perceived effectiveness and impact of these activities in the College of Education at Sultan Qaboos University.

The research methodology was solely based on qualitative inquiry and utilized the use of open-ended and in-depth individual interviews, focus group, and document analysis as the basic methods to collect data. Besides providing a complete picture of the ET faculty development activities' perceived effectiveness and impacts and ways to improve them, the study may play a vital role in building awareness of the faculty development significance and its role in the COE' development.

The findings revealed that there is no structured form of program or plan that has a clear vision, goals, and strategies for ET faculty development in the COE. They also revealed the lack of systematic evaluation and follow-up that encourage and support faculty members in applying technology in their classrooms. Within the limitations of the

lack in these aspects, the stakeholders could only provide a rough picture of the impact of the ET faculty development. They noted the improvements in integrating technology in their teaching increase in their confidence as teachers. This in their point of view lead to more engagement of students in learning and more utilization of technology in their projects and their teaching as pre-service teachers. The college's culture, in their view, has become a technological culture within which faculty members rely on technology in their daily activities and form networks to learn technology.

The study recommended that the COE should develop a comprehensive plan of ET faculty development in which it defines the vision, goals, and strategies. It also recommends conducting needs assessment, offering different types of delivery strategy, providing follow-up, and conducting continuous evaluation to ensure application.

Approved: _____

Teresa J. Franklin

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Chapter One: Introduction

"As not everything can be done, there must be a basis for deciding which things are worth doing. Enter evaluation" (Patton, 1997)

Educational technology (ET) has had constant development, becoming more attractive in school settings (Serban, 2002); and although it has proven effective in initiating dramatic change in learning/teaching practice and raising educational achievement (Holden, 1999), effective integration of its components in instruction remains one important challenge confronting schools. Literature (Abdelraheem, 2005; Doering, Hughes & Huffman, 2003; Lipscomb & Doppen, 2005) identifies the failure of teacher education programs in preparing pre-service teachers to effectively integrate ET into their practice as an imperative factor in generating such a challenge. As they aim to pass up this failure, most colleges of education struggle "to find ways not only to bring their instructors up to speed with advances in technology, but also to add more time for future teachers to observe the use of technology in meaningful ways" (Lipscomb & Doppen, 2005, p. 71). Colleges of education for that reason utilize faculty development program to assist teacher educators' efforts in integrating ET. They realize that "[t]he most significant factor in enabling teacher educators to integrate technology into the instructional process is faculty development" (UNESCO, 2002, p. 144) and that "[p]rofessional development underlies all successful technology integration efforts" (The SEIR*TEC, 2001, p. 152).

This phenomenological evaluative case study aimed to determine through in-depth interviews, focus groups, and document analysis whether ET faculty development's

in the College of Education (COE) at Sultan Qaboos University (SQU) was effective and determine elements of effectiveness as perceived by the stakeholders. Stakeholders included faculty members who participated in any type of ET faculty development, faculty developers, trainers, and policy makers at the COE. It also explored the impact of ET faculty development on faculty's practice, students' learning, and the organization as perceived by these stakeholders.

Whilst much of the literature (Guskey, 2002; Ramalanjaona, 2003; Schmitz, 1998) on faculty development programs and activities especially those with a focus on ET has focused on program's descriptions and participants' immediate satisfaction, there is a lack of research evaluating the long-term effectiveness and impact of these programs on both the individual and organizational levels.

This chapter begins with a statement of the problem, background and context that highlights the most two important motives for the need for faculty development in ET: technology expansion and diffusion in Omani schools and the need for proficient teachers who can use these technologies effectively to meet the basic education system objectives. It then looks at the process of ET faculty development's activities offered to faculty at COE to meet this need and highlights the significance of evaluating the effectiveness of these activities and their impact. This is followed by the research questions, and the significance of the study. Finally it identifies the possible limitations and delimitations of the study and defines the most important terms that will appear throughout the study.

Statement of the Research Problem, Background, and Context

After a critical evaluation of what had been achieved in 25 years in the key sectors in Sultanate of Oman including education, the Omani leadership realized the need for a future vision that would move the country into a new phase of development (Al Belushi & Al Kitani, 1997). As a result, the Omani government, assisted by planning economists and technocrats from various sectors and nations, organized the "Vision for Oman's National Economy: Oman 2020" which was held in Muscat in June 1995 (United Nations Economic & Social Commission for Western Asia, 2003). After long discussions and negotiations over the vision, "Vision: 2020" was finally formulated and approved by a Royal Decree (Ministry of National Economy, n.d.). The vision goals for education included: (1) continue spreading education in all parts of the country; (2) improve the existing curricula taking into account the advancement in science and technology; (3) improve the educational practices by diffusing instructional technology; (4) improve professional development technically and administratively; (5) create a basic education system that can prepare students to continue higher education or join the work force; and (6) prepare students who can join the workforce with minimum training (Al Belushi & Al Kitani, 1997; Ministry of National Economy, n.d.). The strategies and goals of the vision have been translated into reality via the design and implementation of Five-Year Development Plan series in the various Ministries and Government agencies (Ministry of Education, n.d.; Ministry of National Economy, n.d.).

Both the fifth Five-Year Plan (1996-2000) and sixth Five-Year Plan (2001-2005) targeted education as the main source of the development and upgrade of Omani human

resources in order to cope with technological progress and attain international competitiveness (United Nations Economic & Social Commission for Western Asia, 2003; Ministry of Education, n.d.; Ministry of National Economy, n.d.). In response to this demand, the Ministry of Education planned for a comprehensive educational reform that aims to completely modernize the education in order to improve its content, quality, efficiency, effectiveness and relevance to meet the learning needs of the 21st century (Ministry of Education, n.d.; Ministry of Education UNICEF Muscat, 1999). Educational Technology has become one of the educational reform plan's seven components: pre-school education; basic education (grades 1–10), adult literacy; education of the disabled; teacher education and training; curriculum, textbooks and educational technology; and educational management, monitoring and evaluation (Ministry of Education UNICEF Muscat, 1999). Besides being one of the target areas of continuous improvement, ET shapes the basic education as it becomes one of the most important features to distinguish it from the previous general educational system. As the two systems are operating concurrently in Omani schools, the basic education schools benefit from the computer labs that contain the best computers and educational software, learning resource centers provided with the different multimedia and educational software, and access to different information resources (Ministry of Education, n.d.). The basic education schools also experience the introduction of information technology as an essential subject area. The following sections offer more details regarding the diffusion of ET into Omani schools and the necessary rejoinders by teacher education's organizations and programs to make it a successful diffusion.

ET in Omani Schools

The Ministry of Education has made intensive investment in building up the basic education resources and infrastructure in schools. Introducing computers in schools, providing learning resource centers, and introducing computer studies classes are among the resources to achieve reform objectives (Ministry of Education UNICEF Muscat, 1999). Appendix A shows the computer lab plan, the learning resource center (LRC) plan, and Appendix B shows examples of the software and the computer programs provided in each school of the first (grades 1-4) and second cycle (grades 5-10) of basic education. The establishment of LRC in each school reflects the emphasis shift from a single resource in the classroom to the use of a wide selection of print and non-print resources (Ministry of Education, 2004). Computer labs are not limited to the use of information technology classes but also open for other teachers to use them in addition to the LRC to integrate the use of computers programs and software in their subject areas. In addition, some schools are now provided with three laptops in each classroom to help teachers organize computer-based activities (Ministry of Education, 2004). A part of National Learning Initiatives, the Omani government is working on a plan of providing computers at secondary schools, which still operate in the general system, with necessary software and Internet where possible (Ministry of National Economy, n.d.). Besides providing schools with the new technologies to be utilized in instruction, the Ministry of Education also encourages teachers and administrative staff to incorporate ET in students' assessment and educational management (Ministry of Education, n.d.). For example, one of the most noticeable projects is the implementation of Educational Portal Project that

includes: Sakhr's School Management System (SMS), e-learning, and an Internet Portal system. The aim of the project is to establish communication system between everyone involved in the educational process including students, teachers, parents, and zone administrations (Sakhr Press Release, 2004).

Although this flow of technology in Omani schools is an important step in integrating ET in schools, it not an end in itself. Teachers who will utilize these technologies are expected to use them "to support multiple approaches to teaching complex ideas in classrooms" (Ireh & Bell, 2002, p. 3). They "need to be able to effectively use technology to communicate, problem-solve, provide instruction, and manage information" (Turner, 1997, p.37). Unfortunately, this does not occur in reality to the preferred level. Studies (Flanagan & Jacobsen, 2003) show that even though technology is available in schools, many teachers are not incorporating it into their classrooms and related activities. For example, in their study of utilization of ET in social study courses in Omani schools, Abdelraheem and Al-Rabaani (2005) found that, Omani teachers tend to use traditional media such as maps, illustration, and boards while minimizing the use of newer media such as computers. Although they do not provide a reason in their study, other studies propose that inefficiency of pre-service and in-service teachers' preparation and training programs to prepare teachers to effectively integrate ET into their instruction stands behind this hindrance (Doering, Hughes & Huffman, 2003; Lipscomb & Doppen, 2005). The following section provides more insights regarding the issue of ET integration in teacher's education programs.

Integration of ET in Teacher Education

As pointed out in the preceding section, teachers need to be well versed in the effective integration of ET into their curricula and pedagogy and the key in meeting this is their preparation in teacher education programs (Bolick, Berson, Coutts & Heinecke, 2003; Gibson, 2002). This need is being recognized by different organizations among which is the largest teacher union in the United States of America, the National Educational Association (NEA). NEA 2002-2003 resolutions read: teacher preparation in instructional technology, including the development of effective materials, and appropriate instructional strategies must be included in college and university programs. In Oman, Ministry of Education similarly recognizes this point when planning and implementing the educational reform (Al Belushi & Al Kitani, 1997). More to the point of offering professional development opportunities for in-service teachers, the Ministry is collaborating with Colleges of Education under the supervision of the Higher Education Ministry and with the College of Education at Sultan Qaboos University to improve their teacher education's programs curricula and instruction to effectively train teachers in integration of technology in their classrooms (Ministry of Education, 2004).

Regardless the need for integrating technology in teacher's education program and while arguing that they already do, research shows that "teacher education programs tend to treat technology as an add-on to the curriculum that is not integrated across the entire teacher education curriculum" (Willis, 2001, Technology integration across the curriculum is critical section, ¶ 1) and pre-service teachers "rarely receive workable preparation in the use of technology to support teaching and learning" (Gura & Percy,

2005, p. 142). Willis (2001) highlights the ideal picture of technology integration by stating the following:

> If teacher education students are to graduate with strong skills, positive attitudes, including the idea of lifelong learning, and a thoughtful approach to using technology in their classrooms, it will be necessary for them to experience technology at all levels of their preparation. Teaching preservice students basic computer literacy 'the traditional topics of operating system, word processor, spreadsheet, database, and telecommunications topics is not enough. (Technology integration across the curriculum is critical section ¶ 2).

It is apparent then that technology as hardware and software should not be the focus of these preparations (Gibson, 2002) or in other words as described by Willis (2001), it should be in the background while innovative teaching and learning strategies should be in the foreground .Studies (Colburn, 2000; Staudt, 2001) showed that teacher educators lack the knowledge and expertise to serve as role models, demonstrating how to use technology to its best advantage. According to Beggs (2000) and Vannatta and Beyerbach (2000) the inadequate level of training and development in ET integration that teacher educators receive causes this failure. Research (Doherty & Ayers, 2002; Gibson, 2002) supports this argument when considering training and development beside technology access and context to be the three critical issues and factors in effective integration of ET in teacher education. In accordance, King (2003) argues that professional development in ET would create new possibilities in teaching and learning. Teacher's education programs and institutes should pay special attention and invest in

training and developing faculty to infuse technology throughout the curriculum and instruction (ISTE, 2000 as cited in Cradler, Freeman, Cradler & McNabb, 2002). The following section explores in brief the idea and role of faculty development in ET.

Faculty Development in Educational Technology

Faculty development is an essential component in higher education that takes in many aspects. It can be described as an institutional process that seeks to modify the attitudes, increase the interests, and advance the proficiencies of faculty members toward greater competence and effectiveness in meeting the needs of students, of their own, and of the institution (Guskey, 2002; Hamilton & Brown, 2003; King & Lawler, 2003; Laufgraben & Shapiro, 2004; Murray, 2002a, 2002b). By participating in ET faculty development activities "educators can gain insight into new teaching objectives, teaching strategies, and their worldview of education. Educators participating in such settings lucidly describe how their teaching and classrooms are transformed because of what they have learned" (King, 2000, ¶ 2, Discussion Section).

The process of faculty development should incorporate teaching and learning theories and strategies, principles of instructional design, and adult education theories (King, 2003). To be effective and cause the desired impact, ET faculty development activities and programs require: clear vision and goals; systematic planning (Guskey & Sparks, 1996); cover relevant topics; utilize the best delivery strategy and provide resources and organizational support (Lawler & King, 2000). As these elements contribute to causing the desired change and enhancement, evaluation of faculty

development becomes a necessity to insure improvement and success (Bland, 1998; Guskey, 2002).

Yet, reviewing studies and research in the field of faculty development in general and ET faculty development in particular reveals a lack in evaluating effectiveness and long-term impact of these activities (Guskey, 2002; Ramalanjaona, 2003; Schmitz, 1998). Moreover, while considered a basic key to an effective faculty development programs and activities (Eleser & Chauvin, 1998), the participants' view point of long term effectiveness and impact is less considered and most of the evaluations available focus on participation rates and immediate satisfaction as indicators of effectiveness (D'Eon, 2004, Lawler & King, 2000; Royse, Thyer, Padgett & Logan, 2001). Research (Kirkpatrick, 1998a; 1998b; Ramalanjaona, 2003), however, recommends that evaluation should go beyond the satisfaction level to evaluate the faculty learning, organizational support and change, faculty use of skills and knowledge, and students' learning outcomes. Other recommendations also encourage evaluators to include quantitative and qualitative measures in formal and informal evaluations of faculty development (; Cook, 1997; Doherty & Ayers, 2002; Guskey, 1997; Pulley, 1998 p.10). This study employs an informal qualitative evaluation of ET faculty development activities in College of Education at Sultan Qaboos University.

The Case of ET Faculty Development in the College of Education at SQU

The College of Education (COE) at Sultan Qaboos University is the major teacher training college in the Sultanate of Oman. It currently serves more than 2700 students in the Bachelor program, 52 students in the MA program, and more than 300 students in the

Diploma program (College of Education, n.d.a). The number of the COE faculty is about 126 members holding teaching positions in seven departments: Curriculum and Instructional Methods; Psychology; Educational Foundation and Administration; Islamic Sciences; Art Education; Physical Education; and Instructional and Learning Technologies (College of Education, n.d.a).

The COE has made substantial investment in technology and information infrastructure to help teacher's educators integrate ET into their instruction. Many faculty members make use of technology resources at the college. For example, in Fall 2002, there were 15 WebCT running courses at the COE (Al Musawi & Abdelraheem, 2004). However, there is no a clear vision at the university or the COE about how this technology will help to further the integration of ET in teacher education curriculum and pedagogy to respond to the educational reform in schools. Instead, the COE exertions' section on its home page mentions in brief that the basic effort to achieve this goal is providing faculty development opportunities for both the faculty of the COE and faculty of other colleges with non-educational backgrounds (College of Education, n.d.b).

For the last five years, ET faculty development activities at the COE and other colleges took the shape of two main types. The first and more widely employed are the small one-day voluntary workshops provided in each college based on the introduction of new types of technology. The second one is the formal nine-weeks mandatory Instructional Development Workshop that was initiated in 2001 and runs each semester at one of the colleges where inter-related topics such as the new technologies, use of technology in instruction, use of technology in management, and use of technology in

evaluation are offered. The workshops are created based on policy makers' ideas of what is needed in terms of ET development. Generally, the faculty members are not consulted about the content of the workshops. In terms of evaluation, there is no current research on the evaluation of these workshops. Other than the regular questionnaire that is distributed at the end of each workshop, to measures the satisfaction of the participants, there is lack of evaluation of the long-term effectiveness and impact on both on the individual and the organizational levels.

Therefore, the problem that addressed in this study was: “from the perspective of the faculty members, faculty developers, trainers, and policy makers, were the ET faculty development activities effective; what are the elements of their effectiveness; and what were their impacts on the participants’ profession and practices, students' learning, and organization’s development?

Significance of the Study

Identifying elements of effectiveness and possible impacts of ET faculty development in the COE will contribute to improve the practice by recognizing areas of success and failure through the evaluative feedback. The findings of the study are hoped to inform the process of planning and designing as well as improve the content and the contextual factor of the ET faculty development in the COE . The findings of this study may also contribute to inform the process of ET faculty development the other colleges in the SQU and the other higher education institutions that share similar features and are essentially coordinated by the general board of the Higher Education Ministry in the

country. The study may also lead to more recognition in using qualitative research in conducting evaluation.

The Research Questions

To gain a comprehensive understanding and reach the required depth of the case, the research's questions were classified into four categories adopted from the model offered by Ritchie and Spencer (2002). According to their model, when qualitative methods are used to conduct research that seeks to evaluate public policies, activities and programs, they address questions that mean to cover all aspects of the case to enable decision makers to take proper decisions. These in their model questions are categorized into: contextual question that intend to identify the form and nature of what exists; diagnostic questions that explain the rational behind what exist; evaluative questions that judge the effectiveness of what exists; and finally the strategic questions that lead to identifying new policies or actions (Ritchie & Spencer, 2002, p.307). Informed by this model, the following research questions were developed as the focus of this study.

1. *Contextual*: What is the status of ET faculty development at the College of Education?
    a) What forms of ET faculty development are offered to the faculty at the College of Education?
    b) From the stakeholders' perspectives, what are the initial goals and expectations of ET faculty development at the College of Education?
2. *Diagnostic*: From the stakeholders' perspectives, why there is a need for ET faculty development? And how this need is recognized at the College of Education?

3. *Evaluative*: From the stakeholders' perspectives, are the available forms and efforts of ET faculty development effective? And what contributes to their effectiveness?
4. *Evaluative*: From the stakeholders' perspective, what is the impact of the ET faculty development activities on professional practice, students' learning, and College of Education culture and policy?
    a) In what ways, if any, have participants' practices changed as a result of ET faculty development?
    b) In what ways, if any, have students' learning changed as a result of ET faculty development?
    c) In what ways, if any, has the culture of the COE changed as a result of ET faculty development?
5. *Strategic*: From the stakeholders' perspectives, what are the specific suggestions to improve the ET faculty development on both the conduct and the content levels to create space for more creative and excellent activities?

Definitions of Terms

In order to clarify terms associated with this research, the following terms are defined:

a) *Experience*: observation of or practical association with facts or events
b) *Faculty development*: the process that aims to improve the faculty professions, practices and skills. It includes but not limited to workshops, seminars, conferences, e-learning, learning communities and networks, instructional consultations, self-study, mentorship, and supporting groups.

c) *Educational Technology (ET)*: .is the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning. (Seels & Richey, 1994). Educational Technology and Instructional Technology will be used interchangeably throughout the study.

d) *Educational Technology integration*: the combination of knowledge of educational or instructional technology and knowledge of the content and pedagogy that culminate in the development of technology-supported activities that must work together and make sense (Hughes, 2004)

e) *Perceptions:* intuitive recognition of truth and quality

f) *Stakeholders*: are persons, groups, or organizations significantly influence or ultimately affected by the project or the program.

Delimitations and Limitations

Delimitations address how the study is narrowed in scope (Creswell, 1994). Although the study targets all faculty members in the COE, I limited the informants in this study to the faculty members who attended any formal ET faculty development such as a workshop or a short course. By doing this, I aimed to reach faculty members who can, through comparison between formal and informal ET faculty development, provide useful insights on the effectiveness and impact. I also excluded demonstrators (the newly appointed members who have just received their Bachelor degree) from my informants. Since most of them do not teach any class they cannot observe the impact of any form of ET faculty development, although they participate in the Instructional Skills Development Workshop, on the students' learning and faculty' practice. Moreover, all of

the demonstrators have not spent in the college more than one year, at the time of the data collection, which makes it difficult to observe any change of the college's culture.

Limitations address the potential weaknesses of the research (Creswell, 1994). Although the number of informants in this study was adequate, the fact that the data collection took place during summer where many faculty members take their annual leave may have limited the access to more insightful experiences and observations. The absence of documentation of any form of ET faculty development on both the personal and the administration levels also placed another limitation. Most of the findings were based on the interviews and the focus group. However, this absence of documentation was very important evidence in itself of the effectiveness of the ET faculty development. Another limitation appeared in the process of translating the data from Arabic to English. Since language is the essence of phenomenological research where it captures meanings, experiences, and perceptions from the perspective of the informants; representing the findings in English instead of Arabic may have limited the accuracy of the meanings. An important issue in this regard is the difficulty of translating words for which there is no equivalent meaning in English. Another issue is the quality of the translator. Twin (1996) argues that translating makes the development of themes and categories a complex process. She, however, believes that if the translation is done to the transcript and by one translator who understand the methodology should decrease this complexity.

Chapter Two: Literature Review

Overview

The purpose of this study was to evaluate the effectiveness and impact of ET faculty development activities in the College of Education (COE) at Sultan Qaboos University (SQU) from the perspectives and experiences of the stakeholders. This chapter examines recent literature on ET faculty development initiatives and the evaluation of their effectiveness and impacts. It starts by providing operational definitions of the concepts of both educational technology and faculty development to better understand the scope of the research and clearly describe the practice of ET faculty development. It also explores three fundamental dimensions of these activities and the underlying principles. Next, it describes effective faculty development activities in terms of contributing factors and elements followed by a section exploring the possible impact of these activities on three levels: faculty practice, students' learning, and organizational development. Finally, it discusses the need to evaluate these activities and highlights the important issues related to the evaluation such as models and types.

Educational Technology (ET)

ET as a dynamic emergent field has "embraced various definitions of [its] concept" (Simsek, 2005, p. 178) throughout its evolution. Simsek (2005) claims that the development of the various definitions has been stimulated by the professionals' perceptional shift of ET through the history. During the early decades of the last century, ET was perceived as the usage of technological products such as the audio-visual devices. This perception was then substituted by the focus on the design and usage of educational

message in the fifties and sixties. Throughout the seventies, ET was perceived as the application of science on educational problem solving. In late seventies towards the end of the last century, the perception was altered by the design of instructional systems which led to the current focus or perception as being the design of learning environments.

It is beyond the purpose of this research to argue for one definition over another. Therefore, one definition that is widely used and developed by a well known association in the field of educational technology; the Association for Educational Communications and Technology (AECT) will be utilized throughout the research. AECT defines ET as "the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning" (Seels & Richey, 1994, p. 1). Clearly, the definition emphasizes five domains that together form the knowledge base of the field (Figure1.). Design refers to the process of specifying conditions for learning by applying principles of instructional system design, message design, instructional strategies, and learner characteristics. Development includes the actual creation of instructional materials and experiences along with the resulting products by using print, audiovisual, computer-based, and integrated technologies. Utilization refers to the processes and resources of learning by applying principles and theories of media utilization, diffusion of innovations, implementation and institutionalization, and policies and regulations. Management refers to the processes of controlling and managing educational technology by applying principles of project management, resource management, delivery system management, and information management. Evaluation refers to the process of determining the adequacy of learning by applying principles of problem analysis,

criterion-referenced measurement, formative and summative evaluation (Januszewski, 2001; Seels & Richey, 1994).

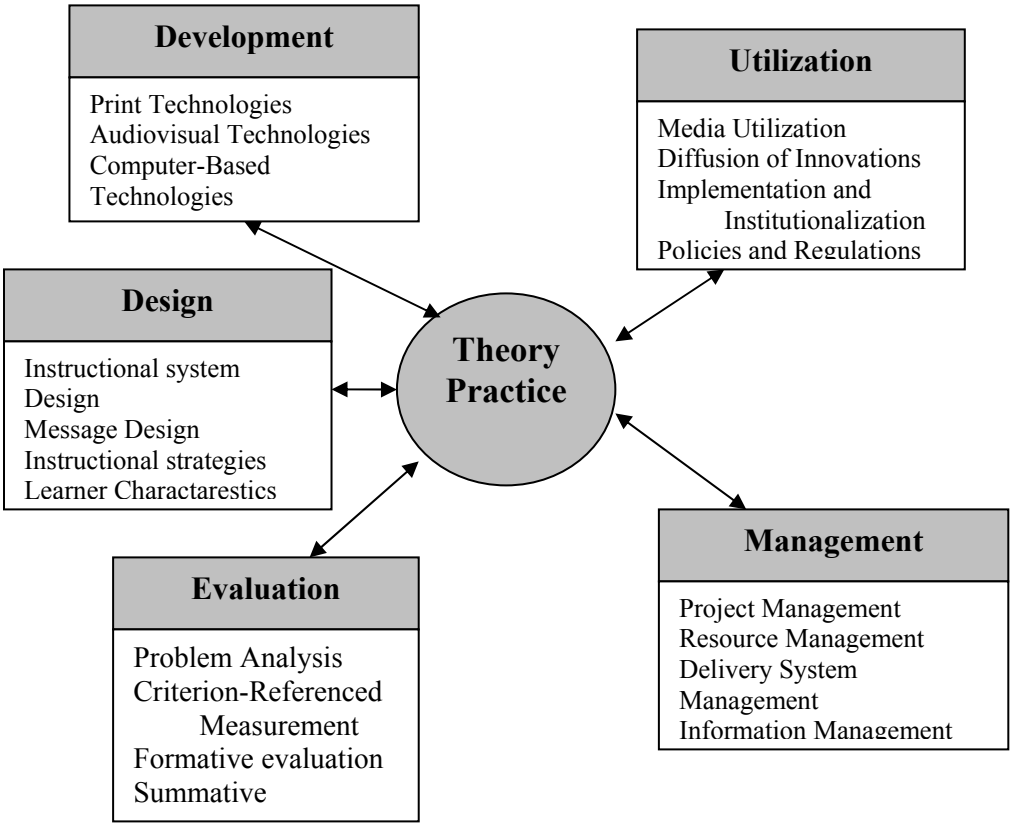

Figure 1. The domains of educational technology (Seels & Richey, 1994, p. 26).

Ely (1996) points out that what made this definition widely adopted was its attempt to bring theory to the foreground after being hidden from view for a long time. This helped to distinguish ET as a profession and a field (Januszewski, 2001).

Literature on ET also emphasizes various terms that are often used interchangeably with Educational Technology or to refer to components of the field. The most widely-used term is Instructional Technology (IT). While, some professionals tend

to distinguish ET from IT such as Gentry (1995) who believes that "(IT) presents refinements not found in meanings of educational technology" (p. 5) and it can be viewed as a subset (Gentry, 1995). The mainstream of the literature uses them interchangeably (Gentry, 1995). Other terms associated with Educational Technology or Instructional Technology are computer-based learning (CBL), Web-based education (WBE), Web-based learning (WBL), computer mediated communication (CMC), and e-learning (Serdiukov, 2000). For the purpose of this study, the term Educational Technology will be used as the broad term within which other terms may be included.

Faculty Development

Faculty development, sometimes referred to as staff development or professional development, presents an essential component of higher education practice and although it has been defined in many different ways, its "common theme is promoting the growth and effectiveness of faculty teaching and research" (Heppner & Johnson, 1994, p. 451). It is described by many authors as an institutional process that seeks to modify the attitudes, increase the interests, and advance the proficiencies of faculty members toward greater competence and effectiveness in meeting the needs of students, of their own, and of the institution (Guskey, 2002; Hamilton & Brown, 2003; King & Lawler, 2003; Laufgraben & Shapiro, 2004; Murray, 2002a; Zuber-Skerrritt, 1992). Guskey (2002) describes this process as intentional, ongoing and systematic (Guskey, 2002). Regardless of the instant and immediate focus and format of this process at any given setting, its ultimate goal is to cause change that initiates improvement in students' learning and achievement in the first place as well as serving the mission of the educational organization (Lanthan, Camblin &

Steger, 2000). These views of faculty development reflect the fact that it has three components or dimensions as emphasized by the Professional and Organizational Development in Higher Education (POD Network) (n.d.): Faculty Development (FD), Instructional Development (ID), and Organizational Development (OD) (Figure 2.).

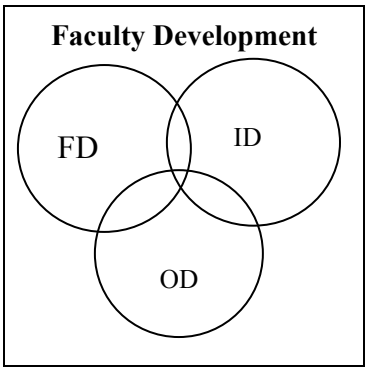

Figure 2. Faculty Development Components and Dimensions (POD Network, n.d.).

Faculty development, as the first dimension, involves activities that promote faculty "continuing growth as scholar and contributor to the intellectual community both on campus and in his or her own profession" (Nelsen & Siegel, 1980, p. 7). These activities include interpersonal skills training, career counseling (Centra, 1978; Bergquit & Phillips, 1975), research grants, discipline-oriented activities (Brawer, 1990) and address the attitudes, goals, values, morale, cultures, expectations, and dreams of faculty (Bland, 1998). This particular focus of faculty development programs assumes that faculty come to the organization with their "unique characteristics and circumstances that affect their professional productivity such as their interpersonal skills, financial status, habits and prejudices, family situations, and personal life and career plans" (Bland, 1998, p. 17). To improve the organizational performance and better achieve the goals, the

personal conditions and perspectives of the faculty should be considered and improved (Bland, 1998).

Instructional development, as the second dimension of faculty development, happens to be the primary area of faculty development programs (Webb, 1996) given that instruction is the key activity for most academics. Recognizing the significance of instructional development, universities and colleges have experienced establishment of instructional development centers and centers for teaching and learning (Brawer, 1990; Lawler & King, 2000). Instructional development's primary focus is student's learning (Lawler & King, 2000). It addresses issues such as course design, pedagogy, curriculum, students' learning evaluation, and the use of educational technology (POD Network, n.d., Webb, 1996). The activities in this area include working in teams with other professors to enhance the course design and curriculum, peer coaching, videotaping classrooms practices, and workshops on teaching strategies (Roth, 1999). Faculty members also work with instructional designers to gain experience in evaluating the instructional material and the design of contents (Brawer, 1990; Centra, 1978; Nelsen & Siegel, 1980). One main component of these activities is technology-integration in the classroom (POD Network, n.d.).

Organizational development, the third dimension of faculty development programs, focuses on the organizational structure of the institution and its sub-components (POD Network, n.d.). Faculty development plays an important role in creating an educational atmosphere that encourages and rewards educational leadership, innovation and excellence (Brawer, 1990). Initiatives in this area include efforts to create

participative and empowering organizational policies and structures; procedures to evaluate and reward teaching excellence; and programs to enhance curricula organization and collaboration across departmental boundaries (Wilkerson & Irby, 1998). The organizational development approach to faculty development activities “assumes that people and organizations are improved by focusing on issues larger than the individual person; hence emphasis is placed on shifts in organization-wide structures, processes, and attitudes (culture) rather than individual factor" (Bland, 1998, p.17). Unfortunately, literature presents few faculty development activities and initiatives that have targeted this area compared to instructional and personal development (Lawler & King, 2000; Stienert, 2000).

Until recently faculty and professional development’s practices in higher education have been restricted mainly to professional conferences, research grants, workshops that serve emergent issues, and sabbatical leaves (Murray, 2002a). These forms did not take the shape of institutionalized programs. Rather, they were more of uncoordinated individual and departmental efforts. Lately, other forms such as short courses, peer consultation, individual preceptor-ship, mentoring programs, training classes, release time, access to support staff, and/or the allotment of computer equipment in various combinations have started to take place (Agee, Holisky & Muir, 2003; Steinert, 2000). Consequently, faculty development programs have become institutionalized programs in higher education institutions where they address the three areas of personal development, instructional development, and organizational development (Murray, 2002a; Schmitz, 1998).

Role of Faculty Development in ET integration in Teacher Education

Preparing and empowering K-12 school teachers to integrate technology in their teaching has been one of the most important essentials in teacher education programs (Bolick, Berson, Coutts & Heinecke, 2003; Turner, 1997). Without a doubt, the first step in this preparation is for pre-service teachers to experience the teacher educators modeling teaching with technology (Cavanaugh, 2002; Marshall-Bradely & Bradely, 1998). Although teacher educators realize this need and technology has been available for most of them in their colleges, research shows that most of the educators are not using technology to the full potential (Schuck, 2002). Research also reveals a lack of teacher educators' confidence about ways of implementing technology appropriately in their teaching (Schuck, 2002). Colleges have found a way to solve this problem by initiating faculty development programs and initiatives to serves as one means to expanding the confidence and abilities of teacher educators to integrate technology in their teaching (Cavanaugh, 2002; Chapman, 2003; Robinson, 2003; Peterson, 2002; Vannatta & Beyerbach , 2000). Bai, Chuvessiriporn and Lehman (2002) believe that the integration of educational technology has been always related to the evolution of faculty development.

ET faculty development is a journey of "transformation of many educators from inexperienced, hesitant, and sometimes fearful technology users to people who can independently learn technology and discover new ways to change their teaching and learning through the medium" (King, 2003, p. 53). It allows faculty to understand the potential of educational technology and encourage them to use the available resources

and tools to model technology-enhanced teaching and learning (Padgett & Conceicao-Runlee, 2000). Studies indicate that not supporting faculty with in-depth professional development results in minor integration of technology in their teaching (Cellante, 2002).

Assumptions, Principle, and Constructs of ET Faculty Development

Driven from the definitions in the previous sections and the massive literature on projects and initiatives of ET faculty development in higher education, this section outlines the assumptions, principles, and constructs that lay out the foundation of the practice.

1. Faculty are eager adopters: faculty members are often judged to be resistant of adopting new technologies. Quite the opposite, Brown (2003) argues that this is a misjudgment. Faculty resists the mandates not the technology. Most faculty, Brown (2003) believes, "are eager to try anything that might help students learn better, more, faster, or more efficiently" (p. 2). Moore and Head (2003) agree by stating that faculty will not be interested in ET faculty development unless "they perceive that it benefits their students' learning environment" (p. 4).
2. ET faculty development is not an event but rather a change process that focuses on both individual and organizational levels and needs to be related to the organization's mission and goals (Gess-Newsome, Blocher, Clark, Menasco & Willis, 2003; Guskey, 1997). It is a dynamic continuous process that plans and re-plans based on reflections of learners (Moore & Head, 2003).
3. ET faculty development is adult education: faculty members are adult learners who are self confident, empowered, experienced as learners, hold equal status

with the teacher, active, and self-directed. They bring rich life experience to their learning situations and use them to pursue learning and test new concepts. (Knowels, 1990). The knowledge, experience, contributions, and perspectives of the faculty should be respected and considered (Hixson & Tinzmann, 1999)

4. Faculty development is a dialogical process: "the continuing dialogue is a powerful educative force and it conveys effective professional development (Meier, 2002).
5. ET faculty development is transformative learning: it involves "transformation of many educators from inexperienced, hesitant, and sometimes fearful technology users to people who can independently learn technology and discover new ways to change their teaching and learning through the medium" (King, 2003, p. 53).
6. "Technology is only part of the equation" (Laughner, 2003, p. 6): faculty will not be interested in learning technology unless they identify its benefit for students' learning (Moore & Head, 2003).
7. ET faculty development practice is context-based: it responds to the individual and institutional practices and circumstances; it is not context-independent because it takes explicit account of the contexts of teaching and the experience of participants (Little, 1993).
8. ET faculty development offers support for informed dissent (Little, 1993): through continuous evaluation, weaknesses can be identified and treated and hence resolve conflicts.

What Is an Effective ET Faculty Development?

Regardless of the massive studies that describe programs, activities, and initiatives of ET faculty development, clear guidelines or characteristics of effectiveness are not yet developed. Insights from teacher professional development literature coupled with the literature of faculty development point out that effectiveness of any faculty or professional development is influenced by different variables that can be classified into three categories: context characteristics (who, when, where, and why); process characteristics (how); and content characteristics (what) (Guskey & Sparks, 1996; National Staff Development Council, 2001). This section examines the three categories in detail.

Context Characteristics and Elements

The context within which ET faculty development activities take place has powerful and dynamic influence (Stevens & Lonberger, 1998). It even makes it impossible to make precise general statements about the elements of effectiveness even for programs that share a common vision and seek to attain comparable goals (Guskey, 1995; 1998). Therefore, "[f]or faculty development programs to be successful, they must be cognizant of the organizational context within which their program runs" (Simpson, & Quirk, 1998, p. 150). A supportive context is believed to provide faculty with a learning community of collaboration and appreciation, supportive leadership, and adequate resources (National Staff Development Council, 2001). This section reviews these elements.

Collaborative learning community of adults.

Faculty development initiatives focus on faculty members in higher education institution, a population of experienced adult learners with extensive backgrounds in their practice (Butler, 1992). Adult learners, as Knowles (1980) argues, expect a participative learning environment that provides climate of respect and utilizes collaborative modes of inquiry that builds on their experience and learning goals. Adult learners, by nature of their profession, "are self-directed in their work, independent and autonomous in getting their job done, and collaboratively participate in the policy and governance of the university" (Lawler & King, 2000, p.14). Understanding characteristics of faculty as adult learners, how they learn, and their beliefs about using technology provides a starting point to develop effective faculty development programs (Lawler & King, 2000; Schuck, 2002). They should be involved in all stages of designing and applying faculty development activities (Murray, 2000). This supportive environment is believed to cause effective change in faculty's perception and promote use of technology (Bai & Lehman, 2003).

Supportive leadership.

Leadership and support from top levels of the organization is the key in providing a climate that fosters, supports and encourages faculty development (Murray, 1999; Padgett & Conceicao-Runlee, 2000). Leaders such as the college dean and heads of departments should value faculty's efforts to improve their practice even if some of these efforts fail (Murray, 1999). They should also believe that faculty development is a change process that should be planned and provided over the course of one's academic career

(Hamilton & Brown, 2003). Providing single-shot solutions and quick with little or no follow-up is ineffective for faculty development in teaching and learning strategies (Denton et al., 2004) reflects a "lack of attention to the full range of institutional needs and from too narrow perspectives on faculty careers" (Clark, Corcoran & Lewis, 1986, p. 188).

This does not mean that the institution completely control the offering and planning of faculty development activities. Rather, shared decisions and involvement of all stake holders in planning and designing faculty development activities should be incorporated to assure effectiveness of these activities. In the annual report of faculty development at Armstrong Atlantic State University, faculty preferred that they share the responsibility with the institution in planning, designing and implementing the activities over the continuum of faculty career where full professors should be allowed more autonomy in their development activities while new faculty can be introduced to pre-structured activities (Roth, 1999).

An important aspect of distributed leadership that is often neglected is the crucial role of faculty developers. They have little involvement in policy or decision making and, thus, little opportunity to contribute or benefit from the discussion and decisions within the organization (Marshall, 1998). In many higher education institutions “[d]ecisions with regard to teaching-, research-, and community outreach development are often made without the benefit of input from the relevant experts- those who have made a career out of the study and practice of developing these core areas of higher education activity” (Marshall, 1998, p. 325). It is needless to argue that faculty developers should be part of the institution’s leadership and decision-making process.

Faculty developers also contribute to the supportive context via the different roles they play and relationships with the faculty members. Within their primary role of devising welcomed initiatives and effective programs (Lawler & King, 2000), faculty developers should be aware of the different roles they are expected to play. Their first role is to understand the nature of and establish a positive relationship with faculty members. “Relationships are the life-blood of staff development” (Webb, 1996, p. 109). The relation between faculty members and faculty developers is complementary because it is based on equal terms which are not competing (Zuber-Skerrritt, 1992). The faculty member view the faculty developer as "a resource person, facilitator, educational adviser or consultant" (Zuber-Skerrritt, 1992, p.146). They are the facilitators "allowing tutors to transform from their own practices" (Orsmond & Stiles, 2002). Faculty developers believe that gaining support of their initiatives depends on how they are perceived by members (Lawler & King, 2000). Important in establishing a positive relationship with faculty members is the amount of knowledge developers have about the faculty members. Wergin, Mason, and Munson (1976) found in their study, which evaluated eight different forms of faculty development programs, that "the factor most predictive of success was depth of knowledge about the faculty" (p.299). It is therefore the developer's job to collect useful information and assessing needs through establishing a positive faculty-consultant relationship (Wergin, Mason & Munson, 1976). In some cases, faculty developers have to consider collaborating with faculty members to implement the proposed faculty development activity or program because "faculty tend to believe that pedagogy is related to discipline [and] they are more likely to accept pedagogical advice

from those within their own disciplines" (Murray, 2002, p. 95). Godwin (1998) found this point to be one of the main comments that faculty of Virginia Commonwealth University came up with when asked to contribute their views about the best strategies to strengthen their skills in the utilization of ET.

A system of reward.

It is important for faculty members to see a connection between the institution's reward system and the faculty development activities to motivate them to enroll in these activities (Lawler & King, 2000; Murray, 2002a; Oromaner, 1998). Examples of reward are access to faculty development budgets, excellence of teaching awards, and recognition of faculty development efforts in promotion. In ET faculty and professional development, Padgett and Conceicao-Runlee (2000) believe that the "most consistent recommendation regarding a faculty development program on technology relates to institutional structure and the integration of the program with the institution's infrastructure of rewards, workload expectations, and incentives (p. 331). They go further by arguing that "[p]romotion and tenure expectations which do not reward technical creativity can inhibit faculty involvement in technology training" (Padgett & Conceicao-Runlee, 2000, p. 331). Similarly, in a study of how to strengthen skills of faculty for utilizing technology, Godwin-Jones (1998) found that effectively training faculty in the use of ET cannot be viewed in isolation from recognition and reward for faculty for using ET (including technology use being part of the professional evaluation process). Crawford (2002) recommends consideration of displays of admiration for innovative efforts; time drain compensation; positive tenure renew impact; incentive programs; financial support for

hardware, software and course buy-out as important areas of rewards for faculty who work on improving their technology integration skills.

Adequate resources.

Adequate resources such as "[f]inancial, physical, organizational, and personnel resources must be available for effective programs" (Lawler & King, 2000, p. 55). Thus, evaluating availability of financial and human resources should proceed and be essential part of the planning for effective faculty development programs (Lawler & King, 2000). In ET faculty development, physical resources such as computers, software, internet access, etc are vital. The previous chapter highlighted the faculty need's of technology access to assure effective integration of the new technologies as one of three basic factors besides training and supportive context (Doherty & Ayers, 2002; Turner, 1997). In his previously mentioned study of how to strengthen skills of faculty for utilizing technology, Godwin-Jones (1998) found that faculty and students' access to technology and availability of computing support and design services is crucial for effective training.

Another aspect of adequate resources is the reduction of workload and availability of time for training (Quick & Davies, 1999). Faculty need time to learn and apply what they learn. In the annual report of faculty development at Armstrong Atlantic State University, faculty interviewed to measure the impact of faculty development activities indicated that even if they find time to participate in workshops they do not have time to apply what they have learned due to the overwhelming work load (Roth, 1999).

Process Characteristics and Elements

The process used to facilitate and offer ET faculty development determines its success and contribute to its impact. The effectiveness of any faculty and professional development activities must be considered throughout the whole process "starting with the earliest planning activities" (Guskey & Sparks, 1996, ¶2). Literature around this issue emphasizes the following factors: planning and design, motivation, delivery format, and evaluation (Guskey & Sparks, 1996; National Staff Development Council, 2001; Padgett & Conceicao-Runlee, 2000).

Planning and design.

Faculty respect well-planned, well-organized and well-led activities (Angelo, 1994 as cited in Lawler & King, 2000). What is important in planning effective faculty development is to connect it to clear goals that are tied to the institution's mission which enables lasting changes in teaching and learning as well as to the professional and personal goals of the faculty members (Murray, 1999; 2002a). Failure to meet this condition results in a serious of loosely, isolated, single purpose activities that are unlikely to produce the desired change on both the personal and organizational level (Murray, 1999; 2002a; 2002b).

Another element of effective planning and design “is to find out what faculty want to accomplish" (Quick & Davies, 1999, p.641). This is important because there is no "one-size" training model that work for all and institutions have to determine what works best for their faculty (Holden,1999). In a study that explored the teachers' perceptions' of a professional development course that took an online form, findings

contended that most of the course objectives were not met because the assumptions underlying them were not realistic and not grounded in real data about participants needs and backgrounds (Broady-Ortmann, 2002). Guskey and Sparks (1996) recommend that planners rely on data driven from research on their own context to plan for the activities. A clear application of this is to conduct needs assessment to identify the specific needs of the faculty within their specific context and thus assures them that their needs are considered and planned to be met (Bland 1998) which eventually make the faculty development activities are more likely to be considered by faculty and fosters effective learning (Chism, 2004; Webb, 1996).

In addition to linking faculty development activities to institutional and personal goals, and conducting needs assessment, applying planning principles and educational theories and concepts insure effective planning and design. Lawler and King (2000) identify five basic program planning concepts to distinguish effective faculty development programs: nonlinear, contextual, evaluative, fundamental, and responsible. Nonlinear planning recognizes planning as interrelated elements that are closely linked and may overlap not simply as a sequence of steps. Contextual planning takes into consideration the social, political and organizational context such as the institution's goals and the features of the cultures that exist in the institution. Evaluative planning values the role of ongoing evaluation throughout the different stages of the program and long after the implementation of the program. The fourth concept is concerned with the fundamental elements necessary to provide a systematic approach to the program: needs assessment, program and learning objectives, delivery, evaluation, and follow-up. The

last concept is responsible planning that considers the ethical rights of the participants and ethical dilemmas in the institution as well as recognizing the social and political dimension of the program. Theories such as constructivism and andragogy that address the way adults learn and interact with the learning situation enrich the design of faculty development activities (Goodale, Carbonaro & Snart, 2002; Lawler, 2003).

Delivery format.

Type and format of program and activities' delivery also plays a role in determining the effectiveness of ET faculty development. Delivery methods or strategies are procedures of instruction selected to help learners achieve objectives or to internalize content (Heinrich, Molenda, Russell & Smaldino,1 999). Literature indicates several methods such as workshops, instructional consultation, e-learning, learning communities and networks, grants, peer consultation, resource materials, individualized programs, self-study tutorials, coaching and mentoring (Godwin, 1998; Lenze, 1996; Maxwell & Kazaluskas, 1992; Schuck, 2002).

While workshops appear to be the most common method to convey faculty development, they do not score first in effectiveness or preference (Lenze, 1996). Maxwell and Kazaluska (1992) propose that workshops may be more effective "if they are organized around these principles of expertise, specialized disciplinary knowledge, and support of a teacher specific instructional skills interest" (p. 357). Faculty instead prefer one-to-one personalized and small groups instruction (Cavanaugh, 2002). In ET faculty development, individualized programs that proved to be highly effective include the "use of instructional technology specialist, faculty exchange programs with other

institutions, travel funds, attendance at professional meetings, and temporary course load reduction" (Maxwell and Kazaluska, 1992, p. 357). Faculty-to-faculty mentoring also serves as a valuable tool in technology training (Kahn & Pred, 2001).

To many, the format is not a constant but rather a variable that depends on factors like how new is the topic, how complex is the technology, and how much experience of technology does the user have (Blash & Schiorring, 2004). “Overall, the newer the topic, the more complicated and the less experienced the participants, the more desirable the face-to-face option" (Blash & Schiorring, 2004, p. 13). Another variable that contributes to the preference of a specific format over another is the amount of assistance and follow up, faculty receive while applying what they learn in the classroom (Sorge & Russell, 2000).

Motivation.

Dealing with faculty as learners brings forth the motivation to learn as an important element in faculty development. Considering faculty's needs, respecting their features and experiences, and insuring them a control over their learning choices motivate them to participate in adult learning (in this case faculty development) programs and to find values in these programs (Knowles, 1980). Lawler & King (2000) believe that motivating faculty is to hear their voices about their practices, their development, and their views of institutions policies, structure, and support. Webb (1996) calls for a vital need for staff to be “critically engaged in the process of reflecting on their practice, entering into dialogue with each other to elucidate and to solve problems and so working to improve what they do as individuals, as teams and as an institution” (p. 159). If "faculty do not perceive that their voices are heard and that they have a choice, all of

[the] efforts that encouraging participation and transfer of learning may fail" (Lawler & King, 2000, p. 10). Murray (2002) supports the same argument by stating that "faculty development programs are more effective when faculty participate in the design and implementation stages" (p. 95).

Another element that motivates faculty to participate in these programs is the intrinsic reward of professional growth (Baiocco, & DeWaters, 1995). If faculty do not find value in these programs but judging their efficiency and threatening their practices such as traditional lectures and students' learning assessments, they tend to reject participation (Orsmond & Stiles, 2002). In ET faculty development, if participants experience how technology facilitates their own learning, it is more likely to expect professional goals of proficiency with technology tools from them (Denton et al., 2004).

Follow-up.

When it comes to ET faculty development, follow-up appears to be a very critical element of effective and successful activities and programs (Goodle, Carbonaro & Snart, 2002). Faculty express their need for forms of follow-up such as personalized support on technology, tools and services, a community of learners to draw help from, help desk, and house calls (Bai & Lehman, 2003; Goodle, Carbonaro & snart, 2002). In studying the impact of WebCT faculty development workshop on faculty's practice; Bai, Chuvessiriporn and Lehman (2002) found that one-on-one assistance and personal help sessions were found to be very helpful and effective in assisting faculty with the application of WebCT in their teaching.

Continuous evaluation.

While most of the attention is paid to the design and delivery of faculty development programs, the long term impact and transfer of learning is often ignored by faculty developers who believe that the process ends at the end of the program (Lawler & King, 2000). Follow up research and evaluations should be part of the effective faculty development programs in order to improve future activities (Lawler & King, 2000; Maxwell & Kazaluska, 1992). It is recommended that developers should carry on evaluation long after the program is concluded to obtain a clear picture of the real impact of the program (National Staff Development Council, 1995 as cited in Cook, 1997; Wergin, Mason & Munson, 1976). This continuous evaluation should not be focusing on participant as the only informants but should also include assessment of faculty developer assessment and learning transferability (Lawler & King, 2000).

Content Characteristics and Elements

The content of ET faculty development should be aligned with faculty's needs, students' learning and organization goals and address the curriculum and instruction needs. It should also address and cover all competencies to develop experienced faculty who can effectively integrate technology in their teaching.

Recognizing the fact that "individual and institutional vitality are interrelated" (Clark, Corcoran & Lewis, 1986, p. 177), effective faculty development programs are ought to cover the three areas of personal, instructional, and organizational development (Alstete, 2000; Bland, 1998; Roth, 1999). Bland (1998) considers a faculty development activity effective if it has a "wide-perspective that continuously looks for and tries to

address all aspects that impact faculty success" (p. 15). These aspects are believed to include attitudes, personal and organization's goals, interests, values, morale, cultures, expectations, and dreams of faculty (Bland, 1998). Often faculty development emphasizes general knowledge and skills, whereas faculty members tend to be concerned with disciplinary knowledge and specific teaching tasks (Maxwell & Kazaluskas, 1992). Godwin-Jones (1998) found this to be a major concern for faculty as the informants in his study reported that they were more concerned with application of the topics within their specific disciplines. In ET faculty development, this concern becomes even more crucial as faculty tend to reject learning technology for the sake of technology (Bai & Lehman, 2003).

Effective faculty development are also ought to address issues of curriculum and instruction. In ET faculty development, effective activities and programs "includes not only the development of technical skills and knowledge, but also strategies for technology-enhanced teaching and learning, and for classroom management" (SEIR*TEC, 2001, p. 101). Similarly, Chism (2004) draws the attention of the developers to situate the activities in teaching and learning rather than in technology.

What Is the Impact of ET Faculty Development?

Determining the impact of professional and faculty development initiatives presents a challenge confronting practitioners in the field (Kreber & Brook, 2001). Belzer (2003) argues that what creates this challenge is the elusiveness of the definition of impact to practitioners and consumers in an even way. In an attempt to arrive at a clear picture of what does impact mean, she conducted a study that aimed to gather data from

practitioners and consumers about their definition of impact in relation to professional development. The analysis of outcomes suggested that impact should be viewed within the context of the individual's professional, position, background and training having the bottom line of improving learners' outcomes beyond what they would achieve if their teachers had not participated in professional development (Belzer, 2003). Guskey (1997) consents with the same argument by noting that professional development's effect on student learning may vary widely as a function of differences in program content, process, and the context in which implementation occurs. Belzer's found that in general, impact is associated with change and that the number of areas within which impact occurs does not propose greater or lesser impact (Belzer, 2003). This section will explore the areas of ET professional and faculty development's impact suggested by the literature.

Impact on Faculty and Professional practice

Impact on faculty and their practices involves change in classroom practice, thinking about teaching and learning, and professional attitudes (Belzer, 2003; King, 2002; Oliver & Harvey, 2002).

Impact on faculty's practice.

The impact of faculty development on the faculty's practice is often reflected in a concrete way by utilizing and integrating new tools, strategies, and materials as well as adaptation of new ideas and concepts of teaching (Belzer, 2003). When concerned with ET, faculty development activities are expected to affect and improve the use of technology in the classroom. At the University of Illinois at Urbana-Champaign, an Inter-

institutional Faculty Summer Institute on Learning Technologies, 95% of the participants "believed that attendance at this week long institute had fundamentally impacted the way they would use technology in their classrooms" (Bullock & Schomberg, 2000, What were the impacts of the institute on the attendees? Section, ¶ 2). The participants indicated that one of the most common long-term impacts of the Institute was that they learned concept and actual strategies for improving the way that they were already using learning technologies in their teaching. Most of them also reported the use of completely new technology as a result of attending the Institute. A similar study that evaluated a faculty development model for technology use in higher education, showed that faculty started using technology in the classroom and planning to use it in future planning for future classes (Kahn & Pred, 2001). The faculty members specifically pointed out the following as a result of the faculty development initiative: conducting courses online, integrating web pages and e-mails in the courses, using internet resources for research and lesson planning, and using software packages to design the content of their courses. They also indicated that making more efforts in integrating technology is a result of participating in the faculty development workshop (Kahn & Pred, 2001). Another study that evaluated the impact of PT3 professional development project on teacher educators' practice found that " all responding faculty members reported that they integrated technology into their teaching, and 86% reported having changed their curriculum within the past year to add or increase the integration of technology" (Bai & Lehman, 2003, p. 1930). Some forms of technology integration reported by participants in this study were: in-class presentation, student technology projects, online class discussions and communication with students.

In the evaluation conducted by Bullock and Schomberg (2000) participants indicated that they have gained continuous increasing understanding of the learning technologies potential, their benefits to both instructors and students, and the different types available for their use after participating in the program.

Impact on faculty's perspectives of their profession.

ET faculty development is expected to cause changes in faculty's attitudes towards their profession, their role, and the collegial network (Belzer, 2003; Oliver & Harvey, 2002). They are expected to change concepts of teaching and research as well as participate in learning communities with their colleagues (Oliver & Harvey, 2002). In a project on faculty development sponsored by Association of American Colleges (ACC) the participants revealed that "their lives have actually changed as a result of faculty development activities" (Nelsen & Siegel, 1980, p. 3). Faculty in the evaluation conducted by Jose-Luis (1998) pointed out the change in conceptualization of teaching and learning and the self-aware of their professional role as a result of enrolling in teaching improvement program.

Impact on Students' Learning

In the literature, one important area of study examines the impact of faculty and professional development programs and activities on students' learning (Oliver & Harvey, 2002) based on the assumption "that both quantitative and qualitative improvements in professional development opportunities for practitioners would lead to improved learner retention and outcomes" (Belzer, 2003, p. 44). There is little or no empirical evidence in current research to support this assumption (Belzer, 2003; Serban,

2002). In reality, the dynamic interaction of different elements such as the content, format, context, supportive environment makes it virtually impossible to find and isolate a direct relationship between professional development and learner outcomes (Guskey, 1997; 1998). Therefore, when trying to determine the impact of faculty development in technology, Oliver & Harvey (2002) suggest concentration on matters of process such as use of resources, and change in attitudes towards technology rather than of product. Serban (2002) agrees by claiming that improvement in faculty's integration of technology makes possible learning processes that would not be available otherwise.

The evaluation of a Trek 21 (a model of technology professional development that included K-12 teachers in West Virginia's Professional Development School, Faculty from the College of Human Resource Development and Education at West Virginia University, and pre-service teachers from the same university) indicated an increase in student engagement due to the knowledge acquired by the participants on technical skills and pedagogical knowledge necessary to integrate technology meaningfully (Mitchem, Wells & Wells, 2003). More students' engagement and participation were also reported by participants in @ONE project of technology integration at DE Anza College in California (Doherty & Ayers, 2002). Faculty participated in this project identified the following as indicators of positive impact of the @ONE project: students search for answers rather than ask the instructor, they apply what they learn to real world questions, work in groups, participate more in discussions, come to class more prepared, be more actively engaged with the material, and express more interest in the course.

Impact on Organization's culture and policy

Organizations expect to benefit from training and development programs in some measurable way, such as reducing job errors, increasing productivity and introducing greater efficiencies on job performance (Heideman, 1998). Oliver and Harvey (2002) discuss the complexity of directly evidencing these changes. In their point of view, organization's learning or changing as a result of faculty development can be only inferred via changes in two levels: "literally, in terms of the changes in relationships between individuals in the organisation, and metaphorically, in terms of the image of the institution that is portrayed" (p. 22).

At the Inter-institutional Faculty Summer Institute on Learning Technologies at the University of Illinois at Urbana-Champaign, attendees of the Institute indicated that as they gained a sense of collegiality while attending the Institute, this helped them to set the stage for future collaboration which reflects one of the impact levels identified earlier (Bullock & Schomberg, 2000). Another evaluation of ET faculty development program offered at Southeast Missouri State University provided evidence that participant moved to the leading edge of technology development and implementation which contributed to a transformation of campus culture towards technology integration (Rodgers & Starrett, 2002). The transformation appeared in the creation of a support structure for faculty seeking technology integration and the establishment of the Office of Instructional Technology (Rodgers & Starrett, 2002). Litchfield (2000) observed to a similar impact of increasing organization's capacity to integrate technology when evaluating the impact of diverse staff development activities to support technology integration at Macquire

University in Australia. A more comprehensive impact of faculty development on institution was reported by Oliver and Harvey (2002) in their evaluation of the Effective Framework for Embedding C&IT through Targeted Support (EFFECTS) project. They found that participants in the project enhanced the institutional identity through contributions to the policy and decision making processes regarding technology integration.

ET Faculty Development Evaluation

Conducting faculty development in an-going manner in the organization demands systematic evaluation of its value (Heideman, 1998; Schmitz, 1998). Evaluation as a practice is defined as "the systematic investigation of merit or worth" (Guskey, 2002, p. 41). More specifically, it is a systematic collection of information about the activities, characteristics, and outcomes to make judgments, improve effectiveness of future efforts, and inform decisions future decisions (House, 1994). When describing evaluation as systematic it means that it is thoughtful, intentional, and purposeful Guskey (1998). Guskey adds by stating that systematic evaluation of professional development activities does not mean that it is restricted to formal workshops and seminars but rather extended to cover all types including less formal such as study groups, individually-guided activity, and collaborative learning.

This section highlights the need for conducting ET faculty development evaluation and reveals a lack in research regarding this issue. It concludes by exploring some approaches and models utilized to conduct faculty development evaluation.

Why is Evaluation of ET Faculty Development Important?

Literature emphasizes different reasons that mandate a systematic evaluation of faculty development initiatives. The first one is that faculty development is not an event but rather an ongoing process that requires refinement and development (Guskey, 2002). Champion (2005) and Lawler and King (2000) argue that providing deep analysis of failures and success through systematic evaluation facilitates success and improvement of the activities and help leaders anticipate and address problems that likely will inhibit the transfer of new knowledge. The second reason that mandates evaluation is the recognition of faculty development as an intentional process that should bring positive change to the organization (Guskey, 2002). Bland (1998) and Garavaglia (1998) argue that without conducting a meaningful evaluation, faculty developers cannot determine if the activities they offer have been effective and thus cannot be assured that they impacted faculty members in a positive way. The third reason is the need for better information to guide reforms in these programs (Champion, 2005; Guskey, 2002). Satisfaction questionnaires that are distributed immediately after the conclusion of the program do not provide information that conveys change in behavior and instruction (Ramalanjaona, 2003). Guskey (1997) believes that the practice of professional development still lacks answers to questions like "which elements contribute most to effective professional development, what format or specific practices are most efficacious, or precisely how professional development contributes to improved teaching and learning" (p. 36). The fourth reason is the increased pressure at all levels for greater accountability (Champion, 2005; Guskey, 2002). Institutions need a proof of value and efficiency to be able to take

the right decision on supporting these programs and this can only be achieved through evaluation (Hewson, Copeland & Fishleder, 2000). According to Heideman (1998), evaluation and specifically formative evaluation solves the dilemma that faces organization when trying to get the best of development programs within the proposed timeline and budget. In addition, views and feedback gathered from faculty who participate in faculty development activities encourage their colleagues to engage in future efforts (Lawler and King, 2000).

Lack of Faculty Development Evaluation

Apparently, having the reasons and demands in the previous section implies that faculty development activities and programs undergo regular evaluations. Several studies (Guskey, 2002; Lenze, 1996; Kreber & Brook, 2001; Ramalanjaona, 2003; Schmitz, 1998) have articulated a lack of research that evaluates these programs for their effectiveness and the short-term and long-term impact on participants and organization.

In his extensive review of literature of faculty development programs in community colleges in United States, Murray (2002a; 2002b) notes that for decades researchers have were unsuccessful in determining the true impact of faculty development activities and in some cases concluded that these activities have minimal long-term effects. Murray refers this breakdown to three reasons among which is failure to evaluate the activities for effectiveness. In a similar review about the forms of faculty development programs in community colleges, Maxwell and Kazaluskas (1992) concluded that although these programs are widespread in higher education institutions, research and evaluation of these programs has failed to examine the impact of these

programs and in few cases showed that they had "particularly little impact on those who most need to improve their teaching" (p. 352). Kreber and Brook (2001), in their review of literature regarding the systematic evaluation of faculty development programs, also came to remark that “the lack of systematic programme evaluation has been repeatedly highlighted since the mid-1970s and, as more recent literature..., it is an ongoing concern in staff development” (p. 97). Even when any kind of evaluation takes place, it basically focuses on "descriptions of faculty satisfaction with the program" (Hewson, Copeland, & Fishleder, 2000).This is the case in most universities, where any evaluation of faculty development appear to have been limited to questionnaires of satisfaction immediately after the conclusion of the workshop and faculty participation rate (D'Eon, 2004, Lawler & King, 2000) despite the fact that "research has shown that participant satisfaction with instruction does not correlate with change in behavior after instruction" (Ramalanjaona, 2003, p. 891).

Pickering (1980) argues that lack of impact's evaluation of faculty development programs is surpassed by the difficulty of evaluating students' learning as the ultimate goal of faculty development. In a similar attempt to explain the lack of evaluation, Murray (2002) refers it to the fact that professional development is an ambiguous concept. Ambiguity originates from the lack of clear objectives and outcomes which leads to lack of clear evaluation criteria (Murray, 2002). Guskey (1997) supports this argument by stating that research done on impact of professional development lack clear criteria due to the disagreement on criteria of effectiveness.

As an expected result of lack of evaluation; "faculty developers, with little forethought and little input from faculty themselves, tried to develop programs which they hoped would magically transmogrify ailing faculty into productive scholars and teachers" (Nelsen & Siegel, 1980, p. 2). Focused and systematic ways of evaluation are needed to conduct faculty development evaluation.

Approaches and Models of ET Faculty Development Evaluation

Literature on evaluating programs and activities identifies numerous models and approaches that fall into three main categories: evaluation for planning, formative evaluation, and summative evaluation (Guskey, 2002; Patton, 1987; Roysse, et al*.,* 2001). Evaluation for planning occurs prior to the program to determine the needs, assess characteristics of participants, analyze the context and collect the baseline information (Guskey, 1998). Formative evaluation aims at improving the programs while in progress (Royse et al*.,* 2001). It focuses on assessing the conditions for success and ways of improving them (Guskey, 1998). Summative evaluation measures the effectiveness of programs after their conclusion (Royse et al*.,* 2001). Evaluation of programs and activities can be further classified as either an internal or external evaluation based on whether the evaluator is part of the program or an outsider (Worthen, Sanders & Fitzpatrick, 1997). Within these broad categories, Patton (1987) states different purposes of evaluation such as: evaluating individualized outcomes, evaluating implementation, evaluating process, and evaluation for quality assurance.

In faculty development practice, despite the different purposes that guide the evaluation, evaluators use either quantitative, qualitative, or both approaches to collect

valuable data. The use of quantitative approach is more common where it is believed that evaluations of faculty development programs that are designed around participants' perceptions are not effective and will not lead to useful information (Murray, 2002b). Rejecting this belief, many researchers (Clark, Corcoran & Lewis, 1986; Cook, 1997; Guskey, 1997; Pulley, 1998; Zeidler et al., 1999) call for evaluation of faculty development to move beyond quantitative estimates of faculty output to questions of quality and effectiveness. They believe that participants' perceptions and views provide critical information on impact of these programs and capture issues of meaning, attitudes, or morale. Belzer (2003) concurs with this notion as she states that "[g]iven the complexity and variety of intents of professional development activities, the range of practitioner and learner expertise and experience, and program context as well as methodological limitations, it is important to seek more nuanced and descriptive ways that capture professional development impact as broadly ad possible" (p. 58). This emphasizes what is referred at by Guskey (1995) as "decontextualization" of data. He contends that what is neglected in nearly all the efforts to evaluate professional development activities is the powerful impact of context that can be only recognized through stakeholders' own views and perceptions. Kreber and Brook (2001) point out one more implication of using qualitative approach to evaluate educational development initiatives. It is the likelihood of evaluating actual impacts that might not be emphasized by the pre-determined program goals or evaluation criteria.

Adopting this approach, Sengupta and Leung (2002), in their study that evaluated the impact of collegial mentoring, used case studies and in-depth interviews with

participants beside questionnaires because they believed the questionnaires could not tell the stakeholders the impact on the individual level. Similarly, using qualitative interviewing to evaluate the instructional technology faculty development project, the designers of the project at DePaul University relied on and used the perceptions and experiences of the participants to inform the re-design of website and services and target topics that are relevant to the faculty. They believe that the responses and findings from the interviews were critical and cannot be quantified (Ressel, n.d.).

One of the most widely-used and adapted models is Kirkpatrick's model of evaluating training programs. His model consists of four evaluation levels: the reaction level, the cognitive level, the behavioral changes level, and the result level (Kirkpatrick, 1998a; 1998b). This model has been adapted by Guskey (1998) to evaluate professional and faculty development programs. Guskey's model constitutes the following levels:

Level 1- Participants' reactions: it measures the participants' reaction to the activities and address questions such as "were the activities meaningful?" and "did the activities make sense?" These reactions are generally gathered through questionnaires at the end of the program or activity.

Level 2- Participants' learning: this level measures the participants' learning new knowledge, skills, and attitudes. Guskey (1998) suggests that the use of standardized measurement would not meet the purpose of evaluation. Instead, he believes that simulations, full-scale skill demonstration, oral and written reflections, or portfolio's examination would be better forms of participants learning at the end of the program.

Level 3- Organizational support and change: Guskey (1998) argues that gathering information at this level is significant to maintain the gains made at the previous two levels. Evaluation questions at this level focus on organization's characteristics and attributes necessary for success.

Level 4- Participants' use of new knowledge and skills: the focus of this level is to provide answer for the question "are participants using what they learned, and using it well?" Guskey (1998) again recommends the use of interviews, questionnaires, oral and written reflections, or portfolios to gather the relevant information. This information should be gathered after a sufficient time has passed after the program.

Level 5- Students' learning outcomes: at this level, evaluators measure the impact of the program on students' learning. Guskey (1998) mentions the significance of measuring unintended outcomes in addition to the intended ones. Depending on the main goals of the faculty development activities, different instruments could be used to measure this impact. Evaluators may use achievement tests, portfolios' evaluations, questionnaires, and interviews with students and teachers.

Many other models rely in their design on the framework introduced by Kirkpatrick. For example, the model of impact evaluation of educational development programs introduced by Kreber and Brook (2001) consists of six levels: (1) participants' perceptions/satisfaction; (2) participants' beliefs about teaching and learning; (3)

participants' teaching performance; (4) students' perceptions of staff's teaching performance; (5) students' learning; and (6) effects on the culture of the institution.

Although many experts believe that evaluators should focus on higher evaluation levels rather than just the participants' satisfaction (Ramalanjaona, 2003), most of the evaluations as indicated previously are done at level one and rarely at both level one and two (Guskey, 1998). This study in particular attempts to extend the evaluation of ET faculty development activities in COE at SQU to the last three levels of Guskey's model.

Summary

ET faculty development is an institutional change process that aims to improve the proficiencies of faculty members in integrating technology in their practice (Cavanaugh, 2002; Chapman, 2003; Robinson, 2003). Different characteristics and elements contribute to the effectiveness of ET faculty development activities and programs. The context elements include providing faculty members with a collaborative learning community of adults where their needs are recognized and their efforts to integrate technology are supported and rewarded (Lawler & King, 2000; Murray, 1999); Process elements include planning and designing activities based on the real needs of the faculty, providing suitable delivery format and strategies, motivating faculty to participate, designing follow-up forms such as personalized support, and conducting continuous evaluation of the real impact of the activities (Bai & Lehman, 2003; Cavanaugh, 2002; Guskey & Sparks, 1996; Lawler & King, 2000;). Content elements include designing content that addresses the curriculum and instructional goals as well as

covering the three areas of personal, instructional, and organizational development (Bland, 1998; Godwin-Jones, 1998).

When planned and delivered effectively, ET faculty development activities and programs are more likely to impact the faculty's practice, students' learning, and organizational development. Faculty members who participate in ET faculty development begin to integrate new technologies and adapt new strategies (Bullock & Schomberg, 2000). Their attitudes towards technology change as a result of participating in such activities (Oliver & Harvey, 2002). Students who experience technology-enhanced teaching start to use different resources in their learning and show more engagement in learning activities (Mitchem, Wells & Wells, 2003). Participants in ET faculty development activities also enhance the identity and culture of their organization or institution by contributing to the policy and decision making process regarding technology integration (Oliver & Harvey, 2002).

Ensuring a positive impact of ET faculty development on the faculty's practice, students' learning, and organizational development demands conducting continuous and systematic evaluation of its value (Heideman, 1998; Schmitz, 1998). Research (Guskey, 2002; Kreber & Brook, 2001; Ramalanjaona, 2003), however, shows a dramatic lack in evaluation of effectiveness and long-term impact of ET faculty development activities. Research recommends moving evaluation beyond levels of satisfaction and rate of participation to measure and evaluate the participants' learning of new knowledge and skills, students' learning outcomes and processes, and organizational support (Guskey, 1998; Ramalanjaona, 2003). Research also emphasizes the need for incorporating

qualitative research methods to conduct evaluation of ET faculty development (Cook, 1997; Guskey, 1997; Pulley, 1998). Qualitative research methods capture the complexity of the activities and recognize the powerful impact of context on them (Belzer, 2003; Guskey, 1995). Qualitative research methods also evaluate the actual impact that cannot be identified by pr-determined criteria (Kreber & Brook, 2001).

Chapter Three: Methodology

Introduction

The selection of research methodology and design involves three general steps as suggested by Denzin and Lincoln (1994) and Sarantakos (1998). These steps include: (1) selection of a research paradigm that informs (2) the selection of the methodology and in turn informs (3) the selection of data collection and analysis methods. In the current study, the evaluation of effectiveness and impact of ET faculty development activities from the perspectives of stakeholders will be investigated by means of qualitative research inquiry. The selection of this specific inquiry was informed by the adoption of an interpretive/naturalistic paradigm.

The methodology used in this study is a phenomenological evaluative case study that combined two qualitative research traditions or designs: phenomenology and case studies (Creswell, 1998). In the context of this study, the evaluation of the faculty development activities was basically concerned with understanding the stakeholders' experiences and how do they perceive the effectiveness and impact of the activities on their own practices, the students' learning, and the college's culture rather than identifying cause-and-effect relationship, or lead to generalization. Phenomenology that essentially assumes "human consciousness is the key to understand the world" (Shank, 2002, p. 81) appeared to best address this concern. Case study tradition that focuses on deep investigation of a single phenomenon in its natural context (Bassey, 2003; Roberts, 1996) addressed the variables of the context that contribute to the understanding of the

phenomenon understudy (Yin, 2003) which is in this case the effectiveness and impact of ET faculty development activities.

Chapter three, describing the methods employed to carry out the research, begins with an overview of the research paradigm and rational for selecting naturalistic/ interpretive paradigm with a focus on value and logic of qualitative evaluation and potential of qualitative research inquiry in conducting evaluation research. The chapter then proceeds to a discussion of the use of phenomenological evaluative case study as the research methodology. The discussion includes a description of the key principles of phenomenology and case study and how these principles are translated into data collection methods and analysis including strategies of selecting informants. The chapter then tackles issues of ethics and entry; researcher's role; and description of both the site and activities. It concludes with a discussion of the research's credibility and trustworthiness.

Overview of Research Paradigm and Inquiry

A paradigm, according to Patton (2002), is "a world view – a way of thinking about and making sense of the complexities of the real world" (p. 69). Within the research process, the paradigm guides the researcher in selection of methodology, data collection methods, and data analysis strategies (Denzin & Lincoln, 1994; Husén, 1988). While some believe that good research design should start with the selection of paradigm based on the topic, area of interest and research questions (Creswell, 1998; Denzin & Lincoln, 1994; Mason, 2002), others do not see a necessity for research design, especially evaluation, to be derived from a paradigm (Patton, 2002; Pitman & Maxwell, 1992). I

believe that at least for a beginner researcher, selecting a paradigm would be very helpful in directing the research design.

Research paradigms include: positivism, postpositivism, constructivism/interpretivism, critical/ideological, and participatory (Guba & Lincoln, 1994; Lincoln & Guba, 2000). In positivism, reality is believed to be perceived through senses and the world is real, independent of human consciousness, objective and can be measured. As a research paradigm, it relies on testing pre-conceived hypothesis empirically to finally achieve prediction or control of phenomena. Dissatisfaction with this view of reality gave rise to postpositivism that acknowledges the imperfect reality that cannot be detained (Patton, 2002). Guba and Lincoln (1994) make the distinction between positivism and postpositivism as clear as the difference between "theory-verification" and "theory falsification". Regardless this difference, the two share the goal of explanations that lead to prediction and control. Later, a constructivism/interpretivism perspective that disregards the view of reality as single and externally determined started to play a role in shaping the social research. A major feature of this paradigm is that it assumes multiple realities that are constructed in the mind of individual and must be brought to the surface by deep reflection through the interaction between the researcher and the informant (Guba & Lincoln, 1989). This paradigm provided the primary foundation for qualitative research. The fourth paradigm is critical/ideological paradigm to which the belief in construed experience that is mediated by power relation is central (Kinchole & McLaren, 1994). Researchers adopting this paradigm use the research inquiry to help empower the oppressed people to work toward transformation change

(Kinchole & McLaren, 1994; Patton, 2002). In addition to these paradigms, Creswell (1998) and Patton (2002) emphasize the pragmatism paradigm that incorporates insights from positivism and interpretivism and rely on mixed methods to conduct research.

As mentioned previously, the selection of research paradigm rests in the topic, area of interest and type of research questions (Creswell; 1998; Mason, 2002). In this study, I base the selection of paradigm on (1) my world view of the fields of faculty development and educational technology and specific interests within them; (2) the research questions that emphasize my interest as a researcher; and (3) the paradigm assumptions that better represent my world view of the field and address the research questions.

When I first entered the field of faculty development as a developer and instructional designer, all I had in mind is training sessions that will be offered in a regular manner and cover what is thought to be important for faculty to learn about integrating ET. Later, I found that this view is shallow, as I ignored the fact that I'm dealing with adult learners who hold their own experiences and value their own abilities to decide what is best for them. The faculty's resistance to enroll in some workshops made me confront my view of faculty development and expose it to discussions with faculty as well as to examine it in the literature.

It took me a while and even required me to distance myself from the activities after the conclusion of the first series of workshops to understand and figure out that there is a problem with the concept of faculty development we employed in the workshops. Notions such as dialogue, reflective practices and learning organization

attracted my attention as they appeared in the literature of training, faculty development, instructional design, and adult learning. From this point I began to view faculty development as a dialogical process (Vella, 2002) through which faculty identify what they need, talk about their needs freely with others, create common concerns, approach developers or experts for help and advice (Webb, 1996), plan and design as a team the strategies of learning, and reflect on their learning success (Knowels, 1980). I was not surprised to find that this view is not uncommon throughout the faculty development literature. What is really uncommon is the application of this view in reality. This experience led me to being more interested in understanding the faculty experiences and perceptions of faculty development. My concern has been to see it from their side and in their own terms. A further view of faculty development as a multi-level process expanded this interest to involve understanding the experience of all stakeholders bearing in mind that it is possible for them to have different experiences and perceptions and reflecting on these experiences would help in improving the activities to serve them best. As a result I based this research on the premise that the experience and perspectives of stakeholders are a crucial source in providing an adequate evaluation of ET faculty development. Recently the field of ET has begun to consider alternative methodologies other than the experimental one to discover areas and elements have been ignored for a long time (Robinson, 1995).

My research questions that have developed out of this interest targeted the stakeholders' experiences and perceptions and how they construct their view of an effective ET faculty development. The research questions also targeted what stakeholders

perceive as the impact of the faculty development activities on faculty's professional practices, students' learning and the college's culture. In seeking answers for these questions, I hold the position in which I believe data are contained within the perspective of people and the only way to gain access to data is through interaction between the researcher and the informants. Questions were formulated in a way that initiated a dialogue between me and the informants to ensure flow of ideas and reflection.

This belief is reflected in the assumptions underlying the naturalistic paradigm in which reality is viewed as multiple constructed realities (Denzin & Lincoln, 1994) that are socially constructed within a context rather than objectively determined (Glesne, 1999; Patton, 2002). If to consider faculty development process at this point, it would be meaningful to think that terms such as: development, effective, and impact have different meanings to different people and it is essential to recognize these meanings. This paradigm also appreciates the context without which facts do not have value or meaning (Guba & Lincoln, 1989). Similarly, faculty development cannot be "decontextualized" if the goal is to improve its practices as Guskey (1995) argues. Most importantly, the interpretive paradigm focuses on understanding meaning and experiences in order to improve the world (Guba & Lincoln, 1981, 1989; House, 1980; Merriam, 1998; Patton, 2002). It assumes that knowledge about meaning and experiences can only be achieved through interaction and dialogue between researcher and informants (Guba & Lincoln, 1981, 1989; Glesne, 1999; Patton, 2002). When considering faculty development, the same fact holds true given that faculty members are adult learners who work towards

their own benefit and development and can explicitly express their thoughts that should be not be marginalized.

In conclusion, my world view of the practice of ET faculty development, the research questions, and the assumptions of the interpretive paradigm provided the rational for adopting it as the research paradigm that informed the research inquiry of this study. The following sections seek more detailed view of qualitative research inquiry as reflecting the interpretive paradigm and its potential in informing qualitative evaluation.

Qualitative Research

Qualitative research is a method of inquiry that aims to provide an in-depth understanding of people's experiences, perspectives, and histories in the context of their personal circumstances or settings (Gubrium & Holstein, 1999). Guba & Lincoln (1981) view it as "relying on field study as a fundamental technique, which views truth as ineluctable, that is, as ultimately inescapable" (p. 55). Its ultimate goal as noted by Gubrium and Holstein (1999) is "to understand social reality on its own terms as it really is to describe what comes naturally" (p. 122). Although there are different approaches to conduct a qualitative research, qualitative studies share common characteristics. Several writers have identified what they consider to be the prominent characteristics of this type of research (see, for example: Bogdan and Biklen, 1998; Guba & Lincoln, 1981; Gubrium & Holstein, 1999; Eisner, 1991; Patton, 2002).

The most remarked characteristic of qualitative research is searching for reality (Patton, 2002) as it discovers the world (Guba & Lincoln, 1981). It focuses on understanding meanings and explanations rather than predicting them (House, 1980,

Guba & Lincoln, 1981, 1989, Patton, 2002). In conducting qualitative research, researchers do not distance themselves from the participants and become the basic instrument and the interpreter of the research (Guba & Lincoln, 1981, 1989; Glesne, 1999; House, 1980; Patton, 2002) which emphasize the second distinctive feature; appreciation of subjectivity (Gubrium & Holstein, 1999; Patton, 2002).

Although accused of being subjective and that their research is not more than a set of subjective impressions (Gubrium & Holstein, 1999), qualitative researchers believe that their interaction with the participants is the soul of qualitative researcher and being subjective is the way to analyze reality that is complex and can only be identified through people's eyes, their context, and their beliefs (Guba & Lincoln, 1989; Patton, 2002). Qualitative research is concerned with exploring phenomena from the perspective of those being studied (House, 1980, Guba & Lincoln, 1981, 1989, Patton, 1987, 2002) within the natural settings (Glesne, 1999; Guba & Lincoln, 1981; Patton, 2002).

This adds another feature to distinguish qualitative research which is the use of unstructured and flexible methods that are sensitive to the social context of the participants and responsive to the emergent issues related to this context (Glesne, 1999; Guba & Lincoln, 1981, 1989; Marshal & Rossman, 1995; Patton, 2002). These methods such as interviews, participant observations, and content analysis attempt through thick and detailed description to capture the details whether explicit or implicit as qualitative research values the implicit language (Guba & Lincoln, 1981). The actual data that result from using these methods are used to generate theories instead of relying on predetermined hypotheses to test (Corbin & Strauss, 1998; Guba & Lincoln, 1989;

Patton, 2002). Besides distinguishing the field of qualitative research, those features stress the fact that "qualitative methods are not appropriate for every inquiry situation" (Patton, 2002, p. 145). If a researcher seeks to test predetermined hypothesis to arrive at generalizable findings based on data statistical aggregation, then a qualitative approach will not serve the purpose.

Value and Logic of Qualitative Evaluation

Initially, as evaluation is the focus of this study, it is crucial to draw the attention to the thin line that distinguishes it from research. In the first place, "research usually comes down to curiosity, while evaluation usually comes down to accountability" (Shank, 2002). Similarly, Royse, et al (2001) point out that the main purpose of research is to contribute to knowledge for the sake of knowledge itself and although its results may inform action and evaluation but this is not its primary purpose. It is the evaluation's purpose to inform action. Patton (2002) supports this argument by stating that the "purpose of evaluation is not simply to publish an academic treatise on the life of the observed. The purpose of evaluation is to make a difference in decision making and programmatic action (Patton, 1987). This difference may be in the form of judgment of effectiveness of an activity for example or it might take the form of recommended change. Once more Patton (2002) contributes to clarifying this point by stating different forms of this difference or as he calls it: "efforts to make the world a better place" (p. 10). Some of these forms are assessing needs, formulating policies, changing organizational culture, intervening in conflicts, and solving problems (Patton, 2002, p. 10).

Another distinctive feature about evaluation research is that its quality is judged based on other criteria beside the ones shared with the research (Patton, 2002). The emergence of these criteria was a response to the fact that it has different purposes from those of the qualitative research mentioned earlier. These criteria as articulated by Patton (1997, 2002) are: (1) utility where evaluation serves the practical information needs of audience;(2) feasibility where evaluation is realistic, prudent, diplomatic, and frugal; (3) propriety which implies that evaluation is done legally, ethically, and within the welfare of the participants; and finally (4) accuracy that insures the evaluation will reveal and convey technically adequate information (Patton, 1997; 2002).

As evaluation may utilize both quantitative and qualitative approaches, it is significant to decide which method or inquiry best serves the evaluation's purpose than to choose the most appealing and familiar one. Literature on qualitative research emphasizes different reasons and situations where the use of qualitative inquiry is more preferred than the quantitative one in evaluation. Patton (1987, 2002) and Royse et al. (2001) identify different areas of evaluation when qualitative research is more preferred: process evaluation, evaluation of individualized outcomes, implementation evaluation, formative evaluation, quality evaluation, evaluations to measure quality assurance and quality enhancement of organizations, evaluations for legislative monitoring, unobtrusive observations, personalizing evaluation, responsive evaluation, goal free evaluation, exploratory evaluation research and evaluability assessment, grounded theory and program evaluation.

Broadening the list to include more features, Williams (1986) provides a set of questions to guide the evaluator with his/her decision on using qualitative evaluation. Similarly, Guba and Lincoln (1981), provide some examples when qualitative evaluation is more appropriate. Driven from both resources is the following list that summarizes these conditions and situations when qualitative approach is more appropriate to conduct evaluation:

1. the evaluation aims to derive a theory not from a priori reasoning but from real data;
2. the evaluator seeks to answer the question of "does X causes Y in a natural setting";
3. the evaluation aims basically at exploring the context and nature of the evaluand not at testing hypotheses;
4. values of the evaluand are essential to the evaluation;
5. the evaluation's consumers seeks qualitative portrayals of the evaluand's experience in its natural setting;
6. formative evaluation is desired because the qualitative approach's flexible design allow it to respond to emergent issues (Patton, 1987);
7. summative evaluation aims to understand why an evaluand is or is not effective;
8. the evaluation aims at evaluating the process where interactions, relationships, strategies, and skills are studied (process evaluation) (Patton, 1987; Williams, 1986);
9. the evaluation seeks to evaluate outcomes include complex action in real settings such as learning and teaching;
10. judgment is required of the evaluand while operating in the natural setting; and
11. variations within the evaluand are desired to be studied over time in its natural setting

The evaluation intended in this research aims to gain an understanding of the effectiveness and impact of the ET faculty development activities as a value constructed by the stakeholders. This is necessary for arriving at a fair judgment of the activities' effectiveness as they impact the stakeholders over time and in the natural setting. It is also necessary for providing feedback on the quality of the program and ways of improving it. This will eventually lead to constructing the form of what stakeholders believe an effective ET faculty development. Accordingly, using qualitative research inquiry to conduct this evaluation appears to be more appropriate in this context.

Hebėrt (1986) acknowledges qualitative evaluation as the "process by which evaluators seek to know and understand an evaluand, then to present their knowledge and understanding to others" (p. 3). By using qualitative approach, evaluation minimizes much of the paraphernalia of science such as the statistical inferences, predictions, and the separation of the researcher from the research (Scriven , 1991) and thus puts people first (Cernea, 1991, as cited in Patton, 2002) by giving them voice and personalizing the evaluation strategies (Patton, 2002). According to Patton (2002), people in programs and activities that are based on human development concerns reject any kind of quantification that reflects impersonality. The same claim is asserted by House (1980) who argues that what distinguish an evaluation as a qualitative one is its focus on particular audience who are guaranteed through the nature of the evaluation to "interpret the findings and of how much credibility to assign them" (p. 280). Qualitative evaluation offers the policy makers in any organization solid findings that are grounded on the experience of those likely to be affected by the program or activities which enables them to make the right decision

(Ritchie & Spencer, 2002, p. 306). Those various definitions and others provided by the literature on research (see for example: Eisner, 1991; Guba & Lincoln, 1981, 1989; Patton, 1987, 1997, 2002; Pitman & Maxwell, 1992) emphasize the following as basic descriptors of qualitative evaluation

1. it is oriented towards natural activities, behaviors and experiences rather than to pre-stated objectives;
2. it is not constrained, manipulated, or controlled but rather a continuous process that respond to emergent issues of context;
3. it responds to stakeholders interest in different kinds of information;
4. it considers the values of behaviors and perspectives of stakeholders;
5. it values the immersion of the evaluator in the evaluand's settings as he becomes the main instrument of conducting the research;
6. uses in-depth interviewing, observations, documents, rather than tests and built instruments;
7. it diminishes the significance of generalization in favor for depth understanding; and
8. it aims to produce action

At this point it is important to mention that the term qualitative evaluation is used throughout the literature interchangeably with other term as recognized by Fetterman (1986). Some of these terms are: educational connoisseurship and criticism, a qualitative evaluation method approach, ethnographic educational evaluation, constructivist evaluation, responsive evaluation, democratic evaluation, and feminist evaluation (Fetterman, 1986). Like any other type of qualitative research or research in general,

qualitative evaluation deals with issues of design and data collection methods, ethics, entrée, participants, evaluator's role, data analysis, and reporting. These issues will be explored in more depth in the following sections.

Methodology

Research methodology is defined as "a model which entails theoretical principles as well as a framework that provides guidelines about how the research is done in the context of a specific paradigm" (Sarantakos, 1998, p. 13). It encompasses the skills, assumptions and practices used by the research "when moving from a paradigm to the collection of empirical materials" (Denzin & Lincoln, 1998, p. xv).This study could be described as a phenomenological evaluative case study acknowledging the interpretive paradigm and qualitative research inquiry discussed previously. The evaluation conducted wass concerned with achieving a comprehensive understanding of the perceived effectiveness of the ET faculty development activities and their impact on faculty's professional practices, students' learning and the college's culture. Since this evaluation research was concerned with (1) the stakeholders' perceptions of effectiveness and impact of ET faculty development (case), (2) bounded by the context's features and variables of time and place, (3) and dealt with faculty learning and development as the phenomenon understudy in a specific setting; a phenomenological evaluative case study methodology shaped the research methodology of the evaluation. The specific methods that used to collect the data were in-depth open-ended interviews; a focus-group; and document analysis. The use of multiple methods allowed triangulation that added to the study's credibility and holistic understanding of the phenomena being studied.

Phenomenological Evaluative Case Study

This study utilized phenomenology as a methodological choice based on the nature of research questions that aimed to explore, describe and understand the effectiveness and impact of the ET faculty development activities as perceived and experienced by the stakeholders. Although phenomenology as a term may refer to a philosophy, a research paradigm, an interpretive theory, a social science analytical perspective, qualitative tradition, or a research method framework (Patton, 2002), it holds major common characteristic as it "focuses on descriptions of how people experience and how they perceive their experience of the phenomenon under study" (Glesne, 1999, p. 7). Moustakas (1994, p. 58) identifies the following principles, processes, and methods of phenomenology:

1. It focuses on appearance of things, a return to things just as they are given, removed from everyday routine and biases.
2. It is concerned with wholeness, with examining entities from many sides and perspectives until a unified vision of the essences of a phenomenon is achieved.
3. It seeks meanings and essences through reflection.
4. It is committed to descriptions and essences of the whole experience not to explanation of why it is occurring.
5. It is rooted in questions that seek meaning and are of interest to the researcher.
6. Experiences and perceptions of experiences are interrelated.
7. Experience, own thinking, intuition, reflection, and judgment are the primary data.

The following dimensions or components differentiate phenomenology from other methodologies: (1) the subject matter which is “what people experience and how they interpret the world”; (2) the methodological matter which is how “to really know what another person experiences”; and (3) the assumption that “there is an essence or essences to shared experience” Patton, 2002, p. 106). Essences are defined as “the core meanings mutually understood through a phenomenon commonly experienced” and can be understood by bracketing the experiences of different people, analyzing them and comparing them (Patton, 2002, p. 106).

Moustakas (1994) emphasizes similar dimensions when arguing that phenomenological studies provide comprehensive description of individual experience and “from the individual descriptions general or universal meanings are derived, in other words the essences or structures of the experience" (Moustakas, 1994, p. 13). Both Moustakas (1994) and Patton (2002) believe that the use of participant observation and in-depth interviewing as well as providing thick descriptions is the best way to attend to these dimensions.

Using the principles of phenomenological studies to conduct evaluation means that evaluation focuses on how individuals perceive their experience. It is totally context specific and cannot be generalized to other settings. Patton (1987) stresses that in evaluating a program or a practice it becomes even more important to gain a full understanding of participants’ perceptions and experiences dealing with the different activities. Patton (2002) claims that this requires a methodology that can capture and describe the phenomenon and how people “perceive it, make sense of it, and talk about it

with others" (p. 104). Different variables contribute to the understanding of the phenomenon. These are embedded in the context, culture, and policies. An approach, such as case study, that bound these variables is therefore needed to focus the phenomenological study.

Case study is used widely to conduct qualitative research (Bryman & Burgess, 1999, p. XIII). "It focuses on understanding the dynamics present within a single setting" (Eisenhardt, 1999, p. 135). Merriam (1998) describes it as "a means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon" (p. 41). The focus and deep investigation on a single phenomenon in its natural context is the all-encompassing feature of case study (Bassey, 2003; Roberts, 1996) where all the variables constituting the context are of interest to the research (Yin , 2003). Stake (1998) argues that case study "is not a methodological choice, but a choice of object to be studied" (p. 86). According to him, "case study is defined by interest in individual cases, not by the methods of inquiry used" (p. 86). It emphasize the epistemological question of "what can be learned from a single case?" (Stake, 1998, p. 86). "A case study is both the process of learning about the case and the product of our learning" (Stake, 1998, p. 87).

Browsing through the various definitions provided in the literature of case study (see for example Bassey, 2003; Guba & Lincoln, 1981; Merriam, 1998; Patton, 2002, Stake, 1995, 1998; 2001; Yin, 2003), the following can be identified as the basic elements and descriptors of case study research:

1. Unit of analysis: the most difficult step in doing case study research is defining the unit of analysis. This might be an individual, a site, a program …etc. Defining the unit of analysis in case study research is very crucial (Yin, 2003). It is not unusual according to Yin (2003), for case study research to combine multiple levels of analysis. "A case may be simple or complex" (Stake, 1998, p. 87).
2. Complex instance or case: a complex case means that relations within this case are complex and nonlinear and the boundary between the phenomenon and the context is unclear. It is quite difficult to predict the output based on the input due to these complex relations.
3. Intrinsic case: study is undertaken primarily because the case is of interest to the researcher (Stake, 1998).
4. Natural context: the case is studied in its natural setting at a particular time within a specific context that is taken into consideration when drawing interpretations. The researcher should attend to the variables that act to influence the case or the phenomenon under study.
5. Deep and comprehensive understanding: the goal of case study is to obtain a complete picture of the case and phenomenon under study. This is achieved through fieldwork conducting participant observations, interviewing, and document collection (Husén, 1988); and thick description using multiple sources of data and extensive analysis.
6. Flexible and responsive design: to accommodate the emerging complexities o the phenomenon or case under study.

7. Constrains and circumstances: the case study is bounded by the researcher's interests and constrains of time and resources under which the research is taking place.

Case study is preferred when the researcher seeks to arrive at a specific conclusion regarding a single case because the history or nature of this case is of a specific interest (Gummesson, 2000). This brings up the main concern about case study which is generalization. A common criticism about case study methodology is that it depends on a single case leaves it incompetent of providing a generalizing conclusion (Patton, 2002, Yin, 2003). Many authors tackle this point. Lincoln and Guba (1999), for example, suggest that capturing the details of the context of the research through thick description fosters transferability which means that findings can be applied to similar situations and contexts. Yin (2003), in a similar effort, brings to discussion the point that when doing case studies the focus is to reach analytic generalization not statistical one. According to him, the logic of using case studies stem out of the significance of studying contextual conditions to the phenomenon under study and therefore findings adds to and expands theories which can be described as analytic generalization (Yin, 2003).

With a focus on qualitative evaluation, Yin (2003) notes that case studies have a distinctive place in evaluation research. They provide insights that can directly influence policy, practice, and future research in organizations (Merriam, 1998). Husén (1988) contends that in evaluative case studies 'a single case or collection of cases is studied in depth with the purpose o providing educational actors or decision makers ..... with information that will help them to judge the merit and worth of policies, programmes, or institutions" (p. 50). They can be also utilized, as suggested by Patton (2002), in

capturing individualized outcomes of "how participants in programs change during a program and whether they maintain these changes afterward" (p.297). Moreover, when evaluating educational programs and activities, they appear to be the most appropriate approach as recommended by Bassey (1999) and Merriam (1998). Guba and Lincoln (1981) and Merriam (1998) believe that case studies have gained the significance in conducting evaluation because they are richly descriptive, holistic, and provide explanation and judgment.

Patton (2002) identifies five applications of case studies in this field of evaluation: (1) to explain the complex causal links in real life interventions; (2) to describe an intervention in its real-life context; (3) to illustrate in a descriptive way certain topics in the evaluation; (4) to explore the situations where the evaluand has no clear set of outcomes; and (5) case studies may be used as meta-evaluation.

This study utilizes the use of an evaluative case study that can be referred at as a program effect case study that describes the ET faculty development activities in their natural settings and investigates their effects on the stakeholders. The activities in this case study are evaluated for their effectiveness and impact on two levels: individual (participants of the activities, designers, implementers) and organizational (polices, processes, cultures). Involving different levels is acceptable especially when undertaking evaluative case study as suggested by (Yin, 2003). Although this evaluation presents a summative evaluation since it measures the effectiveness and impact of completed activities, it also presents formative evaluation as the outcomes are expected to improve future similar activities.

The Site, Culture, and ET Faculty Development

The College of Education, where the evaluation research took place, is one of eight main colleges at Sultan Qaboos University in Oman. The university which was established in 1986 is the first and the only governmental university in the country. The COE is considered the major teacher training college in the Sultanate of Oman. It currently serves more than 2700 students in the Bachelor program, 52 students in the MA program, and more than 300 students in the Diploma program (College of Education, n.d.a). The number of the COE faculty is about 126 members holding teaching positions in seven departments: Curriculum and Instruction, Psychology, Educational Foundation and Administration, Islamic Education, Art Education, Physical education, and Instructional and Learning Technologies (ILT) (College of Education, n.d.a). The faculty members in the COE range from demonstrators (students who had been appointed after obtaining their Bachelor's degrees and showed exemplary achievement) to full professors who spent more than 20 years in the field. Given the recent resurgence of education in Oman, which did not exceed thirty-seven years, most faculty members come from different countries and universities. The majority of them come from Egypt, Jordan, Iraq, Sudan, and Yemen. They come from their universities as assistant professors, associate professors, and full professors. The majority of foreigner faculty members have been in teaching in higher education for more than 20 years. Most of them, except for the faculty members specialized in TESOL and other few members, do not speak English. The number of Omani faculty members is growing as the university policy focuses on awarding the top students scholarships to continue their graduate studies and go back as

faculty members. Most of them come back with a doctoral degree and appointed assistant professor position before they reach the age of thirty. The university's policy encourages all students to study in the European countries and the United States of America where they can acquire the English language and study a developed technology-enriched environment.

Given these facts, the culture in the COE can be described as a composite culture of several cultures that vary significantly. There is the young culture and the senior culture; the local culture and the foreigner culture; the Arabic-speaking culture and the Arabic and English-speaking culture, and finally the technology- experienced culture and the technology- inexperienced culture. From a personal experience, the conflicts and differences between these cultures appear when there is a need for change in the COE and the administration spend a lot of time resolving the conflict issues. These conflicts appear more on the decision and policy making level where many faculty members represent their departments and subject-areas in the COE' different committees. The COE's board, for example, constitutes of the Dean, Assistant Deans, Heads of Departments, and two representative faculty members from each department. Most of decisions in the College Board are taken based on decisions made within the departments. The positions in the board and the committees are rotational to give the opportunity for more faculty members to experience the administrative work. However, priorities are given to Omani faculty members as part of their preparation process.

In regard to faculty development, the College of Education encourages faculty members to develop their skills in technology integration. Many of them attend short

workshops offered when new technologies are introduced or upon the request of a group of faculty. These are usually offered by the members of ILT Department or faculty from other departments who are interested and considered experts in the application of ET. Most of these workshops are formal and being held with the presence of the COE administration. Few of them, however, are informal and offered from some faculty to their colleagues. The second type is the university-wide formal workshop run by the Instructional Development Unit at the Center of Educational Technology. It is designed and planned by the joint faculty from both the Instructional Development Unit and the ILT at the COE. The modules are taught by experts in each area. This workshop is mandatory for the Omani demonstrators and faculty members except for the members in the Curriculum and Instruction Department. It is now offered twice in each semester in both Arabic and English language. Appendix C describe the modules in the workshop.

Selection of Informants

In selecting informants for a phenomenological case study, principles of both phenomenology and case study should be addressed. As for phenomenology, "the phenomenon dictates the method (not vice-versa) including even the type of participants" (Hycner, 1999, p. 156). Informants who have experienced the phenomenon and can express their thoughts and perceptions should be selected (Patton, 2002). A similar approach used in selecting cases in case study, As Stake (1998) puts it, "program evaluators receive their cases; they do not choose them" (p. 100). Consequently, selecting participants in this study was based on purposeful sampling that identifies information-rich illuminative cases and represent the unit of analysis of the case study (ET faculty

development in this study) (Patton, 2002). These cases aimed to "offer useful manifestation of the phenomenon of interest" (Patton, 2002, p.40) not to produce generalization from a sample to a population (Glesne, 1999). Although, major researchers such as Yin (2003) and Stake (1995) argue that case study research is not a sampling research, they believe that selecting cases must be done in order to maximize what can be learned under the constrains of time and resources. The unit of analysis is a significant factor in the case study. It is typically a system of action rather than an individual or group of individuals. Case studies tend to be selective, focusing on one or two issues that are fundamental to understanding the phenomenon or case being examined. Case studies are multi-perspectival analyses. This means that the researcher considers not just the voice and perspective of the actors, but also of the relevant groups of actors and the interaction between them.

In this study, the unit of analysis was any form of ET faculty development available to the faculty members in the COE. The selection of all the informants in this evaluation research was based on the following criteria: (1) the COE's faculty members who participated and completed any of the two types of ET faculty development, (2) faculty members who are actually teaching classes before and after enrolling in any form of ET faculty development since some of the participants were new members who are being prepared to become full lecturers but not yet assigned any class teaching, (3) faculty developers who have participated in planning and designing any form of ET faculty development at any stage, (4) trainers who actually conducted and carried on any form of the ET faculty development, and (5) policy makers who are responsible by their

positions for taking any decision of initiating ET faculty development and who are in control of the COE's resources. According to these criteria, 20 informants participated in this study distributed as following: 12 faculty members (six assistant professors, two associate professors, four lecturers); four faculty developers and trainers (three from the COE, one from the CET); and four policy makers. Three of the informants were females. The small number of female informants is due to the fact that many of them prefer not to teach in Summer during which the data collection process took place. Some of these informants were holding more than one position at the time of the data collection but they were mainly interviewed for the key position.

About the Researcher and Associated Roles

In qualitative evaluation, like any other type of qualitative research, the evaluator is the instrument of the evaluation. Therefore, providing detailed information about the evaluator's background, experiences, beliefs, values and training in conducting qualitative research as well as providing a thorough description of his/her expected roles in conducting the research enhances the credibility of the research (Patton, 2002).

Throughout my study for Bachelor's degree and later to pursue a Master's degree, the focus of my research was solely quantitative. After I entered the field of instructional design and faculty development, I developed an interest in people's experiences of training programs and workshops. It was my view of learners to be in control of their learning cycle that shifted my attention from quantities to qualities. Consequently, when I enrolled in the PhD program, one of my primary goals was to become a skilful qualitative researcher. I therefore, reached for every possible opportunity to take qualitative research

classes. In the course of the 25 credit hours qualitative research classes I have learned the value of qualitative research in enhancing people's lives as it attempts to understand their experiences within their natural setting. I have also developed a high appreciation of people's view of the world and how they perceive the reality. The requirements of these classes challenged my skills in conducting qualitative research. In interviews I have learned to listen carefully, understand the feelings, and consider the body language of the interviewee. I have learned to be open to any response and direct the interview in the appropriate way to accommodate the interviewee emotions. Through these interviews I have also learned to establish dialogue and not just conversations with people in order to give them voice in issues important to them. In addition to interviewing, I have developed the needed skills to become a good observer of the world and the people. This has become a habit of my life. Moreover, I have become more appreciative of the flexible design and method to respond to any emergent issues. I do not any more impose a rigid design on the research topic or phenomenon when my goal is to understand it from people's view. Most importantly, I have learned to place myself in the middle of the research process and not to marginalize my beliefs or assumptions but rather to recognize them and their effects on the research. I have also developed an understanding that credibility of the researcher or evaluator is inherited in the diverse roles he should play while undertaking the research or the evaluation. Some of these roles that are critical for this research are explained below.

Evaluators need to play different roles to keep the process of evaluation going (Pitman & Maxwell, 1992). Glesne (1999) and Patton (1997) claim that roles such as a

friend, a listener, a negotiator, a communicator, a trainer, and a reader are the backbone when trying to build rapport with the participants to ensure their willingness to provide information. As Stake (1995) asserts, it is the researcher's responsibility to take the decision on how much emphasis to give each role in order to enrich the research. In phenomenological studies these roles become even more important as they enable the researcher to capture, understand and describe the participants' experiences and perceptions from their point of view when practiced effectively (Patton , 2002). Researcher has to get close to the source of the data to insure that data originate from real experience (Gubrium & Holstein, 1999).

I believe my role in this study experienced progresses and change over the data collection stage. At the very early stage, my role was evolving around establishing rapport with the different stakeholders. Gaining access was not a problem since I am a faculty member in the COE, and I was a member of the team in charge for designing and planning the Instructional Development workshops and other ET faculty development activities. Although I have been away for four years, I kept good contact with many of the faculty members. I, however, gave myself and the informants time of two weeks to bring the familiarity back and introduce myself as a researcher this time to gain their trust in that my aim is to research not to judge. My other role was an evaluator who collects data through opening dialogue with the informants. Initiating a dialogue with informants maintains a close contact and communicates respects to them by emphasizing that their opinions are the main data source for evaluation (Patton, 2002). With faculty members, faculty developers, and trainers this came naturally as we used to initiate dialogues about

any issue. On the other hand, I found it really hard to initiate a dialogue with some policy makers who preserved the position of representing the college and the administration. The other role was the ethical in which I protected the rights of the informants. More details of the procedures I took to protect the informant's rights are explained in the following section.

Issues of Entrée and Ethics

"Entrée is understood as that phase of the qualitative evaluation process in which one selects or specifies a research site and obtains thee necessary agreement from participants to conduct the research in their space" (Pitman & Maxwell, 1992, p. 758). Entering the field to conduct evaluation consists of two parts: early negotiation with the gatekeepers about the nature of the fieldwork and the procedures that will be followed to collect data and the actual entry to the field where the evaluator has a direct contact with the informants (Patton, 2002). Considering early negotiations with those who control the entry, therefore, is very significant to gain understanding of the evaluation's purpose and secure commitment (Glesne, 1999; Patton, 2002; Zeidler, LcBaron, Gupta & Torres, 1999).

In the view of these issues, and in order to gain understanding and acceptance from the stakeholders of the ET faculty development at COE, I have discussed the research informally with those who are in charge of these activities several times. The fact that I am a member of the ILT Department and enrolled in the design of Instructional Development Workshop and other workshops helped greatly in considering me as doing my job. They offered me some ideas and showed interest in the research question. I have

also been through some discussions with some of the participants to get an approximate measure of their acceptance to participate in lengthy interviews and focus-groups and their attitudes towards these methods. The fact that most of the research done in the university (the site of the research) is quantitative and relies basically on questionnaires when dealing with humans raised some questions about considering the faculty's perspectives and thoughts as real data. Although discussions lead to debates around quantitative and qualitative research methods, they provided me an opportunity to learn about people views of qualitative methods and how should I deal with them when doing my research. It also offered me some insights on how to approach the informants. Concerns in those discussions extended to cover the ethical issues when conducting qualitative evaluation.

Ethical issues encompass all of qualitative research (Shank, 2002) including qualitative evaluation (Pitman & Maxwell, 1992). House (1988) defines ethics as "the rules or standards of right conduct or practice, especially the standards of a profession" (p. 185). Pitman and Maxwell (1992, p. 756) emphasize three ethical constraints that have to be considered when conducting qualitative evaluation:

1. Necessity for confidentiality: this is important when revelation of information would put participants at risk. The evaluator's role is, therefore, to protect informants from harm when conducting evaluation by securing their identities (Bogdan & Beklin, 1998; Glesne, 1999).
2. Necessity for honesty: honesty in conducting qualitative evaluation should be considered from both sides: the researcher and the informants. This can only be

achieved by setting a contract where the evaluator reveals the real intent of the evaluation, how the evaluation is going to be conducted, and any risks associated with conducting the evaluation (Patton, 2002). Pitman and Maxwell (1992) argue that any evaluation which cannot be conducted by communicating these issues should be rejected. House (1988) believes that the use of informed consents by communicating honest research topic and strategies ensure openness, disclosure and release of information.

3. Provision for reciprocity: there should be fair return in terms of service or reward for participants' time and other contributions. Pitman and Maxwell (1992) recognize the idea of contributing to change through participation in evaluation as a form of reciprocity in qualitative evaluation.

Like any other research, this study was committed to address the ethical issues of qualitative evaluation. In response to this I have developed a specific informed consent that includes the following main points: the purpose of the evaluation research; the procedures of conducting the research; the risk and benefits of the research; the voluntary nature of research participation; the informant's right to stop the research at any time, and the procedures used to protect confidentiality (Appendix D presents the complete form of the informed consent).

Data Collection Methods

Since it is important in phenomenological case studies as well as qualitative evaluation to capture, and report individualized experiences; perceptions; and outcomes, it is therefore crucial that evaluators use different sources of data in the fieldwork (Patton,

2002). Data for this study were collected by means of interviews, focus-group, and document analysis. The selection of these methods was guided by the following questions provided by Patton (1987) to guide the evaluator in the process of selecting among the data collection methods:

1. Who is the information for and who will use the findings of the evaluation?
2. What kinds of information are needed?
3. How is the information to be used? For what purpose is the evaluation being done?
4. When is the information needed?
5. What resources are available to conduct the evaluation? (p. 8)

For this specific evaluation research, the information required was participants' own reflections and experiences. As a faculty developer, who participated in designing the ET faculty development under evaluation, I believe that the findings of the study will provide a base of knowledge on how to best meet the faculty needs and expectations. The findings will also provide the ET faculty development's designers and implementers with what faculty believe is the best way of delivering future activities and what to cover in those activities. The information will also identify areas of success and failure. Moreover, policy makers may find in the findings a valuable source for information on supportive resources and policies that support faculty in effectively applying what they learn in the ET faculty development activities. Most importantly, as informants will have the opportunity to reflect on their practices and students' learning, designers and implementers will have access to rich information on the program long-term's impacts that are not accessible by other means. Bearing all these goals in mind, I believe

establishing a reflective dialogue with informants through interviews and focus groups lead to the type of information I hoped for. Document analysis also served as a means to complement the data collected in the interviews and focus groups.

Interviews

At the most basic level, interviews are conversations (Kvale, 1996), but when used in research they should rely on a solid ground of purpose and structure to best meet the research's needs (Wengraf, 2001). In qualitative evaluation "much of the information for evaluation research comes from interviews" (Weiss, 1975, p. 355). The qualitative evaluator attempts, through interviews, to understand the world from the participants' point of view and to unfold the meaning of their experiences (Patton, 1987). He or she looks for answers of questions they could not find in observations or documents. People's own perceptions, attitudes, and meaning are revealed through interviews (Patton, 2002). While evaluation purposes may promote understanding and change, the emphasis in interviews is on intellectual understanding rather than on producing personal change (Kvale, 1996).

The quotations from the interviewees provide the evaluator with main source of raw data (Guba & Lincoln 1981; Glesne, 1999 Patton, 1987, 2002). Patton (1987) notes that quotations "reveal the respondents' levels of emotion, the way in which they have organized the world, their thoughts about what is happening, their experiences, and their basic perceptions" (p.11).He views the task of qualitative evaluator "is to provide a framework within which people can respond in a way that represents accurately and thoroughly their point of view about the program." (Patton, 1987, p. 11).Interviews take

different forms depending on the type of information required. They vary on a continuum from unstructured, open-ended interviews to fully structured, standardized ones (Glesne, 1999; Patton, 2002). Questions asked in the interviews also take different forms such as behavior questions, feeling questions, and background questions (Patton, 2002).

In conducting evaluative case study, similar to this research, Husén (1988) stands for the use of interviews as the primary method especially when conducted in a relatively short time. Lawler and King (2000) provide an example of using one-to-one interviews as an impact evaluation method after some time of the program or activities' conclusion. In their example, they suggest that the evaluator could ask about not only the implementation of the activities but also the students' reaction to these activities and the faculty's assessment of them. Marrelli (1998) views interviews as valuable information sources when conducting training evaluations as they obtain comprehensive understanding of participants' reaction and obtain information from administrators and policy makers who are often unwilling to complete questionnaires.

By utilizing interviews as an essential data collection method in this research, I conducted twenty one-to-one in-depth interviews with faculty members, faculty developers, trainers, and policy makers. Although I used a guide (Appendix E) to direct the flow of the questions and ensure the attendance of the research questions, the interviews were flexible to cover any issue that emerged from the informant's reactions. Each interview lasted approximately two hours in either the interviewee office or my own office as chosen by the informant. At the completion of each interview, I summarized the general lines and allowed informants to immediately correct errors or confirm responses.

I also contacted some of them in places where interpretation of their responses was a challenge and asked them to verify interpretations and data gathered earlier. I gave the option to the interviewees to choose Arabic or English as the language of the interview. All of them except for one interviewee chose Arabic.

Most of the interviews began by seeking background information that helped in building a contextual structure for each informant. Through the interview, I aimed to reach to an understanding of how the informant perceives the significance of ET faculty development to his/her own profession, students' learning, and the college. I also aimed to gain knowledge of what motivates the informant to participate in any formal or informal activity and what prevents him/her from participation. I also encouraged the informant to reflect freely on his/her experience with these activities or forms and what makes it a rich or poor experience. Discussion about how students benefited from the enrollment of their educators in ET faculty development gave insights of the possible impact on students' learning as perceived by the faculty members. Another important element of the interviews was the informant's view of what is an ideal ET faculty development that meets his/her needs and expectations. This helped in suggesting and recommending necessary improvements.

As for the faculty developers and implementers, the interview addressed issues of planning, delivering, and evaluating the ET faculty development they offer to faculty members. They described and reflected on their process to reach the faculty members' needs and how to address these needs. They also described their experiences and evaluation and follow-up. The interviews with the developers and the trainers also

targeted the possible impact they could observe from their positions on the college's culture and practice of their colleagues. The faculty developers and the trainers also provided suggestions to improve the practice of ET faculty development in the COE.

The interviews with the policy makers, among which are the heads of the departments, revolved around the processes and policies that are taken by the COE to establish and support formal and informal ET faculty development. Policy makers were asked to describe their role in encouraging and supporting faculty members' efforts to integrate technology. They described the impact of ET faculty development on the COE from their point of view. I reached saturation after the interview number 12 or 13 and that is where I decided to move to the focus group interview.

Focus Groups

Focus-group is a form of interview that is conducted with a group and relies on interactions between the members to draw out a wide range of ideas on a well-defined topic (Morgan, 1997; Patton, 2002). The group is typically six to twelve people who have experience or interest in the topic understudy (Patton, 2002; Rennekamp & Nall, n.d.).The idea behind focus groups is that, in contrast to one-to-one interviews, group or community dialogical process helps the participants inspire one another to generate ideas from different perspectives which lead to a broad overview and fairly rich qualitative data (Shank, 2002). This, unlike other group interactions, does not mean that group members should achieve agreement on their views or ideas, but rather listen to others' views and comment on them beyond self-response or view (Krueger & Casey, 2000; Patton, 2002). In this way, focus groups represent a data collection method that aims to produce rich

qualitative data rather than activity to solve problems or make decisions (Krueger & Casey, 2000).

The use of focus groups as a data collection method is preferred when the research aims to explore people's experiences, opinions, wishes, and concerns; and examine different perspectives of individuals who operate within a social network (Kitzinger & Barbour, 1999). It is also appropriate to assess the extent to which there is a shared view or great diversity of views especially when there is a power differences between the group members (Morgan & Krueger, 1993; Patton, 2002). In cases where there is diverse issues about the research topic, focus groups help to obtain information in a way that allows researchers to find out why an issue is relevant or significant and what is it significant about (Morgan 1997). Recognizing these research purposes as best researched through focus groups, contribute to the credibility of the data produced as argued by Kreuger and Casey (2000).

Besides being a cost-effective method in collecting qualitative data, focus group offers enhanced qualitative data that are balanced and checked on other views (Patton, 2002). Although focus groups can be empowering to some participants, others such as shy people or minorities may perceive them as intimidating and therefore other methods may be more appropriate to approach them (Patton, 2002). Focus groups also limits the number of questions that can be tackled since the whole meeting should not exceed 90 minutes and each member has to participate for each question (Patton, 2002; Rennekamp & Nall, n.d.). To eliminate these shortcomings, focus groups are often used in combination with other methods such as observations and one-to-one interviews as a

form of triangulation that ensures credibility (Morgan, 1997). In focus groups, the role of the researcher becomes more of a moderator than an interviewer where the researcher become more directive (Krueger & Casey, 2000; Shank, 2002).

Focusing on evaluation, as it is the primary focal point of this study; focus groups are believed to be especially useful for studying the success or failure of a program or activity (Barbour, 1999; Morgan & Krueger, 1993, Rennekamp & Nall, n.d.). Krueger and Casey (2000) call attention to the use of focus group as part of the formative or summative evaluation. Similarly, Patton (2002) suggests that "focus groups can be used at the end of a program, or even months after program completion, to gather perceptions about outcomes and impacts" (Patton, 2002). They are particularly useful in evaluating the impact of a program or initiative on organizational change as they monitor and reflect this change (Barbour, 1999; Marrelli, 1998).This is achievable by providing "unique access to the range of perspectives and experiences of participants in a situation where individuals are involved in defending, explaining, or even constructing their views through the interactive process as they respond to change" (Barbour, 1999, p. 118). This is particularly useful when conducting evaluation similar to the one of this study where the focus group will bring faculty members, faculty developers, implementers, and policy makers together to exchange views on specific topics related to the faculty development program.

When planning and organizing focus groups, the moderator can use five general types of questions as indicated by Krueger (1998, p. 22):

1. opening questions: participants get acquainted and feel connected

2. introductory questions: begin discussion of topic
3. transition questions: move smoothly and seamlessly into key questions
4. key questions: obtain insight on areas of central concern in the study
5. ending questions: determine where to place emphasis and bring closure to dissuasion

I conducted one focus group after I conducted 13 interviews. It consisted of five faculty members and a faculty developer/trainer who already participated in the individual interviews. The focus group took approximately two hours during the lunch time. Through the focus group I aimed to target the shared view of the same issues I tackled in the interviews to examine the individualized views against the collective view. The group raised collective concerns, views, ideas, observations, and suggestions. In fact most of the responses evolved around the impact of the ET faculty development on the college's culture and the suggestions for improvements.

Document Analysis

Documents "provide both historical and contextual dimension" (Glesne, 1999, p. 59). These may include formal activities' records that provide background information on why and how they are offered; questionnaire evaluation; and professional development materials. Background documents are the first access point into a program (Patton, 2002). They provide the evaluator with things cannot be observed and reveal things happened before the evaluation started. For example, the decisions and regulations' cycle the different activities went through and which the evaluator cannot go through again with people who were in charge (Patton, 2002). Documents collected in this study were very limited due to the fact that there is no definite structure for the ET

faculty development in the COE. The basic documents were related to the Instructional Skills Development Workshop. These included evaluation forms and proposed improvements.

Data Recording, Management and Analysis Methods

The voluminous data that resulted from the interviews and the focus group required a careful data recording and management system. It also required planned strategies of data analysis. This section describes the different strategies I used to record and manage the data. It then describes in depth the data analysis procedure.

Data Recording

A digital recorder was used to record the individual and focus-group interviews. Field notes were taken during these interviews to capture any point of significance. Documents, field notes, memos, and audio were transformed into computer's files format.

Data Management

Data management refers to "developing a system for filing and retrieval that will provide a solid foundation for analysis" (Royse et al, 2001). The best strategies to be used for data management are: field notes, memo writing, analytic files, elementary coding schemes, and monthly reports (Glesne, 1999). Recognizing that qualitative researcher is sensitive to changes and emergent issues (Patton, 2002), memos can "track one's thinking, make one attentive to process, and give one ideas to make ideas cohere"(Biklen & Bogdan, 1986, p. 99). in addition, "since researchers analyze what is not said as well as

what is said, memos enable them to note the unspoken while still in the field"”(Biklen & Bogdan, 1986, p. 99).

Analytic files serve as the containers of the raw data of interviews, observations, and document. These files can be sorted in any way that helps retrieving the data at later stages. For the benefit of the study, a computer folder and a paper folder were established for each informant. Each folder contained the compatible format of background information, informed consent, original interview, interview's transcript, and the translated transcript from Arabic to English. A folder was also created for my memos and field notes that monitor changes and emergent issues. Simultaneously, thematic analytical files that served in the early data analysis were created for the extracts from interviews, memos, and field notes.

Data Analysis

Data analysis is "a process of making sense out of the data, finding out how the pieces fit together" (Biklen & Bogdan, 1986, p.98). It is described by Miles and Huberman (1994) and Patton (2002) as the process of transforming information into knowledge. More specifically, it is the process that enables the evaluator to make sense of the voluminous data gathered by organizing data, categorizing them, synthesizing, searching for patterns and essences, interpreting or drawing inferences from them, and communicating the findings (Corbin & Strauss, 1998; Glesne, 1999; Guba & Lincoln, 1981, 1989; Patton, 1987, 2002). Patton (2002) distinguishes two tasks of analyzing qualitative evaluation data in general: description of the beliefs and values of the participants and the physical setting; and interpretation that includes putting the

descriptive findings together, drawing inferences, and attaching significance to them. While these general steps may apply to all qualitative evaluation studies, the analytical approach used for a specific study will be unique depending on the purpose of the evaluation, its design, and the training of the (Patton, 2002). This section first illuminates some general strategies of data analysis and then details the use of phenomenological analysis strategies that will be used to analyze the evaluation data.

Acknowledging the fact that the process of data analysis "happens while data are being collected as well as after the evaluator has left the field" (Biklen & Bogdan, 1986, p.98), Glesne (1999) suggests that the process consists of two stages:

1. Early data analysis: this stage enables the evaluator to focus and shape the study as it proceeds by identifying the general meanings and themes and any categories that appear to be part of them (Corbin & Strauss, 1998). Miles and Huberman (1994) argue that undertaking early analysis concurrently with the data collection eliminates the collection of voluminous irrelevant data. It also, according to them, identifies the gabs between the data and allows the emergence of new themes and relationships before it is too late to collect relevant data (Miles & Huberman, 1994). Moustakas (1994) refers to this stage of phenomenological analysis as *epoche* in which "the everyday understandings, judgments, and knowings are set aside, and phenomena are revisited, freshly, naively, in a wide open sense from the vantage point of a pure or transcendental ego" (p. 33). Although Moustakas (1994) and Patton (2002) believe this is hard to be achieved ideally, they argue that it is a necessary first step that

immerses the researcher in the data to become familiar of the phenomenon understudy and develop an understanding of it from the informants' views.

2. Later data analysis: this is the stage of phenomenological reduction where textural descriptions of the phenomenon's meanings and essences are obtained; imaginative variation in which structural essences of phenomenon are grasped, and synthesis of texture and structure in which both the textural and structural essences are integrated (Moustakas, 1994; Patton, 2002).

In this study, I utilized utilize a more detailed model extracted from the general steps of phenomenological evaluation. This model is offered by Moustakas (1994, p.120) and based on Van Kaam's method of analysis. The model constitutes the following steps that were taken in the later data analysis stage:

1. *Listing and preliminary grouping*: from each transcript, field note, document, and memo I listed every expression relevant to the experience. This process is called "horizonalization" in which all statements were given equal values to hold a meaning
2. *Reduction and elimination*: to determine the invariant constitutes; I tested each expression for two requirements: (1) does it contain a moment of the experience that is necessary and sufficient constituent for understanding it and (2) is it possible to abstract and label it? If so, it is a horizon of the experience. Any expression that did not meet these two criteria or any overlapping, repetitive and vague expressions were eliminated. The horizons that remained were the invariant constituents of the phenomenon.

3. *Clustering and thematizing the invariant constituents*: I clustered the related invariant constituents of the experience into a thematic label.
4. *Final identification of the invariant constituents and themes by application (validation)*: these were checked against the complete record of each informant to find if they were expressed explicitly or compatible with the responses. Any of the invariant constituents or themes that was not relevant, was then deleted.
5. From those validated invariant constituents and themes I constructed individual textural description and then structural description.
6. I synthesized a textural-structural description for each informant:
7. I developed a composite textural-structural description of the meaning and essences of the phenomenon using the invariant constituents and themes.

Figure 3. demonstrates the plan of carried out for each of the data collection methods and data analysis.

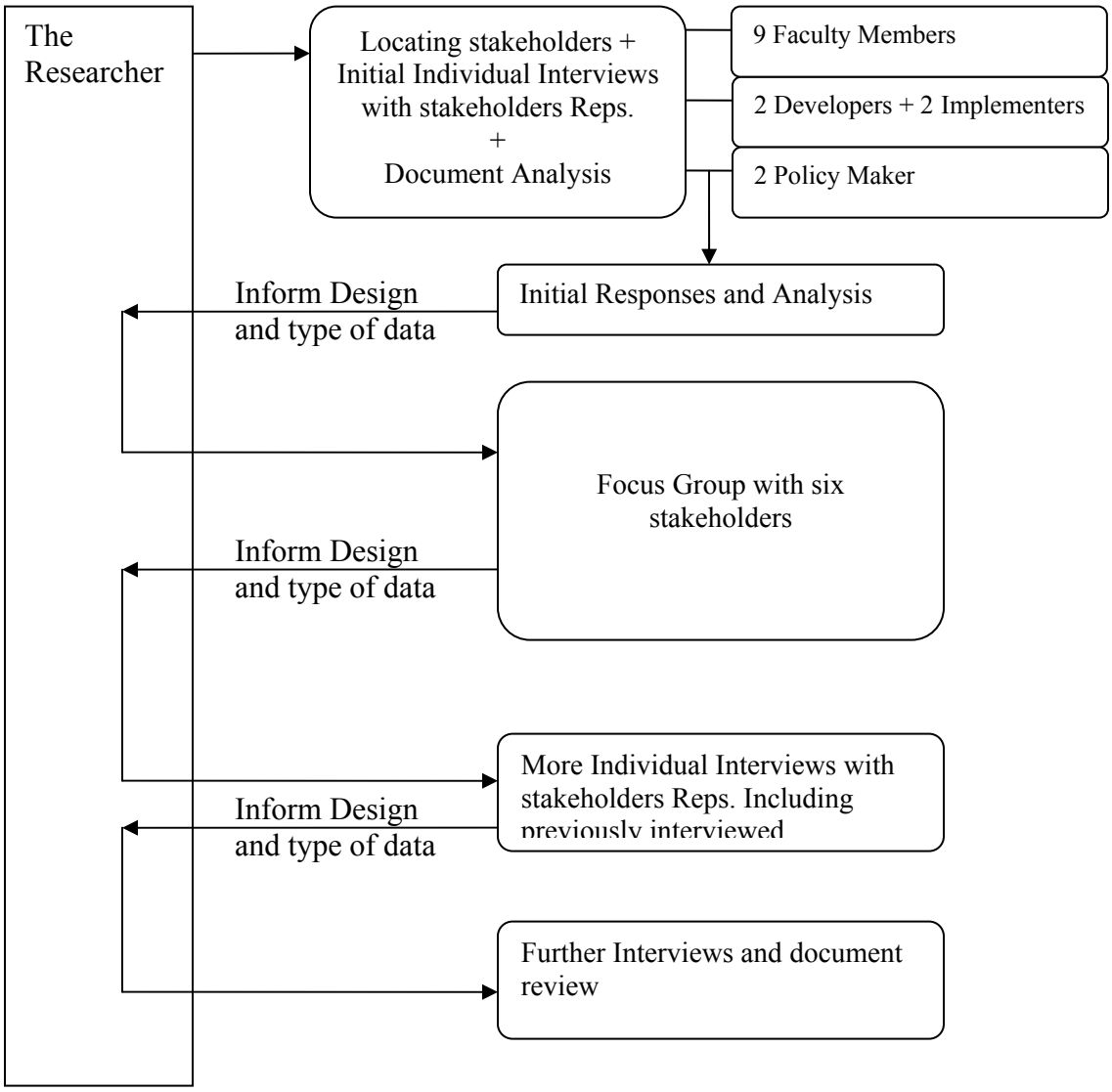

Figure 3. The plan of data collection methods and data analysis.

Trustworthiness

Trustworthiness in research is argued to be granted via four elements: truth value, applicability, consistency, and neutrality to persuade the audiences that the findings are worth paying attention to and worth taking account of (Guba & Lincoln, 1999). While quantitative researchers respond to these elements by ensuring criteria of internal

validity; external validity; reliability; and objectivity, qualitative researchers deal with credibility; transferability; dependability and confirmability (Bogdan & Biklen, 2003; Guba & Lincon, 1981, 1989, 1999; Patton, 2002). Trustworthiness is a terms used by qualitative researchers to describe a "fit between what they record and what actually occurs in the setting under study" (Bogdan & Biklen, 2003, p. 44). The four criteria are taken into more details below with a focus on strategies to ensure them in this research.

Credibility

Credibility refers to the adequate representation of the constructions of the social world under study including findings and interpretations (Guba & Lincoln, 1989, Patton, 2002). It is argued to demonstrate the truth value of the findings and interpretations (Lincoln & Guba, 1999). To establish credibility of qualitative research including evaluation, Lincoln and Guba (1989, 1999) recommends the use of five major techniques:

1. Activities to ensure that credible findings and interpretations are more likely to be produced: these include "*prolonged engagement*" where the researcher or the evaluator spends an extensive time in the field that allow him "to learn the context, to minimize distortion, and to build trust" (Guba & Lincoln, 1999, p. 412); "*persistent observation"* that aims to "identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail" (Guba & Lincoln, 1999, p. 410), and triangulation that is defined as the use of multiple theories or perspectives, methods, data sources and investigators to eliminate the weaknesses built in each method, source, or investigator (Denzin, 1988, Patton, 2002).

In this study, I utilized two types of triangulation: data source triangulation (faculty members, faculty developers, trainers, policy makers); and data collection methods triangulation (individual in-depth interviews, focus group, document analysis). In addition to triangulation, my involvement as a developer as well as being a faculty member at COE for seven years ensures a prolonged engagement with the data resources.

2. Peer debriefing: it is the process of exposing oneself and research process to a disinterested peer who challenges and questions the inquirer's presumptions, meanings, emotions, and emergent methodological to clear any aspects that remain implicit in the inquirer's and might affect the research process. From the starting point of this research, I have been collaborating with a close friend and colleague who is an assistant professor in the field of Adult and Higher Education at the COE and who has a deep experience in conducting qualitative research. We have been through insightful discussions about my research topic and methodology. This person continued the work as a debriefer with me towards the end of the research. As recommended by Lincoln and Guba (1999) once I started the data collection, both me and the debriefer kept a journal of each encounter to serve as a reference for the research.
3. Referential adequacy: it is the process of restoring some portion of the original data in archives for later recall and comparison to demonstrate the credibility of naturalistic data.

4. Member check: this process tests the data, analytic categories, interpretations, and conclusions with members of the groups that represent the data sources. In this research summaries of the interviews were sent to some of the informants to give feedback on the accuracy of representing their constructions.

In addition to these activities, which focus on the research methods, Patton (2002) argues for two more factors that enhances credibility of the research. The first is the *credibility of the researcher* "which is dependent on training, experience, track record, and presentation of self" and the second one is the *philosophical belief in the value of qualitative research* which refers to "a fundamental appreciation of qualitative methods, naturalistic inquiry, inductive analysis, purposeful sampling, and holistic thinking" (Patton, 2002, p. 552).

Transferability

As the second element to insure trustworthiness, transferability refers to the extent to which findings of the study can be applied to another situation or context (Lincoln & Guba, 1999). Patton (2002) argues that in order to judge transferability for those who are interested in making a transfer, the evaluation or the research report should focus on thick descriptions of situations and programs from which someone interested in transferring the findings to another situation can make the transferability judgment. But what are the elements of a proper thick description? How to decide what is relevant and what is not? Guba and Lincoln (1999) argue that it is not possible to define what constitutes proper thick description. However, in relation to evaluation, Patton (2002) identifies the following questions as the basic descriptive questions that should be addressed in the

evaluation report: “What are the stated goals of the program or activities (including different goals reported by different stakeholders)? What are the primary activities? How do people get into the activities? What are the effects of the activities or program on participants? Beside starting with providing basic information of the activities (e.g. goals, activities, participants, history … etc), the thick description in this study is intended to be organized around the key issues emphasized by research questions and literature review such as impact of ET faculty development activities on faculty’s professional practices, students’ learning, and organizational development; and the elements of effectiveness.

Dependability

The third element to ensure trustworthiness refers to the coherence of the internal process and the way the researcher accounts for the emergent changes (Lincoln & Guba, 1999). One way to prove dependability is to produce a research audit trail through which the auditor judge “the appropriateness of inquiry decisions and methodological shifts: are these identified, explicated, and supported?” (Guba & Lincoln, 1999, p. 426).

Confirmability

Confirmability refers to the extent to which the data and findings can be confirmed by others (Lincoln & Guba, 1999). It rests on triangulation, the production of reflective journal and a research audit trail (Guba & Lincoln, 1999). Thus, part of audit trail that examines the process results in dependability judgment while the part concerned with data and findings results in confirmability judgment (Patton, 2002).

In addition to the techniques recommended to assure each criteria, Guba and Lincoln (1999) recommend the use of *reflexive journal*; “a kind of diary in which the

investigator on a daily basis, or as needed, records a variety of information about self…and method" (p. 429) that has broad-ranging application to all four areas. The journal consists of: (1) a daily schedule and logistic of the study; (2) a personal diary that reflects upon what is happening; and (3) a methodological log that describes the methodological decisions and their rational (Guba & Lincoln, 1999). I kept a reflexive journal while conducting the data collection.

As these criteria are set as indicators of a trustworthy and rigorous qualitative research in general, a similar set of criteria are emphasized to judge the quality of evaluation. According to Patton (2002) a mix of these two sets of criteria could be used to enhance the quality of the evaluation research. The four primary criteria for evaluation are: "utility, feasibility, propriety, and accuracy (Patton, 2002, p. 550; Joint Committee, n.d.). Patton (2002) believes these criteria have characterized the field of evaluation research with "situational responsiveness, methodological flexibility, multiple evaluator roles, political sophistication, and substantial doses of creativity (p. 550). The following detailed description of each criterion is extracted from the Joint Committee on Standards for Educational Evaluation website.

Utility

Utility ensures that an evaluation will serve the information needs of stakeholders. Therefore, techniques such as thick description, clarity of data collection procedures and data analysis strategies; an account for evaluator's credibility, and detailed reporting of findings and impacts should be provided in the evaluation so that stakeholders find the evaluation useful and relevant. This research provides detailed description and rational of

intended data collection and analysis methods. It also explains who the findings could be utilized by the developers and the COE policy makers. It emphasizes the researcher different roles and experience in conducting research.

Feasibility

Feasibility calls for an evaluation that is realistic, practical, diplomatic, and frugal. Such an evaluation research should utilize practical data collection methods, and cooperate with all stakeholders to ensure their acceptance and appreciation of the findings. The data collection methods in this evaluation are practical and directed towards gathering information from all stakeholders.

Propriety

Propriety ensures that an evaluation will be conducted legally, ethically, and serve all stakeholders. To accomplish this, stakeholders should benefit form the evaluation, their agreement to participate in the evaluation should be formal, their rights should be protected, their responses should be valued, and strengths and weaknesses should be addressed fairly. Many of these issues are addressed in the section of ethical considerations of the research.

Accuracy

An accurate evaluation reveals and conveys technically adequate information about the features that determine worth or merit of the program being evaluated. This refers back to thick description where adequate and detailed information about the context, program, procedures, and sources should be displayed. Moreover, analysis method should

be described and applied, inferences should be justified, and findings should be reflected fairly in the report.

In summary, the soundness and trustworthiness of this evaluation research are evaluated against the trustworthiness criteria of qualitative research and criteria or standards of qualitative evaluation as recommended by Patton (2002). The following table summarizes these criteria and the techniques used to ensure them in this study.

Table 1.

Summary of Techniques for Establishing Trustworthiness and Soundness

Type of Criteria	Criterion	Technique
Research Trustworthiness	Credibility	• Prolonged engagement (3 months at least in the field + experience as a faculty member and developer) • Triangulation: source *(faculty members, developers, implementers, policy makers);* methods *(interviews, focus groups, document analysis.* • Peer debriefing • Negative case analysis (dropouts from any ET faculty development activity if any) • Referential adequacy: all data will be stored in hard and soft copies • Evaluator's credibility and values: reflected upon in the researcher's roles and experiences in conducting qualitative research and evaluation

Table 1. (continued)

	Transferability	• Thick description of program, context, sources, and procedures.
	Dependability	• Reflexive journal and thick description.
	Confirmability	• Reflexive journal and thick description.
Evaluation Criteria	Utility	• Thick and detailed description of program, procedures, and findings reporting.
	Feasibility	• Practical data collection methods and involvement of all stakeholders
	Propriety	• Clear statement of evaluation purpose, procedures, and benefits • The use of informed consents • Fair reporting of findings
	Accuracy	• Thick description • Justification for inferences • Fair reporting of findings

Summary

In summary, by the use of phenomenological evaluative case study, this study attempted to gain an understanding of the essence of the effectiveness and impact of faculty development activities. The study utilized the use of in-depth interviews, focus group, and document analysis to gain this understanding. Trustworthiness of the research is enhanced through prolonged engagement and triangulation of data sources (faculty

members, faculty developers, trainers, policy makers) and methods (interviews, focus groups, document analysis).

Chapter Four: Findings

Status and Awareness of ET Faculty Development

Introduction

Representing the findings or telling the story is the most challenging part of conducting qualitative research. Many writers talk about data being the star of the qualitative research. "[Q]ualitative researchers must choose not only what 'story' will they tell, but also how will they tell it" (Wolcottt, 1990, p. 18). A very important decision to be taken when writing-up qualitative data is how to balance between description, analysis, and interpretation (Wolcott, 1994; Sandelowski, 1998), where description refers to the facts, analysis to the breakdown and recombination of the data in new ways, and interpretation to the new meanings created from the new ways (Sandelowski, 1998). Wolcott (1994) and Glesne (1999) suggest developing a narrative around an analytical framework as one way to organize and present description. "By analyzing the data, the researcher generates a typology of concepts, gives them names or uses 'native' labels, and then discuss them one by one, illustrating with descriptive detail" (Glesne, 1999, p. 166).

The evaluation goals provided a framework of relevance to begin the analysis process but by no means set pre-expectations about the findings. I read the transcripts and the documents a number of times to identify themes and categories. I then developed a coding frame that I modified when new codes emerged. I used diagrams and charts to locate relationships and link categories. I examined the similarities and differences across the stakeholders' groups (e.g. faculty members, faculty developers, trainers, policy makers) in reference to the themes and categories. I assigned each theme and category

developed from the analysis process (1) a label that is a word or a short phrase; (2) a description of the meaning of the category; (3) associated text or data that illustrate meanings, associations, and perspectives; (Thomas, 2006).

In presenting the findings I tried to balance the need for a thick description with the need of focusing on the problem of the research. Therefore, I decided to represent the findings into three chapters. Chapter four outlines the status of ET faculty development and provides an inside picture of the culture within which it is taking place. Chapter five illustrates the stakeholders' perception of the effectiveness and impact of ET faculty development. Chapter six highlights the stakeholders' suggestions to improve the practice of ET faculty development in the COE. It is important to again draw the attention to the fact that the names used in representing the findings are pseudonyms and none of them is related to any member in the COE. I preferred to use Arabic names to reflect the culture of the study. I also mentioned the role of each informant except for faculty members. Therefore, every time the name of the informant appears without a specific role, it is for a faculty member.

Status of ET Faculty Development at the COE

Seeking to know what approaches do faculty members take to develop their skills in educational technology and what activities and efforts are provided for them from the college and university, I asked them to describe how they learned how to integrate educational technology in their teaching. I also asked trainers, faculty developers, and policy makers to describe their own observations of the different ways faculty members take to learn how to integrate educational technology. The themes that emerged from the

stake holders' experiences and observations were categorized in two main categories: formal ET faculty development and informal ET faculty development. Informants classified the activities and approaches to fall in these two categories based on the initiator and the availability of budget.

Formal ET Faculty Development

The formal ET faculty development includes programs and workshops offered from the College of Education or the Center of Educational Technology. These programs and workshops are offered regularly to the faculty members as part of the faculty development process or upon the request of each department and approved by the college. Faculty members are encouraged to attend these programs or workshops and they are used as indicators of professional development in the annual report of each faculty member. The formal ET faculty development includes: e-learning workshops, workshops on computer software and Internet applications workshops offered from the COE, Instructional Skills Development Workshop offered from CET, and programs and workshops in other institutes.

E-learning workshops.

Faculty members reported that the most common form of ET faculty development they receive is e-learning workshops. These workshops are concerned with training faculty members on the use of web course environments and management tools such as WebCT and Moodle. Dr. Ameen indicated that most of the workshops offered to them "are focused on e-learning and how to design classes online". Dr. Naif also mentioned that the college board offers WebCT and Moodle workshops in cooperation with CET.

He indicated that he “attended some WebCT workshops”. Dr. Amer, a faculty developer and a trainer as well as a full time faculty member in the COE, explained that these workshops are offered from the CET in each college to help faculty members who uses WebCT in their courses mange and develop these courses. He said that “sometimes if the college senses a need for additional workshops of this type they request them from the CET …they are in charge although they cooperate with us as specialists but the workshops are offered under their name”.

Workshops on computer software and Internet applications.

In addition to the e-learning workshops, faculty members stated that the COE offers workshops on some software and internet applications such as SPSS, Webpage design, and macromedia flash. Dr. Talal pointed that in his department “[they] participate in a workshop each semester to train them on the use of SPSS and its updates as it is very important for their content area”. Dr. Omar, a faculty developer, a trainer, and a faculty member at the COE, reported that "sometimes upon the request of the administration or the departments we offer workshops on SPSS, workshops for online registration, macromedia flash webpage design”. Dr. Zayed from his position as a Head of Department indicated that "[faculty members in his department] always receive ads through e-mails about different training workshops…anybody who is interested registers and any request to attend a workshop has never been declined”.

Instructional Skills Development Workshop.

The Instructional Skills Development Workshop is the most common form of formal ET faculty development not only in the COE but in all colleges. Dr. Amer talked about the establishment of this workshop and how it evolved. He said:

> The workshop as an idea was proposed in 1997 and it took time to reach a definite form …. It was conducted informally in all colleges before the university administrations approved and made it mandatory to all faculty members with no educational background …. The conduct of this workshop was the duty of the ET faculty in COE and the Instructional Development Unit in the CET. The workshop was assigned a budget and began to be offered in two colleges each semester until recently were we began to offer it twice to any faculty member from any college. We offer one in Arabic and one in English but it is no more mandatory except for the demonstrators.

Dr. Omar described the content of the Instructional Skills Development Workshop: “the workshop consists of nine modules…it is a comprehensive package that ranges from university teaching and management to the utilization and integration of technology…it is a very interesting workshop”. He however pointed out the “low participation from the COE when it became optional”. His own explanation of this low participation is that "the COE got the impression that this workshop is for non-educational background and it is to improve teaching which they don't think they need".

Programs and workshops in other institutes.

An interesting finding was disclosed by Dr. Zayed, a HOD. He was the only one who mentioned that faculty members can apply for workshops or short courses in any other institution and that the university pays all expenses. This piece of information came up in our discussion about individualized approaches for faculty development. He said: "if the faculty member thinks he can benefit from a program or a workshop outside the university then he or she can apply for fund and most of the time they do get it". He added:

> In my department two members showed interest in external workshops at different times and were asking for a release time but I advised them to apply for fund. They applied and I recommended they get the fund ….One of them was interested in a workshop that is offered in a private institution so as a HOD I wrote a letter to the deanship and they agreed to pay the tuition fees of this extended workshop. The other never used computers before and he could not find a very basic workshop in the university therefore he applied for a short course in a computer institution.

When I mentioned that none of the faculty members seemed to know about this option he said "awareness is basically the responsibility of the faculty member…they can always ask and get the right answer".

Lack of formal training programs.

It is worth mentioning that all stakeholders participated in this study did not just talk about types of faculty development available but also talked about what is not available. Lack of structured training program was among these things.

Dr. Ahlam's first response to my question about available forms of ET faculty development was: "we do not have any training programs to introduce faculty members in the COE with the new software and updates in the field of ET. Of course there is the Instructional Skills Development Workshop from the CET but I'm talking about the COE. We do not even have this structured form of introduction to the updates in the field in any format either as a seminar or a symposium …we only have loose workshops on some topics such as e-learning". Dr. Jamal and Dr. Omar agreed that there is no definite plan or formal program for ET faculty development in the COE. Dr. Jamal said: "there is no such structured training program that runs according to a plan and has long-term goals". Similarly, Dr. Omar assured that "the college itself does not have a planned program for faculty development in general to have one for ET".

Informal ET faculty Development

Informal ET faculty development includes any programs or workshops that are initiated by the faculty themselves as singles or groups relying on the personal resources and relationships. Informal ET faculty development includes: personal consultation with experts and technicians in the COE and the CET; voluntary workshops on new software or applications; technology conferences held in the university; technology books and the Internet; graduate studies; and programs and workshops in other institutes.

Personal consultations.

Almost all the interviewee emphasized that they turn to personal consultations as their first step in learning how to use technology. A faculty member said that "I always consult my colleagues in ILT department to help me with the use of technology" (Dr. Naif). He added that he prefers consulting experts than reading about technology somewhere. Dr. Talal agreed that personal consultations are the first option for him when he a problem with technology. He said "I also approach colleagues who have technology expertise .... For example in learning how to use WebCT I made a deal with a colleague to exchange experience". He also indicated that he contacts technicians to help him with technology whenever he needs either in the College or the CET. Dr. Ameena and Dr. Hussain described personal consultations as very significant and very effective.

An ILT faculty member noted that the personal consultations he receives "are very frequent and too many" (Dr. Amer). However, Dr. Jamal commented that "most of these consultations are one-to-one and usually requested with embarrassment". He added that these consultations basically revolve around "any new software or the regular applications such as power point, the use of audio/ visual materials, and the use of the available equipments such as over head projectors and slide projectors".

Voluntary workshops on new software or internet applications.

Voluntary workshops are conducted by faculty members who have expertise in using technology upon the request from their colleagues. They provide these workshops as a contribution to the development process in the college. Dr. Zayed, HOD, stated that "when I know one faculty member has knowledge in any aspect of ET I invite him or her

to conduct a training session to the others and this happen voluntarily…. For example before we asked the CET to offer some workshops on WebCT, we asked one of the members who is used to develop his courses online to conduct a workshop". Members in the ILT department conduct most of these sessions. Dr. Amer said: “the ET faulty members volunteered to conduct different workshops in instructional design generally included the utilization of ET, instructional objectives, communication skills, assessment, and exam design". Some voluntary workshops are also conducted by colleagues from other colleges or centers in the university. Dr. Hisham said: "in the last semester we invited one of the university library staff members to train the faculty members in the use and utilization of e-books services at the library… this is done voluntarily by the department as many showed interest”.

Technology conferences.

Technology conferences held in the university either by the COE, the CET, or the Language Centre appeared to be another approach that some faculty members took to develop their skills in educational technology. Dr. Naif said about his experience with technology conferences:

> I attended the conferences that deal with technology in the university [which] are those held by the CET and Language Centre .... I didn’t think I will gain as much but after I attended the first time I found that I need to attend more of these conferences …. I gained the knowledge about the necessary tools that will help me in teaching with technology”.

Dr. Omar, a faculty developer, a trainer and a frequent presenter at theses conferences, contended that

> Some faculty members also look at the conferences as a form of professional development and you find them care about attending them because most of these conferences offer concurrent technology workshops … [however] this is done personally because most times faculty don't get the financial support from the college; they pay for themselves.

Technology books and the Internet.

Faculty members indicated that technology books helped them learn about specific software and programs and how to use them in teaching and learning. They also emphasized how the resources on the Internet provided them with information and examples on how to integrate technology in their teaching.

Dr. Ameen described his own experience in this with learning from the Internet:

> My personal development of technology skills relied basically on the Internet … I don't deny that there were some workshops that I attended ... but again once I get the basics, I go and build up on these basics till I get to the desired level… and whenever I have a challenge I won't even ask about it, I just will search the internet. It is very resourceful and by using all the keywords I can find the answer for that problem. …I have designed my own website from A to Z by myself.

Internet and books also seemed to be the preferred way to Dr. Faisal as he said: "I usually tend to develop my personal skills by digging the internet or referring to a book".

Graduate studies.

To Omani faculty members who began their career in the COE immediately after pursuing their Bachelor Degree, graduate studies offered them a great opportunity to learn educational technology. All of them pursued their Masters and PhD degrees in Europe or the United States where the use of technology in universities is more advanced.

Dr. Talal expressed his appreciation for the opportunity he had to learn technology during his study abroad. He said that taking online classes forced him to learn and update his skills in using technology. Dr. Ameena, appreciating similar opportunity, said: “while studying abroad you see everybody use technology… you go there with very limited knowledge about technology and you come back with a lot of experiences and training in the use of technology”.

Programs and workshops in other institutes.

Only few faculty members mentioned turning to other institutions that offer short courses and workshops on technology to develop their skills in ET. They pay for these short courses or workshops. Dr. Fayez contended that "[he] attends outside workshops because [he] feels more relaxed”. He explained: “by attending outside workshop I avoid judgments on my ability by colleagues". When I asked other faculty members about this option, they pointed out that they would love to take this opportunity but time and cost prevent them. Dr. Ahlam said: “it is a good option but some short courses are costly their time is not suitable”.

Awareness of the Need for ET Faculty Development at the COE

Through questions aimed to assess awareness of the significance of ET faculty development, faculty members showed a high level of awareness in this aspect. They turned their need for these activities and efforts to the following reasons: meeting students' needs and expectations; modeling the effective integration of ET; directing faculty members to the available resources and services of ET; Improving teaching; gaining awareness of the role ET; overcoming technology-phobia, lack of confidence and seniority barriers; increasing the credibility of the college; and meeting schools' needs.

Meeting Students' Needs and Expectations

Students' needs and expectations seemed to be the most obvious driving motive behind faculty members' need for ET faculty development. All interviewees emphasized that students are more advanced than their teachers in the use of technology. Dr. Talal said that "the culture of technology among students is much more advanced than with the faculty". He felt that as a teacher he needs to reach a better level in using technology. Similarly, Dr. Fatma expressed the need to "tone with students in their use of technology".

Dr. Ahlam looked at another aspect of meeting students' need. She said: that "students in the Master's level are highly interested in ET integration in their fields therefore if we are to be in their committees we have at least to have the minimum knowledge of the technology even if we have co-advisors from the ILT department". Dr. Zayed affirmed that, in many cases, the students criticized the teacher who does not use technology and explicitly requested a substitute. He explained, "in many occasions,

different faculty members were wondering why specific courses were not given to them to teach and I had to confront them with the students' evaluation comments that indicated their poor use of computers".

Modeling the Effective Integration of ET

Faculty members also reported their need to learn how to model the effective integration of educational technology in teaching to the student teachers. Dr. Ameen started by saying that "educators need to integrate educational technology in their courses to model the effective use of ET". He further explained that student teachers need to learn how to teach with technology and the best way to learn is to observe their teachers model it.

Dr. Ahlam criticized the reliance of faculty members on stand-alone technology courses to teach student teachers how to integrate technology. She said: "whenever our students have their concerns about technology and how to integrate it in their teaching effectively we tend to throw the responsibility on the Technology courses although we understand that we should model the right use of technology but this is what we lack". She felt the need for real integration of technology in all courses especially those that deal with pedagogy. Dr. Hisham highlighted another dimension of the same concern as he said "…students give more attention to software related to their subject area therefore ET should be integrated fully in other courses so student teachers can apply it in their own teaching".

Directing Faculty Members to the Available Resources and Services of ET

An interesting finding, which was raised by the majority of interviewees including faculty developers and trainers, was the need for ET faculty development to direct faculty members to the available resources and services of ET. Many faculty members raised a concern regarding approaching the services available to them. They felt that they are not aware of what is available to them or how to seek help. Dr. Ahlam and Dr. Jamal both agreed on the great help ET faculty development activities offer to faculty members in directing them in the right way to reach for services, resources, and experts in this field whether academically or technically. Dr. Jamal, who is known in the college for his advanced integration of technology in his courses, added, "there is no enough awareness of the available services to the faculty members to develop and enhance their skills in uses of educational technology". Dr. Amer, from his side as a faculty developer and a trainer, described his observation in this aspect: "from my own experience when I was in the CET … the least to use the center's facilities, equipment, and technologies are the faculty members from the COE".

Improving Teaching

Faculty members indicated that they need to learn educational technology in order to improve their teaching. They believed that the new trends in education utilize technology in a way or another; therefore they can no longer separate or ignore technology. Dr. Naif said: "If I don't learn about using technology I'll be behind in my teaching… the new trends in teaching language focus on the use of technology… we need to be trained in ET".

Dr. Jamal, a faculty developer and a trainer, noted that the use of educational technology is not up to the desired level. He explained;

> There is really much weakness in this college in ET… I mean can you imagine that there are only three or four instructors who are developing effective web-based courses for their classes and I mean effective web-based as it should be not only to put some links and some PowerPoint presentations.

Two HODs made a remark about many courses that rely in their nature on the use of technology and faculty members who do not posses the required expertise are gradually eliminated from teaching these courses. Dr. Hisham said: “some courses have become dependent on specific software. Therefore only those who have the necessary skills can teach these classes”.

Gaining Awareness of the Role ET

Stakeholders broached a concern about the awareness of the role of ET in the teaching and learning process among faculty members in the COE. Dr. Fatma admitted that “[they] still tend to deal with ET as an additional element in the educational process and [they] ignore the fact that it has become the medium, the message, and an essential part". It turned out that many faculty members are not convinced with the potential of ET. Dr. Faisal explained; "frankly speaking we lack the confidence in the credibility of technology to help us teach". This concern has not slipped from the mind of faculty developers and policy makers. This is why, Dr. Saad and Dr. Amer explained, many ET faculty development activities including the Instructional Skills Development Workshop became mandated.

Overcoming Technology-phobia, Lack of confidence, and Seniority Barriers

Remarkably, most of the interviewees stated that ET faculty development help overcoming techno-phobia, lack of confidence and seniority barriers. However, it draws the attention that all comments in this aspect focused on the others. None of the faculty members talked about his techno-phobia or lack of confidence. One examples of these comments is what Dr. Fatma made; "if faculty members are not trained to deal with technology especially those who have always taught in a traditional way many of them will feel afraid of technology and will avoid using it…they feel it is the enemy that will uncover their weaknesses".

Similarly, Dr. Faisal talked about this group of faculty members who show very low confidence in using technology and they always oppose any attempt to drag them into using technology. He said:

> In many meeting where the administration expressed the crucial need for technology integration a group of people frequently tried to convince the rest that technology is a bad choice and to everybody else the reason was obvious….these people know nothing about technology and they don't want to be perceived as technology illiterate so they fight it…therefore they are in much need for ET faculty development whether formally or informally.

Increasing the Credibility of the College

Stakeholders pointed out the need for ET faculty development in specific and faculty development in general to increase the credibility of the COE. Dr. Ameena said to clarify, "ET faculty development increases the credibility of the COE in an atmosphere of

competition by other colleges and private universities". When I asked the rest to comment on this in the focus group, all of them agreed. Dr. Amer said: "definitely. This is how students these days choose their institutions; if they know that a specific institute integrates more technologies and its certificate is equivalent to another that doesn't, they will go for the first one". Dr. Ahlam offered more details:

> Recently when the Ministry of Education accredited the private universities, schools started to favor their graduates because they are exposed to more technology than in this college. That is why we need to increase our efforts to utilize more technology to maintain our position as the major education college in the country.

Meeting Schools' Needs

Stake holders pointed out that schools have put the college under pressure as they update their technologies while faculty members in the COE still rely on the traditional ways in teaching and ignore technology. Dr. Hamad made it clear that *"schools have started to use updated technology while [faculty members in the COE] are still focused in student teachers' preparation on the traditional styles. The college needs to take a serious step in improving the utilization of technology ".*

Summary

This part illustrated the status of ET faculty development in the COE. It showed that there are two form of ET faculty development taking place in the college; formal and informal. The formal ET faculty development includes: e-learning workshops, workshops on computer software and Internet applications workshops offered from the COE,

Instructional Skills Development Workshop offered from CET, and programs and workshops in other institutes. The informal faculty development includes: personal consultation with experts and technicians in the COE and the CET; voluntary workshops on new software or applications; technology conferences held in the university; technology books and the Internet; graduate studies; and programs and workshops in other institutes.

This part of the findings also shed light on the stakeholders' awareness of the need for ET faculty development. They believe that ET faculty development is important to meet students' needs and expectations; model the effective integration of ET; direct faculty members to the available resources and services of ET; improve the teaching and learning; increase awareness of the role ET; overcome technology-phobia, lack of confidence and seniority barriers; increase the credibility of the college; and meet schools' needs.

Chapter Five: Findings

Effectiveness and Impact of ET Faculty Development

Introduction

This part of the findings presents the stakeholders' perceptions of the effectiveness and impact of the ET faculty development in the COE. It presents elements and factors emphasized by the stakeholders as essential to the effectiveness of any form of ET faculty development and how these elements are present or missing. These elements and factors were categorized into three categories: context, process, and content. It also presents their perception of the possible impact of any form of ET faculty development on the college's culture, faculty's practice and profession, and the students' learning.

The Effectiveness of ET Faculty Development

In order to obtain a comprehensive understanding of how stake holders perceive the effectiveness of any form of ET faculty development, I categorized the interview questions and the focus group's topics into three main categories: context, process, and content. These categories were derived from the literature review. However, I was careful not to let these categories limit the flow of questions or force any pre-assumption on informants' responses.

Context's Elements and Factors

This section deals with elements and factors embedded in the context in which ET faculty development takes place and contribute to its effectiveness. Stakeholders reported the availability of resources needed for effective ET faculty development. However they

reported a lack of departmental support and real organizational support for their efforts to learn ET. They also reported the existence of cultural and language barriers that reduces the effectiveness of any form of ET faculty development.

Adequate resources.

None of the interviewees complained about the availability of ET resources either in the COE or the CET. These resources, according to them, take the form of computers and software; internet access, educational equipment, and technical help. Dr. Fatma assured that "resources are available to every member either in the COE or from the CET". Dr. Ameen said: “whenever faculty members request update for their computers or ask for new software, most of their requests are met".

Dr. Bader described the resources available to faculty members in his department:

> We have all the facilities… as for our department most of our courses are taking place in computer labs either full hours or as practical part … in the last four years we added one more lab to the existing one and in September the third one will start working… three labs for our department only in addition to the shared labs with other departments in the college. Technicians are available to help the members. I have to say we got everything we need to start using technology.

However, not denying the availability of resources, all faculty developers and trainers pointed out the absence of coordination between the jurisdictions. Dr. Omar explained;

> Computers, programs, and access are available but there is no coordination between the technical staff in the CET, the CIS and the COE. Coordination is not

> up to the level which affects the resources availability… CIS for example has it is own policy of disabling sounds in the labs so it doesn't make any sense for the library to invest in their digital library and for us as faculty to insert them in your courses…some people really get disappointed by this and it is all because of the lack of coordination

Dr. Jamal also mentioned the many times he needed headphones to help some faculty members in the computer labs but could not get any because of the CIS policy. When I asked one of the policy makers in the COE about this situation, he said that the COE does not have any control on the computer labs.

Absence of a supportive leadership.

Faculty members, faculty developers, and trainers pointed out the absence of a supportive leadership either on the departmental level or the college's administration level. In their perception, a supportive leadership is the one that believes in the need for educational technology and in the role of faculty development to meet this need. It is the leadership that encourages and recognizes the individual and group effort to learn technology. The support this leadership is completely different from what they referred at as "verbal and superficial support" that only relies on verbal discussions or invitations to integrate technology with no real action.

Dr. Naif expressed this idea as he said, "the COE administration always encourage us to use and utilize technology but this encouragement takes the verbal form only and it is always on the surface". Dr. Ahlam talked about her own experience within her department saying "ET faculty development is rarely touched on by the department in

its weekly meeting neither by the members nor by the head". She insisted on the need for constant discussions and listening to members' needs in ET faculty development. Similarly, Dr. Humaid noted that "on the departmental level, it only happened once that they discussed the need for a workshop to train the department members on the use of Moodle upon its introduction in the university. I don't feel like it is a priority". To Dr Talal, the absence of departmental support forced the faculty members to work individually. He said: "we usually tend to deal with the technological issues personally even if we feel it is a group concern because we do not perceive any understanding or encouragement from the department of our needs in ET faculty development"

Dr. Jamal, a faculty developer and a trainer, observed that faculty members who spent a lot of time learning ET did not receive any type of support. He said, "HODs do not put enough efforts in encouraging their members to integrate technology". Dr. Omar noting the same observation added, "in some cases the HOD does not even know if you attended formal workshop… these are stated in the annual report by the members themselves".

Moreover, stakeholders reported the lack of policies and regulation that carry, manage, and support the process of ET faculty development and reflect a supportive leadership. Dr. Naif explained; "there are no moves, policies, or incentives to encourage members to integrate technology". Dr. Sultan, a trainer, also noted that "the component of ET faculty development is very weak in the evaluation, very weak in recognition, and very weak in regulations and policies"

Dr. Amer believed that the absence of this supportive leadership has resulted in the lack of structured ET faculty development programs. He said: " there is no such structured training program because… I think there is no leadership within the college to take care of such planning".

Absence of a reward system.

Faculty members reported the absence of a system that rewards the faculty members' efforts in learning technology. Dr. Humaid contended that he is not aware of any system that encourages him to integrate technology. Dr. Talal also noted the absence of a system of reward that encourages faculty members to integrate technology but he believed there are recent steps to show appreciation. He explained; "there are no big incentives for technology integration but there is a kind of appreciation such as nominating the best teacher in the college who is evaluated on the integration of technology in addition to other criteria". Dr. Fatma argued that "we do not see any connection between our efforts to develop in using technology and any kind of incentives or encouragement…those who spent time and effort in learning technology and those who don't are alike".

Faculty developers and trainers made the same comment about the lack of a reward system. They also added that even when faculty members participate by in any means in any form of faculty development, they do not receive any type of recognition. Dr. Omar said, "to be honest with you... there is no real encouragement from college administration not only for participation, but even for those who come back from the

workshops and want to invest in their courses their efforts are not supported". He gave an example,

> I talked to many faculty members in the Curriculum and Teaching Methods Department and the Islamic Sciences Department and I felt they were very exited about WebCT and online learning but this excitement did not take too long to die …they felt if they invest their own time in developing their courses, eventually they will be evaluated only on the 2-hours face –to-face they spend weekly with students…after all the evaluation is based on the grades…while in utilizing Web CT other end products should be taken into consideration such interaction, engagement, change of attitudes, all these things …but when you see how much you invest and how much of these are recognized and how much it takes of your time... so people started to stick to the original course they developed online and never updated it.

Dr. Jamal provided another instance indicates absence of recognition. He said:

> Even when CET made a nice thing by inviting all members who developed online courses to gather and exchange experiences and present their reflections and suggestion, I was stunned by the fact that none of the colleges' administration or any other faculty members attended ... so I thought why I would bother having courses online or developing the use of technology tools while no body really cares about what I'm doing… I know this should not be the point but I need recognition.

Faculty developers and trainers also pointed out that their efforts are not also recognized or rewarded. Dr. Omar said: "recognition is not equivalent to developers and trainers' efforts in the process of faculty development …many of us conduct workshops voluntarily in addition to our teaching load but no body seems to think that this deserves any incentive".

Presence of cultural background and language barriers.

Stake holders addressed some issues related to the specific culture of the COE that they believed had influenced the effectiveness of ET faculty development. The first issue is related to the structure of the culture. All interviewees who addressed this issue focused on the fact that many senior faculty members and those who graduated or worked in institutions that do not integrate technology tend to avoid ET faculty development.

Dr. Ameena, although believed this has begun to change slowly, noted that "many seniors hate to learn technology and hate it even more if they have to learn it from juniors or new graduates". She expressed her worries as she thinks "this is not something we can ignore…how many of them are in the college? If they keep the same attitude then developing the whole college in integrating technology would stop at a point". Dr. Naif similarly noted that "with few exceptions, senior faculty members tend to reject opportunities to learn technology…whether this is because they do not believe in it or are afraid of embarrassment and failure, this affects the process of learning"

Faculty developers and trainers similarly noted that there are specific faculty members who come from specific cultural background reject the whole concept of faculty development. Dr. Amer described them as "faculty members who have been teaching in

higher education for too long and never had the opportunity to teach with technology". He observed that while training in the Instructional Skills Development Workshop "many senior faculty members from other colleges participated but very few from the COE". He also noted that "the college continues to ignore their drop behind which might cause the integration of technology to slow down". Dr. Bader, HOD, agreed that "in some workshops where people who are younger or in a low ranking conducted the workshop… many of the senior faculty members did not show interest".

The other issue that is related to the specific culture of the COE is the language. In contrast to the other colleges in the SQU, the teaching language in the COE is Arabic and many of the faculty members do not speak English. Language of software and training programs university-wide overwhelmed many faculty members who do not speak English. Even, when the COE started to offer workshops in Arabic, the fact that trainers use a lot of English and technological vocabulary and that many software are not Arabic-enabled annoyed these members.

Dr. Hussain talked about this aspect saying; "language is an obstacle that prevented some faculty members from participating in ET faculty development because the majority of workshops in the university are conducted in English or the technical terms are always in English while many of [the COE's] faculty members do not speak it". Dr. Fayez agreed that "trainers sometimes talk in English even if they don't need to do so. This makes some of [faculty members] feel like they are not supposed to be there because they cannot speak English". As a faculty developer and a trainer Dr. Amer talked about how they are aware of this problem and how they tried to solve it. He said:

Workshops delivered specifically to the faculty members in the COE are always in Arabic and we give much care to get the participants to be familiar with the technical terms but sometimes for specific topics we do not find trainers who speak Arabic. Take for Example in the Instructional Skills Development Workshop, we had to get assistants who translated the training session to Arabic but to tell you the truth it was uncomfortable situation for everybody; the trainer, the trainees, and the assistant".

Process Elements and Factors

In this section, stakeholders reported the process's elements and factors that they believed had a great influence on the effectiveness of ET faculty development. Stakeholders pointed out the lack of needs assessment, structured planning, clarity of purpose, systematic evaluation, and follow-up.

Lack of needs assessment.

Faculty members, trainers and faculty developers concurred that there was no kind of needs assessment of ET faculty development. Any form of ET faculty development offered to faculty members was not based on needs assessment. Rather, it is the administration who decides when, how, and what to offer in ET faculty development.

Dr. Fatma said ,"I do not know who takes the decision to initiate these activities of ET faculty development because there is no kind of needs assessment". Dr. Talal commented on this by saying, "the only occasions we get some workshops if the dean thinks we need". Similarly, Dr. Hamad made it clear that he never came across any form of needs assessment. He said, "I'm not aware of any needs assessment conducted on the needs of technology or technology training". Dr. Faisal agreed that he too never

participated in any form of assessment targeting faculty needs of ET faculty development.

Faculty developers, trainers, and policy makers agreed with faculty members that all forms of ET faculty development were offered based on administrational judgment of faculty members' needs. Dr. Amer and Dr. Jamal revealed that none of the workshops conducted for the advancement of ET skills was based on needs assessment. Dr. Amer said: “most of the activities do not respond or meet the needs of the faculty members in the technology and members hate to attend them because of this. Dr. Jamal noted that their effort as faculty developers and trainers to conduct a needs assessment was discarded. He explained:

> Although we conducted a research to determine the specific needs of faculty members in the COE in ET faculty development and although the research found out the there is a huge need for ET faculty development activities, this research was never considered by the administration of the college.

One of the policy makers revealed that:

> The CET assumed the needs of the faculty members when proposing their workshops…they did not base them on real needs assessment but on international business … they visited 8 universities in UK and nine in USA and observed the most common components of ET faculty development but nothing has been done in the context of the university or the college.

Stakeholders believed that the lack of needs assessment caused a deficiency in the process of ET faculty development. According to them it caused a waste of resources and

did not leave any positive impact on the teaching and learning. Dr. Talal said: “they waste their resources and our time in some workshops…topics are not relevant to our profession and sometimes require higher level of skills that many of us don’t acquire…if they just gave some of their time to look at what we really need”. Dr. Jamal presented an example of how the lack of needs assessment caused a consumption of time and resources in things that do not benefit the process of teaching and learning in the college. He said:

> For example: the e-learning workshops that were recently conducted on a regular base never considered an essential question: why e-learning in this college? The buildings are there, sections are organized and lectures are conducted. The idea of anywhere anytime has no meaning in this context. Other potentials of e-learning that fit into this specific context should be considered but nobody bothered researching and what we just lost is time, money and resources.

Lack of structured planning.

Stakeholders reported the lack of structured planning of ET faculty development in the COE. They believed that there is no clear vision or goals for ET faculty development and no definite structure that is responsible for ET faculty development.

Dr. Ahlam described the efforts to learn technology as “personal efforts” because “there is no clear plan in the COE for technology integration or faculty development”. Dr. Fares agreed that "there are no serious efforts in ET faculty development but rather loose workshops from here and there”. He added; “I personally don’t know who is responsible for ET faculty development…is it the COE’s administration or the ILT Department in the

college or the CET". Dr. Hussain was surprised that the COE has "a strategic plan that focuses on the undergraduate and graduate but nothing is mentioning staff development in the college".

Faculty developers and trainers were more concerned about this issue as they believe it affects the quality of their work. Dr. Omar started by saying "the college is not independent in its plan for technology integration and faculty development". He offered detailed explanation by saying:

> I think what is depressing in the college is that it does not have a formal or clear plan for faculty development. I mean if we have a clear plan we should include needs assessment, outlines, form of training…etc but we don't have a formal plan. The only time I experienced a serious effort to have a form of structure was last year when the college established what they called a staff development committee …. The committee worked and when they found that they replicate the CET's work they stopped. The staff development committee did not have a comprehensive vision or systematic plan …. So even when there is an effort, it is not done systematically.

Dr. Bader, a policy maker, declared that there is no agreement on the administrational level of who should be in charge of faculty development. He said:

> There is awareness on the administrational level of the need for a structure and a plan for faculty development especially in the educational technology but again there is no agreement how this structure should be, who should be responsible for planning, who should be responsible for conducting, and who should be in charge

for budget and resources. I believe the lack of this structure or plan or program is because of the conflict between the authorities assigned with the provision of this service.

Lack of clarity of ET faculty development's purpose.

One finding regarding the process of ET faculty development in the COE that appeared to highly influence its effectiveness was the clarity of its purpose. Some faculty members showed confusion about why are some forms of ET faculty development offered to them. They revealed that they refused to participate when they felt a specific workshop is offered to them because the college's administration thought they are not doing their job. Dr. Naif was very honest on this issue as he said: "when I felt that some activities are offered because they thought the quality of my teaching is not acceptable, I rejected participation". Dr. Ameena, similarly rejected some workshops because she felt "they were offered for show off of the college administration".

Dr. Omar believed that some faculty members did not like to participate in many workshops such as the Instructional Skills Development Workshop because they thought they give the message of their inefficiency in teaching. He said: "we had a hard time convincing people that these workshops are not to say they are not doing their job but rather to improve everybody …that is why at a specific time the workshop became mandatory to insure participation". Dr. Amer commented on this issue saying: "the purpose of ET faculty development is still not clear in the college because of the lack of real planning".

Lack of clarity on the criteria on trainers' selection.

Faculty members raised a concern on the selection of trainers. They believed that some trainers were not capable of conducting the workshop or the training which resulted in a disappointing feeling. Dr. Fayez said that "in some workshops we were stunned by the fact that the trainer is a new graduate from the university… I don't have a problem with one of my students training me if he is an expertise in his field but I know he is not". Dr. Talal also talked about his experience with some trainers saying: "once we had a workshop on e-learning and the trainer did not know anything about educational context…he works in a university so how come he has no idea about how to operate in this context".

Carrying these responses to faculty developers and trainers in the college, Dr. Omar, as a faculty developer, said:

> As I mentioned before there are different authorities that offer ET faculty development. When we were in charge of the Instructional Skills Development Workshop, we chose trainers by brainstorming or personal relationship and we asked ourselves about the known names involved in each area of the modules. However, in the college sometimes we just receive the request to train in a specific workshop or design for a series of workshops but the decision on trainers is left to the college.

Dr. Jamal offered his own experience in this regard as he worked both in the CET and the COE for different times and observed how the selection of the trainers is done. He said:

> The complaints about trainers are recent because the who takes the decision on selecting trainers has changed either in the COE or the CET. Before, we used to choose trainers who have experience but these days we find many who just graduated and have been immediately given the responsibility of training. Some of them are good but not everybody.

Workshops are the only format of ET faculty development.

Workshops appeared to be the dominant form of ET faculty development in the COE. This was very apparent as many interviewees used the phrases faculty development and workshop interchangeably. The workshop in the context of the COE and the SQU take the form of a training session conducted for a group of people.

Dr. Ameen who preferred a more individualized approach said: “all we have is workshop but I cannot always participate in workshops…the time, the level, and how many are in the workshop [are] things that bother me but I have no other options”. Dr. Fatma also complained from having workshops as the only formal type of ET faculty development. She said "workshops leave me behind because there are other people who share the same time and resources and if I don't attend them I loose a lot but I cannot control the time". Dr. Fayez on the other hand did not perceive any problem with workshops but under the condition that "all faculty members [are] given equal opportunities to participate and that they all have similar knowledge of the training topic so that nobody left out".

In his comment on these responses, Dr. Jamal said that "faculty members] like to have individual focused training]but]I think that this is kind of costly because if you want

have one-to-one instead of having let's say three trainers or four trainers you'll need 70 trainers". Dr. Amer and Dr. Omar, however, thought that having workshops as the only form of faculty development is a shortcoming. Dr. Omar argued that "faculty members have all the right to ask for other forms…workshops are not suitable for any content and requires specific circumstances such as the provision of time and a team of trainers especially if offered to a big group like the case in the COE". Dr. Amer also noted that

Workshops to be useful need a lot of planning like what we did for the Instructional Skills Development Workshop…many faculty members got a release time and there were a team of faculty developers and trainers as well as technicians working on delivering the workshop…the content was also suitable for a workshop. In other cases we have to think about other form such as online training or individualized consultations.

Dr. Hisham, from his position as a policy maker, believed that relying of workshops only to deliver faculty development was always because of financial necessities. He said: "workshops are cost effective option to deliver training to a larger number of faculty members with the same resources". He also said about considering this a shortcoming: "as an educator I believe it is not suitable for everybody but if I think about financial issues I would rather choose it…. Maybe if we have a formal program for ET faculty development then we can allocate resources and turn to other options".

Lack of systematic continuous evaluation.

Stakeholders reported the lack of a systematic evaluation of any form of ET faculty development that takes place in the COE or in the university. They described a systematic evaluation as the evaluation that has specific goals and utilizes different

strategies to evaluate the success of ET faculty development on both the short and the long terms. Faculty members reported that in few workshops they had to full questionnaires measuring their satisfaction with the workshop but they have never participated in any form of long-term or impact evaluation. Dr. Humaid, talking about his experience with ET faulty development, said:

> Another element these workshops lack is a structured or systematic evaluation…the only evaluation I am aware of is the questionnaire I completed at the end of each module in the Instructional Skills Development Workshop. Even this questionnaire I cannot consider a structured evaluation because it is just a satisfaction questionnaire and does not evaluate effectiveness.

Dr. Fahad said: "we have not seen any serious effort to evaluate the long term effects of the workshops. Very few workshops used questionnaires to evaluate how satisfied are participants with the content or the trainer but none of them included an impact evaluation like after few months. None at all".

Faculty developers and trainers also reported the lack of a systematic evaluation. Dr. Omar described the evaluation of the formal workshops as "just a smiley test". He explained; "I mean the questionnaire filled at the end of the workshop is just about how do you feel about this workshop but there is no high level evaluation as the ones indicated in Kirkpatrick model".

Dr. Amer cautioned that "the workshops will remain under question regarding their beneficiary unless a formal evaluation and a systematic follow up is conducted without consequences on the faculty status". He declared that "every time the

administration whether in the COE or the university ask us to design workshops and select trainers we try to include the impact evaluation but this is not in their plan and the budget is only for one day workshop". The absence of long-term evaluation lead, according to Dr. Omar, to doubts on the success of their efforts as trainers and faculty development. He explained; "I have no clue of their learning other than their smiles whenever I meet them .... From all I trained I have no evidence that they learned except for verbal responses that what they are doing in their courses is a result of my training sessions ".

Dr. Jamal, in his response to my inquiry about their personal efforts to conduct impact evaluation, said:

> If there is no well designed plan or program for ET faulty development you cannot expect us to find resources for impact evaluation.... We have [to use] different indicators for long term impact like[classroom] visits, students achievement, students evaluation and self evaluation ....The impact of the workshops is difficult to evaluate and need time and effort. It is not a personal effort that we can do any time. Who is in charge should think about this.

Reviewing the available forms of evaluation, the only documents I found were the evaluation forms of the Instructional Skills Development Workshop. Appendixes F, G, H, and I show these forms. They present satisfaction questionnaires of each module and of the whole workshop. No evaluation forms or plans were available to indicate a long-term evaluation.

Lack of follow-up.

The interviews and the focus group revealed a lack of follow-up in the process of ET faculty development. Faculty members' defined follow-up as a process that follows any type of ET faculty development and aims to assist faculty members in transferring what they learned to their real setting such as classrooms. In their perception, it might take different forms such as long-term evaluation and technical support but its primary concern is improving faculty members' efforts to apply what they learned in any ET faculty development form.

Dr. Ameena, talking about her experience with some workshops, claimed that she "expected some kind of follow-up specifically a technical help that provides solutions for technical problem that usually occur when trying to apply the technology in a learning situation". Dr. Talal, similarly, assured that "there was no even one follow-up for any workshop [he] attended". He, however, believed that "there is no personal follow-up" too. He stressed that "follow-up is a shared responsibility because trainers cannot force participants to apply what they learned…if participant are really sincere about continuing learning then they might get at least an informal follow-up".

Dr. Jamal, a faculty developer and a trainer, and Dr. Bader, a policy maker, both supported the view of follow-up as a shared responsibility and reported its absence. Dr. Jamal said "when learning technology we need to give more attention to follow-up…follow-up with faculty members transferring technology to their work and help them resolve any complications they might face .... Follow-up should be from both sides; the faculty members themselves and whoever conducted the workshop…I admit there is no

serious follow-up but whom to blame? [The] people who conduct the workshops or the [participants] who actually run away from being followed up".

Dr. Bader asserted that there were no organized efforts to follow-up but he believed that '[it] is a personal effort and if any faculty member needs help or support after the workshop there are many ways to get it". Dr. Omar criticized excluding follow-up from their tasks as faculty developers and trainers. He said "I design the training module, train and that is it…I'm excluded and my job is done… I wish I can follow up but in fact follow up is left to coordinates and it rarely happens".

Lack of ET experts' participation in ET faculty development.

Stakeholders believed that ET experts' participation in the planning of ET faculty development in the COE was not significant which diminished its effectiveness. ET faculty members in the COE revealed that when ET faculty development is offered from the COE, they are rarely involved as planners.

Dr. Ahlam contended that "[they as faculty members] do not see any role for the ET faculty members in the faculty development". She believed this is a shortcoming since these specialists "they can give the best of the faculty development since they know what their colleagues need and how to deliver it to them". She wondered if this is a college policy because "the CET seems very cooperative with them in this regard".

Dr. Fayez was also surprised when the he found out that the Faculty Development Committee did not involved any member from the ILT department. He said: "when the committee was formed in the COE to direct the faculty development including ET, none of the ET members were involved". With a big smile, Dr. Omar said: "none of the

workshops that focused on e-learning involved any ET faculty members in the COE. What is the reason? I have no clue". Dr. Jamal also expressed his disappointment as he said:

> Unfortunately as a [member] of the faculty development team on the university level for the last six years ..and ET expert I was not part of the faculty development committee in the college…not only me but also the three colleagues who worked with me in the team. It is only after we started to send them important messages regarding duplicating the CET work, then they invited one member for only 2 or 3 meetings to attend and not as a member.

Dr. Zayed commented on this saying: 'faculty development is a process that involves all areas not ET only so may be they in the committee thought there are other priorities but personally I believe they should be involved…at least they know our specific needs in the college".

Utilization of Adult learning principles.

When asked to comment on the strategies of teaching that trainers utilized in the workshops, faculty members stated that some trainers relied on discussions and linking the training content to their subject area while some trainers only focused on the step by step technology training. Dr. Fatma believed that "there were trainers who always involved participants in discussions and asked [them] to bring their own material to work on but some trainers specifically those who have no educational background just relied on booklets and handouts". Dr. Hussain, from his side, expressed his satisfaction with most trainers "trying to involve everybody in discussions and working together as a

team". He thought that 'if all workshops were assigned enough time like the Instructional Skills Development Workshop, then all trainers will have time for each participant".

Dr. Amer described their approach in handling the Instructional Skills Development Workshop as "based on discussion and dialogue as well as hands on experience. It was also based on the direct application of the theoretical side of the workshop and in direct relation to their courses". Dr. Jamal assured that adult learning principles guided his training in either the Instructional Skills Development Workshop or other workshops. He described his experience saying:

> I remember the first workshop ... we were surprised that most of the attendance have experience in university teaching not less than 25 years so we decided to change our approach to achieve their goals…we relied on their experiences and used their own material for them to critique and reflect… I was surprised how critical they were and honest about learning from their mistakes… and as learning experience they appreciated it not dealing with them as young students.

Content Element and Factors

The stakeholders believed that the content of ET faculty development in the COE neglects the participants' level in technology and irrelevant to their profession.

Negligence of faculty members' knowledge level of technology.

Faculty members complained from neglecting their knowledge level in the workshops. In their perception, this hindered many of them from participating and forced other to drop out. Dr. Ahlam stated that "many activities do not take into consideration the knowledge level of the faculty members which lead to avoiding these activities". She

criticized that some trainers "do not take [participants] in the development process step by step which leave [them] feeling unsafe". Dr. Fatma agreed that not giving enough attention to her pre-knowledge in technology made her decide to drop out some workshops. She said: "I attended some workshops but I didn't finish them because I found that what is taught is not my level…either higher or lower".

Dr. Zayed declared that, as a policy maker in the college, he noticed the rate of faculty members dropping out many workshops. He believed that not being able to cope with others in their technology level is the main reason. He said: "the problem is that in most of the workshops, the participants are not in the same level… so many of them feel excluded or behind which makes them drop out of the workshop or just attend it with no benefit".

Irrelevance of ET faculty development's content to the profession.

Faculty members reported the irrelevance of the available ET faculty development to their profession as educators and specifically to their content areas. Dr. Talal argued that "many workshops did not convince the faculty members of the potential of technology to their courses" and this in his opinion "reduces the benefits they can gain". Dr. Fatma criticized that "the offered activities ignore the application of ET in teaching".

The Impact of ET Faculty Development

The findings from the previous section showed that there is a lack of follow-up and continuous evaluation of the available forms of ET faculty development in the COE. This originated a difficulty for stakeholders to identify and describe the possible long-term impact specifically on students' learning. However, important insights were driven

from the interviewees responses especially from faculty members who, by their nature as researchers, used to conduct some self-evaluation and keep a close eye on any change. This section describes the impact of ET faculty development on three levels: the COE's culture, the faculty members' practice, and the students' learning.

The Impact of ET Faculty Development on the COE's Culture

Stakeholders indicated that the formal and informal activities of ET faculty development have contributed to the formation of a technological culture in the COE. They also noted an increase in participation of senior faculty members in ET faculty development activities.

A formation of a technological culture.

Stakeholders believed that the available forms and activities of ET faculty development contributed to the formation of a technological culture that was not found four or five years ago. They based this belief on three indicators: a change in faculty members' habits in the use of technology, requesting more technology, and formation of ET learning networks.

Stakeholders used their daily observations to highlight how their colleagues, in the contrary to the past, have become more relying on technology. They spend more time working on their computers instead of having long conversations with each other. Dr. Hussain noted that "few years ago if you pass by the offices you would see faculty members chat together or write on their papers. These days most of them ore attached to the computer screens and if they invite you to their offices be sure technology will be one issue they talk about". Dr. Ameena similarly noted that "most of the faculty members are

now seen with their flash memory discs instead of those heavy bags of transparencies and handouts". She believed that this is "a sign of technological culture that was not found few years ago…the workshops educated many of us of the technology's potential ".

Policy makers also noted that as more faculty members engage in ET faculty development, the more they accept technology as part of their daily life in the college. Dr. Hisham talked about how the administration had a rough time in persuading many faculty members to rely on e-mails as the primary tool of communication and to finish all official procedure online. He said:

> It was hard to get some members to check their e-mails daily for any updates …they missed meetings, workshops, and seminars because they did not receive official letters. Now all communications in the college are run by e-mails and any paperwork need to be done with the university administration is basically done online…I believe that when faculty members participated in technology workshops they got familiar with the use of technology.

It is remarkable how stakeholders considered the increased rate of requesting technology an indicator of a technological culture. They believed that participating in technology workshops increased their knowledge about the available technology. Dr. Fahad indicated that faculty members in his department, who participated in different forms of ET faculty development, insisted on receiving updates on their computers and software to match what they learned. He said, "I can see one definite impact of these activities in my department… the fast growing rate of requesting new technologies…before, they would accept whatever is offered to them form the college but

now they specify what they need". Dr. Amer also observed that many faculty members, after participating in faculty development, started to request specific hardware and software such as up-to-date personal computers, digital imaging software, and access to media services in the COE, the CET, the CIS, and the main library. Dr. Sultan said that in the committee responsible for the distribution of personal computers and software in the COE, they noticed a huge increase of faculty members who request updates in their computers and request specific computer programs, software, and related technology equipment. He said: "we started to receive questions and specific requests from faculty about their computers and other equipment…something that never happened before…we used to decide who receives what based on what classes they teach".

Stakeholders also pointed out that the faculty members have begun to form networks to learn educational technology especially among the young faculty members. They believed that the technology workshops have motivated many of them to advance in their learning. Dr, Faisal claimed that they "have created their learning network after they participated in the same workshop". He said: "I believe our small network was formed spontaneously as we started to ask each other about what we learned and how to apply it .... Our network also included a colleague who has experience in e-learning and he helped us a lot in reviewing our work". Dr. Fatma also talked about the network they formed in their department. She said: "our department is small compared to the other departments and we teach almost the same courses therefore we decided to help each other in learning the new technologies since many of us cannot attend all the workshops…so sometimes

we choose one of us to attend a specific workshop and then teach us .... We also started to collaborate in using our resources and technical materials like videos″.

Participation of senior faculty members in ET faculty development.

Another main impact of ET faculty development on the college that stakeholders agreed on is the increasing interest of seniors in learning technology. Dr. Sultan said: "the type of people who you never expect to see have begun to show up in technology efforts. I think they first participated because everybody else did but now I guess they are convinced of the potential of some of these workshops". Dr. Zayed also noted the increased participation of senior faculty members in his department. He said: "now we can find some seniors willing to go to training… I personally appreciate one colleague who is a senior but showed an interest in attending ICDL courses and we helped him to get it and he is now preparing for the exam".

Dr. Jamal said: "after very few participated in the different workshops we started to see faces we never expected and many of the senior faculty members showed interest in software and hardware … many started to approach us asking about ways to effectively use web tools". Dr. Omar agreed that "the arrogance of some faculty members to learn technology has started to die as they see growing number of their colleagues learn and use technology".

The Impact of ET faculty Development on Faculty Members' Practice

Faculty members identified three major impacts they believe the ET faculty development activities had on their teaching in classrooms. The first one was the increased awareness of the role of educational technology in improving the process of

teaching and learning. The second one was the utilization of technology-enhanced teaching methods. The third impact was the increased confidence many faculty members gained in using technology in their classrooms.

Increased awareness of the role of ET.

According to the stakeholders, all forms of ET faculty development whether formal or informal contributed to increasing the awareness of ET role among faculty members. Dr. Talal, who developed his skills of using technology through personal consultations and Internet, emphasized that he gradually gained a strong belief in what technology can offer to him. He explained; "at the beginning I thought that technology cannot do more than I do already…but when curiousness drove me to try to learn I discovered that I can do a lot with technology…I couldn't stop learning since then". Dr. Jamal noted in this regard that "if it was not for the technology workshops and the pressure faculty receive from watching their colleagues learn technology you'll never be able to see this increasing interest and trust in technology". He further described:

> Few years ago the norm was criticizing technology…whenever we talked about the need to learn and utilize technology, most faculty members argued that they can teach efficiently without it… now, those who still have this idea and they are very few can't disclose it loudly.

Dr. Omar agreed that "despite the lack of elements that insures successful ET faculty development; [one] cannot deny that the awareness of educational technology has increased… number of users also increased".

Utilization of technology-enhanced teaching methods.

Almost all faculty members who actually transferred what they learned in the ET faculty development to their classes indicated that these had a positive impact on their teaching strategies. They started to turn to teaching methods that incorporate the use of technology and rely on some technological tools to assess students' learning. Some of them also have begun to incorporate technology in class management.

Dr. Ameena described how her teaching strategies changed due to what she learned in the workshops she attended. She said:

> Personally I'm amazed by the different ways I can teach now…in many classes technology helped me initiate problem solving and collaborative learning. With Master's student, technology took away a lot of burden as they tend to be responsible for their learning. I actually enjoyed working with them as a colleague not a teacher where we worked together on discussing topics and surf the Internet in the class to find out resources on this topic.

To Dr. Naif, what ET faculty development offered him is not a change in his teaching strategies but rather an improvement in how to employ them. He explained;

> I have tried almost every teaching strategy that I believed would benefit my students but technology made applying them easier. I even for one time launched one of my courses on WebCT …discussions, group work, resources and communication provided me with a wide range of options to use different teaching strategies. Using the Internet tools I could see students collaborate, discuss, brain storm, provide examples and critique to arrive to what they believe

> a good syllabus, lesson plan or teaching method. It was exhausting to follow all these efforts but it was fun and enjoyable.

Some faculty members also noted how mature and rich their teaching has become as they integrated different resources other than the text books. Dr. Ameen indicated that he uses “different websites during class and ask students to surf and search”. Similarly, Dr. Hamad explained how rich his teaching has become with all the resources he could direct his students to. He said:

> I always considered my teaching incomplete since all I could use is the textbook or handouts and some references from the library. This eliminated the tasks I can give to my students and actually eliminated the different strategies I could use …now I can ask student to write papers, review websites, critique research and locate models …. I also ask them to exchange papers and provide feedback.

Increased confidence.

Faculty members who began to integrate educational technology after they learned it observed the positive influence this had on their confidence in class. The interviews indicated that increased confidence came not only from learning how to use new technologies but also from the improvement in their teaching strategies and the noticeable success in obtaining students’ attention.

Dr. Fatma started talking about the confidence she gained from learning how to use technology by saying, "with the technology I feel more confident and comfortable in classes because I have more resources to direct students to and to enrich my teaching … I don’t bore my students anymore". Dr. Ameen also made a comment about how “relaxed

he is in his classes observing more engagement from his students". Dr. Hussain believed that the workshops he attended gave him confidence in initiating discussions around technology as he was trying to avoid embarrassment. He said:

> Before I started to attend technology workshops I was avoiding any discussions about technology and you know how students are excited about it. I used to end this type of discussion because I was afraid one of them will ask me about something very simple and I will not be able to answer. I thought it is very complicated but after I got familiar with technology I gained confidence…I learned what everybody should know and also learned that there is nothing to be embarrassed about because not everybody knows everything about technology. I saw colleagues who I always considered to be experts making mistakes and just laugh about them with their students.

The Impact of ET faculty Development on Students' Learning

Faculty members made it clear that the impact of ET faculty development on students' was dependent on their effort to apply what they learned in the training sessions in the classroom. One faculty member said, "I can't think of a real impact because I didn't have enough support to apply what I learned in my lectures…on the personal side I can talk about how much I benefited even if I don't apply it but with students it is difficult" (Dr. Hamad). Dr. Ahlam also noted that although her knowledge in using technology improved as a result of ET faculty development, she could not see the impact of this improvement on students until she applied it in the class. She said: "in many cases I couldn't use what I was trained for because of the lack of equipment or because of other

reasons. So even when I encouraged students to use technology, I couldn't get them to do so…I had to use it in the class before I could start to observe a change in their engagement and style of learning".

Those faculty members who applied what they learned in ET faculty development indicated that impact on students' was often an increase in students' engagement, utilization of technology in their learning, and adopting technology-enhanced teaching methods.

Increase in students' engagement.

Most of the faculty members who attended any form of ET faculty development noted the effectiveness of technology in reducing or overcoming the boredom that happens during traditional classes. Therefore they tried to move the influence to their classroom. To them this was a very important success as they always struggled trying to keep students in focus and obtain their full attention.

Dr. Naif described his experience; "you see your students half asleep, yawning, and absent minded… you can't help it but feeling bad. Even if you keep them engaged in discussions, many try to avoid these discussions". He continued,

> I knew technology would help me but there was always this distance between knowing and experiencing…when I attended the Instructional Development Skills Workshop I saw the difference between the technology-enriched sessions and the traditional ones. That is when I decided to use technology in my classes and I'm very happy I did. My students now are more active and more engaged if I

> incorporate technology in class activities …this is really tempting. Now I don't feel bad during the whole two hours I spend with them.

Dr. Fatma from her own experience highlighted the extent to what her use of technology in the class encouraged her students to be more active. She said, "I feel they learn better when they use technology because with the lectures they feel bored and I used to feel that I impose discussions on them but with technology they find more relaxed atmosphere and they initiate the discussion. Now I try to take them to the computer lab at least for one hour".

To portrait the impact of her efforts to learn technology on student' learning, Dr. Ahlam made a comparison between her classes where she uses technology and those where she does not. She said:

> After I participated in some of the technology workshops, I started to apply some of these technologies in some sections…I couldn't do this in all my classes because it was difficult …so I started with some of the undergraduate classes and I could easily see the difference. Students in the classes where I used technology are more exited and I can keep their attention in a high level for more time while those in the other classes where I used the traditional lecturing strategy were easily distracted and it was not easy to keep their attention …yes I still need to do a lot with technology to keep students engaged but the result is worth trying".

Dr. Hussain, Dr. Ameena, and Dr. Humaid all highlighted similar impact. Their comments focused on more engagement of students when the lectures are supported with any type of technology in their classrooms. Dr. Hussain contended that his students "get

very engaged when they have technology enriched lesson designed". To Dr. Humaid what is important is the relaxed atmosphere technology creates for students and encourages them to participate. He explained, "I feel they are relaxed and they feel more free to participate…the class atmosphere is more comfortable with technology and I can hear more voices". Dr. Ameena agreed with Dr. Humaid as she noticed that "more students participated when [she] used technology…many students seemed to be less pressured when they used technology".

Increase in technology utilization in students' learning.

Faculty members observed that as they integrated technology in their teaching, their students utilized more technology in their learning. This appeared in the students' presentations, projects, and assignment. These became more resourceful, technology-enriched, and more comprehensive. Faculty members believed that students looked at their use of technology as a message to benefit from technology in their learning.

Students started to turn to other resources other than the lecturer and the text books to learn from. Dr. Naif mentioned that "[his] students in the last three semesters pointed out in their evaluation that they liked the way [he] used resource-based learning". He further described, "in their discussion my students referred to resources from the internet. Their research paper also relied extensively on the internet…although I'm not in favor of this and I always ask them to be careful with what they use but it is still a good improvement. In the past, I used to receive research papers with almost identical reference page".

Likewise, Dr. Fayez was gratified with what he viewed as an improvement in his students' learning as they utilized more technology in their projects. He believed that "their projects which utilized technology indicated a change in their learning style and improvement in their knowledge". He continued, "many of their project demonstrated their efforts to cover topics and issues that are related to the course content but not covered in the class…they didn't wait for me to explain every piece of the text book…they took the responsibility of their learning".

Dr. Ahlam addressed another aspect of her students' project that demonstrated improvement in their learning. She said, "their projects became more comprehensive as they turned to more resources…I can see them discuss different applications of theories, criticize, and make their own views ". From her point of view, Dr. Ahlam believed that by turning to different resources they can compare, evaluate, and make judgments. They can also by using different technology tools can present their views in a comprehensible way.

Adopting technology-enhanced teaching methods.

Faculty members emphasized that as they integrated more technology in their teaching, their students did the same thing in their practicum. Students started to observe role models in many of their educational classes. Student teachers embraced new technology-assisted teaching methods in the micro-teaching classes and in the schools where they teach for two semesters. Dr. Humaid, who supervises students in their practicum and teaches micro-teaching classes, noticed the shift as he said: "students now find technology more handy and easy to manage teaching with". He continued describing

his observation, "every time I bring a new element of technology to the class let it be computer software, a video tape, or a resource on the internet and actually use it in my teaching, I find students follow my steps at least in the micro-teaching where almost what is available to me is available to them".

Similarly, Dr. Sultan noted that applying what she learned in some technology workshops helped her filling the gap between what students are encouraged to do and what they experience in their preparation classes. She said,

> I have to admit that I was used to encourage students to integrate technology in their teaching. Even the assessment form contained items that evaluate student teachers' use of technology …. I used to tell myself that they should've learned how to teach with technology in the educational technology class but I knew if they don't observe it in the teaching method classes they will never learn it and this is what I observed after I started to integrate some of the technology in my teaching. Before that, many of us used to find in the course evaluation comments like: if you don't use technology why do you ask us to use it …. Now because we do integrate technology, they try their best to use it and I'm telling you they are much better than us in this…they just needed actual encouragement not a verbal one.

Relying on technology-enhanced teaching methods also increased as student teachers could find real life examples models and teaching lessons where they can see direct application and transfer to their own classes. Dr. Faisal explained this as he said:

> Students started to find electronic models of the best use of technology in classrooms. It is now easy for us to open up their horizons by providing them online models…now I receive fewer questions of this type: how can I apply this theory with technology? How can I teach science using this technology? If we don't have it how can we believe it does the job?

Summary

This chapter reported the stakeholders' perceptions of the effectiveness and impact of the ET faculty development in the COE at SQU. Overall, the findings reported missing elements from the practice of ET faculty development in the COE that contributed to eliminating its effectiveness.

Stakeholders reported that a lack of a supportive leadership and a reward system created an unfavorable atmosphere to undertake any form of ET faculty development. They also reported that the practice of ET faculty development in the COE lacks very important elements that are necessary to achieve maximum effectiveness. Some of these elements are: needs assessment, structured planning, clarity of purpose, systematic evaluation, follow-up, negligence of faculty members' knowledge level of technology, and irrelevance of ET faculty development content to the profession.

Despite their belief that the practice of ET faculty development in the COE lacks many of the important elements to be considered effective, stakeholders described the impact of some activities they in which they participated to learn educational technology. They believed that the available forms of ET faculty development contributed to an increased awareness of the role of ET and the formation of a technological culture in

which members use more technology and form networks to learn it. They also believed that participating in ET faculty development workshops encouraged faculty members to utilize technology-enhanced teaching methods and increased their confidence in the classroom. As for their students, faculty members noted an increase in their engagement and utilization of technology in their projects and practicum.

Chapter Six: Findings

Suggestions for Improvement

Introduction

This part of the findings illustrates what stakeholders think that should be done to improve the practice of ET faculty development in the COE. The responses were identified to fall in this section based on the meanings they hold that reflect a recommendation, suggestion, or an idea of improvement. I categorized the responses in this section into three categories based on the common meaning they embrace: the context, the process, and the content.

Suggestion to improve the context of ET faculty development

Stakeholders believed that the context within which they work should be supportive of their efforts to develop in the use of educational technologies. Therefore, they offer different suggestions to improve the context. These suggestions fall in three categories: a collaborative atmosphere, Consideration of the cultural background, and supportive policies and regulations.

A collaborative Atmosphere

It was worth the attention that all faculty members raised a concern about what they called "unhealthy competition" they believed characterize the culture in the COE. They recommended that the college's administration should work very hard on creating a collaborative atmosphere to replace this unhealthy competition atmosphere. They, with a focus on ET faculty development, believed that enhancing the utilization of educational

technology requires the efforts of every member in the college because it is a continuous process and this can only be achieved through collaboration.

Dr. Fayez said: "we need a more friendly and collaborative atmosphere among members in which they help each other and exchange expertise". He added: from my experience, learning technology is a non-stop process in which I shift from learning individually to learn from and with others depending on the content. It is, unlike every thing else, about creativity and I can only be creative by learning with and from others. We should focus in the COE of creating networks".

Similarly, Dr. Naif pointed out that:

> The COE's administration should reward the collaboration instead of unhealthy competition because development is learning and learning is best achieved and supported by collaboration. We can see it happening in some departments in the college. We always see the new Omani members forming groups and learn from each other either in research or technology. The college should encourage everybody else to do something similar.

He suggested that "the COE's administration can for example reward and appraise the efforts of a group in learning technology". Dr. Fatma agreed with her colleagues that informal networks are very important in creating a collaborative learning atmosphere. She said:

> The COE should give more attention to create informal networks that help us exchange experiences and find out problems and workout solutions. We always

> learn from each other even if we don't say it loud but we are all educators and we know it is happening. The college should build on this.

Faculty developers and trainers supported faculty members in the need for a collaborative atmosphere. Dr. Hisham said:

> Informal consultations not only with specialists but also with others as learners are very important in training and we actually encourage our trainees to go and teach their colleagues who did could not attend the training sessions but this always depend on their relationship. If there is an atmosphere of collaboration in the college then our job would be easier because we will be able to provide consultations to groups instead of individuals.

Dr. Omar encouraged the COE administration to reward any group effort to develop themselves in technology or any other aspect. He said:

> I can give many examples of successful group's effort to learn technology. One of these is in the Islamic Sciences department and the other one is in the Physical education department … Faculty members formed a group to learn informally and they always approached me in a group to get consultations and … I was thrilled with their attitude and actually learned a lot from them. I can tell you they are way a head of many others although they began with little knowledge about technology …. Something like this if acknowledged by any way say a grant or a reward will encourage others to work together".

Consideration of the Cultural Background

One important recommendation made by the faculty members was to pay enough attention to the cultural background of the trainees. According to them, the cultural background has a great influence on the readiness of some faculty members to participate in the faculty development process besides its influence on their willingness to learn technology. They claimed that some faculty members come from cultures that surrounds the university teacher with an aura of glorification which makes it hard on them to accept being learners again. Others come from institutions where technology is marginalized and therefore believe it is not important.

Dr. Hussain offered a piece of advice to faculty developers and trainers saying that:

> They should look beyond technological aspects. They should look at the culture within which they are trying to integrate technology; its specific features and specific needs. We have a complex culture. There are faculty members who have never had the chance to use technology. They need a different way to approach from those who studied and pursued their degrees in technology-rich institutions. They cannot deal with all of them in the same way.

Dr. Ahlam also recommended that in training faculty members who spent like 25 years in teaching, trainers should understand that they need different way of learning. She pointed out that "they first need to be convinced of the importance of technology. Some of them never used technology while some although used technology are convinced that they know everything and it is shameful to go back to learn". She explained that

approaching these faculty members "cannot be done through lecturing or forcing them to attend workshops …some of them got convinced and started to learn because they observed how their colleagues are doing much better with it while others rejected it because they were listening to things like if you do not use technology then you are behind".

Dr. Hamad touched on this point saying:

> In each department there are faculty members who graduated recently from universities that utilize technology and there are faculty members who never used technology. There are also faculty members who believe their learning process is non-stop and there are those who believe they reached the top and there is nothing they do not know about. It is as simple as this but when it comes to faculty development it is really critical to understand these differences. Trainers need to approach each group in different ways.

Dr. Omar, as a faculty developer and trainer, also thought this issue should be given more attention. He said:

> We should give special attention to faculty members who find it difficult to accept technology itself as well as learning it. It is not easy to deal with all faculty members as they are all willing to learn technology. In fact we have many who don't and we have to find our way to approach them. I think some of them started to understand the need to learn technology because they could see their colleagues and students work with it. We should build on this and let their learning process come from their colleagues in indirect way.

Policies and Regulations

What falls in this category is the stakeholders' suggestion of policies and regulation they think the COE should undertake to improve the practice of ET faculty development. These include formal status, a reward system, and linking ET faculty development to faculty evaluation process.

Formal status.

Almost all stake holders called for grant ET faculty development in specific and faculty development in general a formal status and consider it an essential part of the faculty member's job and responsibilities. They suggested giving it specific hours within the work load each semester.

To Dr. Saad this responds to his belief that

> The development in terms of instructional technology skills and instructional skills development should be mandatory … it should not be something up to the faculty member to do or not". He believed that "this is needed at least in the current stage until the college experience a transformation to full integration of educational technology.

However, some faculty members who also supported the idea of giving ET faculty development weight within the schedule and load of each semester did not support the idea of making ET faculty development mandatory since faculty members are aware of its significance. One of these was Dr. Fatma who suggested that any who has a clear plan for his own development can request specific hours of his work load to be officially assigned to faculty development. She explained her suggestion saying that:

"developing faculty members should be an essential component of the college's responsibility and should be given credits to insure the availability of time for faculty members". She added:

> If the process is given credit within our teaching schedules exactly like office hours and committees' work, then many of us will not find excuse to disregard it because of the lack of time. This will also encourage those who take it seriously to go on with it. We assign specific hours for committees' work and meetings why do not we do the same to faculty development.

Dr. Ameen and Dr. Naif were also in favor of allocating time for faculty development within the work load. Dr. Ameen said that:

> Faculty development should have more definite form in the college. It should appear on our schedules and we should prove that we really use this time for development. There is no need to force it on faculty members but if they show interest in spending time for one semester or two in faculty development then they should have openings in their work load. No body will go for extra work.

Dr. Naif from his side suggested that any faculty member who wishes to enroll in any form of ET faculty development should be offered a release time. He said:

> There should be policies and systems from the college to organize the time and load to allow us to participate in ET faculty development. Many of us dropped out of lengthy workshops because they could not get a release from the administration and we had classes to teach.

Faculty developers and trainers expressed a similar need. They contended that as many of them are full time members in the COE, all the time they spend in designing and conducting training is added to their actual work load and in many cases is done for no extra charge. Dr. Amer said:

> We need it to be part of our job either as trainers or trainees. It is too much pressure even if we get paid in return for the extra time but the fact that there is no body else to conduct it leave us with no choice …We teach, supervise students, research, do some administrational work and train. How can we give the best in each side?

Dr. Omar and Dr. Jamal also complained about the pressure they experience as full time faculty members and part time faculty developers and trainers. Dr. Omar said:

> Who looks at my schedule sees twelve hours of teaching, four office hours, two hours department meeting, and Master students' supervision sessions but I actually spend equal time designing and conducting workshops .... I also spend a lot of time with colleagues help them with their struggles with technology. It is too much to handle unless I get fair balance between my job as a full time faculty member and my job as a faculty developer and trainer.

Dr. Jamal, having the same concern, put it very forward as he wondered: "am I a full time teacher or a full time trainer". He added: "I need both roles to be valued by the college and recognized in my work load". The idea of giving the process of faculty development a formal status was also raised by some policy makers in the college who

thought it would play a great role in encouraging many hesitant faculty members to move forward in developing themselves in the area of educational technology.

Dr. Zayed thought that encouraging those who really work hard to develop their skills in using ET by allocating specific hours within the work load would be a great step to take. He said: “I think if the policy in the college allows each department to have like two hours each week committed to faculty development then we can arrange group training some weeks that fit all schedules and leave the rest of the weeks for personal training”.

A reward system.

Strongly related to requesting that ET faculty development should be given a formal status, stake holders expressed a need for a definite organizational reward system. Their perception of a reward system included both financial and non-financial rewards. Dr. Ahlam believed that

> Establishing a rewarding system of any type shows the commitment from the COE to faculty development”. She added; “incentives such as awards, grants, and extra conference funding convey a motivational message to the rewarded member and the other members that their efforts to learn are highly appreciated and they should continue.
>
> Dr. Humaid valued the award that is given annually to the best teacher and said:
>
> The best teacher award challenges many of us to work hard on improving their teaching and using more technology as these two are the main criteria to decide who wins it. I believe this creates a healthy competition and at the same time

> acknowledges the efforts that many of us spend to learn and improve. We need more of these awards or similar types of encouragement. Me personally I would appreciate a letter from the administration acknowledge my efforts in learning how to improve my teaching. We don't need much.

Faculty developers and trainers also emphasized their need for any rewarding system that motivates them to participate in training their colleagues. They specifically stressed on their belief that recognizing their efforts in faculty development encourages them to conduct more of the informal training that they consider very important. Dr. Omar said:

> It should be really connected to a recognition system let it be anything because it is unfair for those who invest time and effort and sometime money to develop and improve their use of technology while others ignore it and focus only on research that would grant them promotion . Therefore, we need to give them something that appreciates their efforts … something like awards, opportunities to study technology in other institutions, funds for research and conferences on technology or any form of appreciation.

He added:

> Not only faculty members need motivation but every one involved in the process. Faculty developers and trainers need motivation and appreciation for their efforts. Many of us do it for free and nobody knows about it. Appreciation is like fuel to keep the process going on.

Dr. Jamal, raising the same point, said:

> Faculty members need motivation to participate and we need it too. As you know many of the workshops we conduct are voluntarily even if they are formally organized and you know we do this in additional to our teaching load …. We need somebody to value our efforts so we can work both formally and informally with our colleagues. A simple thing would be helping us improving ourselves in the field of ET faculty development. We also need to learn in order to give faculty members the best. I would really love to attend a short course or a conference in ET and faculty development.

Linking ET faculty development to faculty evaluation process.

With few exceptions, faculty members, faculty developers, trainers and policy makers all believed that ET faculty development should be linked to faculty evaluation process. They believed that this will give the process of faculty development it is actual situation and will make faculty members take it seriously. However, they clearly stated that this should only be done if the process of faculty development is formally supported by both the university and the COE through resources, policies, regulations, and time allocation.

Dr. Fatma urged that "ET faculty development should be linked to faculty evaluation under the condition that it is a formal process that considers the members' time and load and give them an opening to be involved in the process". Similarly, Dr. Ameen thought that the "college administration should bring to the attention of the

members that their efforts to develop their skills of technology will reflect on their stay in the college". He explained the need for this as he said:

> Many faculty members focus on research to get the promotion or extend their contracts especially the non-Omanis because research is the dominant criterion in evaluation. If the university does the same to faculty development then we will see a huge shift and we will get all faculty members to go about it seriously.

Dr. Talal and Dr. Hussain raised similar need and similar reasons behind it. Dr. Talal started by saying: "I prefer to link the faculty evaluation with the ET faculty development but with condition that the faculty development is provided and supported". Dr. Hussain agreed with him saying:

> It is better if the ET faculty development will be linked to faculty evaluation especially if training and resources are available because when ET faculty development is left to personal decision many faculty members attend training sessions just to show others we attend but there is no actual application or proof on learning and development.

The faculty developer and trainer, Dr. Omar was also supportive of linking the ET faculty development to the faculty evaluation process. He said:

> I think if the university in general is investing too much in the utilization of ET they should make sure it is really used and they cannot do this unless they link it to the evaluation .... From my point of view, the present form of evaluation does not encourage faculty to use or learn technology. They rather devote most of their time to research because it is what determines their promotion. So if the university

> decides that faculty development becomes a clear criterion that determines promotion then we will see high commitment from faculty members to development.

Another supported of the idea was Dr. Saad who claimed that:

> Faculty development should be linked to all sorts of faculty evaluation. It should count for the faculty member's promotion but this is not happening… every faculty member has to prove that he has developed professionally one way or another and this should be linked to his promotion.

He justified the need for such a linkage as it ensures development. He said: "faculty members should accept it and university needs to adapt it because it is the only way that the university can be certain of the real development otherwise the process of development will fail because there is no competency".

Policy makers, although claimed that faculty development is already linked to faculty evaluation, believed this linkage should take a more organized way than just being displayed in the Curriculum Vitae. Dr. Sultan, who applied for promotion twice and served on the promotion committee, agreed that faculty members should provide what documents their development process. He said:

> In the promotion's committee the focus is on research while professional development and community service are hardly touched on. The committee does not require any evidence of the faculty development such as certificates of participation in workshops. It is up to the faculty member to provide such any evidence but to tell you the truth this does not affect the decision made. I

personally believe this should change and the three elements including research, professional development, and community service should carry actual equal weight in making the decision regarding contracts or promotions.

Suggestion to improve the process of ET faculty development

In this category, stakeholders talked about elements that should be involved in the process of planning, designing, and conducting effective ET faculty development. They suggested the need for a long-term structured planning; conducting regular needs assessment; participation of faculty members and ET experts in planning and design; utilization of different approaches; follow-up; and long term systematic evaluation.

Long-term Structured Planning

Faculty members, trainers, and developers suggested that the COE should carry out a long-term and structured plan for ET faculty development. They specifically stressed on the need for a long-term plan that focuses on their growing needs in ET; has a clear vision and mission; and embraces a clear strategy of implementation. Their underlying principle for the need for a long-term plan is the developing nature of technology and their need to keep abreast of this development.

Dr. Hamad's own view of the ET faculty development's plan is a long-term and well structured plan that offers more frequent activities and builds gradually on faculty members' efforts to learn. He extended on this view by saying;

The college should think of a plan rather than loose activities. We need a plan for the coming year and the year after; a plan through which each faculty member

knows what to expect and when to expect it. It is only with this plan they can keep the faculty members focused on their development in ET.

In accordance, Dr. Fatma said "ET faculty development should be permanent instead of one-shot activity. It should be a program that is part of our job. Exactly like our teaching classes. This program should run according to a plan not according to suggestions from here and there". In her perspective “this plan should have a clear structure of goals and strategies; and it should extend for a sufficient period of time to obtain effective results. The COE should understand that technology will continue to evolve and we as faculty members should keep pace”. Similarly, Dr. Fares stated that "there should be a clear specific plan about how to conduct ET faculty development, who is going to participate and most important how to follow up”.

Faculty developers and trainers, who shared the same conviction with faculty members regarding the need for a long-term and well structured plan to manage ET faculty development, gave more specific suggestions. Dr. Omar started by suggesting that "the element of ET faculty development should be identified and be linked to a system to be maintained”. He argued that

> If there is no clear vision and a plan that identifies who should be involved, who should run it, how should it be conducted, how should it be supported and followed, how should it be evaluated and for how long, the idea will die in no time.

Adding to this, Dr. Saad thought that "a devoted unit that takes care of designing, planning, conducting, and evaluating will help consolidating the idea of well structured long-term plan of ET faculty development". He rationalized his suggestion saying that

> If you take a close look at the whole picture you will find that the essential elements of a well structured plan exist but they are handled by different units inside and outside the COE; evaluating any academic activity is taken care of by a person in the academic office of the administration; the sabbatical leaves are the responsibility of CHR (Center of Human Resources); there is no such place for educational research; and any formal training activity is run by the Instructional Development Unit in the CET and they always say only one workshop in the semester. You can see how scattered are these important components of faculty development. Anyway I don't mean that we need to go and let's say seek resources from outside but there should be a unit taking care of having all the picture clear and knowing how to utilize the tools; and because supportive polices from the university exist, then I think that would bring more productive faculty development otherwise we will remain in this status.

Needs Assessment

Faculty members, trainers, and faculty developers expressed a very critical need to base any activity or approach taken to develop faculty members' skills in ET on real needs of faculty members in the COE. They criticized relying on assumptions or judgments from policy makers. Dr. Naif urged for a study that evaluates the weaknesses of faculty members in the area of ET and recommends what should faculty development

address. He said; "there should be a systematic and comprehensive study like needs assessment instead of random suggestions about what should be developed and in what areas should members be trained". He explained that if faculty development revolves around random suggestions then the individual needs will be neglected which will result eventually in low participation of faculty members. He said; "in technology we have varied skills and varied needs. If these skills and needs are not considered, we will not find interest in faculty development. This happened in the online learning workshops. Many of us loved to participate to learn but we did not have the necessary skills and the workshops were for advanced levels". He finished by saying, “they should be listening to faculty members”.

Dr. Humaid also believed that needs assessment will solve the problem of faculty members' low participation in ET faculty development. He said, "if the administration and those in charge of training within the college listen to the faculty members and determine their need precisely based on the research and experiences of other known organizations, I think the problem will be solved".

Focusing on the individual needs, Dr. Ameena said:

> When the administration in the college offers workshops in ET they look at us as a group but we have different needs and I don't think it is wise to neglect these needs. A needs assessment should address these needs and help experts design an effective program or plan.

Trainers also agreed with faculty members that ET faculty development should rely on strong foundation of needs assessment. They believed that systematic needs

assessment should replace assumptions and personal judgment from policy makers of what should be involved in the ET faculty development. Dr. Jamal thought that "planning for training should not revolve around one person's thoughts and excitement of anything". Instead he recommended "conducting real research that diagnose faculty weaknesses and identify areas that need development". He added;

> Sometimes we need to introduce faculty members to new technologies that we think are important or to fulfill a university requirement but even when this is the case we have to run needs assessment so that we can help them benefit the most from these technologies. It is not wise to ask every body to learn a specific thing while we know nothing about their prior knowledge and their readiness to learn it.

Dr. Omar, a faculty developer and a trainer, said that "for ET faculty development to have a positive impact [it] should be based on a formal needs assessment instead of impressions". He even recommended that "needs assessment should be conducted by decision maker to give it more formality which conveys a message to faculty members that the college is taking serious steps about ET faculty development".

As a policy maker, Dr. Fayez believed that the needs assessment will take the process of ET faculty development steps ahead. He said regarding this aspect:

> We definitely need a research or needs assessment that identify weaknesses and suggest how to improve them. Maybe because we do not have a structured program for ET faculty development in the college, no body thinks its his responsibility to do it but if our goal is to gain the best of any workshop we should care about needs assessment.

Participation of Faculty Members in the Planning and Design of ET Faculty Development

Faculty members insisted on the critical need for their participation in the planning and design of ET faculty development in the college. They rested their demand on the fact that they are aware of what they need to learn and how can they learn it. Many of them talked about treating them as adult learners who are responsible for their learning. They also argued that neglecting their long experience in planning and designing teaching is a waste of a very rich resource.

Dr. Faisal suggested that when planning and designing any ET faculty development form, "faculty members should be there. We know what do we need and how to achieve it. We just need somebody who is a specialist in educational technology to set with us and we can design a very functional activity".

Dr. Ahlam argued that in the context of educational technology, the participation of faculty members becomes even more important than other contexts. She referred this to the fact that individual skills vary clearly in the use of technology. She said,

> The faculty development process should be planned carefully with the input of each faculty member since there are individual differences that appear to be more critical when dealing with learning new technologies and who can address these differences better than the faculty members themselves. We teach and we know what we lack so with our input the process will be easier and we will feel encouraged to participate because it is from us to us.

Another faculty member expressed this need by saying "I wish to see people who are fully responsible to listen to the faculty members, discuss their problems, and plan with them the solution…these people should be qualified enough to act as developers" (Dr. Talal).

Faculty developers and trainers from their side agreed that the practice of faculty development should always involve faculty members in the planning and design. Dr. Amer, in his perception of what an effective ET faculty development should involve, said:

> I will conduct a formal survey to determine to what extent and how ET is integrated within the educational process in the COE. After gaining a picture of the real status of ET integration, I will work on creating awareness and necessary development with faculty members themselves. It is all about them; they know what they lack and what they need. We should only be facilitators.

Dr. Jamal suggested that all stake holders should work together to reach an appropriate level of understanding that will result in a useful form of ET faculty development. He said,

> I think that there should be a very close coordination not only on the committees' level … there should be people talking to each other in all levels of administration, of academic areas, of technical areas so the preparation of our training will reflect the faculty's real needs.

Participation of ET Experts in the Planning and Design of ET Faculty Development

Faculty members suggested that ET specialists from within the COE should take more responsibility in the ET faculty development. They believed that being part of the college gives ET faculty a distinctive position in understanding their colleagues' needs and meeting them easily. Dr. Hussain put this very forward as he said, "faculty members in ET should have greater role in faculty development because they understand our fields and until recently they were part of the Curriculum and Teaching Methods department. They come from inside the college". Similarly, Dr. Fatma indicated that working with colleagues who share a similar background and understands what hinders many faculty members from learning technology is appealing. Specifically, she emphasized that "having colleagues as trainers would encourage more faculty members to participate because they know the specific needs related to their educational background and content areas will be taken into account".

Dr. Jamal, a faculty developer and a trainer, saw in the involvement of ET specialists from the COE a necessity. His opinion was that if ET specialists are given more role in the decision making process regarding ET faculty development, they will be able to fill many gaps that non-specialists cannot even realize they exist. He said in this regard:

> The leadership needs to consult with specialists in ET or IT who can give the right advice on how to structure or how to compose an effective training program for the college's staff members and I think that now the ILT department can play an

> important role in providing such an advice and such a consultation for the deanship of the college.

Utilization of Different Strategies and Approaches of ET Faculty Development

Stakeholders raised the need for approaches and strategies to ET faculty development other than workshops. They suggested individualized one-to-one formal consultation; formal technical help; and train the trainer. Dr. Fatma, Dr. Naif, Dr. Hamad, and Dr. Talal all suggested that individualized approaches with a focus on each individual's needs but in a formal way will benefit them more than workshops do. They argued that individualized approaches will minimize any embarrassment and will fit in their class schedules.

Dr. Naif believed that "one-to-one is more effective to [him] than workshops because in workshops the training targets a group average skills and needs but with one-to-one approach his own skills and needs are considered". He added saying that

> I know it is coasty to offer individualized approaches taking into account the number of faculty members in the college but starting with this kind of approaches at least in the early stages will insure faculty members' confidence to participate in group approaches.

Dr. Hamad also addressed the need to take more individualized approaches to help many faculty members learn technology on their own pace. He explained; "using individualized way of training will help many of us learn in a way that suites their abilities. Workshops leave many of us behind because in many occasions we can't measure up to the advanced level of others".

Technical help was the second approach suggested by stake holders. Dr. Ameen thought that "ET faculty development should take other approaches than just workshops such as technical help". Their concept of technical help is the availability of technicians whose job is to offer help and advice in any technical issue at any time to the faculty members. Dr. Talal expressed his need for such technical help by saying

> If there are more technicians to help us whenever when need… not those technicians in the labs who are supposed to help students and work on their own job needs…we need others whose time is devoted to help faculty members learn technology and keep what they learn in training sessions.

Dr. Fayez extended on this point by suggesting that if it is coasty to provide this technical help then the college can appoint students as part pf their practicum or internship to help faculty as an alternative. He said;

> If there is assistance to help us this would be good even if they are students…students are very good and they show this in their projects and the annual exhibitions in the COE so why do not. We now have those majored in instructional technology and they can help many of us learn technology.

Dr. Jamal, a faculty developer and a trainer, valued the idea of technical help. He contended that:

> Having technical help disk or assigned technicians to help faculty members learn and utilize technology will be a very good approach. We always loose the connection with them when they finish the training sessions and their complaint is always that they lack the help in real application. We need specialists to work

> with them in the settings of their classrooms but we cannot do it ourselves. We are faculty members ourselves. We cannot also hand in the responsibility to technicians who have their own job of handling labs and computer systems in the COE. So I think having any type of technical help will be very effective.

Another type pf strategies suggested by stake holders is the training of a trainer. Dr. Omar explained the idea and its advantages;

> We should start FD or at least part of it with a small group from each department and let them be the trainers and then we choose another two so that each one in each department feel that he is a source and is important to everybody else as they are important to him in their technology knowledge.

Dr. Fares agreed that having trainers from the same department will make it easier for faculty members to link the technology they learn to their content area. He suggested that:

> Each member in the department should have a chance to be trained to train his colleagues. This will not only help in focusing on our content area but will create an atmosphere of collaboration in learning technology and no body will be left out.

Follow-up

To faculty members, faculty developers, and trainers; follow-up was one basic element they reported missing from the practice of ET faculty development in the COE and one basic element they insist on having in any future plans. To them follow-up is a process that follows any type of ET faculty development and aims to assist faculty

members in transferring what they learned to their real setting such as classrooms. It might take different forms such as long-term evaluation and technical support but its primary concern is improving faculty members' efforts to apply what they learned in any ET faculty development form.

Dr. Ameen saw in follow-up a way to keep faculty members attached to what they learn. According to him, "there should be a follow-up especially with technology since it is easy to forget the learned skills if not taken right away to real application. With all efforts to train them, you don't want to see these efforts in vain ". Dr. Hussain agreed that in order to achieve real applications, there should be some kind of follow-up such as progressive reports of what is applied, meetings to discuss difficulties of application, and recurrent evaluation.

Faculty developers and trainers from their side wished for a plan that allocates resources and time for follow-up. Dr. Omar suggested that they should be given time and resources to follow-up with faculty members in their attempts to transfer what they learned in workshops to their classrooms. He claimed that:

> Learning to integrate technology especially for the first time is a struggle to many faculty members and if left alone in this they usually tend to discontinue what they started. Here comes the need for a follow-up. We should be given the opportunity to follow-up at least one semester after the workshop to evaluate how far trainees have gone with what they learned and to resolve any issue that might hinder them from using what they learned". He added that "we can follow-up by conducting observations, having regular meetings with faculty members, provide

them with supportive hardware and software as well as technical help. We just need time and resources because we are not full time developers and trainers.

Dr. Amer concurred with Dr. Omar in that:

Follow-up is very important for improvement. In the training workshops trainees learn as a group but when they apply what they learned they do it as individuals. Only then they face a lot of problematic situations where they need help such as technical help. We also as trainers need to see if what we teach is relevant to their context and this can only be measured through follow-up.

Dr. Hisham, who is a HOD, agreed with faculty developers, trainers, and faculty members in that planning for any activity in this area should involve follow-up. He described the process of follow-up as “the corner stone and safety key in the success or failure of ET faculty development workshops". He, however, argued that most of the follow-up should be the faculty members' responsibility.

A Long Term Systematic Evaluation

Strongly related and considered part of the follow-up, a long term systematic evaluation of the application and impact of ET faculty development was demanded by almost all stakeholders. The evaluation, according to stakeholders, should utilize other strategies such as observations, students' achievement and portfolios in addition to questionnaires.

Dr. Talal argued that "any educational practice should involve evaluation but of course not those questionnaires that are kept in drawers". He rather hoped for

> A continuous evaluation that extends over a long time after the workshop to evaluate how good [faculty members] are doing with what [they] learned. Many might not like it but if they understand that it is for their own benefit then they will happily accept it.

Dr. Ameena, who used to conduct a self evaluation where she asks students to reflect on her teaching and how they benefit from it, talked about her need for “a specialist to work with [her] to assess how effective is [her] utilization of technology and identify what is wrong with it and how to improve it". She strongly believed that a continuous evaluation "will keep [her] empowered to utilize more technology as [she] can identify what needs improvement and how to improve it.

Faculty members extended on the need for a long term evaluation and suggested forms and strategies that they think will benefit them. Among these strategies are course materials' analysis, portfolios, and observations. Dr. Hamad talked about analyzing course materials "the long-term evaluation should evaluate the course outlines, objectives, and assignments to see how faculty integrate the technology they learned". To him this is important because “it shows to what extent the faculty members really recognized the importance of ET to his content area".

To Dr. Sultan, portfolios that “document the journey of ET development; set goals and time lines; present ways to achieve these goals; and provide actual application of what is learned such as syllabus and students’ projects and assignments should be part of the evaluation process”. Dr. Omar, as a faculty developer and a trainer, agreed with Dr.

Sultan that portfolios with no doubt will effectively serve the process of ET faculty development as a whole not just the evaluation. He said:

> Why don't we do like business sector, instead of reflecting on how do like the workshop or the food, we should a present a portfolio after we attend the training reflect the impact and benefit of the training on the personal context and work. Portfolios are effective tool of learning and evaluation. If we have a well structured plan I would ask each participant to document his learning in a portfolio. It is a very constructive resource not only for the trainees but also for trainers to improve their practice.

Faculty developers and trainers also highlighted the great benefit of observations as an evaluation strategy of the ET faculty development impact. Dr. Saad said "direct observations are better for long-term evaluation. They give us the right picture of the real application". Dr. Amer suggested that

> There should be visits to faculty members' classes to observe their application of what they learned. Documentation of these visits in return for sending faculty to training should benefit them because together we can review their direct application and provide advice on some aspects that need improvement …the goal of these visits or observations is not to say this one failed or that one succeeded …no, it is to help all of us improve.

Some faculty members thought indirect observations such as video taping their classes for evaluation is better than classrooms visits from trainers. Dr. Fatma said: "classrooms visits are good but not practical for us … I can instead video tape my lecture

and review it with a specialist to see what is wrong with my applications". Others did not like the whole idea of observations. Dr. Faisal said: "I don't think I can teach while being observed by somebody else other than my students …it is hard in university setting".

Suggestion to improve the content of ET faculty development

In their suggestions for a better practice of ET faculty development, faculty members focused on the content and how it should takes into account the participants' technology skills and their profession as well as covering other technology-related topics.

Content's Appropriateness to the Participants' Level of technology Knowledge

Faculty members showed a very serious concern about the prior knowledge of technology they already have when they participate in training sessions. Many of them reported the lack of necessary skills and knowledge needed to participate in some workshops. They suggested that workshops should be offered to different levels as many of them are still beginners while others are very advanced in using technology.

Dr. Ahlam recommended that "ET faculty development workshops and activities should be offered gradually from the basic to the advanced levels". She explained that in many cases faculty members "felt left behind because the trainer assumed that they retain the basic skills while they don't".

Dr. Bader similarly stressed on this point as he thought it is the reason behind many participants dropping out. He said: "when I participate in a workshop and find myself lack the basic skills while everybody else is advancing in their learning then definitely I will leave. This happened to me and to many others. ". Dr. Naif provided an example supporting this need. He said:

> Take for example the Web CT workshops. They offered plenty of them but no body bothered learning about how much we know about online tools. Talking about myself I tried to participate in the first one then dropped out, then in the second one and same thing happened until I decided I will not participate unless I learn the needed skills and tools.

Bringing this need to the attention of faculty developers and trainers, they all agreed that designing content suitable to participants' levels in technology is a necessity in effective ET faculty development. Dr. Amer said;

> It is not only a problem that participants face but we also go through a lot of pressure and stress observing our efforts to train them go nowhere because they cannot match up with others in their learning as they lack the basic skills. We need to design content that builds on what the participant knows. In some workshops we tried to group participants according to their skills but this was not easy since the time and resources were pre-determined.

Policy makers also agreed with faculty members, faculty developers and trainers in that content should take into account the level of technology knowledge of participants. Dr. Hisham, an HOD and Dean's Assistant, stated that "I think we should give this issue more attention in the future. We always tried to benefit more participants but this lead to neglecting the individual differences and thus made many participants drop out".

Content's Relevance to Participants' Profession

Faculty members suggested that the content of ET faculty development must directly relate to their profession as teacher educators. They recommended that content should shift from just focusing on learning technology to how to integrate technology in educational setting. They indicated that this empowers them to learn technology as they see its value for their teaching and their students' learning.

Dr. Ameena indicated that:

> In workshops where the trainers have educational background it was easy for participants to link what they learn to their teaching because trainers were concerned of relating it to education but where trainers did not have any educational background it was hard because they could not answer questions concerned with teaching and learning.

Similarly, Dr. Talal suggested that trainers and faculty developers should collaborate with faculty members to design a content that links directly to their content area or at least to the practice of teaching and learning. He said:

> When we learn about technology we need to learn how it can benefit us as teachers and benefit our students otherwise we will not care to apply it. This not to say it is all the trainers' responsibility. It is also our responsibility to help them understand what we need in our specific content area and how we think technology can help.

Dr. Omar indicated that they are aware of this need and they tried to respond to it in many workshops either conducted in the COE or university wide since all participants are university teachers. However, he explained that:

> It is tough when we have trainers from outside who do not have any educational background. Sometimes this is imposed on us so we cannot do anything about it but in cases where these trainers were flexible we sat with them and tried to reach an understanding of what should be involved in the training but this did not always work as many of them come from pure technological background. Dr. Amer believed that:
>
> Faculty members specifically those who are in their early stages of learning educational technology should see how technology benefit them in their teaching to keep them empowered to learn. So the content of any form of ET faculty development should emphasize this. That is why we started offering the Instructional Skills Development Workshop in each college …. We also try to cooperate with faculty members from each department who acquire good knowledge in technology to conduct the training … yet, we have to work on this in more systematic way.

Content Should Address Issues Such as Copy Right and Ethical Use of Technology

Faculty members, showing a great awareness of the advancement in technology, raised a need to learn about issues related to the use of technology such as ethical issues, copy right, and plagiarism. Dr. Fayez said about this matter:

> Technology is not only hardware and software it is also how do we use it. We need to know what is legal to use and what is illegal. There are a lot of resources available on the internet and many of us think that we can use whatever we like but I know that there are copyright codes and many of us do not know about them.

Likewise, ethical use and copy right was a concern for Dr. Hussain who claimed that "I tried to learn about these things myself and got a fair idea but there are still specifications I need to learn about especially when designing online courses since we integrates a lot of audio and video materials from the internet".

Dr. Ahlam and Dr. Ameen both raised their concern about students plagiarizing from the internet without faculty members being able of discover it. Dr. Ahlam said: "it is important for us to know ways that students can plagiarize from the internet and how to prevent them from doing so". Dr. Ameen commented on Dr. Ahlam's concern saying that: "it is not just the matter of us don't want to be tricked by students but most importantly they as future teachers shouldn't just look at the internet as a source of copying but rather a rich resource of knowledge".

In agreement, Dr. Zayed stated that:

> In different meetings of our department we discussed the issue of students plagiarizing from the internet and faculty members raised their need to learn how to discover plagiarism … As a faculty member myself I have to admit that many times I suspected students copying from the internet but couldn't prove it. That is why I would like to participate in training sessions where I learn about this issue.

Dr. Amer, as a faculty developer and a trainer, agreed with faculty members in the need broadening the content of ET faculty development to cover issues related to the use of technology. He said: "we should in planning and designing ET faculty development focus on ethical issues such as copy right, plagiarism, and human relationships within a technological setting".

Dr. Jamal also contended that ET faculty development should cover other topics than just how to use and integrate technology in teaching and learning. He said:

> If it is up to me I will not just touch on these issues in our workshops as we do now but I will devote a series of seminars or workshops to cover them and make it compulsory for all faculty members to attend. These are important issues and faculty members have to become full aware of them if they want to use technology and the COE should pay a great attention to this.

Summary

This part of the findings illustrated the stakeholders' suggestions to improve the practice of ET faculty development in the COE. To improve the context within which ET faculty development takes place, stakeholders called for an atmosphere that encourages collaboration instead of competition in learning educational technology. They also proposed some regulations and policies that will improve the ET faculty development in the COE. Some of these policies are establishing a reward system and linking ET faculty development to the faculty evaluation process

To improve the process of ET faculty development, they recommended conducting needs assessment, enrolling faculty members and ET specialists, and

designing a long-term well structured plan. In the conduct of ET faculty development they suggested utilizing new strategies such as technical help and individualized approaches. They also suggested that a follow-up and a continuous evaluation should always follow any type of faculty development. They also suggested that the content of ET faculty development should take into account the level of technology knowledge of the participants and that it should be relevant to their profession. They recommended that the content should highlight issues and topics related to the utilization of technology such as ethical use of technology and copy right.

Chapter Seven: Discussion and Recommendations

Introduction

This chapter summarizes the findings in this study and relates them with the existing literature on the ET faculty development. It also discusses the implications from the study and suggests further areas for research.

This phenomenological evaluative case study aimed to determine through in-depth interviews, focus groups, and document analysis whether ET faculty development in the College of Education (COE) at Sultan Qaboos University (SQU) was effective and determine elements of effectiveness as perceived by the stakeholders. Stakeholders included faculty members who participated in any type of ET faculty development, faculty developers, trainers, and policy makers at the COE. It also explored the impact of ET faculty development on faculty's practice, students' learning, and the organization as perceived by these stakeholders.

The study investigated and answered the following questions

1. *Contextual*: What is the status of ET faculty development at the College of Education?
2. *Diagnostic*: From the stakeholders' perspectives, why there is a need for ET faculty development? And how this need is recognized at the College of Education?
3. *Evaluative*: From the stakeholders' perspectives, are the available forms and efforts of ET faculty development effective? And what contributes to their effectiveness?

4. *Evaluative*: From the stakeholders' perspective, what is the impact of the ET faculty development activities on professional practice, students' learning, and College of Education culture and policy?
5. *Strategic*: From the stakeholders' perspectives, what are the specific suggestions to improve the ET faculty development both on the conduct and content levels to create space for more creative and excellent activities?

To achieve answers to these questions, the study employed in-depth interviews and a focus group along with document analysis.

Status of ET Faculty Development in the COE

Findings revealed that ET faculty development in the COE take the form of two approaches: formal and informal. The formal approach basically consists of workshops that are offered from the COE's administration or the CET. The formal workshops are not part of any institutionalized program or plan that is responsible of faculty development in the COE or the university.

While workshops are emphasized in the literature as the most common used form of ET faculty development, they are less preferred by faculty members (Lenze, 1996; Murray, 2002a). Faculty members instead preferred one-to-one and small group training which is also highlighted in the literature as the most preferred form by faculty members (Cavanaugh, 2002). Maxwell and Kazaluska (1992) talked about making workshops more effective by organizing them around principles of expertise, disciplinary knowledge, and a personal interest. Literature also indicates that higher education institutions are shifting towards institutionalized programs of faculty development to

achieve the best outcomes and gain the needed organizational support (Murray, 2002a; Schmitz, 1998).

The informal approach relies basically on the faculty member's own interest and motivation. It takes the form of personal consultations; voluntary workshops; technology conferences; technology books and the Internet; graduate studies; and programs and workshops in other institutes. Literature indicates that informal forms of learning and professional development "play a significant part in the enhancement of professional capacity" (Becher, 1999, p. 205). However, little attention is given to them and they are rarely considered models of professional and faculty development (Becher, 1999; Knight, 2002).

Awareness of the Need for ET Faculty Development

Findings reported high awareness of the need for ET faculty development among stakeholders in the COE. They believe that ET faculty development equips them with the needed knowledge and dispositions to meet students' expectations of high quality and technology-enriched teaching; and increases the credibility of the college's programs in an atmosphere of competition. Literature talks about students' being the primary customers in higher education where they expect a high quality teaching in a technology-enriched environment (Sander, Stevenson, King & Coates, 2000) and also seek accountable educational programs in which technology is an essential component (Camblin JR & Steger, 2000). Moreover, faculty members believe that ET faculty development help them become models in the effective integration of technology which

prepare the pre-service teachers to use technology in their teaching (Cavanaugh, 2002; Marshall-Bradely & Bradely, 1998).

Faculty members in the COE also believe that ET faculty development plays a vital role in increasing the awareness of the role of educational technology in improving teaching and learning. It allows faculty members to understand the potential of educational technology and encourage them to use the available resources and tools to model technology-enhanced teaching and learning (Padgett & Conceicao-Runlee, 2000). ET faculty development initiatives also contribute to overcoming Technology-phobia and increase the confidence in using technology among faculty members especially the seniors. King (2003) talks about how faculty development is a journey through which hesitant and fearful technology users transform "to people who can independently learn technology and discover new ways to change their teaching and learning through the medium" (p. 53).

Directing them to the available resources and services of ET appeared to be a major concern for many faculty members. They are aware that the resources and services are available for them but they cannot find their way to approach them. This is expected since many of the resources and services are offered from centers outside the COE such as the CET and the CIS.

Effectiveness of ET Faculty Development

The findings of the perceived effectiveness coupled with those of suggested improvements imply that that there are many factors and elements contribute to the effectiveness of ET faculty development. The lack of many of these elements and factors

reduce the effectiveness and therefore the impact of any initiative ET faculty development.

Context's Elements and Factors

There are different elements that should be present within a context to make it suitable for effective ET faculty development. The first among these elements is the adequacy of resources whether physical, financial, or human. Literature describes access to these resources as one main factor that assures the effective integration of new technology (Doherty & Ayers, 2002). It is also essential, for faculty developers and trainers, to design activities faculty development activities within the limits of the available resources to avoid faculty members' frustration when trying to apply their learning in the classroom (Mouza, 2002).

The second one is the supportive leadership that believes in a faculty development as a change process that demands careful planning and designing (Hamilton & Brown, 2003). It encourages, values, and recognizes individuals' and groups' efforts to learn technology. Padgett & Conceicao-Runlee, 2000). In a context where there is a supportive leadership, all stakeholders share the decision making and the responsibility of handling the process of faculty development (Roth, 1999). An important aspect of a supportive leadership that is often discussed in the literature is the role of faculty developers. Literature cautions from the obvious restraining the role of faculty developers which often results in effective ET faculty development (Marshall, 1998) as the finding implied.

The third element that contributes to effective ET faculty development and implied by the findings is the existence of a reward system that connects to faculty

members' efforts to learn and integrate technology. All stakeholders indicated that the absence of such a system form a barrier for many faculty members from taking their efforts to learn and integrate technology a step further. Padgett and Conceicao-Runlee (2000) talk about the particular significance of a reward system that provides incentives and financial support; and meet workload expectations in ET professional development as it encourages them to transfer it to their actual teaching.

The fourth element that stakeholders believe should be available to facilitate effective ET faculty development is a collaborative supportive atmosphere. within which faculty members work and learn together; share experiences, ideas and opinions; identify problems, solve them, and develop better practices (Mouza, 2002).

The fifth element in this category is the presence of cultural background and language barriers. In a composite culture where there is a wide variation of nationalities, age, study backgrounds, and proficiency of English language; it is important to attend to these concerns. Literature hardly discusses the issue of language that appears to be a barrier that some faculty members face when trained for the use of technology. Many teachers who do not speak English or do not use English in their teaching, believe that technology is intended for those who understand English (SEIR*TEC, n.d.). In the specific context of the COE at SQU, many faculty members do not speak English and are not required to use it in their teaching therefore they find it difficult to understand the many terms used by the trainers.

Process's Elements and Factors

Findings provide significant insight regarding the elements of the process that handles effective ET faculty development. These elements together insure the efficiency of conducting any activity.

Structured and careful planning is the first element that any form or activity of ET faculty development should begin with. Planning should be directed by a clear vision, goals, and purpose that are linked to the organization and individual's goals. Lack of structured planning created ambiguity of the purpose of any workshop among faculty members. It also affected the quality of faculty developers and trainers work in designing and delivering these workshops. Literature assures that failure to achieve a form of structured planning results in a serious of loosely, isolated, single purpose activities that are unlikely to produce the desired change on both the personal and organizational level (Murray, 1999; 2002a; 2002b).

The structured planning was also viewed by faculty members as a process in which they should participate. Murray (2002) speaks about faculty participation in planning and designing as a motivator to enroll in the faculty development activities. Similarly, Lawler and King (2000) perceive faculty's participation in planning as a necessity that maintains their control over the learning process, their independency, and their experience as adult learners.

Related to the need for structured planning and design of ET faculty development comes the significant need for needs assessment. It appeared that none of the workshops offered to the faculty members in the COE was based on their real needs or took into

account their level of technology skills and the nature of their profession. They found that most of these workshops irrelevant, thus decreasing their motivation to participate. Chism (2004) and Webb (1996) believe that there is no point in avoiding needs assessment if the goal is to make activities more likely to be considered by faculty members and foster effective learning. Similarly, Bland (1998) specifically addresses the importance of needs assessment that attends to the particular needs of faculty members in their unique context.

The lack of clear criteria for selecting trainers, which was noted by faculty members, reflected on their confidence in the trainers and the content offered to them. McCoy (1998) believes that on the long run, selecting the right trainer to deliver the effective training will lead to more positive impact. He recommends selecting the person who knows enough and is enthusiastic about the subject matter, who acquires effective interpersonal communication skills, and has experience in training.

Selecting the right format of delivery is another element that works towards effective ET faculty development. While workshops seemed to be the only delivery format of ET faculty development in the COE, faculty members were less enthusiastic about it. They instead showed preference for small group training and individualized approaches. Literature indicates that workshops are not the most effective strategy to deliver training (Lenze, 1996). There are other formats that proved to be more effective and more desired by trainees such as personal e-learning, learning communities and networks, grants, peer consultation, resource materials, individualized programs, self-study tutorials, coaching and mentoring (Godwin, 1998; Maxwell & Kazaluskas, 1992; Schuck, 2002).

The preference of a specific delivery formats is closely related to the teaching strategies undertaken by trainers. Many faculty members did not show preference for workshops because the trainers treated them as a group where their individual differences, needs and experiences were neglected and the training was in the form of a step-by-step manual. Literature highlights the role of utilizing adults learning principles in increasing the effectiveness of ET faculty development activities. In the literature of adult learning, learners expect a participative learning environment that provides climate of respect and utilizes collaborative modes of inquiry that builds on their experience and learning goals (Knowles, 1980). Adult learners also prefer real and authentic learning situations that originate from their daily practice in the classrooms (Crawford & Edwards, 2001).

Another variable that contributes to the preference of a specific format over another is the amount of assistance and follow up, faculty receive while applying what they learn in the classroom (Sorge & Russell, 2000). Literature on ET faculty development gives an exceptional emphasis to follow-up as an element that is expected to increase the rate of learning transfer from training sessions to real context (Lawler & King, 2000; Mouza, 2002). Strategies like personalized support on technology, tools and services, a community of learners to draw help from, help desk, and house calls assist faculty members with the application of types of technology they learned in their teaching (Bai & Lehman, 2003; Goodle, Carbonaro & Snart, 2002) .It was apparent in this study that faculty members, although motivated to apply what they learned, did not receive any form of follow-up.

Systematic continuous evaluation that aims to identify the weaknesses and strengths of the practice in order to improve it is a very critical element. However, findings reported a dramatic absence of this element. This can be attributed to the lack of a clear structured plan or program. Even in large-scale workshops, the only form of evaluation was satisfaction questionnaires. Literature indicates that the absence of systematic evaluation is common in the practice of ET faculty development (Guskey, 2002; Kreber & Brook, 2001). This results in little information on the effective activities and their impact, which eventually influence the improvement of these activities (Champion; Lawler & King, 2000).

Content's Elements and Factors

The findings showed that the faculty members did not specify any technology topics that should be included in ET faculty development. They rather specified two criteria that should shape the content of any form of ET faculty development. The first one is the content's appropriateness to the participants' level of technology knowledge. Models of professional and staff development assume that, to be effective, programs and activities should take into account the level of technology knowledge, skills, and abilities of the faculty members (Bennett & Bennett, 2003; Holland, 2001). Identifying these levels help the faculty developers and trainers in designing activities that address learning needs, satisfaction, frustration, and concerns which together affect how faculty members learn (Holland, 2001).

The second criterion is the content's relevance to the profession of teaching and learning. Literature indicates that while faculty development programs often emphasizes

general knowledge and skills of technology, faculty members tend to be concerned with learning technologies that relate to their disciplinary knowledge and teaching tasks (Bai & Lehman, 2003). Jacobsen (2001) notes that programs focusing only on increasing technology skills are ineffective. Research, therefore, recommends that to sustain a long lasting impact of faculty development program, content should be focused on students' learning; grounded in the content area; designed to support daily class practice; and appropriate to the faculty member's context of resources and responsibilities (Tirosh & Graeber, 2003). It is also important for faculty members to learn about other issues related to the use of technology such as ethical issues and copy right. This is part of their role as teachers.

Impact of ET Faculty Development

It was clear that determining the impact of the available forms and activities of ET faculty development in the COE, whether formal or informal, was quite a challenge to the stakeholders. This is not surprising since very important elements that facilitate application and transformation of learning such as follow-up and continuous evaluation are missing. Add to this the complexity of determining the impact where it may vary widely as a function of the context of the individual's professional, position, background; and the training's content and process (Belzer, 2003; Guskey, 1997). However, direct observations and self evaluation carried out by the faculty members provided some indicators of positive impact on the college's culture, faculty members' profession, and students' learning.

The Impact of ET Faculty Development on the College's Culture

The impact of ET faculty development on the college's culture was difficult to identify and describe. In the earlier stages of data collection, I noticed that direct questions about the impact on the college's culture formed some sort of reluctance among the interviewees. I, therefore, modified my approach to talk about their expectations of the culture when having a definite form of ET faculty development. Their responses tended to articulate these expectations in a form of comparison between the culture in the past (four or five years ago), in the present, and in their expectations. The literature on ET faculty development provides an explanation as it talks about the difficulty of directly evidencing the impact of the of ET faculty development on the organization's culture despite the volume of data gathered (Oliver & Harvey, 2002). It argues that this impact can only be inferred metaphorically via changes of the perceived organizational image and literally via changes in the collegial relationships (Oliver & Harvey, 2002).

The stakeholders observed some changes that reflect the formation of a technological culture in the COE. More reliance on technology in the daily activities of faculty members and requesting more technology and support are among these changes. In their evaluation of the EFFECTS project impact on the institution, Oliver & Harvey (2002) found that after participating, the academics tended to request more technology support and hardware. They believe that the project directed the academics to the way through which they can seek support.

The formation of technology learning networks pointed out by the stakeholders also reflected a change in the collegial relationships and set the stage for a collaborative

atmosphere. The evaluations of some projects such as the Inter-institutional Faculty Summer Institute on Learning Technologies at the University of Illinois at Urbana-Champaign (Bullock & Schomberg, 2000) reported similar impact as their participants formed communities to encourage each other in their application and exchange experience. Literature argues that the improvement in collegial relationships is sometimes more important to the faculty members than learning the technology itself as these relationships provide them with support and confidence to learn and develop (Sorcinelli, 1994).

The Impact of ET faculty Development on Faculty Members' Profession

In contrast to the impact of ET faculty development on the college's culture, the stakeholders were able to describe the possible impact on their own practice and attitudes towards teaching. The increasing awareness of the role of ET in improving their teaching was the first distinct impact they could identify. Although, many of them could not transfer what they learned to the classroom due to the lack of follow-up, they were still able to observe the change in their awareness of the value of ET. As many faculty members described it, they used to believe that the educational technologies cannot offer something they do not have. However, after enrolling in some workshops, they began to understand the potential of these technologies in empowering their teaching by offering new resources to adopt different teaching strategies and enhancing students' learning. A similar impact was indicated by the participants in the evaluation conducted by Bullock and Schomberg (2000). They indicated that they have gained continuous increasing

understanding of the learning technologies potential, their benefits to both instructors and students, and the different types available for their use after participating in the program.

Enrollment in the available forms of ET faculty development also encouraged many faculty members to turn to teaching methods that incorporate the use of technology and rely on some technological tools to assess students' learning. Some of them also have begun to incorporate technology in class management. Some forms of these strategies are: in-class presentation using the Internet tools, students' projects that incorporate technology, online discussions and communication with students. Belzer (2003) and Kahn and Pred (2001) argue that utilizing and integrating new technology tools as well as adopting new ideas and concepts in teaching is the most often reflected impact of ET faculty development.

Faculty members also emphasized the increased confidence they gained by applying and transferring what they learned in the workshops to the classroom. They believed that this increase in confidence is a result of improving their knowledge of using and integrating technology in teaching and engaging their students in learning. Research, evaluating the impact of professional development programs and initiatives, reports that participants become more confident in their teaching because they improve their own learning of technology which allow them to try new ideas and give them greater flexibility in their teaching strategies (Cordingley, Bell, Rundell, & Evans, 2003; Davies & Priston, 2002).

The Impact of ET faculty Development on Students' Learning

Literature underlines the complexity of directly identifying the impact of professional development on students' learning due to the dynamic interaction of different elements such as the content, format, context, supportive environment (Guskey, 1997; 1998). Therefore, measuring the impact on students learning is argued to be better done by focusing on the processes rather than the products (Oliver & Harvey, 2002; Serban, 2002). Faculty members in this study, who actually transferred what they learned in the workshops to their classrooms, used their observations of the students' learning processes to identify the possible impact. None of the faculty members actually touched upon the area of students' achievement. This might be due to the lack of systematic evaluation.

The increase in students' engagement and utilization of technology in their learning were the most visible impacts faculty members reported. Reviewing the literature on faculty development, most studies reported similar impacts (Mitchem, Wells & Wells, 2003; Doherty & Ayers, 2002). Cordingley, Bell, Rundell and Evans (2003) argue that when teachers adopt new strategies of teaching and apply new technologies as a result of professional development, they motivate their students to improve their performance and correspond to the new technology by utilizing it in their own learning. This also applies to the new teaching strategies that pre-service started to apply in their practicum. Faculty members, who integrated technology in their teaching, observed that their students began to integrate elements of technology in their lesson plans, micro teaching classes, and practicum in schools. Literature refers this to the fact that, in preparing them to integrate technology, pre-service teachers need to experience their

educators modeling teaching with technology (Cavanaugh, 2002; Marshall-Bradely & Bradely, 1998).

Recommendations

The findings and the discussion chapters attempted to capture the complexity of effective ET faculty development and revealed ways in which it influences faculty members and their practice and the factors which contribute to this process. The understanding of these findings derived recommendations that may serve as a framework for ET faculty development in the COE. The framework encompasses seven broad elements.

Develop a Comprehensive Plan for ET Faculty Development

The findings indicated that the COE lacks a structured program or plan that offers a coherent range of ET faculty development activities. Such a program or a plan should include all important elements such as a vision, goals, and guiding principles.

Develop a shared vision: It is important that all stakeholders engage in building the vision through reflection and discussion. This establishes a distributed leadership that supports more independence of faculty members in their process of development. The vision should articulate the purpose of ET faculty development; its goals; and the desired impact on the faculty members, the college, and the students' learning. Without this vision and its translation into action, a lasting impact of any ET faculty development activity or form will be almost impossible.

Develop clearly defined goals: it is also important to develop realistic and achievable goals consistent with the vision and the context's elements such as the human and financial resources. These goals should not be set from the administration but through discussions and negotiations among all stakeholders.

Develop guiding principles to implement the vision and the goals: once the shared vision is reached and the goals are defined, the faculty developers and the trainers should develop a "blueprint" document such as guiding principles on how to implement them. This document should always be subjected to revision through reflection and discussion to respond to the emergent needs and changes of both the stakeholders and the field. The 'blueprint' document should provide a clear picture on the strategies for implementation, human and technical resources, capacity, and budget

Involve faculty members in planning: shared input and decision are critical for faculty members to feel that they are in control of their learning process.

Conduct Needs Assessment

The findings indicated that a big obstacle of participation is that the available forms of ET faculty development in the COE are not meeting the needs of the faculty members. They complained that the offering seemed based on the assumptions of policy makers not on their real needs. Assessing the real needs through ongoing discussions and reflections should be the first step in implementing faculty development. One important element that needs assessment should involve is assessing the faculty members' existent skills and experiences in the use of technology.

Provide Variety of Delivery Strategies and Models

Delivery strategies should not be limited to workshops. Other forms such as individualized programs, grants, and small group training should be utilized. It is also important to establish multi-level strategies that target the different levels of technology knowledge faculty members acquire. Faculty developers and trainers could consider creating different tracks within the same activity or form. Another option is using technology in delivering faculty development. Surprisingly, technology such as e-learning as is under-utilized in the COE while it can improve access to faculty development on a personal convenience. The faculty developers should consider designing online faculty development programs and activities that would allow individualized activities targeted for specific needs.

Provide Follow-up

To achieve the intended impact, it is very important that every effort made to help faculty members transfer what they learned to their real context. Providing supportive follow-up after the conclusion of any activity is crucial towards the successful implementation in the classroom. Follow-up could take the form of on-call help or in-class technical support responsible for troubleshooting and assistance.

Develop a Process for a Continuous Systematic Evaluation

Where there is no definite shape or structure for ET faculty development, it is not unexpected to lack a continuous systematic evaluation. This is what the findings of this study revealed. Evaluation should become an integral part of all ET faculty development activities and forms. It should not be part of the academic exercise but rather an

institutionalized process that informs ET faculty development practice and its findings should be used in the planning, design, and delivery. Useful evaluations incorporate strategies to reflect on and plan for action based on the findings and recommendation which they produce. The evaluation should consider both the collective and individual inputs of all stakeholders.

Increase Participation in ET faculty Development through Responding to Faculty Members' Needs

It is important to acknowledge that no matter how high the quality of any faculty development program or activity, the impact will be always limited to the number of participants it reaches. Therefore, to strengthen the desired impact of ET faculty development, more efforts should be done to increase and broaden the participation of faculty members.

Focus on teaching and learning, not on technology: the ultimate goal for faculty members to learn technology is to improve their teaching and their students' learning. They do not care about the technology but about what it can offer to the teaching and learning.

Allow for different learning experiences: faculty members need concrete hands-on experiences in using the new technology or skills. The content of the ET faculty development should build on their actual experiences in teaching. For example, faculty members need to experience developing technology-enriched curriculum in their subject area.

Encourage and support the individualized plans for ET faculty development: many faculty members prefer to work individually on their development and they have their own goals and strategies. Some of them who reached higher levels of technology integration do not find in group activities any value. It is important for them to receive all the support to apply their plans.

Reinforce the Factors that Support ET Faculty Development

Establishing a culture that encourages ET faculty development and collaboration among its members is another important factor. The administration should support and find ways to show the appreciation of faculty members' efforts to develop their technology skills.

Support faculty members: the administration should highlight the efforts of faculty members to learn and integrate technology. They should, for example, attend and participate in the ET faculty development activities to develop a comfort atmosphere among faculty members.

Provide more time for ET faculty development: many faculty members, even with the motivation to participate, find it almost impossible to join many activities because of the lack of time and other professional commitment. Policy makers need to set policies and regulations that allow a release time for faculty members. They also need more time to transfer the knowledge they gain to their classrooms and to observe its impact.

Provide atmosphere of collaboration: an optimal environment provide opportunities for faculty members to work and learn together. It promotes sharing

their experiences, concerns, problems, and solutions. It is important to encourage and support any effort of faculty members to collaborate and learn together such as forming learning networks.

Establish a reward system: another element is to offer incentives or build a reward system for innovations made at classrooms using technology such as developing technology-enriched material or trying a new technology.

Encourage informal ET faculty development: findings highlighted many forms of informal ET faculty development that faculty members turned to in the absence of a comprehensive program. These informal forms should be also supported and recognized to encourage faculty members become lifelong learners.

Recommendation for Further Research

This study is an exploratory study that provides a base to understand the dynamics of ET faculty development practice in the COE and identify the key variables that contributes to its effectiveness and impact. This provides the foundation for several important areas of study.

1. Typically, the process of evaluation requires that evaluators define norms and criteria against which success will be assessed. As this evaluative case study aimed basically to understand the dynamics of ET faculty development practice in the COE and what might contribute to its effectiveness, the outcomes can then be presented as key variables and used as pre-defined criteria to design other evaluation instruments.

2. As this study was concerned with determining areas of effectiveness and impact, it did not measure their extent. Another study or a second phase of this study could build evaluative instrument to measure the extent of each area.
3. The findings of the study revealed the role of the informal forms of ET faculty development in providing faculty members in the COE with the needed skills. A study could be designed to further explore the potential of these forms and to draw recommendations on how to better incorporate them.
4. Since this study is limited to the COE in the SQU, similar studies could be done in the context of the other colleges to reach a collective view of the ET faculty development in the university as a whole.

Conclusion

This study has explored the real status of ET faculty development in the COE at SQU from the perception of stakeholders. It also identified what they believed to be the key elements of effective ET faculty development and identified to some extent what stakeholders believed is the impact of the available ET faculty development forms. It appeared in the study that although the stakeholders are aware of the critical need for ET faculty development programs and initiatives, there has been no serious effort to transform this awareness into structured form of program or plan that has a clear vision, goals, and strategies. There are only loose one-shot workshops that are offered occasionally to train faculty members in the use of new technologies.

The findings revealed the need for a comprehensive plan for ET faculty development through which real needs in learning technology are assessed and strategies

are developed to meet these needs. The findings also revealed the lack of follow-up and evaluation that encourage and support faculty members in applying technology in their classrooms. The stakeholders also expressed a need for a supportive leadership and a reward system to support the faculty members in their efforts to learn technology.

Within the limitations of lack of follow-up, evaluation, and the actual transfer of what is learned to the classrooms, stakeholders could only provide a rough picture of the impact of the ET faculty development forms in which they participated. They noted the improvements in integrating technology in their teaching increase in their confidence as teachers. This in their point of view lead to more engagement of students in learning and more utilization of technology in their projects and their teaching as pre-service teachers. The college's culture, in their view, has become a technological culture within which faculty members rely on technology in their daily activities and form networks to learn technology.

The study has implications to improve the practice of ET faculty development. It recommends that the COE develop a comprehensive plan of ET faculty development in which it defines the vision, goals, and strategies. It also recommends conducting needs assessment to assess the real needs of the faculty members and offering different types of delivery strategy that respond to these needs. Another recommendation is to provide follow-up and conduct continuous evaluation to ensure application. The study encourages the COE to supports ET faculty development by reinforcing important factors such as encouraging a collaborative atmosphere, a supportive leadership, establishing a reward system, and involving faculty members in the process of planning and design.

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Appendix A

The Computer Lab Plan and the Learning Resource Center (LRC) Plan

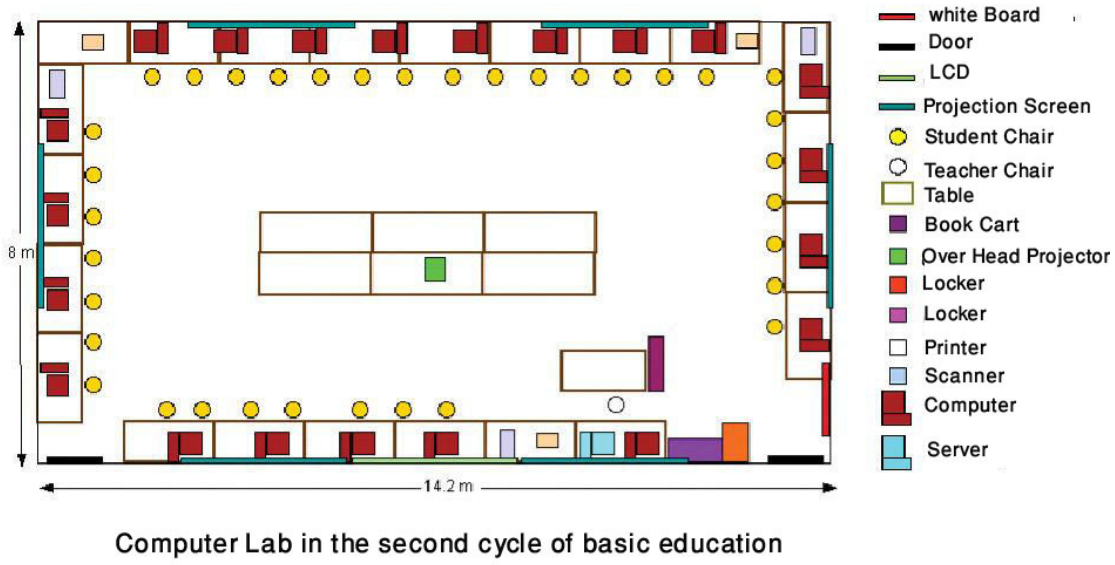

Figure A 1. **Computer Lab in the Second Cycle of Basic Education.**

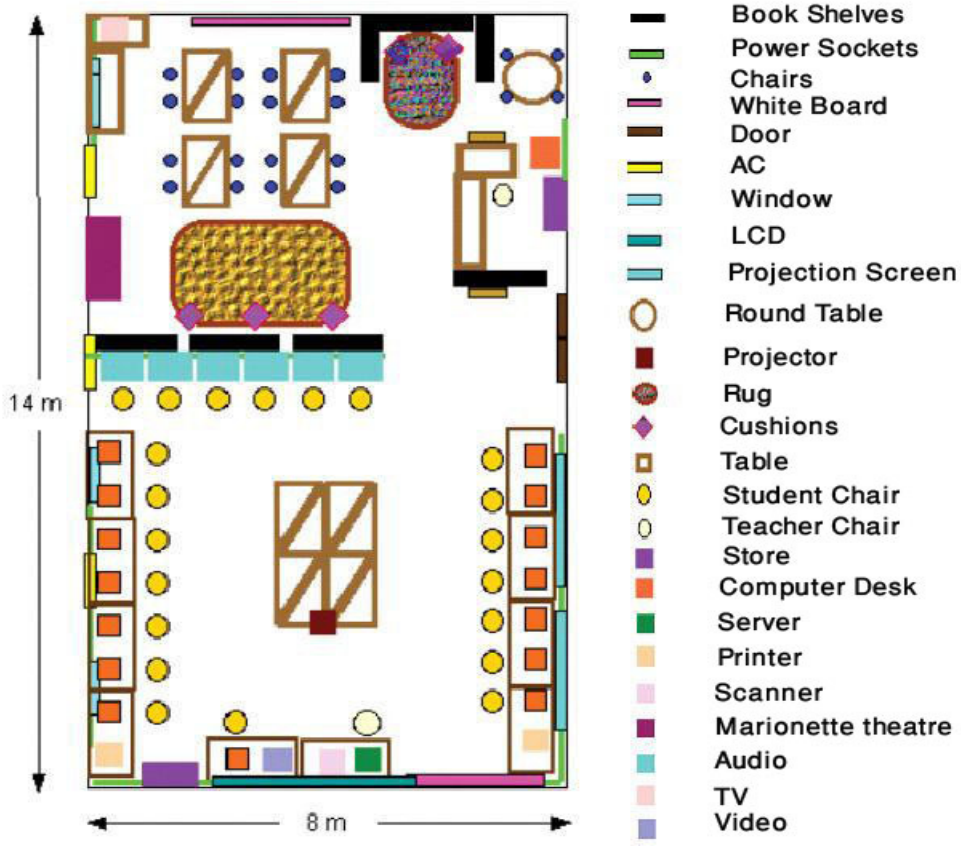

Figure A 2. **Learning Resource Center in the First Cycle of Basic Education.**

Appendix B

Examples of the Software and the Computer Programs in the Schools

Table A1.

Software in Basic Education- First Cycle (Grade 1-4) 2003-2004

Comments	Software
Copy/PC	Apple Works 6.2.4 Arabic/English
"	Kid Pix Studio Delux 4.0 Arabic/English
"	File Maker Pro 6.0.3 Arabic/English
"	Samy ’s Science House 1.0
"	Quran encyclopedia
"	Quran Stories

Table A2.

Software in Basic Education- Second Cycle (Grade 5-10) 2003-2004

Comments	Software
Copy/PC	Typing Trainer
"	Apple Works 6.2.4 Arabic/English
"	File Maker Pro 6.0.3 Arabic/English
"	Hyper Studio 4.2 Arabic/English
"	Web Workshop 2.0 Arabic/English

Table A3.

Software in Basic Education- Grade 6, 2002-2003

Comments	Software
Copy/PC	Inspiration 7.0 Arabic/English
4/School	ROBO LAB Software Site 2.5 Team Challenge Set - 9790
5/School	Thinking Things 3 Arabic/English

Table A4.

Software in Basic Education- Grade 7, 2001-2002

Comments	Software
Copy/PC	Journal Zone 1.0 Arabic/English

Appendix C

The Modules of the Instructional Skills Development Workshop

No	Module	*Objectives*	Description
1	Teaching and Learning in Higher Education	1.Define the concept of University 2.Study various models of university setting focusing on teaching/learning processes. 3.Investigate methods of developing a university curriculum in relation to social and academic needs. 4.Reflect on the participant's personal experience.	This module explores the concept of university, teaching/learning innovations, the University mission and objectives, together with curriculum development in higher education and social/academic change.
2	Course Design	1.Discuss theory and principles of course design. 2.Analyse models of course design through practical examples. 3.State objectives. 4.Analyse content and tasks. 5.Design course in area of specialization.	This module covers principles, elements and steps of course design with emphasis on practical examples from the participant's specialisation.
3	Instructional Strategies and Communication Skills	1.Identify components of instructional strategies. 2.Apply effective instructional strategies. 3.Use verbal and visual communication skills.	Standard and personal successful instructional strategies together with their components and the development of transferable communication skills will be presented, along with planning and organization of lessons/lectures/ seminars according to ASSURE model and events of instruction.
4	IT in Teaching/Learning	1.Use computer and software independently to develop IT skills. 2.Utilise IT to support teaching and learning.	The use of computer, Word, PowerPoint, Internet, Excel, E-communication in the design/ selection/production of teaching/ learning materials; and as creative tools to prepare/deliver instruction is highlighted.
5	Design, Selection, Utilisation of Media	1.Design different types of instructional media to support teaching and learning. 2.Select appropriate media. 3.Uutilize media effectively.	This module introduces principles of designing, selecting and utilizing media to achieve instructional objectives.
6	Assessment of Teaching Outcomes	1.Discuss the role of assessment in teaching and learning. 2.Analyse components of assessment and evaluation. 3.Construct different types of tests.	This module is concerned with the form, nature and purpose of the assessment of student learning. It covers methods of assessment and models of

		4.Analyse test items and results.	evaluation, test construction and item analysis using practical examples.
7	Academic Advising, Supervision and Credit System	1.Discuss the process of supervising and advising students. 2.Determine role and tasks of an academic advisor.	This module deals with supervisor/advisor relationship with students and the use of different approaches to helping them. The process and techniques of academic advising and the role of the academic advisor will be highlighted.
8	Research Management, Grants, Publishing and Statistical Package	1.Write funded research proposal. 2.Identify qualities and leadership of project management. 3.Analyse data using different statistical packages. 4. Investigate main items of published paper. 5. Investigate ways of getting research grants.	This module looks at skills and qualities needed to write and publish papers, manage and lead research, deal with statistics and results,; and ways of funding research.

Appendix D

Informed Consent Form

Title of Research: "The Perceived Effectiveness and Impact of Educational Technology Faculty Development Activities in the College of Education at Sultan Qaboos University"

Principal Investigator: Mariam Alwashahi

Department: Educational Studies/ Instructional Technology at Ohio University

Federal and university regulations require signed consent for participation in research involving human subjects. After reading the statements below, please indicate your consent by signing this form.

Explanation of Study

Purpose of Research

The researcher is conducting a research study to evaluate the effectiveness and impact of educational technology faculty development activities in College of Education at Sultan Qaboos University from the perception and experiences of stakeholders such as faculty members, policy makers, faculty developers, and trainers.

Procedures to be followed

If you volunteer to participate in this research, you will be asked to participate in the following research methods:

(1) One-to-one in-depth interview with the researcher
(2) Focus group of 5-6 people
(3) Provide any documents that you think support your input to the research (e.g. course syllabus, students' projects or assignments, feedback from participants in the educational technology faculty development activities)

Duration of subject's participation

Participation in the one-to-one interview will take approximately 1-2 hours and participation in the focus group will take 1- 1.5 hours.

Risks and Discomforts

Participation in this study does not involve any type of risk or discomfort.

Benefits

Participation in this study will provide personal benefit to the participants because their responses will provide a better understanding of the effectiveness and impact of educational technology faculty development activities offered to them. Such information can contribute to the improvement of future activities and development of more effective programs and activities. Their response can also contribute to the change in college procedures and policies related to offering faculty development activities.

Confidentiality and Records

Any information or records associating data with participant's name will remain confidential and will be disclosed only with your permission.
All research data and records will be saved in hard and electronic formats and will be locked in file cabinet to prevent access by unauthorized people. All data and records will be destroyed following the completion of the research.

Participation and withdrawal

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study.

Contact Information

If you have any questions regarding this study, please contact Mariam Alwashahi, Principal Investigator at (+740) 594-4928 / (+968) 99446652 or ma124402@ohio.edu or Dr. Teresa Franklin, Advisor at (+740) 593-4561 or franklit@ohio.edu

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, (740)593-0664.

I certify that I have read and understand this consent form and agree to participate as a subject in the research described. I agree that known risks to me have been explained to my satisfaction and I understand that no compensation is available from Ohio University and its employees for any injury resulting from my participation in this research. I certify that I am 18 years of age or older. My participation in this research is given voluntarily. I understand that I may discontinue participation at any time without penalty or loss of

any benefits to which I may otherwise be entitled. I certify that I have been given a copy of this consent form to take with me.

Signature_____Date_____

Printed Name_____

Appendix E

Interview and Focus Group Questions Guide

Faculty member interview

1. In what activities of ET faculty development have you participated?
2. How do you perceive that the content of ET faculty development activity was relevant to your professional learning goals?
3. Was the delivery strategy of the activities effective? How do you describe their effectiveness?
4. Was the trainer organized and knowledgeable of the topic and your background in using technology?
5. What forms of support and follow-up have you received after the conclusion of the activity?
6. What are you doing with technology in your courses now?
7. Is your use of technology in the courses a result of any ET faculty development activity you attended? Can you describe how this activity influenced you decision to use technology.
8. What are your future plans for technology integrations?
9. Are your plans a result of any ET faculty development activity? Describe how the activity influenced your plans
10. Would you attend ET faculty development activities?
11. If yes, what would you like to see in future activities?

12. What are your perceptions of the impact of ET faculty development activities on your students' learning processes?
13. Are you engaged in any kind of collegial learning network as a result of ET faculty development activities? Can you describe them?

Trainer/Implementer Interview

1. How do you choose the content and delivery strategy for your training sessions?
2. Do you run any pre-assessment of faculty's skills and backgrounds? Describe it.
3. How do you ensure that faculty apply what they learn in their classrooms?
4. How do you assess their learning?
5. Do you provide any support for the participants after the conclusion of the activity? What are the forms of this support?

Faculty Developer Interview

1. How do you identify the needs of faculty in technology integration?
2. Do you consider these needs when designing the activity? How?
3. How can you describe your relationship with the faculty members within the college?
4. Do you participate in policy making regarding the ET faculty development activity and support of faculty's effort to integrate technology? How can describe your participation
5. How do you perceive the impact of these activities on faculty's practice and the college?

COE Administration Interview

1. What are the college/department plans to help faculty integrate technology in their teaching?
2. What kind of support and reward does the college/department provide faculty to encourage them integrate technology?
3. Is there any impact of ET faculty development activity on the college/department culture? How can you describe it?
4. What are the future plans to improve the ET faculty development?

Appendix F

Modules Evaluation Form

Sultan Qaboos University
Center for Education Technology
Instructional Development Unit

Instructional Skills Development Workshops
Modules Evaluation Form

1. General Information

College/Center	
Specialization	
Date	**Workshop**

2. The Presentation

Item	**5 Strongly agree**	**4 Agree**	**3 Undecided**	**2 Disagree**	**1 Strongly disagree**
Concepts/Ideas are clear					
Concepts/Ideas are new					
Concepts/Ideas are applicable in teaching					
More materials are needed					
AV tools/equipment used are helpful					
Lecturing environment is helpful					
Time is enough to cover all ideas					

3. The Presenter

Please give your comments on the presenter, where: 5= strongly agree, 4= agree, 3= neutral, 2= disagree, 1= strongly disagree

Items	**1**	**2**	**3**	**4**	**5**
Explaining ideas/information					
Designing/Using media effectively					
Giving lively/relevant examples					
Discussing and questioning					
Achieving goals					
Evaluating learning					

4. Approximately how much did you know about this topic before attending this workshop?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

5. Approximately how much did you know about this topic after attending this workshop?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

6. Did this workshop meet your expectations?

Yes No

If no, in what ways it did not meet your expectations?

_____

_____

_____

7. Was there anything else you had hoped to get out of the workshop and didn't?

_____

_____

_____

8. Any other comments

_____

_____

_____

Appendix G

Modules evaluation Form

Sultan Qaboos University
Center for Education Technology
Instructional Development Unit
Instructional Skills Development Workshops

Modules Evaluation Form

1. General Information

College/Center
Specialization

2. Please, range the workshops according to your view of their importance from 1 to 9:

☐	**Academic Advising, Supervision and Credit System**
☐	**Design, Selection, and Utilization of Media**
☐	**Instructional Strategies and Communication Skills**
☐	**Teaching and Learning in Higher Education**
☐	**Assessment of Teaching Outcomes**
☐	**Research Management, Grants, Contracts and Academic Publishing**
☐	**IT in Teaching/Learning**
☐	**Computing at SQU**
☐	**Course Design**

4. The Presentations

Item	5 Strongly agree	4 Agree	3 Undecided	2 Disagree	1 Strongly disagree
Concepts/Ideas are clear					
Concepts/Ideas are new					
Concepts/Ideas are applicable in teaching					
More materials are needed					
AV tools/equipment used are helpful					
Lecturing environment is helpful					
Time is enough to cover all ideas					

5. The Presenters

(Please give your comments on the following items in the given spaces)

Explaining ideas/information _____
Designing/Using media effectively_____
Giving lively/relevant examples_____
Discussing and questioning_____
Achieving goals_____
Evaluating learning_____

4. Please rate the importance of each module, where 1 = not important, 2 = somewhat important, 3 = important, 4 = very important, and 5 = highly important.

	NI	SI	I	VI	HI
- Teaching and Learning in Higher Education	**1**	**2**	**3**	**4**	**5**
- Course Design	**1**	**2**	**3**	**4**	**5**
- Instructional Strategies and communication Skills	**1**	**2**	**3**	**4**	**5**
- Computing at SQU	**1**	**2**	**3**	**4**	**5**
- IT in Teaching/Learning	**1**	**2**	**3**	**4**	**5**
- Design, Selection, and Utilization of Media	**1**	**2**	**3**	**4**	**5**
- Assessment of Teaching Outcomes	**1**	**2**	**3**	**4**	**5**
- Academic Advising, Supervision and Credit System	**1**	**2**	**3**	**4**	**5**

- **Research Management, Grants, Contracts and Academic Publishing**	**1**	**2**	**3**	**4**	**5**

5. Any Other Comments

_____
_____
_____

Appendix H

Workshop evaluation Form

Sultan Qaboos University
Centre for Education Technology
Instructional Development Department

Workshop Evaluation Form

1. General Information

Institution
Field of teaching
Length of teaching experience
Number of workshops attended

2. Workshops' Organisation

	Positive				Negative
Item	1	2	3	4	5
I was informed about them early in the semester					
I was informed about the place of their conduct					
I think that the place where they were conducted served in achieving their goals					
I think that their schedule was well-organised					
I think that the timing was good					

3. Workshops' Quality

	Positive				Negative
Item	1	2	3	4	5
I found them useful					
I found them related to my subject area					
They satisfy my own expectations					
They satisfy my own academic needs					

4. Workshops' Notes

	Positive				Negative
Item	1	2	3	4	5
I received the handouts of all workshops					
Handouts' contents were satisfactory					
I think that other notes and media were helpful					
More notes should be given					

5. Other Comments

Please use the following space to give your own thoughts and/or suggestions for improving these workshops.

Thank you for your cooperation

Coding .

1. a.
   b.
   c.
   d.

2. a.
   b.
   c.
   d
   e.

3. a.
   b.
   c.
   d

4. a.
   b.
   c.
   d.

Appendix I

Workshop Evaluation Form

Sultan Qaboos University
Centre for Education Technology
Instructional Development Department

Workshop Evaluation Form

Institution
Field of teaching
Length of teaching experience
Number (or name)of workshops attended

Item	Yes	No
I was informed about them/it early in the semester		
I was informed about the place of their/its conduct		

Item	Strongly agree	agree	neutral	disagree	strongly disagree
I found them/it useful					
I found them/it related to my subject area					
They/It satisfy my own expectations					
Handouts' contents were satisfactory					
I think that other notes and media were helpful					
I think that more notes should be given					
They/It satisfy my own academic needs					
I think that the place where they/it were conducted served in achieving their/its goals					
I think that their/its schedule was					

well-organised					
I think that the timing was good					
I received the handouts of all workshops					
I think that they/it achieves its goals					
I found the content suit my practical needs					
There was enough activities that cover a wide range of skills					

Other Comments

Please use the following space to give your own thoughts and/or suggestions for improving these workshops.

Thank you for your cooperation