

JERT MISSION STATEMENT

The Journal of Educational Research and Technology (JERT) is a peer-reviewed journal engaged in the publication of professional educational research with emphasis on educational technology, management information technology, professional development, educational enrichment research, academic and administrative information systems, information sciences, management information consulting, advertisements, academic collegiate conferences, and community education development summits to show the advantages and the broad range of possibilities that education, research and technology can offer in the educational and the world community. The journal is equally engaged in organizing and advising on conferences, workshops and seminars on invitation for publishing and presentation of research papers and original manuscripts that promote further research and knowledge in the humanities and the sciences in the USA, Africa and the world at large. The JERT is scheduled to be published three times yearly: January, May and September.

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JERT EDITORIAL POLICIES AND CONTRIBUTIONS 1. The JERT editors will consider manuscripts that are organized in accordance with the Mission, Journal Publication, Educational Technology, Management Information Technology, Professional Development, Educational Enrichment Research, Academic and Administrative Information Systems, Information Sciences, Management Information Consulting, Advertisements, Academic Collegiate Conferences, and Community Education Development Summits. Please feel free to contact us at (469) 7445290 or E-mail: jesin57@gmail.com. 2. Personal and professional opinions, ideas, recommendations articulated in the (JERT) do not necessary reflect the views of the Editors.

3. All manuscripts must be accompanied by well-synthesized Preamble or abstract of approximately 100-200 Words.

4. Manuscripts must not be less than ten (10) pages and not exceed twenty (20) pages in length, and must have outstanding and innovative educational, research, and technology features.

5. Manuscripts must be typed double-spaced in Microsoft Word version 2003 or 2007 and printed on 20 pound papers (8.5" x 11").

6. JERT will not consider politically goaded manuscripts for publication.

7. The author of the research manuscript must submit two original copies. Each copy should contain a cover page with the name of author, topic/title. The essay proper should not have any author's name or indication of origin, except for the topic/subject at the top of the paper. This is for blind reviewing

8. All research manuscripts must be submitted with 15-20 cited-references, and 5-10 noncited references, double-spaced, and arranged in alphabetical order.

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9. Footnotes are strongly discourages but when used should be typed double-spaced, and on a separate page.

10. The basic style of writing is the American Psychological Association (APA), though room will be given for the Modern Languages Association MLA where literature and languages are involved.

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Preface

When Shakespeare's King Duncan in Macbeth confessed that "there is no art to read a mind's construction on the face," he revealed a timeless truth about the mysteries of the human mind. We can only unlock some of these mysteries when we write about or speak them out. That is just what the Journal of Educational Research and Technology (JERT) was conceived to do- to reveal, to unearth the rich truths that have lain unrevealed in the brilliant minds of African, African Americans and international researchers. As a peer-reviewed journal, JERT has been able to and will continue to solicit articles from national and international scholars who are committed to scholarly research and critical writing with the aim of vocalizing their findings and promoting global knowledge in the areas of educational technology, professional development, management information technology, information sciences, community education management, and all other aspects of research and development. While this journal is tilted towards scientific research and information technology, it nevertheless wants to avail itself of the many rich and burgeoning fields of experience and expertise that do exist and have to exit into the world of scholarship. It is therefore a forum created to discuss issues that affect Africa and the world in these changing times of rapid globalization and the invasion of technology. JERT is proud to announce the maiden issue which has lived to its true creed of research diversity. As the saying goes, charity begins at home; hence the first two articles discuss intensively the issues of education and the technology. Professor Joseph Esin's article is a diagnosis of the Nigerian educational system and the recipe for resuscitation. Approached from an historical point of view, Professor Esin argues and bewails the constant decay of the Nigerian Educational System, one that had occupied the most revered and envied leading position in the early days of the University of Ibadan, University of Lagos, Ahmadu Bello University, University of Nigeria, Nsukka, and the University of Calabar. These universities stood for academic excellence, academic integrity, and the search for pure knowledge which produced topnotch, reputable, and indefatigable African political leaders, professors, artists and writers who have gained notoriety in their own rights. These universities thrived on the formation of a very solid foundation of knowledge and responsibilities. Unfortunately, these foundations have been eroded by corruption, ineptitude and political appointments that have undermined

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excellence and objectivity. His article argues for the restoration of some elements of the status quo or the renewal of those time-honored values that lent solidity, excellence, stability, and international respect and honor to these institutions of higher learning. Professor Esin does not however argue only for a renewal of those early universities but the creation of new universities built on those objective values that will enhance and again reclaim the lost glory of those days of Dr. Nnamdi Azikiwe, Sir Tafawa Balewa, General Aguiyi Ironsi, General Yakubu Gowon, General Murtala Mohammed, Chief Obafemi Owolowo, Sir Ahmadu Belo, and Brigadier Udoakaha Esuene. Consequently, Professor Esin proposes the creation of a national university governance to oversee the university programs, set and evaluate objective standards to be uniformly followed and adhered to by all the universities. Next, Professor Emmanuel Ngwang takes us back to the United States and examines the problems and issues of African American citizenship. His contention here is that these immigrations and citizenship have come with their relative costs. While they all began as a search for education and training, they mutated to the escape from political persecution, poverty, sanctuary for family safety and life, education, religion, settlement, and business. The settled Africans have not

only lost their old homes and identities, they have also engaged in new values that have undercut their Africanisms. Some families have undergone traumatic ruptures, the reversal of roles, and the destruction of those values that identity and set them apart as Africans. Professor Ngwang also attempts to balance the educational and familial gains that accrue from these immigrations with the cultural and emotional losses attendant on this new settlement. He also refers to the new wave of immigration- the reversed immigration- where the elder ones decide to return to the homeland after failing to make it in the USA or completing their mission of providing the children with the solid base of education and work. In the third article, Nathan Nwobi focuses on the introduction of technology into education. Though his research was carried out in Texas, USA, it nevertheless expresses a universal truism about the new trend in education. Since no country is an island in itself, it goes without saying that collaboration and cooperation will be the modus operandi for such education. His research reveals that the intrusive invasion of technology into human life is undeniable and irresistible, and that ultimately, all, spheres of human life will be consumed by this invasion. Unfortunately, there has been a lopsided response to this invasion where university and college professors have been extremely reluctant to go back to the bench to learn how to use these

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technological gadgets and know-how in universities and colleges. His argument is that if education is truly to retain its pristine and prestigious position as a primary route to leadership and effective manpower training and productive citizens for the 21st Century, it must embrace and nurture the fever of technology wholeheartedly. He proposes intensive and extensive technical training and incentive sharing which will go a long way to help the university and college professors, many of whom completed their education when computers were not introduced into schools, to catch up with technological training in order to use them with ease in teaching. He reverts to the basic truth that many colleges and universities are either offering course up to the doctoral level on line or organizing hybrid classes where educational technology has replaced the blackboard or traditional chalk board. His article is a wakeup call to African colleges and universities and their heads and political leaders to invest money in this educational technology business in order to enlist in and be counted among the leaders of education tomorrow. Drs. Sunday I. Efanga, Usen G. Ikpe, and Sunday Offiong take us back to the Nigerian scene again in the fourth article with their contribution entitled "Gender and Differential Opportunities for access to Quantity and Quality Education in the South-south zone of Nigeria." Their collaborative research and efforts reveal the devastating effect of denigrating women and preventing them from full access to quality education. Approached from an ethnocentric perspective, these scholars document the erstwhile shortfall of a system that considered education as an investment which was bound to yield dividends and when such as not the case, the attendant result was disenchantment and disillusionment. It was a system where few were willing to invest in women education for fear that the marrying off of the daughters to some other man would take away from the family the time and money that was invested in their education. Even with the discrimination against girls came disillusionment from the fact that the corruption of the educational system reduced the value of this education, making reasonable earnings through salaries non-existent. Parents found themselves taking off children from school, and schooling became the fad for girls. This change notwithstanding, girls were disproportionately represented in tertiary education; neither could they aspire to managerial positions that called for academic credentials. This atmosphere therefore calls for a shift in education paradigm.

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In the fifth article, Mr. Eno Henry Effiong takes a kaleidoscopic view of geo-economics when he analyzes the import-export balance sheets of African countries. His diagnosis of the fundamental causes of poverty in Africa reveals how poor economic choices have led to changes in export and import malaise and the need to revamp those economic choices. As an importer and exporter himself and a Real Estate businessman and a former university professor, Mr. Effiong writes with his heart and from his heart. He has lived these experiences and continues to find ways out of economic transactions which have always resulted in frustrations and loss of investments. His write up is full of optimism, as he suggests implicitly the way out of this quark mire and impasse. Finally, the newly minted doctor of philosophy but long-time seasoned Dr. Isaac Adeeko spirals us to the heights of academics in the era of financial tumult. His insightful study of financial instability and the negative impact on educational institution re-emphasizes the role alumni have to play in the financial survival and re-habilitation of tertiary institutions in the United States and the world at large. With many universities relying so much on private contributions from donors and, why not, from the alumni, Dr. Adeeko suggests from his findings that tertiary institutions have to fine-tune that fundraising strategies to see and encourage what attracts or draws alumni to sacrificial giving to uphold the survival and dignity of their alma maters. His article points poignantly to these escalating differences between why other universities receive more gifts and endowments from the alumni and others don't. This comes as a wake-up call for those African universities who are looking for ultimate ways of financial survival and funding. As we read these articles, we are called upon to evaluate the need to continue this discourse, this conversation into newer fields and areas of knowledge in order to make our voices heard. Thanks to the blind reviewers who did such a marvelous job. Please feel free to contact us at (469) 744-5290 or E-mail: jesin57@gmail.com Thank you for your patronage

Professor Emmanuel N. Ngwang Professor Joseph O. Esin JERT Chief Editor JERT Chief Publishing Editor

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CHIEF EDITOR'S BIOGRAPHICAL SKETCH

Dr. Emmanuel N. Ngwang, the Chief Editor of The Journal of Educational Research and Technology (JERT), is a 1986 graduate of Oklahoma State University with a Ph.D. in American Literature and presently a Professor of English and Foreign Languages at Jarvis Christian College. Before joining the faculty of Jarvis Christian College, he taught in several universities since 1982: a Graduate Associate at Oklahoma State University (1982-1987); University of Yaoundé, Cameroon (1987-1997); Kentucky State University (1997-2003); Mississippi Valley State University from (2003-2010); and at Claflin University (2010-2012). He has edited two books on criminal justice by Peter Nwankwo:

Criminological and Criminal Justice Systems of the World: A Comparative Perspective (2011) and Criminal Justice in the Pre-Colonial, Colonial, and Post-Colonial Eras: An Application of the Colonial Model to changes in the severity of punishment in the Nigerian Law (2010). In addition, Emmanuel N. Ngwang has published and presented research papers on postcolonial, African, and modern dramatic literature and Feminism. Some of his recent publications include "Education as Female (Dis) Empowerment in Anne Tanyi-Tang's Arrah" in *The Atlantic Review of Feminist Studies Quarterly* (2012). "Arrah's Existential Dilemma: A Study of Anne Tanyi-Tang's Arrah in Cameroon Literature in English: Critical Essays (2010), "Spaces, Gender, and Healing in Alice Walker's *The Color Purple* and Mariama Ba's *So Long a Letter*" in *New Urges in Postcolonial Literature: Widening Horizons* (2009), "Re-Configuration of Colonialism or the Negation of the Self in Postcolonial Cameroon in Bole Butake's Plays in *Reconceiving Postcolonialism: Visions and Revisions* (2009), Buchi Emecheta's *Destination Biafra: A Feminist (Re-)Writing of the Nigerian Civil War* in *Journal of African Literature: International Research on African literature and Culture (JAL:IRCALC)* (2008), "In Search of Cultural Identity or a Futile Search for Anchor: Africa in Selected African American Literary Works" *Identities and Voices. ALIZES (TRADE WINDS 2007)* "Literature as Politics: Revisiting Bole Butake's *Lake God* and Other Plays" in *The Literary Griot: International Journal of African-World Expressive Culture* (2002), and "Female Empowerment and Political Change: A Study of Bole Butake's *Lake God*, *The Survivors*, and *And Palm Wine Will Flow*" in *ALIZE (TRADE WINDS): A Journal of English Studies* (2004) (University of La Reunion, France).

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Dr. Emmanuel Ngwang has also been a recipient of prestigious awards in recognition of his academic and research endeavors: the 2004 Humanities Teacher of the Year Award from the Mississippi Humanities Council, Jackson Mississippi; 2002-2003 Excellence in Scholarship and Creative Activities, College of Arts and Sciences, Kentucky State University; and two-time nomination to the *Who's Who Among America's Teacher* (2001 and 2002 respectively), Educational Communications, Inc.; Lake Forest, Illinois.

CHIEF PUBLISHING EDITOR'S BRIEF BIOGRAPHICAL SKETCH

Professor Joseph O. Esin, the Chief Publishing Editor of The Journal of Educational Research and Technology (JERT), the Founder and Chairman of AFASIN FOUNDATION, INC., a charitable non-profit organization. He holds a Bachelor of Science in Biology from Saint Louis University, Saint Louis, Missouri; a Master of Arts in Religious Studies with emphasis on Moral Theology from the Society of Jesus College of Divinity, Saint Louis, Missouri; and a Doctorate in Computer Education from the United States International University, San Diego, California. The State of California awarded him a Life-time Collegiate Instructor's Credential in 1989, and he was named an Outstanding Professor of Research in 1997. He met the selection criteria for inclusion in the 1992-93, 1994-95, and 1996-97 editions of Who's Who in American Education for his outstanding academic leadership in management information technology. Furthermore, he met the selection criteria for inclusion in the 1993-94 edition of the Directory of International Biography, Cambridge, England, for his distinguished professional service in academic computing technology. A Professor of Computer

Information Technology from 1988-2000, and he was appointed a Deputy Provost at Paul Quinn College, Dallas, Texas, from 1997-2000. He is currently a professor of computer information systems at Jarvis Christian College, Hawkins, Texas and a visiting Professor of Research at the University at Calabar, Nigeria. Professor Esin has published several professional journal articles including High Level of Teachers' Apprehension (HLTA): About the use of Computers in the Educational Process (1991) Journal of Educational Media & Library Science (JEMLS); Computer Literacy for Teachers: The Role of Computer Technology in the Educational Process. (1992-JEMLS); Strategies for Developing and Implementing Academic Computing in Colleges and Universities (1994JEMLS); Faculty Development: Effective use of Applications Software in the Classroom for instruction (1993-JEMLS); Strategic Planning for Computer Integration in Higher Education through the Year 2000 (1994-JEMLS); The Challenge of Networking Technologies (1995JEMLS); The Design and Use of Instructional Technology in Schools, Colleges and Universities (1997-JEMLS); and Decay of the Nigerian Education System, Journal of Educational Research and Technology (JERT) (2013-JERT). Professor Esin served as member of Doctoral Dissertation Committee at Southern Methodist University, Dallas, Texas (1998-2000), and Jackson State University, Jackson,

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Mississippi (2010-2011). He is the author of The Power of Endurance (2008); Evolution of Instructional Technology (2011); Messianic View of the Kingdom of God (2011); Global Education Reform (2013); and his current research emphasis is on The Structural View of Computer Information Technology.

In order to achieve what is possible, you must attempt the impossible

Introduction The prevalence of technology in everyday life has become so irresistible that technology has pervaded the educational system and has now become the fact of life for institutions, faculty members' and students, especially in the developed world. According to Borade, (2010); McKenzie, (2001) and Mumtaz, (2000) this rapid influx of technology into the educational system, has posed a considerable magnitude of challenges for instruction, and learning in community college and universities all over the world. The global technological systems have changed fundamentally and it is difficult to predict what the new paradigm and its impact on community colleges (Adrian and Rose 2004 and Cooper, 2006). It is therefore not uncommon to hear Americans talk of technological usage in Nigeria from the perspective of global fraud rather than education and technological development. However, this notion has to change if the third world countries need to catch up with this new paradigm shift in education and administration. Indeed, the relevance of technology in our lives has never been questioned. According to Ayers (2004.6), Esin (1991), and Roblyer and Edwards (2000), technology is an excellent instruction and learning device that can lead to academic advancement, both for the teachers and the students at all levels of education. Abby and Michael (2006) and Roh, (2009) stated that all faculty members need to do is to be less concerned, and become expert on how to use technology to deliver, support, manage, guide instruction and learning in community colleges. This notion and ideas is supported by Esin (2011), Christiansen and Christiansen (1997), and McKenzie (2001) in their studies who advocated that the conventional approach to decrease the apparent faculty members' stages of concern and ability to effectively utilize technology in the classroom for instruction is to establish a well-structured professional training program in order to sustain the urgent need and importance of using technology for instruction in community colleges.

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These critics have equally called concerned for the need of the developed world, and also developing world to the rapid evolution of technology in the educational system, and the need for effective and professional technology training program and adequate support to adjust to and implement these changes in all educational settings, including colleges and university systems. These called are supported by the advantages technology brings to the table. Becker (2001), Niederhauser and Stoddart (2001), in their studies found that, the influx of technology into the education settings has helped to promote the development of creating, saving, storing and executing print out of document and other important skills required to cope with the changing society. Technology has generated immediate results which has enabled both faculty members and students to learn at the pace that is challenging and achievable. Earle (2002), Ringstaff and (2002), Means (2000) and Becker (2001) asserted that incorporation of technology has enhanced student ability to solve complex problems, and has freed students from restricted formats and formulas, and encouraged faculty members and students to become co-facts finders. Selfdiscovery, according to Silverstein, Frechtling, and Miyoaka (2000), Earle (2002), and Ringstaff (2002) is an enduring learning that is seldom forgotten and can at least be retained at a much higher level of consciousness in the memory. So the question today is not about the relevance of technology in schools, but the need to use, study, and implement those skills that enhance the technology. Consequently, a system must be created, as Esin (2011), Means (2000) and Becker (2001) suggested, in which faculty members regardless of gender, age, ethnic

groupings, full-time and associate faculty members, academic qualifications and academic rank will demonstrate how the use of technology in the classroom for instruction can enhance their ability to proceed at a rate and pace that is challenging, but achievable. But the greater problem in the education system is the faculty members' concerns and ability to utilize technology in the classroom for instruction. According to Means (2000) and Mumtaz, (2000) faculty members concern about the use of technology in the classroom for instruction may be as a result of low level interaction with students, methods of instruction, academic curriculum and professional expertise about the use of technology in the classroom for learning. In the third world countries where technology is a bit rare and expensive, the government must invest seriously in these gadgets as a way of carving a future for the future leaders who cannot avoid the invasion of technology and technocrats. In fact Becker (2001); Niederhauser, & Stoddart, (2001), Earl (2002), Ringstaff and Ringstaff (2002) noted that the

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formidable and believable channel to decrease the alarming rate of faculty members stages of concerns and ability to use technology in the classroom for instruction must involve all-inclusive, preparedness and willingness to pay superior attention in preparing faculty members on how to formulate a lasting solution for analysis systematic to the instruction process. Today, technology usage is growing in a rapid pace, yet majority of faculty members in community colleges are very concerned and uncomfortable about the use of technology to deliver instruction in the classroom, a problems which could easily be resolved by the incorporation of a well-structured instructional technology training program across the academic curriculum. The proposed approach, according to Mumtaz (2000) presents a challenge to the faculty members and also students of the educational communities. Since it is true that leaders of tomorrow must begin the training in colleges and universities, there is really no excuse for not making technological education the mainstay of that foundation. University and college education are deep-seated foundations of all levels of undergraduate, graduate and post-graduate degree programs, and any defect in this educational setting will mean a complete failure in all levels of educational process. Mumtaz, (2000) and McKenzie, (2001) noted that faculty members stages of concern and ability to use technology in the classroom are directly related to confusion, rapid changes, unclear sense of direction, and total reliance of the entire educational system on technology prior to the implementation of education technology training program. But this can be reversed because age is not and should not be allowed to be a factor in technological education. Esin, (2011), Adrian and Rose (2004), and Roblyer and Edwards (2009) posited that faculty members worry about the amount of detail to be mastered, the length of time, and intellectual ability required to use technology in the classroom for instruction and learning. Indeed, there is fun and excitement in learning new instruments and gadgets for education and in counting oneself as part of the new wave of educational deliverance and methodologies. Indeed, technology literacy is the fad of the day, and soon, those who cannot catch up with this vogue will definitely become obsolete. Faculty members in community colleges must be made technology literate, because of the advantages and broad range of possibilities that the use of technology can offer in the educational process. Current educational researchers and teachers such as Esin (2011), Francis (2007), and See (1994) blame the discrepancy of computer usage in schools on the reluctance of the faculty members, a reluctance born out of the faculty members unwillingness to compete with the young generation for computer and technological

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training. Esin (2011), Bednar (2005), Dunn (2009), and Fischman (2010) advocated that the total reliance of the educational system on technology and lack of exposure of faculty members to training prior to the evolution of technology into the education system was directly responsible for faculty members apparent stages of concern, and ability to fully utilize technology in community college for instruction in different subject areas. Hickey and Dona (2000) and Weston (2005) in their studies on The web of resistance to technology and theory believed that all facets of professional development technology training for faculty members regardless of gender, ethnic, academic rank, qualification, and age grouping must focus on in-depth understanding of instructional hardware and software, legal implications, technology-related course offerings, and the support that will allow them to stay abreast with the demanding and challenging academic community. The world community is confronted with the continued unrelenting influx of technology into the education system; while, faculty members are very concerned and deficient in their ability to use technology in the classroom for instruction. Bednar, (2005), Means, (2000) submitted that the widespread utilization of technology in the classroom for instruction has been conspicuously missing, and possibly misdirected. Brown and Gamber (2002), and Bonk (2010) described faculty member's stages of concerns and ability to apply technology in the classroom for instruction, which became evident in Esin (2011) and Peluchette & Rust (2005) studies as fear of the amount of detail to be mastered, length of time, intellectual, physical involvement required to learn how to use technology as prime instruction and learning delivery apparatus. There is the issue of discrimination when it comes to full time tenure application of technology in classrooms. Part time faculty is reluctant to invest time in training because they are not appropriately compensated in terms of salaries. Brown (2004), Grant, (2004), and Otero (2005) noted that regardless of the associate faculty member's limited workload, their stages of concern and ability to use technology in the classroom for instruction is comparable to their fulltime faculty colleagues. In fact, our questionnaires distributed to all ranks and genders of faculty, revealed the same uneasiness with the use of classroom technology. Esin, (2011), Bednar and Sweeder (2005), Kirschner, Sweller and Clark (2006), Starr, (2009), and Adrian and Rose (2004), in their studies noted that faculty members in community colleges and by extension universities envision the use of technology in the classroom to manage and deliver instruction as additional burden without perceiving the benefits. Cooper, (2006), Bednar & Sweeder, (2005),

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Butler & Sellbom, (2002) believed that faculty members in the community colleges feel that they are being dehumanized by the total reliance of the educational system on technology prior to adequate training on how to apply technology to education. Technology has become a thread to them as they continue to see their positions being threatened by those who are technology savvy. But instead of becoming disgruntled, they should take up their courage and enlist in the training.

STATEMENT OF THE PROBLEM In order to overcome the apparent faculty member's stages of concern, (Butler & Sellbom, 2002; Creighton, 2003; Ritzer, 2007; Roh, 2009) asserted that the educational systems have incorporated technology into the academic curriculum to enhance effective instructions and learning process. They further noted that the majority of faculty members are concerned about their ability to use technology in the classroom for instructions in community colleges. The study was designed to investigate significant difference in community college faculty member's stages of concern and ability to use technology in the classroom for instruction in different subject areas. Flanagan & Jacobsen, (2003), Orr, Appleton & Wallin (2001), Wolcot, (2003) and Fischman, (2010) noted that faculty members in both colleges and universities are often

unprepared for the difficulty associated with the use of technology in the classroom for instruction. Technology is a natural and professional educational learning tool, but its use in the educational process according to (Esin, 2011, Ryan & Cooper, 1998, Bednar & Sweeder, 2005) requires an adequate human intervention. Educational leadership according to Bednar & Sweeder, (2005) must exercise caution, and be willing to provide adequate training and equipment for faculty members in order to enhance effective instruction and learning process. Esin 2011, Creighton (2003), and Bednar and Sweeder (2005) in one accord, believed that implementation of innovative technology training program cannot be successful without the involvement and commitment of faculty members who are life-long active representatives of academic instruction and learning sessions. Weston (2005) in his study on Why faculty did-and-did not-integrate instructional software in their undergraduate classrooms, believed that all facets of professional development technology and software, legal implications, technology-related course offerings, and the support that will allow them to stay abreast with the demanding and challenging academic community. The world community is confronted with the continued unrelenting convergence of

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technology into the education system; while, faculty members are very concerned about their ability to use technology in the classroom for instruction. Kleinman (2008) and Brown (2004), Grant (2004), Osika (2006) asserted that limited workload, limited access to institution records, inadequate compensations, and contact hours with students may be responsible for the apparent lack of concern and ability to use technology in the classroom for instruction by faculty members. Collectively, Bell & Ireh (2002), Brown, Benson & Uhde (2004), Green (2006), and Osika (2006) support the premise that associate faculty members should not be denied the opportunity to participate in the projected professional technology development training program, as it will be unfair to deny them an exposure to the professional training that will help to decrease the apparent ability to use technology in the classroom for instruction. **PURPOSE OF THE STUDY** The purpose of this study was to investigate the suggestion that faculty members stages of concern has limited their ability to effectively use technology in community colleges. In addition, the study examined the possible correlation between faculty members' stages of concern and six demographics factors such as gender, age, and ethnic groupings, full-time and associate, academic qualifications and academic rank, relative to their ability to use technology in the classroom for instruction in community colleges. The result of this study will be utilized to formulate a solution for faculty member's stages of concern and their ability to use technology in the classroom for instruction in community colleges. **RESEARCH QUESTIONS** The following seven research questions were posed in the study: 1. To what extent are faculty members in community colleges concerned about the use of technology in the classroom for instruction? 2. Is there a significant difference in community college faculty members Stages of Concern about the use of technology in the classroom for instruction relative to gender? 3. Is there a significant difference in community college faculty members Stages of Concern about the use of technology in the classroom for instruction relative to age group?

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4. Is there a significant difference in community college faculty members Stages of Concern about the use of technology in the classroom for instruction relative to ethnic group? Is there a significant

difference in community college full-time and part-time faculty members Stages of Concern about the use of technology in the classroom for instruction relative to fulltime and associate faculty members? 1. Is there a significant difference in community college faculty members Stages of Concern about the use of technology in the classroom for instruction relative to academic qualifications? 2. Is there a significant difference in community college faculty members Stages of Concern about the use of technology in the classroom for instruction relative to academic rank? 3. Could this concern be stretched beyond the USA? SIGNIFICANCE OF THE STUDY The use of technology in the classroom for instruction is playing key roles in the shaping of the entire educational system and human society. The purpose of this study was to investigate the suggestion that faculty members have stages of concern and ability to use technology in the classroom for instruction in community colleges. Laffey (2004), Esin (1994) , Adrian and Rose, (2004) and Ritzer, (2007) in their studies asserted that faculty members are very worried about the detail to be mastered, intellectual and physical involvement required to the use technology for instruction in different subject areas. Weston (2005) asserted that faculty members are afraid of losing their jobs due to the total reliance of the educational system on technology. Esin (2011), Means (2000), and Becker (2001) advocated that the use of technology in the classroom for instruction has the tendency to generate immediate results that will enable faculty members and students to learn at the pace that is challenging, but attainable. Earle (2002) and Ringstaff (2002) stated that the use of technology in the education process for instruction will foster self-discovery of facts, which in itself, is an enduring learning that is seldom forgotten and, can at least be retained at a much higher level of consciousness in the memory. Esin (2011), Becker (2001), Bednar (2005), Means and (2000), and Cooper (998) believed that the implementation of adequate professional education technology training program will diffuse

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faculty members' stages of concern and strengthen their ability to utilize technology in the classroom for instruction and learning. Esin, (2011) studies on the evolution of instructional technology noted that professional education technology training program will help in lowering faculty member's stages of concern, their ability, and ensure that faculty members who prepare students for workforce, professional assignments, and citizenship are themselves fully competent to apply technology to education. Technology is an excellent instruction and problem-solving tool. Esin (2011) and Becker (2001), and Bedna (2005) noted that universities and community colleges must be viewed as functional instruction and learning environment that are willing and ready to nurture, and furnish the unfurnished; therefore, technology should not only be added but, fully incorporated into the academic curricula. Colby (2003), in his studies on the Role of Culture in Technology Adoption in the United States posited that faculty members from cultural background; African, Hispanic, Asian and Native Americans are less concern about the use technology in instruction and learning. The study also examined possible relationship between faculty member's stages of concern, their ability, and whether ethnic, and cultural backgrounds are directly related and possibly contribute to their inability to use technology in the classroom for instruction. The disproportionate use of technology by faculty members falls into the myth that technology belongs to the male domain. Studies on gender differences posited that male are more inclined toward the use of technology than female faculty members. On the contrary, Laffey (2004) and Adrian and Rose (2004) noted that female faculty members unlike their male counterparts, have less access to technology apparatus in community colleges. The study examined disproportionate use of technology by male and female faculty members in community colleges. Adam (2002), Ayers

(2004), Borade (2010) and Esin (2011), in their studies confirmed that there are tremendous advantages in integrating technology into instruction and learning in community colleges. The projected benefits cannot be achieved if faculty members are not prepared to use technology in the classroom for instruction. It is postulated that the current level of usage of technology by faculty members in community colleges will be minimal compared to the level of concerns observed in other institutions of higher learning (Vannatta, & Fordham, 2004). Wolcott, (2003) stated that identifying the characteristics of stage of concern about the use of technology in the classroom for instruction in community colleges will help to establish

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potential relationships between six demographic factors [six demographics factors; gender, age and ethnic groupings, full-time and associate faculty, academic qualifications and academic rank] used in this study. It is recommended that the administrators of community college make informed decisions on the type of interventions to implement in order to minimize instructional inadequacy. Associate faculty members constitute approximately two-thirds of the instructional staff in community colleges (Digest of Educational Statistics [electronic version], 2004. Hendrickson (2007) noted that proper implementation, and exposing them to professional training will free faculty members for repetitive tasks, improve instructional capability to apply technology to education. The study also examined possible relationship between faculty member's stages of concern, their ability, and whether age, ethnic, and racial groupings, academic qualifications and academic rank, are directly related and possibly contributed to their inability to use technology in the classroom for instruction in community colleges. This study may assist administrators in creating training programs to encourage technology use among their faculty members in community colleges. Starr (2009) noted that majority of faculty members are incapable of applying technology to education and that the use of technology in the classroom for instruction varies enormously in different educational settings. Linn (2010) and Corrine, (2000) asserted that due to the finite number of hours in the day, and inadequate technology skills, and existing full-time workload of faculty members' are somewhat uncomfortable to apply technology to education. All efforts to use technology to manage, and deliver instruction is a full-time job itself (Hardy, 1998). A meaningful and, relevant educational technology training program for faculty members must include grass-root initiatives that will provide a corridor for institutional change, and foundation for a paradigm shift from textbook format to instructional effectiveness. According to Hardy (1998) and Starr (2009) noted that the education systems must be ready and willing to make it a requirement for faculty members to use technology to facilitate instruction across the curriculum in different subject areas. The proposed training paradigm shift, according to will play a crucial role in instructional effectiveness before the turn of the new millennium. THEORETICAL FRAMEWORK Starr (2009) noted that many community colleges have incorporated technology into their course offering, instruction and learning endeavors. The primary purpose of this study is to

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examine all associated demographic factor that are directly related to faculty members inability to use technology in the classroom for guide, manage, and instruction. Starr (2009) also noted that majority of faculty members are concerned about their ability to apply technology to education. The purpose of this study was to investigate the suggestion that faculty member's stages of concern has

limited their ability to effectively use technology in community colleges for instruction in different subject areas. Hallinger (2003), Starr (2009), stated that the use of technology in the classroom for instruction vary enormously in different subject areas, and faculty members in community colleges are uncomfortable and have panic-stricken feeling about the incorporation of technology in the education system. Lee (1999) and Corrine (2000) asserted that due to the fixed number of hours in the day and, insufficient technology-knowledge, majority of faculty members will not like to create time out of the heap of their regular full-time workload to learn more about the use of technology to manage and deliver instruction. In order to minimize faculty member's stages of concern and ability to apply technology to the educational process, (Brinkerhoff 2006 and Corrine 2000) suggested that faculty members in community colleges need to be shown the broad range of the possibilities that the use of technology can offer in the instruction and learning process. Esin (2011) in his studies on the evolution of instructional technology noted that majority of faculty members graduated with associate, undergraduate, graduate, and post-graduate degrees in different subject areas. He further asserted that they obtain their academic degrees prior to the evolution of technology in the education system. The study examined the apparent suggestion that possible relationship exist between faculty member's stages of concern, their ability, and whether faculty members with associate, undergraduate, graduate, and post-graduate degrees in technology-related areas are more concerned than faculty members with associate, undergraduate, graduate, and post-graduate degrees in none-technology related areas. Esin (2011) noted that education system must admit that any attempt to shift from traditional textbook format of instruction to technology will exert an enormous and exasperating effect on faculty members. In order to decrease the levels of faculty members stages of concern and ability to use technology in the classroom for instruction, (Esin 2011, Linn and His 2000 and Kleinman 2008) stated that all endeavors to apply technology to the educational process must be presented to the faculty population with technology-related and none-technology areas. This presentation must be

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in a language that recognizes the demands and importance of technology in the education system, workforce and, human society. In order to minimize the degree of faculty member's stages of concern and ability, a structured professional technology training program must be established for faculty members in community colleges. The scope of the training program must include grass-root initiatives that will provide a corridor for institutional change, and reinforcement for instructional effectiveness (Linn and His 2000, Hoffman 2011, and Laffey, 2004). In one accord, Hoffman (2002) and Starr (2009) advocated that community college system must be willing to offer professional technology training opportunity to faculty members regardless of gender, age, ethnic, and racial groupings, academic qualifications and academic rank. However, no evidence have been found that research has been done on faculty member's gender, age, ethnic, racial groupings, academic qualifications and academic rank, directly related and possibly contributes their ability to use technology in the classroom for instruction in community colleges. **LIMITATION OF THE STUDY** The sample population for this study was drawn from community colleges in Dallas, and Kaufman counties. The two counties contain about 10 community colleges with approximately six hundred and sixty-one (661) faculty members employed during the 2011-2012 academic years, and student ratio of 27:1 The sample population consist of full-time and associate faculty members randomly selected by the table of random numbers from a universe of 661 faculty members currently employed by Dallas and Kaufman counties during the 2010-2011 academic years. The researcher depended on the credibility of faculty members' participants to be accurate and honest

in their responses. The timely return of the completed surveys by the respondents was a limitation for inclusion in the study. The chosen strategy presented limitations as the colleges chosen for this research are located in one geographical area. This cannot accord transferability, generalization of the result and implications to other community colleges in the nation.

FACTORS AFFECTING THE USE OF TECHNOLOGY IN THE CLASSROOM FOR INSTRUCTION IN HIGHER EDUCATION Numerous studies cite pre-requisites that must be met for faculty to use technology in the classroom. The first factor is a steady availability of technology. Using Rogers's diffusion theory as a framework, Lee's (1996) research study examined California University faculty's

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attitudes toward technology use for instructional purposes. The sample size consisted of 706 university faculty members. The instrument consisted of only one question that asked faculty to self-assess their level of technology use for instruction, a technique which may not produce accurate assessments of use of the innovation (Rogers, 2003 as cited in Lee, 1999). Lee found that early adopters and early majority faculty were more likely to cite release time and technical support more important for using technology for instruction than were innovators. Innovators indicated that availability of resources was most important. All groups ranked institutional rewards such as tenure and promotion as low motivators for using technology for instructional purposes. Lee demonstrated that early majority and late majority (what Lee called "skeptics") faculty members needed strong technical support at the department level, as well as clear examples of content-specific uses of technology, in order to begin using technology for instruction. Lee commented on the high level of innovators in his study. According to his findings, innovators accounted for 20%, and early adopters accounted for 29% of his sample. Bao et al. (2000) examined factors which contributed to faculty use of technology at Baylor University. She found that 70% of the faculty interviewed indicated availability of technology as important for using technology. Sixty-five percent of the faculty also identified the importance of sufficient support and training opportunities so that they could learn how to use technologies and 50% named adequate time to learn technologies as an important determinant in computer learning application. Other studies also identified training and support as important factors to encourage technology use. The research findings of Shafiei (2005) revealed that workshop training boosted faculty confidence and complexity of technology use. Shafiei (2005) and Cuban (2001) recommended that training sessions must be made available at times when faculty can attend. Most scholars would recommend in-depth training and follow-up support for faculty at the Defense Systems Management College. Alfieri further examined stages of concern among these faculty members and determined that the most were in the beginning stage of adoption of the innovation and had strong concerns about how technology would impact their lives and what the innovation was. Oak (2010) and Novak (2003) found that faculty had difficulty understanding how technologies could be used for instruction and that training might mitigate this challenge. While training sessions are a recommended interventional strategy, a caution is warranted. A research study by Gaither (2005) that examined 259 K-12 instructors in an urban school district showed

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that workshop-style training may not be the best approach to educating instructors. Gaither tracked technology use among faculty who attended a 40-hour workshop and found no significant

changes in the levels of concerns of these instructors when compared with a control group. The intensive workshop focused both on how to use computers, and how to incorporate technologies into instructional practices. However, Gaither indicated that application of technologies to instruction probably did not constitute a significant enough part of the workshop to change levels of concern among attendees. Consequently, Gaither recommended that instructors attend follow-up workshops which trained faculty in specific instructional uses of technologies. Faculty must perceive the technology as easy to use and as a constructive tool for instruction and they must feel confident with technology before they will be willing to use it in a classroom (Baylor & Ritchie, 2003; Peluchette & Rust, 2005). According to Matthew, Parker & Wilkinson's (1998) research, incorporating technology in the classroom requires a paradigm shift in instructional approaches; as such instructors must also be opened to changing their roles from those of gurus on the stage to facilitators of learning. Davidson-Shivers, Salazar & Hamilton (2005) assessed the value of their PowerPoint training workshop for faculty as an interventional tool and concluded that their training was successful in part because they were mindful of making the training relevant to teacher needs. Attendees were asked to bring content with them to develop a PowerPoint presentation at the completion of the workshop. The presentation was then available to the instructors to use in the classroom. The result of the research findings of Honey and Moeller's (1990) in which 20 public school teachers were interviewed revealed that relevancy of technology to instructions was important for some, but not all of the instructors interviewed. Bates (1997), Davidson-Shivers et al. (2005), Bao (2000), Peluchette & Rust (2005), Shafiei (2005), Simonson, Smaldino, Albright, & Zvachek (2003), and Stocker (1999) were all studies that cited content-specific as important for technology integration into academic instruction. TECHNOLOGY INTEGRATION AS A LIMITING FACTOR ABOUT THE USE TECHNOLOGY FOR INSTRUCTION According to Semco (2010) many writers have indicated that the reason for the relatively slow progress for integration of technology for instruction in community colleges may be related to many external and internal factors. Some of the most important external reasons included no incentive for faculty members to change the way they teach; the low availability of technology for use in the classroom; faculty members' lack of technical support; lack of administrative

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support towards technology integration in the classroom; and resistance to change that faculty members have (Novak, 2003; Butler & Selbom, 2002; Fischman, 2010; Gaither, 2005; Henrickson, 2007; Kleiman, 2008; Novak, 2003; and Semco, 2010). Some internal barriers for technology integration in the classroom are the lack of faculty members' skills in using technology for instruction, faculty members' anxiety, faculty members' areas of discipline, and the time required to deliver instruction with technology. It could be concluded from above that in the most significant barriers are lack of training, organizational cultures which are not open to technological innovations and lack of autonomy in the classroom. In a study conducted at Ball State University in Indiana, Butler and Selbom (2002) indicated that hardware and software reliability posed another barrier in technology integration for instruction. Another research conducted by Schoepp (2004) at Middle Eastern University virtually contradicted Butler & Selbom (2002) in maintaining that faculty members cited technology availability as the least vital barrier to technology integration for instruction. Technology integration for instruction according to Schopps (2004) was still a task for the institution. The findings of the research study done at Illinois State University by Chizmar and Williams (2001) confirmed that hardware and software failures were major factors in technology integration for instruction and learning. The study furthermore identified out that faculty members'

sluggish attitude as a contributing factor in the slow diffusion of technology into the classroom instruction. The research confirmed that faculty exhibited reluctance towards using technology for instruction. Earle's (2002) research study reported that confidence, competence and creativity were the three-character treads of faculty members who are likely to integrate technology in their classes. Many researchers have also cited administrative attitudes playing roles in the slow process of technology integration by faculty members. The administrators' lack of vision can create a setback in technology use by faculty members (Schoepp, 2004). Rewards, incentives and growth, stated Earle (2002) and Schoepp (2004)) can enhance technology integration by faculty members. The absence of these and lack of streamlined program expectations for technology application were cited to be second and third major barriers to technology integration for instruction. The absence of the administrators' investment into technology software and gadgets could also be an impediment in the faculty acquisition of technological skills, let alone their implementation in teaching

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After interviewing faculty members at nineteen different community colleges regarding barriers to adoption of distance education program, Kuck (2005) affirmed the result of previous studies. He discovered that the following barriers hindered distance learning: lack of technology expertise, technology anxiety, and availability of technology, time factor, incentives and lack of financial support. OVERCOMING CONCERNS ABOUT THE USE OF TECHNOLOGY FOR INSTRUCTION IN THE CLASSROOM Today, the educational system is becoming irresistibly technologically integrated and behind this contention is faculty members' concern about embracing the use of technology for instruction and learning (Balach & Szymanski, 2003; Creighton, 2008). Technology has pervaded the academic system and has become the fact of life for colleges, faculty members, and learners (Sahin & Thompson, 2006). In fact, its advantages far outweigh the few negative draw backs that exist. Indeed, technology is an excellent teaching and learning device that can lead to academic advancement (Starr, 2009). Its use, stated Cooper (2006) strongly requires faculty members to overcome concerns and, become experts on how to integrate technology to deliver, support, manage and guide teaching and learning. Many researchers including Adrian & Rose (2004), Bangkok (2004), Borade (2010), Creighton (2008), and Semco (2010) indicated reasons why concerns exist among faculty in integrating technology for instruction. Change is hard to embrace and aged faculty members tend to be the most resistive to it (Semco, 2010). The study of Schoep (2004) stated that it is important to know why the concerns exist. Sahin & Thompson (2006) asserted that the reason concerns and abandonment exist could be the way technology is introduced for instructions. If faculty members are forced into using technology for instruction, this duress may lead to concerns, especially where they are not shown the positive contributions the application of technology will bring to their respective classrooms. Researcher Ayers (2004) believed that where adequate technology training for all faculty members is not implemented, the felt faculty members' concerns will permeate the teaching process serving as a limiting factor for integrating technology in the classrooms. Many faculty members are often not prepared for the difficulty of integrating technology for instruction especially those in the fifty-six or older age bracket (Charlie, 2010; Colon, 2005; Esin, 2011; Creighton, 2008). In a study by Charlie (2010), it was emphasized that faculty members will

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eventually and gradually decrease their concerns and start using technology in their classes once they recognize the urgent need and importance of integrating technology into instruction. School administrators should bear the burden of training faculty members on adopting various instructional methods on how to fully implement technology for teaching and learning purposes. Esin (1991) in his empirical study on the influence of the faculty members' apprehension about the use of technology in the educational process stated that one of the outlining factors in technology concerns is faculty members' age. Esin's study classified age into five categories: 22-25 years; 26-35; 36-45; 46-55; and >56 years. The sample population in this study was randomly drawn from San Diego County Schools in California. The result of the analysis found significant differences between faculty members in the age bracket of 24-45 and >45. It was discovered that manageable concern existed among faculty members younger than forty-six years old and higher among those more than forty-five years of age. Gaither (2005) contended that providing faculty members ongoing technology development training will reduce the rate of their concerns. The reason behind involving faculty members in an ongoing training is to affirm that those who prepare the recent generation of students for workforce and leadership are themselves fully knowledgeable about the use of technology to further instructions in the classrooms (George, Hall, & Stiegelbauer, 2006). Green (2006) maintained that the trenched distinction in training faculty members is to streamline the techniques and approach in order to cope with the large rate of influx of technology into the educational process. Other researchers (Esin, 2011; George, Hall, & Stiegelbauer, 2006) went further to emphasize that training faculty members will empower and strengthen them in preparing students in the classrooms for lifelong professional assignments in the job markets. Many researchers have indicated that caution and maintenance of academic balance be exercised by administrative body of higher education for an open door policy in training faculty of all ages who are willing to learn the use of technology for instructions in the classrooms. (Gaither, 2005; George, Hall, & Stiegelbauer, 2006; Green, 2006). These researchers affirmed that faculty members with technology knowledge are valuable assets to all tertiary institutions of learning irrespective of age, as long as they possess the ability and are willing to integrate technology in the classrooms for instruction. The faculty members' receptiveness to using technology for instruction will affect the preparedness and, delivery style implemented during instructions (Shafiei, 2005). Finally, Xu, & Meyer (2007) asserted that,

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faculty members willingness, ability, receptivity and, attitude are vital in making technology integration for instruction become essential and, effective. In conclusion, researchers and scholars are unanimous in asserting that the introduction of technology into education is the new paradigm for modern education. Technology is irresistible and its use in classroom situations is inevitable and professors have to align their teaching objectives, responsibilities, and styles with this new concept in order to enhance cutting-edge technology into every facet of the students' life and academic experiences, and experience and endowment which they will need in the competitive world of work.

IMPLICATION FOR FUTURE STUDY Results for the analyses noted that community college faculty members are not exposed to well-established on-going workshop, one-on-one, and specific academic discipline professional development training sessions on how to apply technology to education. The findings from this study indicated that gender, academic rank, and academic qualification was not directly related to faculty members' stages of concern about the use of technology in the classroom. The research; however, suggested that age and ethnicity is related to faculty members' stages of concern about the use technology in the classroom. The reported stages of concern can be dissipated by exposing faculty members to well-structured professional

development technology training programs. Such exposure will enable community college faculty members to acquire adequate skills and aptitude to effectively and efficiently use technology in the classroom for instruction. The key to providing well-suited technology training to faculty members is to ensure that those who are empowered to nurture and prepare future generation for work and citizenship are themselves fully competent on how to apply technology to education. On the basis of the research findings and the literature reviewed, the researcher suggests that the members of the community colleges board of trustees and administrators should form alliance with full-time and associate faculty members to develop well-conceived professional education technology training programs for current and future community college faculty members. The success of this collaborative alliance must be accompanied by encouraging the current and future faculty members to enroll in a professional development technology training courses in different subject areas, and urge faculty members to become effective users of technology. The researcher noted that such incentive will help to decrease all levels of stages of

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concern and broaden faculty members' levels of understanding on how technology can be used as communication and problem-solving tools in the community college system. **RECOMMENDATION FOR POLICY, PRACTICE AND FUTURE RESEARCH** The study supports the premise that the evolution of technology into the educational system, and has become the fact of life. Technology is currently sponsoring the transition from regular dial-up telephone to cordless telephone, employees' manual time card to electronic time cards, and traditional method of instruction to computerized on-line education. The invention of technology has multiplied the number of channels from which faculty members' can effectively prepare and nurture the new generation for citizenship, personal and professional duties. Currently, technology is playing key roles in the shaping of instructional process; as a consequence, a considerable attention must be paid to faculty members with technology-related skills, experience and knowledge and, how to prepare the future generation for work and citizenship. The review of the relevant literatures notes that limited knowledge of technology-related skills may be responsible for creating the conduit for faculty member's stages of concern on awareness, informative, personal, management, consequence, collaborative, and refocusing about the use technology in the classroom for instruction and ability to use technology in the classroom for instruction. Findings from the research shows that incorporation of a well-structured professional development technology training program across the academic curriculum is extremely imperative, and will certainly help to decrease faculty member's stages of concern, and to improve their ability to apply technology to the educational process. It must be acknowledged that the all efforts to integrate technology into the academic curriculum will present considerable challenge to the faculty member's instruction, delivery and learning ability in the community college system. It must be acknowledged that the majority of faculty members completed their undergraduate, graduate, and postgraduate degrees prior to the epoch of technology in the education community. Research findings noted a high stage of concerns among faculty members between 20-40 years of age, moderate stages of concern among faculty members between 40-60 years of age, and low stages of concerns among faculty members between 60 years of age and over. The implication of the research findings presented possible impact on the faculty

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member's inability to be trained in on-going, one-on-one, and specific subject areas that the research analysis confirmed that will definitely play key roles to decrease faculty member's stage of concerns among and ability to use technology in community colleges regardless of age and gender. Review of the relevant literature asserted that faculty members in community colleges are afraid of the amount of detail to be mastered, and the length of time required in learning how to apply technology to the education process. Furthermore, they worried about the level of intellectual and physical involvement required to use technology in the classroom for instruction, and they were equally frightened about the use of technology in the classroom for instruction. In addition, faculty members felt threatened and afraid of losing their job, dignity, and the possibility of making mistakes as a result of total reliance of the education system on technology for instruction. The recommended policy must include the enrollment of all faculty members regardless of gender, ages, ethnic groupings, academic rank into the on-going, one-on-one, and subject-specific areas of professional development training program. Failure to implement all-inclusive professional development training policy, faculty members will be incompetent, student will be unskilled and ineffective education technology leaders, and community college system will be defective.

RECOMMENDATION FOR PRACTICE The education system is breathing in the center of rapid influx of technology in colleges and universities for growth and development. The technology has revolutionized the academic, instructional, and learning process, and has created corridors for unquenchable interactions, intellectual capability, and communicates with individuals in different geographical regions of the world. The implementation all-inclusive professional technology development training will help to triggered faculty members' initiative, and enable them to acquire productive and ready-for-action method of balanced technology expertise. The recommended practice will encourage a balanced approach to self-confidence, and the determined endeavors to provide on-going support mechanism to compete in the challenging technology society. It will equally encourage collaboration, and acquisition of sufficient technology-based skills that can help faculty members to recognize their potential, and reinforce their ability to apply technology to education.

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IMPLICATION FOR POLICY, PRACTICE AND FUTURE RESEARCH IMPLICATION FOR POLICY Esin (2011) in his studies on the evolution of instructional technology noted that majority of faculty members graduated with associate, undergraduate, graduate, and post-graduate degrees in different subject areas, and they obtained their academic degrees prior to the evolution of technology in the education system. The study examined the apparent suggestion whether faculty member's stages of concern, their ability to use technology in the classroom for instruction, is in fact, relative to academic qualification. The initial responses were classified into eight categories; Associate of Arts, Associate of Science, Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, and Doctorate Degree related-technology and Doctorate Degree nontechnology related. Based on the analysis of this study, the implication is attributed to the improbability of allowing faculty members with Associate and Bachelor degrees to use technology in the classroom for instruction. This study acknowledge the implication that the use of technology in the classroom for instruction must be limited to faculty members with Master's and Doctorate degrees in related and non-technology related subject areas. Based on the results of the findings, the researcher recognizes and also yields

to the fact that granting faculty members with Associate and Bachelor degrees to use technology in the classroom for instruction can lead to negative impact on the learning process. The literatures review in this study noted that the disproportionate use of technology in the classroom for instruction in community colleges fall in the myth that technology belongs to the male faculty member's domain and gender differences about the use of technology in the classroom for instruction according to Becker, Brown, Bednar & Sweeder, 2005, Means, 2000, 2001 Ryan & Cooper, 1998 posited that male faculty members were more inclined and also invested more time in technology facility than female faculty members. It was further stated that female faculty members unlike their male counterparts have less access to technology facility, and are less likely to use technology to deliver instruction on a regular basis. Findings from this confirmed that there was no significant difference in community college faculty members' stages of concern about the use technology in the classroom relative to gender. The implication of technology belonging to the male domain has been unacceptable practice as evidenced from the results of this study; the researcher supports the premise that female faculty members should be

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granted equal access to the technology training facility, recognized and accepted as future leaders of the education technology.

CONCLUSION The collective opinion shows that faculty members regardless of gender, ages, academic rank, academic qualification, ethnic groupings will benefit from well-structured professional development technology training program. A unified view indicated that faculty members are: i. Worried, and concerned about the details to be mastered, afraid of losing their dignity, possibility of making mistakes during class sessions, frightened of losing their job due to the total reliance of the education system on technology; ii. Reluctant to admit the feeling of inadequacy, and discourage with the pitiable wages and benefits associated with rapid influx of technology in the education system prior to training faculty members; and iii. Afraid of intellectual involvement required to effectively apply technology to the academic process in a demanding and challenging education community. The successful implementation of well-conceived on-going professional development technology training program with emphasis one-on-one, and specific subject areas, equitable wage increases, and associated benefits, award, and recognition will definitely help to strengthen faculty member's morale, determination, and also show them the advantages and broad range of opportunities that the use of technology in the classroom for instruction can offer in colleges and universities. These concerns upheld by American colleges and community colleges are not only limited to US colleges and universities but are shared by the third world as well. If the faculty in American colleges and universities share these anxieties, it would be worst in developing countries. But this is no excuse not to jumpstart the third world countries to jump unto the bandwagon of technological development or the use of technology for instructional purposes. Most US universities are going the route of technology either full-scale or hybrid and this has facilitated distance and continuing education.

References Adam, N. B. (2002). Educational computing concerns of postsecondary faculty. *Journal of Research on Technology in Education*, 34, 285-303. Adrian, M., & Rose, T. (2004). Technology, preprocessing, and resistance—a comparative case study of intensive classroom teaching. *Journal of Education for Business*, September/October, 45, 78-90. Ayers, E. L. (2004). The academic culture and the IT culture: Their effect on teaching and scholarship. *EduCase Review*, 39(6), 48-62. Balach, C.A., & Szymanski, G.J. (2003). The growth of a professional learning community through collaborative action research. A paper presented at the 2003 annual meeting of the American Educational Research Association, Chicago, IL Bao, Q., He, S., Lan, J., Ouyang, J. R., & Zhonghai, Q. (2000). Technology infusion in a Chinese middle school: A comparative perspective. *Journal of Technology Horizon in Education*, February 12(30), 78-101. Barker, P. (1999). Using intranets to support teaching and learning. *Innovations in Education and Training International*, 36(1), 3-10. Baker, L.M. (1994). Promoting success in educational partnership involving technology. In D.P. Ely & B. B. Minor. (Eds.), *Educational Media and Technology Yearbook* (pp.82-105). Englewood, New Jersey: Libraries Unlimited. Bangkok, U. (2004). Integrating ICTs into education. *ICT in Education*. Retrieved on May 12, 2007. Retrieved from <http://www.unescobkk.org/index.php?id=1793>. Becker, H. J. (2001, March). How are teachers using computers for instruction? Paper presented at the 2001 Annual Meeting of the American Educational Research Association, Seattle, WA. Bednar, M. R., & Sweeder, J. J. (2005). Defining and applying technologies: A systematic, Conceptual framework for teachers. *Computers in the Schools*, 22, 3-4. Bonk, C. J. (2010). Overcoming the technology resistance movement. *Inside the School.Com Press*, Retrieved on January 11, 2010. from <http://www.buzzle.com/articles>. Borade, G. (2010). How can technology help the environment? *Education Technology*. Retrieved December 12, 2010, from <http://www.buzzle.com/articles>.

Brinkerhoff, J. (2006). Effects of a long-duration, professional development academy on technology skills, computer self-efficacy, and technology integration beliefs and practices. *Journal of Research on Technology in Education*, 39(1), 22-43. Brown, H., Shurville, S., & Whitaker, M. (2008). Employing educational technologists: A call for evidenced change. In *Hello! Where are you in the landscape of educational technology?* Proceedings ascilite Melbourne. Butler, D. & Sellbom, M. (2002). Barriers to adopting technology for teaching and learning. *Educase Quaterly*, 25(2), 22-28. Christiansen, B. & Ritchie, D. (1997). *Teacher training in technology: Educational technology 596*. Department of Educational Technology Press, San Diego State University. Colby, L. C. (2003). The role of culture in technology adoption in the U.S: Results of the African American and Latino Hispanic technology readiness survey. New York: Rockbridge Associates Inc. Corrine, P. (2000). Successfully managing the technology design process. *Journal Technological Horizons in Education: Technology Integration*, 17(3), 14-29. Creighton, T. (2008). Resisters and saboteurs: Dealing with resistant teachers. *National Council Of Professors of Educational Administration* 23 (8), 27-49. Creswell, J. W. (2008). *Educational research: Planning, conducting and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Prentice Hall. Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed method approaches* (2nd Ed.). Thousand Oaks, CA: Sage. Cuban, L.

(2001). *Oversold and underused: Computers in the classroom*. Cambridge, MA: Harvard University Press. Digest of Educational Statistics. [Electronic version] (2004). Retrieved March 01, 2012, from <http://nces.ed.gov/programs/digest/d04/> Dunn, S. & Ridgeway, J. (1991). Computer use during primary school teaching practice. *Survey Journal of Computer Assisted Learning*, 7(1), 7-17. Earle, S. R. (2002). The integration of technology into public education: Promises and changes, *ET Magazine*, 42, 5-13. Esin, J. O. (1991). High level of teachers' apprehension about the use of computer in the education process. *Journal of Education Media & Library Science*, 29(1), 15-21.

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Esin, J. O. (1993). Faculty development: Effective of applications software in the classroom for instruction. *Journal of Educational Media & Library Sciences*, 31(1), 17-27. Esin, J. O. (1994). Strategic planning for computer integration in higher education through the year 2000. *Journal of Educational Media & Library Sciences*, 31(2), 129-142. Esin, J. O. (1997). The design and use of instructional technology in schools, colleges and universities. *Journal of Educational Media & Library Sciences*, 35(1), 16-23. Fischman, J. (2010). Colleges lag in technology and teaching quality, a top education official service. *The Chronicle of Higher Education*, 9(1), 105-127. Flanagan, L. & Jacobsen, M. (2003). Technology leadership for the twenty-first century principal. *Journal of Education Administration*, 41(2), 124-142. Gaither, C. C. (2005). Professional development as a means to increasing teachers' self-efficacy for technology integration (Doctoral dissertation, Auburn University, 2005). *Dissertation Abstracts International*, 66, 04. Green, K. (2006). *Campus computing, 2005: The 16th national survey of computing and information technology in American higher education*. Encino CA: Campus Computing. Henrickson, K. L. (2007). Concerns of non-and-low users of technology in the classroom (Doctoral dissertation, Capella University, 2007). *Dissertation Abstracts International*, 9(1), 17-33. Hall, G., George, A. & Rutherford, W. (1977). *Measuring the stages of concern about an innovation: A manual for use of stages of concern questionnaire*. Austin: The University of Texas, Research and Development Center for Teacher Education. Hallinger, P. (2003). Leading education change: Reflections on the practice of instruction and transformation leadership. *Cambridge Journal of Education*, 33(3), 34. Hardy, J.V. (1998). Teacher attitudes toward and knowledge of computer technology. *Computers* Hickey, D. J. (2000). *Tangled Up in Blue: The Web of Resistance to Technology and Theory*. Academic Writing. In *The Conference of College Composition and Communication* (3946). Chicago: PRESS. Retrieved on May 12, 2010 from <http://wac.colostate.edu/aw/papers/hickey/Conference>

91

Laffey, J. (2004). Appropriation, mastery, and resistance to technology in early childhood Pre-service teacher education. *Journal of Research on Technology in Education*, 3(10), 40-47. Lee, J. (1999). Effectiveness of computer-based instructional simulation: A meta-analysis. *International Journal of Instructional Media*, 26(1), 71-85. Linn, M., & His, S. (2000). Computers, teachers, peers: Science learning partners. Mahwah, N.J: Kleiman, G. M. (2008). Myths and realities about technology in K-12 schools, the digital Classroom. *Harvard Education Letter*. Retrieved on June 18, 2010 from www.benefitsofintegratingtechnologyintotheclassroom/mythsandrealitiesabouttechnologyin-

12schools.htm. McKenzie, J. (2001). How teachers learn technology best. Bellingham, WA: FNO Press. Retrieved on February 20, 2011 from <http://fnopress.com>

McKenzie, J. (1998). Teachers' resistance to technology's Professor Universitano. WA:FNO Press. Retrieved on February 20, 2011 from <http://fnopress.com>

Means, B. (2000). Technology in America's school: Before and after Y2K. In *Education in a New Era*, R. S. Brandt (Ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Mumtaz, S. (2000). Factors affecting teachers' use of information and communication technology: A review of the literature. *Journal of Information Technology for Teacher Education*, 9(3), 319-342.

NCATE (1997). Technology and the new professional teacher: Preparing for the 21st century classroom. Retrieved on April 9, 2005 from <http://www.ncate.org/accred/Ptojects/tech21.htm>

Niederhauser, D. S., & Stoddat, T. (2001). Teachers' instruction perspectives and use of educational software. *Teaching and Teacher Education*, 5(2/3), 105-115.

Novak, J. D. (2003). The promise of new ideas and new technology for improving teaching and learning. *Cell Biology Education*, 2, 122-132.

Osika, E. (2006). The concentric support model. A model for the planning and evaluation of distance learning programs. *Online Journal of Distance Learning Administration*, 9(3). Retrieved on April 1, 2011 from <http://www.westga.edu/~distance/ojdla/fall93/osika93.pdf>

92

Peluchette, J. V., & Rust, K. A. (2005). Technology use in class the classroom: Preference of management faculty members. *Journal of Education for Business*, 80 (4), 200.

Ringstaff, C., Ringstaff, K., & Ringstaff, L. (2002). The learning return on our educational technology investment: A review of findings from research. Retrieved on August 09, 2010, from <http://www.westedrtec.org>

Roblyer, M. D., & Edwards, J. (2000). *Integrating educational technology into teaching* (2nd ed.). Merrill, Upper Saddle River, NJ: Prentice Hall.

Rovai, A. P., & Childress, M. D. (2002). Explaining and predicting resistance to computer anxiety reduction among teacher education students. *Journal of Research on Technology in Education*, 2(5), 19-25

See, J. (1994). Technology and outcome-based education: Connections in concept and practice. *The Computing Teacher*, 17(3), 30-31.

Semco, R. S. (2010). The Social Impact of Technology. *Journal of Computing Technology* 4(9), 12-36.

Shafiei, M. (2005). Factors contributing to participation in faculty development and integration Of computer technology in the community college. (Dissertation Abstracts International, 66(2). UMI No. 3165002.

Rosenfeld, B. & Martinez-Pons, M. (2005). Promoting classroom technology use. *Quarterly Review of Distance Education*, 6 (2), 145.

Starr, L. (2009). Encouraging Teacher Technology Use. *Education World, Inc.* 48 (0), 59-64.

Sahin, I., & Thompson, A. (2006). Using Roger's theory to interpret instructional computer use COE faculty. *Journal of Research on Technology in Education*, 39(1), 81-109.

Vannatta, R. A., & Beyerbach, B. (2000). Facilitating a constructive vision of technology Integration among education faculty and pre-service teachers. *Journal of Research on Computing in Education*, 33(2), 132-147.

Vannatta, R. A., & Fordham, N. (2004). Teacher disposition as predictors of classroom technology use. *Journal of Research on Technology in Education*, 36(3), 253-271.

Weston, T.J. (2005). Why faculty did-and did not-integrate instructional software in their Undergraduate classrooms. *Innovative Higher Education*, 30(2), 98-118.

93

Wiersma, W. & Jurs, S. G. (2009). *Research methods in education: An Introduction*. 9th Edition. Allyn and Bacon, New York. Wolcott, L. (2003). Dynamics of faculty participation in distance education: Motivations, incentives, and rewards. In Moore, M. (Ed.). *Hand-Book of Distance Education*. Mahwah, NJ: Erlbaum.