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TRENDS IN EDUCATIONAL RESEARCH METHODOLOGY: A REVIEW STUDY OF RESEARCH METHODOLOGIES OVER THIRTY YEARS AND ITS IMPLICATIONS

Ahmed K.A. Khaled

Assistant Professor of Educational Leadership
College of Education, Humanities and Social Sciences
Al Ain University

Coessponding Author: ahmed.khaled@aau.ac.ae
ahmed1031@hotmail.com

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ABSTRACT:

Trends in research methodology selection for the 33 years (1983 – 2015) of the MR2P Conference are presented and analyzed and compared to the research methods used by faculty members in two Arab Universities, one public and private (UAEU'S College of Education & Al Ain University's College of Education, Humanities and Social Sciences). Findings indicated a strong trend toward qualitative methods which is accelerated in 2007 and continued to 2015. Another finding is reported for the MR2P proceedings (2007-2015). There was an increase in articles that are not research-based selected in the MR2P. On the other hand, faculty members at both UEAU and Al Ain University prefer quantitative methods. Most of their publications are research-based and mostly quantitative. This means that position papers and data-free research studies are almost unacceptable in the research agenda in the Arab Universities. To most Education faculty members in the Arab world, research means generating data or evidence or both to support a claim or refute a finding. Based on the findings of this study, recommendations and implications are offered.

INTRODUCTION

The choice of research methodology is influenced by several factors such as epistemological concerns, aims, norms of practice, type of research questions posed, organizational demands, ethical, political, and personal factors (Bryman, 1984 & Tuli, 2010). As it is indicated by Tuli (2010) "the selection of research methodology depends on the paradigm that guides research activity, more specifically, beliefs about the nature of reality and humanity (ontology), the theory of knowledge that informs the research (epistemology), and how that knowledge may be gained (methodology)" (p.99). These factors are not limited to the researcher's preference or the type of problem under investigation but to other factors such as the purpose of the investigation, the nature of the study, the culture of the organization sponsoring the study, and the venue of future publication of the results.

Queiros, A. ,et.all. (2017) report that "scientific research adopts qualitative and quantitative methodologies in modeling and analysis of numerous phenomena" (p.369). Gilad, S. (2019, p.1) "reports that "Qualitative methods are relatively scarce in public administration research". The author also raised concerns about this imbalance between quantitative and qualitative studies. She further proposed collaboration between qualitative and quantitative researchers by using mixed methods.

The most important factor is the suitability of the study to the field or area under investigation. For example, natural sciences tend to use more quantitative methodologies than qualitative ones, while humanities are inclined to use more qualitative methodologies than quantitative ones. These are not clear distinction or clear personal choice of research methodologies. Sometimes factors like journal choice can have an impact on the type of research methods to be used. There are many journals dedicated to publishing quantitative data more than qualitative ones. This tendency has also led to the creation of many journals specialized in publishing qualitative research. So, the debate between quantitative and qualitative research methodologies continues.

The purpose of the Midwest Research-to-Practice Conference as expressed in the Mission Statement has been in the front of the Proceedings since 1992. It states: "The conference provides a forum for practitioners and researchers to discuss practices, concepts, evaluation, and research studies to improve practice in Adult Education. It facilitates dialogue and the initiation and pursuit of projects among individuals and groups working in various fields of Adult Education. Through such discussion and collaboration, participants contribute toward the realization of more human and just society through lifelong learning. (Isaac, 2006, p. vii)

The idea expressed in this statement of purpose has informed the approach used in the referred review of the research and the methodologies used in the papers presented at the conference over the last thirty-three years. These research approaches should be compatible with the practitioners' needs and their

ability to understand and apply the findings of the research to their practice settings.

This study will summarize and comment on the trends in research methodologies that have appeared in the Proceeding since 1983. It is a continuation of a similar review reported at the Conference in 2000 (Barrett and Ahmed, 2000), in 2006 (Barrett and Ahmed, 2006) and now (Ahmed 2020). Besides, there has been a routine and consistent debate over research methodologies that should be applied to Adult Education research questions. An insight into the effect of this debate on the literature as evidenced by those articles would assist researchers in contemplating projects for potential publication. It can also offer implications to researchers in their choice of methods or the type of research projects they undertake. Demands for more high quality publications have become the norm by universities around the world.

LITERATURE REVIEW

The qualitative/ quantitative debate has been taken place for over half a century (Mackenzie and Knipe, 2006). Similar debates took place “within a method called Q methodology (Q) that has an 80-year history and strong qualitative leaning” (Ramlo, 2020, p.93). Ramlo further elaborated that “Although the idea of Q as a mixed method is represented across all three perspectives, these views diverge concerning the factor analytic stage. The three perspectives that emerged are Inherently Mixed-Focus, Quantitative Focus, and Skeptical Novice” (p.93). This means that whether the researcher uses one methodology over another or mixed methods is a matter of choice based on factors discussed earlier.

Queiros, A. , et.all (2017) indicate that “qualitative research is not concerned with numerical representation, but with the deep understanding of a given problem, with aspects of reality that cannot be quantified while in quantitative research, data can be quantified and the focus is on objectivity” (p. 370). In their study, they mapped a total of seven qualitative methods and five quantitative methods. The purpose of their study was to conduct a comparative analysis of the most relevant and adopted methods done to understand the main strengths and limitations of them. Through their analysis, the advantages and disadvantages of each method were shown to help research formulate a more accurate, informed, and complete choice. It is concluded that it is the researcher’s responsibility to select the research method that best fits the situation under analysis.

Mackenzie and Knipe (2006), started their report by a discussion of research paradigms, providing definitions and discussion of the role of paradigms in educational research. The purpose of their research was to clarify the role of paradigms in research. The study also discusses the methodology as it relates to the research paradigm. The qualitative, quantitative, and mixed methods debate is also included as it pertains to the decisions that need to be made by the researcher. The author reports that more than 40 widely available research texts were reviewed for this study. Special attention was given to the treatment of paradigms, methods, and methodology. In their review of research textbooks, “it has been found that many writers fail to adequately define research terminology and sometimes use terminology in a way that is not compatible in its intent, omitting significant concepts and leaving the reader with only part of the picture” (p.10). They concluded that research books that are designed to assist students and researchers in the understanding research process, instead they cause more confusion.

Gilad, S. (2019) reports that qualitative methods are scarce in public administration research. She asserts that this imbalance between qualitative and quantitative methods poses three major concerns. Her first reason is that there is a distance that quantitative methodology fosters between academics an administrative practice and practitioners. “This undermines the inclination and capacity to study policy-meaningful research questions that matter in the real world” (p.1). Her second reason is that

real problems facing policymakers and public organizations are often much too complex to be captured by one methodology, whether quantitative or qualitative. Thirdly, a quantitative methodology is most conducive to testing already available theories and hypotheses, as opposed to theory building or description of a phenomenon. She proposed denouncing commitment to abstract philosophical divisions and advancing collaboration between qualitative and quantitative researchers and using mixed methods that allow triangulation. She concluded that “a more flexible, context-sensitive, methodological toolkit would, hopefully, broaden our empirical and theoretical horizons and make us better apt to respond to the significant problems in our diverse societies” (p. 22).

Ramlo (2020) attempted in her study to empirically examine the viewpoints concerning Q’s factor analytic stage using Q to reveal viewpoints that reflect divergent worldview about research and mixed methods. In her study, three perspectives emerged. Out of these three perspectives, there were different viewpoints. They are: one accepting qualitative-quantitative focused factor analysis, another accepting traditional factor analysis, and another that seems doubtful of the other viewpoints. The results of this study provided discussions regarding qualitative, quantitative, and mixed methods. “Although most participants across the three viewpoints (factors) regard Q methodology as a mixed-method, their viewpoints differ when it comes to the factor analytic stage regarding mixing qualitative and quantitative approaches (P.109). The struggle between these views is whether there can be a qualitative-focus or even an inherently mixed method-focus within a statistical stage of a methodology. As a result, the debate on which methods most suitable for research seems to be at the core of research behavior and debates. This study demonstrates how Q can be used to reveal and describe research orientations within a community of practice.

Almalki (2016) examined the integration of quantitative and qualitative data in mixed methods research with their challenges and benefits to investigative studies. The researcher outlined the mixed methods approaches in terms of their challenges and benefits. He concluded that a mixed methods research approach was suitable for any research project despite its challenges. Mixed methods research can create opportunities for researchers to have “an informed conversation or debate involving information that is generated by both qualitative and quantitative collection methods” (p. 288). The author further asserts that “a mixed-methods approach provides researchers with greater scope to investigate educational issues using both words and numbers and provide a realistic link between quantitative and qualitative studies, and those who conduct them” (pp. 294-288).

Tuli (2010) in his review study explored and interpreted the distinction between qualitative and quantitative research from ontological, epistemological, and methodological perspectives. The author’s goal was to “make the reader aware of the two research methodologies and their basis of difference from ontological, epistemological, and methodological perspectives. Another goal was to deal with different research paradigms that are particularly appropriate for researchers who desire to establish their work on a positivist world view or an interpretive –constructivist world view” (p.99). The author concluded that social science research is complex, diverse, and pluralistic. This is due to “the way research is conducted, its goals, and its basic assumptions vary significantly. The main purpose of his study was not to extend the current and long-lasting debate regarding qualitative versus quantitative research in social science research and to describe and reflect on the philosophical stance guiding the two research methodologies. It should also be clear that neither of the two is better than the other research methodology. They are just different and both have their relative strengths and weakness (p.106).

Hochbein and Smeaton (2018) conducted a review study to examine the widespread use of quantitative research methodologies in published journal articles. Their study examined research articles published between 2008 and 2013 in the American Educational Research Journal, the

Educational Administration Quarterly, and the NASSP Bulletin. Between 2008 and 2013, AERJ, EAQ, and the BUL published 449 articles. Among the three journals, AERJ published the greatest fraction of empirical (95%) and quantitative (64%) articles. All three journals published a larger percentage of empirical articles, with the BUL exhibiting the smallest fraction at 81 percent. Similarly, the majority of articles published by the journals employed a quantitative component, with the BUL again demonstrating the smallest fraction at 51 percent.

Among the 263 articles that utilized a quantitative methodology, researchers employed a multi-method data collection the most often (41%) and survey the least (26%). Articles published in the BUL (53%) and the EAQ (41%) exhibited the greatest use of survey data collection, but neither secondary database nor multi-method collection accounted for less than 22 percent of collection techniques in BUL and EAQ. By contrast, survey data collection accounted for 9 percent of the AERJ articles, with 51 percent demonstrating multi-method data collection (p.10). From the quantitative articles published in the AERJ, the BUL, and EAQ, 23 different statistical techniques were identified. The results indicated that researchers use more than one type of statistical technique per article resulting in the identification of 332 utilizations of these techniques in the 263 articles. It is obvious from these results that none of the articles used a qualitative research methodology. These three major Journals only accepted articles for publications that used quantitative methods.

In our review of the proceedings of the Midwest R2P Conferences, we identified similar review studies conducted by other scholars (McElhinney, 1985; Fisher & Martin, 1987; Donaldson & Rentfro, 2006). McElhinney (1985) analyzed 65 research articles appearing in volumes 30 through 34 of the Adult Education Quarterly. He identified 26 studies (40%) as naturalistic, 32 (49%) as quantitative, and 7 (11%) as not strictly one or the other. Fisher and Martin (1987) conducted a research review of the contribution to the knowledge of successful practices in adult literacy education made by empirical research published in the three adult education journals: 1) Adult Education Quarterly,

1) Adult Literacy and Basic Education, and 3) Life-long Learning. Austin conducted a study to identify how researchers utilize quantitative or qualitative professional literature in their research. She reported that “scholars and practitioners in social sciences and education have witnessed a dramatic increase over the past decade in the use of qualitative methodologies for conducting research” (Austin, 1998, p. 13). She cited Lifendahl (1995) as reporting an increase in the use of qualitative methodologies in his review of doctoral dissertations and the concurrent decline of the use of quantitative methodologies.

Austin judged that the “phenomena can be partially attributed to the natural fit of qualitative methods to the human practice settings of adult education” (1998, p. 13). However, Cizek claims that “it seems that qualitative research has become inextricably linked with sociopolitical causes: feminist pedagogy, multiculturalism, eco-sensitivity, human rights, lab-animal welfare, gay/lesbian advocacy, socialist politics, organic gardening, liberation theology, low-cholesterol high fiber crunchy granola diets, and so on” (1995 p. 27). Cizek asserts in a very mocking way that the interest in conducting qualitative research can be attributed to caring about human issues. It is true if research does not serve a human purpose, it is a waste of time. Cizek is a quantitative researcher all the way and represents the worst of advocacy for a single methodology.

Donaldson and Rentfro (2006) conducted a content analysis of three adult education journals: Adult Education Quarterly (AEQ), Adult Learning (AL), and The Journal of Continuing Education (JCHE). Among other factors, they reviewed research methodologies. They reported that out of 44 empirical articles in adult education literature, 15 (34.1%) used qualitative, 24 (54.6 %) quantitative, three (6.8%) mixed, and two (4.6%) historical research methodologies. Internationally, the trend in at least

technical education-related research was strongly leaning toward the use of qualitative methods in a review in the 1990s while the predominant method in the US was quantitative (Hoepfl, 1997)

Merriam and Simpson define research as “a systematic process by which we know more about something than we did before engaging in the process” (1995, p. 2). Research can also be defined as “the formal, systematic application of scholarship, disciplined inquiry, and most often the scientific method to the study of problems” (Fraenkel & Wallen, 1996, p. 588). McElhinney states that “research in human behavior is a systematic way of asking intelligent questions about important components of human behavior that yields dependable responses” (1999, p. 1). A qualitative definition of research is “research in which the investigator attempts to study naturally occurring phenomena in all their complexity” (Fraenkel & Wallen, 1996, p. 587). According to Merriam, “Qualitative research has most often been presented in contrast to the ‘traditional’ or ‘scientific’ paradigm, which depends upon a very different view of the world. Traditional [Quantitative] research is based on the assumption that there is a single, objective reality - the world out there -that we can observe, know, measure... In contrast, qualitative research assumes that there are multiple realities - that the world is not an objective thing out there but a function of personal interaction and perception. It is a highly subjective phenomenon in need of interpreting rather than measuring” (1988, p. 17).

The debate between quantitative and qualitative research methodologies has and will continue to occupy pages of journals and chapters in books. The method of inquiry should be selected with the question(s), and the context of the research, the intended audience, and the ability of the researcher to assist in the determination of the most appropriate research methodology (Johanek, 1998). I believe that there is a spectrum of research questions that would respond to a corresponding array of research methodologies including areas where a combination of methodologies would yield the most appropriate response to the question. This would combine the power of both quantitative and qualitative methods in a search for the most accurate and meaningful answer.

Despite the struggles that exist in choosing and employing a particular research strategy, adult education is well served by qualitative inquiry (Austin, 1998, p. 13). However, the selection process should be open to research approaches that are appropriate to the question under study regardless of the methodology used to study the phenomenon.

Imel, Kerka, and Wonacott in an ERIC Practitioner File on qualitative research reviewed the differences between qualitative and quantitative research. In addition to describing these research methods, they affirmed that “Researchers approach inquiry from a particular philosophical stance or world view, which determines the purpose, design, and methods used and the interpretation of the results” (Blunt, 1994 as cited in Imel et al, 2002 p. 1). Imel et al.'s excellent review of the state of research in adult education concluded: “Ultimately, many agree that the research question should guide the choice of research methods and techniques” (p. 2). If the question addresses a “how” or “what” type of inquiry the authors suggest a qualitative approach might be more suitable. Likewise, a “why” question would be more appropriately addressed using quantitative techniques. Since theory development is most often a “why” type of inquiry seeking a possible cause for some phenomena, a field that is dominated by qualitative research-oriented may be in danger of falling short in theory development. (Imel et al., 2002). A philosophical world view can also dictate an either/or situation and may preclude the use of combined or mixed research methods if the research question would benefit from such an approach. If one believes that the real world cannot be known and only the present and can be discovered through a naturalistic approach that seeks to understand phenomena in context-specific settings than a quantitative methodology is fundamentally ruled out as a research tool (Hoepfl, 1997). The field of adult education may reflect this belief in the selection of predominantly

qualitative research.

In our earlier study demonstrated that the research documented in the MR2P Conference articles was qualitative (Barrett & Ahmed, 2000 & Barrett & Ahmed, 2007). Likewise, in the most recent review of articles published in the MR2P proceedings, the use of qualitative methods was dominant as shown in the present study (Ahmed, 2007-2015). After reviewing the literature, it is imperative to decide the study methodology.

RESEARCH METHODOLOGY

This is a review study of the research methodology. The purpose of this review study is to identify trends in educational methodologies. The sample of this study comprises of the articles published in the Midwest Research-to-Practice Conference Proceedings in the last 33 years (1983-2015). Another purpose is to examine the implications of the choice of research methodology. To examine the trends in educational research methodologies and their implications, the following research questions were posed:

RESEARCH QUESTIONS

1. What are the trends in research methodology selection over the last 33 years as evidenced by the Midwest Research-to-Practice Conference (MR2P Conference) proceedings?
2. What are some of the changes if any in the research methodology selection in the last nine years (2007 - 2015) compared to the previous 24 years as evidenced by the MR2P conference proceedings?
3. What are the trends in the types of research methodology selected by Al Ain University Colleges of Education faculty members over the past five years?
4. What are some of the implications for the research productivity of Colleges of Education faculty members?

DATA COLLECTION

For the first twenty-four years (1983-2006) of the review of the Midwest R2P proceedings, two researchers conducted the review. For the last nine years (2006-2015), the author of this study conducted the review alone. We collected and analyzed data on the research methods used by presenters at Midwest R2P Conferences from 1983 to 2006. The proceedings of the first conference held in 1982 were not retrieved for this paper. Each of us reviewed and noted the types of research methodologies used in each article published in the conference proceedings. We cross-checked and verified each other for accurate reporting. The authors most frequently declared the method they intended to use. When that statement was not present, a complete reading of the text was used to make a judgment. The articles were classified into four general categories: Quantitative, Qualitative, Both, and Neither. Similar methods of data collection were used by the author of this paper for articles published in the Midwest R2P Conference proceedings (2007-2015). The classification of categories was done the same way as in the previous reviews. The findings have been analyzed to identify trends using simple linear regression. The meanings of the research process and the relevance of the findings are explored from our point of view in the context of our intellectual and career development. The data are presented below in the section of findings. A simple regression line was used to analyze any trend in the research methodologies over the twenty-four years. The conference proceedings for 2005 were not available and the surrounding years' findings were averaged to fill in the data.

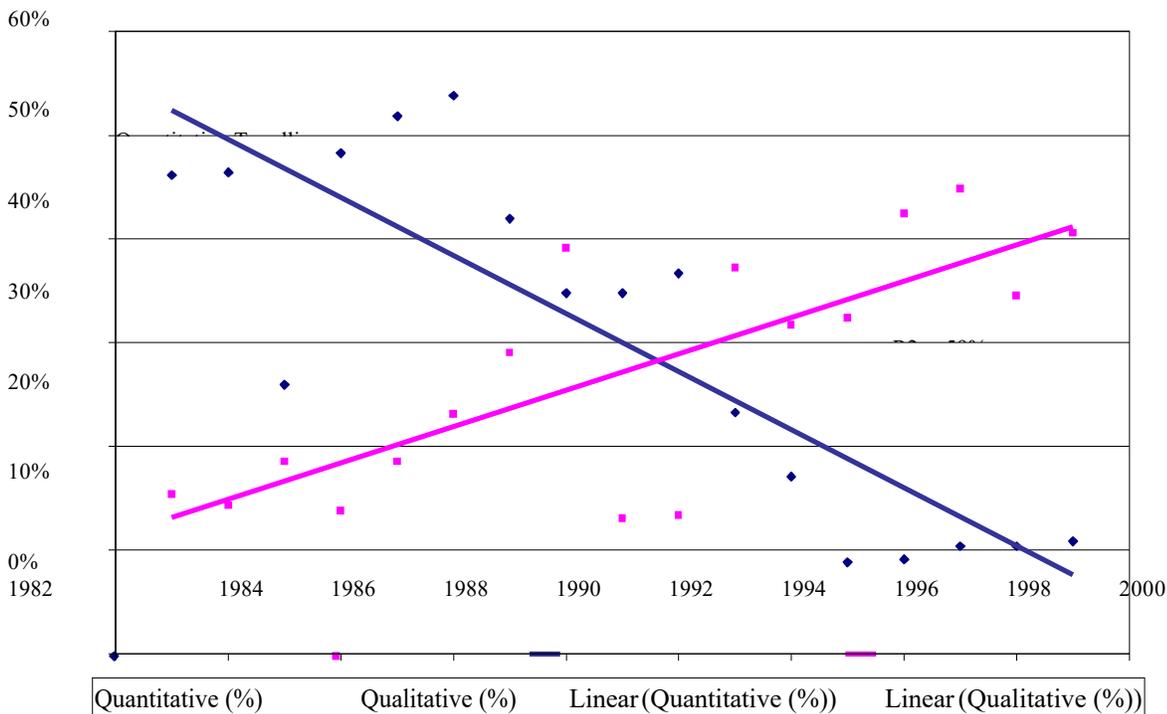
Also, to obtain a contrasting international insight, Ahmed interviewed ten faculty members from the United Arab Emirates University (UAEU) to identify their research methodology selection as

indicated in their research productivity for the period of (2002-2006). Furthermore, he interviewed 11 faculty members from Al Ain University which is a private university to identify their research methodology preference as indicated in their research productivity for the period (2013-2018). The purpose of conducting these interviews was to see if there is a similar trend in the research methodology selection in a public university such as the United Arab Emirates University or a private university as Al Ain University. The findings of the data from Midwest R2P have been analyzed to identify trends using simple linear regression. We have also verified and cross-checked each other's findings for accurate reporting. For the data of MR2P (2007-2015), the author similarly verified the evidence. The implications of this study and the relevance of the findings are examined from the context of careers and personal research experiences.

FINDINGS

Trends in the research methodologies used in articles selected for the Midwest R2P Conference emerged from the data analysis. The data in figure 1 depict a dramatic decrease in the annual number and percentage of Quantitative studies beginning in the early 1990s and accelerating in the mid-1990s with only three Quantitative articles each from 1995 through 1998. The average number for the 17 years studied was 8.6 articles (1983-1999). Likewise, the percentage of Quantitative research articles dropped. The total number of articles published was generally increasing. The effect on percentage is more noticeable with a decrease to approximately 10% of total articles from a high of 53.8% (1988) and an average of 28.5%. It is also obvious that the number of Qualitative articles selected for publication increased in both the raw number and percentage of total articles with highs in 1993 (16 articles) and 1997 (44.8%) as shown in figure 1.

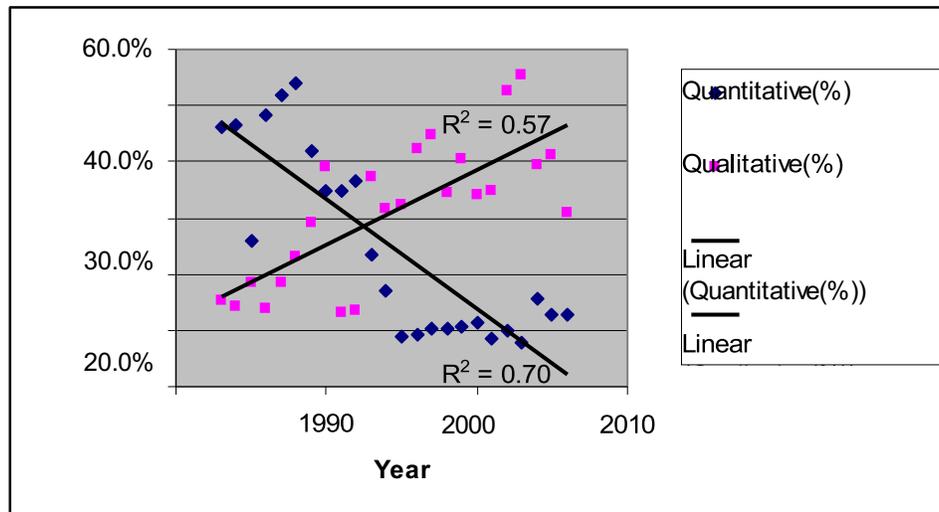
Figure 1. Percent of Quantitative and Qualitative articles in the Midwest Research-to-Practice Conference Proceedings (1983-1999) and linear regression trendlines.



The percentage distributions over the seventeen years demonstrate a similar pattern in the shift in methodologies. The percent of Quantitative and Qualitative research reports was used in Figure 1 to establish trendlines. A strong shift from Quantitative methodologies to Qualitative and combined methodologies is demonstrated using the trendlines with the shift from Quantitative being more dominant occurring in the early 1990s. The change occurred over several years. The graphic display of the trendlines in Figure 1 demonstrates a strong and consistent long-term trend. Combined with the data displayed in Table 1, we can see a watershed conference in 1993 when the selection of Qualitative articles went from 4 in the prior year to 16 articles.

The trends revealed from the previous study reported in 2000 (Barrett and Ahmed, 2000) were confirmed in the present analysis as shown in figure 1. Almost seventy-five percent of MR2P Conference articles since 1995 using a qualitative, quantitative, or dual research method have used a qualitative method. The trend that was identified in 2000 has appeared to solidify with the use of qualitative methodologies dominating the research. As reported in 2000, the average number of quantitative articles was 8.6 from 1983 to 1999 and 8.5 for qualitative articles. This was essentially a tie over the seventeen years. Figure 2 shows the effects of the shift toward qualitative articles with an average of 10.5 versus 7.4 for quantitative articles now from 1983 to 2006.

Figure 2: Percent of Quantitative and Qualitative articles in the MR2P Proceedings and linear regression lines for selected years (1983 - 2006)



The trend lines in Figure 1 are even more dramatic than the trend lines from the 2000 study. The percent of studies that use quantitative research methods plummets from almost 50% of all studies to near zero in 2006. The raw number of quantitative studies has been between 3 and 6 since 1995 and the percentage has been between 7.9% and 15.8%. The Cronbach coefficient alpha, α , or R^2 for both studies are over .70 for the quantitative trend line and .50 for the qualitative trend line. This means that the lines explain 70% and 50% of the variance in the data respectively. Besides, the percent of articles that are not research-based has grown to over fifty percent of all articles in the proceedings in some recent years.

Contrary to the findings of the Midwest R2P Conference articles, the evidence collected from the UAEU'S College of Education professors' interviews indicated several findings as shown below in Table 1.

Table 1: Methodologies used by faculty members at UAEU from 2002 to 2006

	Quantitative	Quantitative (%)	Qualitative	Qualitative (%)	Other	Other (%)	Other	Other (%)	Total
Total Publications	40	48.8	19	23.2	7	8.5	16	19.5	82
Published Articles	24	50.0	8	16.7	5	10.4	11	22.9	48
Conference Presentations	16	47.1	11	32.4	2	5.9	2	5.9	34

As shown in Table 1, faculty members at UAEU preferred using quantitative research methodologies over qualitative. The 10 participants reported their publications and conference presentations over five years (2002-2006). There were 40 quantitative research studies (48.8%) out of 82 published articles and conference presentations while there were only 19 qualitative studies (23%). Furthermore, 24 articles (50.0%) published in refereed journals were quantitative and only 8 articles (16.7%) were qualitative. Out of 34 articles presented at conferences 16 articles (47.1 %) were quantitative and 11 articles (32.4%) were qualitative.

Nine articles of these qualitative presentations belonged to a newly arrived New Zealand professor. It is clear from these results that faculty members at UAEU prefer quantitative research methodologies over qualitative. Some interviewees reported that they prefer quantitative research methodologies over qualitative because they were trained as quantitative researchers and they do not know much about qualitative research methodologies or they cannot get published if they used them. Some thought that qualitative research methodologies are not rigorous enough and they do not yield themselves to generalizations or theory building. The implications of these results are serious. Since the UAEU adopted performance-based education, it is only appropriate that faculty members at the college of education establish a balance between their research and their teaching. They need to realize the value and implications of qualitative research for the improvement of practice and a better understanding of their learners' diversity and special needs. We need to propagate and maybe offer some workshops on qualitative research methodologies. Faculty members at UAEU need to realize the great contributions that qualitative research can offer.

For the findings of years (2007-2015), the trend of research methodology continued as in table 2. The percent of studies that employed qualitative research methods starting in (2007) increased to 51.22% (21) in contrast to quantitative 24.39% (10) reaching 40.82% qualitative methods in (2014) with only 6.12% quantitative methods. For other types of methods, it was high or equal to the use of qualitative methods (42.86%) in 2015. For the year 2015, the total number of papers selected for presentation was small (16) papers. The methods used spread evenly between qualitative and quantitative methods 4 qualitative and 4 Quantitative while another type of method was 6 papers. So, the year 2015 is not truly indicative of any trend. But when we examine the raw number of quantitative studies versus qualitative, we find that there was a steady increase in the number of qualitative studies starting in 2007 with 21 studies and with high 23 studies in 2009 with only 4 quantitative studies in the same year.

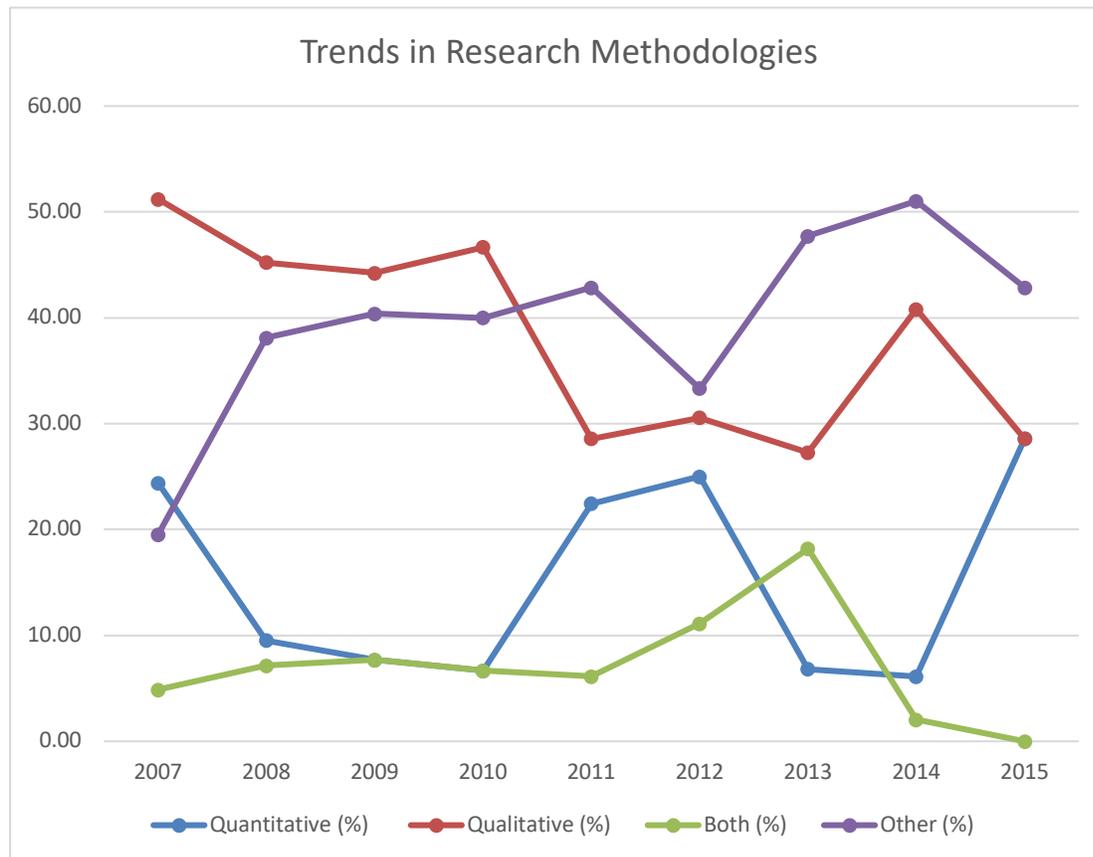
Table (2) shows that there is a trend with the increase in the number of articles that are not research-based in recent years starting in 2006. But the most important trend is the increase in the use of qualitative methods versus quantitative. The total number of articles published in the Midwest Research-to-Practice Conference proceedings in the nine years (2007-2015) was 372 articles with 148 articles that are not research-based studies. The total raw number of qualitative studies is 145 studies versus 51 quantitative studies. Figure 3 shows that trends in research methods where bars representing qualitative studies exceeding quantitative but close to articles that are not research-based. Mixed methods have only a total of 28 articles in the nine years.

Table (2) Methodologies Used in Proceedings of the Midwest Research-to Practice Conference in Selected Years (2007-2015)

Year	Quantitative		Qualitative		Both		Other		Total	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
2007	10	24.39	21	51.22	2	4.88	8	19.51	41	11.02
2008	4	9.52	19	45.24	3	7.14	16	38.10	42	11.29
2009	4	7.69	23	44.23	4	7.69	21	40.38	52	13.98
2010	3	6.67	21	46.67	3	6.67	18	40.00	45	12.10
2011	11	22.45	14	28.57	3	6.12	21	42.86	49	13.17
2012	9	25.00	11	30.56	4	11.11	12	33.33	36	9.68
2013	3	6.82	12	27.27	8	18.18	21	47.73	44	11.83
2014	3	6.12	20	40.82	1	2.04	25	51.02	49	13.17
2015	4	28.57	4	28.57	0	0.00	6	42.86	14	3.76
Total	51		145		28		148		372	
Average	5.67	15.25	16.11	38.13	3.11	7.09	16.44	39.53	41.33	11.11

By examining the average of qualitative versus quantitative articles, it has become evident that there is a strong shift towards the use of qualitative methods and studies that are not research-based. The average of quantitative articles is 5.67 (15.25%) while qualitative is 16.11 (38.13%) and articles that not research-based are 16.44 (39.53%). This shows clearly that there is a trend of the use of qualitative research methods or other methods rather than using quantitative methods. The average of mixed-method is only 3.11 (7.09%) which is very low. The trend of Figure 3 shows the strong shift from quantitative to qualitative research methods in the educational articles published in MR2P conference proceedings. The trend started in 1983 and continued for all research articles published between 2007 and 2015. There is another surprising trend which the emergence of articles that are not research-based publications. The implication is that since topics included in this study are related to human experiences such as learning and teaching, gender, diversity, equality, and equity and issues connected to humanity that number cannot best describe the human experience. The human experience is a phenomenon that requires sick description and narrative to explain it better than numbers.

Trend lines Figure (4) Methodologies Used in Proceedings of the Midwest Research-to-Practice Conference in Selected Years (2007-2015)



As shown in figure 3, the trend of the use of qualitative methods in educational research seems to be dominant in the articles published in the MR2P conference proceedings. On the other hand, evidence collected from faculty members at AL –Ain University seems to indicate the opposite direction. As was the case with faculty members at UAEU as previously shown where quantitative methods were more dominant than qualitative. It is not surprising that similar results occur when data is gathered from faculty members at Al Ain University. They tend to use more quantitative research methods than qualitative ones. This can be due to the lack of training they received or the avenues of publication and preference.

Table 3: Methodologies used by faculty members at Al - Ain University from 2013 to 2018

	Quantitative	Quantitative (%)	Qualitative	Qualitative (%)	Both	Both (%)	Other	Other (%)	Total
Total Publications	78	80.4	19	19.6	9	9.3	0	0	97
Published Articles	59	72.8	17	20.1	5	6.2	0	0	81
Conference Presentations	19	76.0	2	8.0	4	16.0	0	0	25

DISCUSSION AND IMPLICATIONS

Since the Adult Education discipline continues to be an emerging field of interest, research is a critical component for its development. The methods that are used to research Adult Education, should be designed to respond to the needs of the field to better understand human behavior. The dichotomy of Quantitative versus Qualitative research has caused extensive debate in Education and other disciplines involved in the understanding of human behavior (Merriam & Simpson, 1988). In what ways does the effect of this debate appear

in the decision of the researchers' methodology selection and the acceptance of papers at conferences such as the Midwest R2P Conference? Since research results must be held out to public scrutiny for academic criticism, selection criteria based on the methodology used in research articles will have a significant bearing on the type of research conducted in the field of Adult Education. A researcher would be reluctant to engage in research that would have little likelihood of publication because the methodology used as a deterrent for the selection of all other factors being equal.

The selection of research methods for the MR2P Conference may influence what is submitted in succeeding years, how research is conducted going forward, and even what methods are taught and used in dissertations in Doctoral programs. Trends tend to be self-reinforcing over time (Johanek, 1998). Leaders in the discipline may have made a conscious and deliberate decision that was aware of the potential consequences when the mission statement was developed in 1991. Regardless, the selection committees and processes used to identify the proposals for inclusion in the MR2P conference proceedings may have developed into a pattern that influences succeeding selection committees and their results. Identifying any pattern that may exist and creating an opportunity for its discussion is potentially important to the Adult Education field in the Midwest and to the future MR2P Conference participants. Unfortunately, the MR2P Conference being held annually ceased to exist since 2017.

The first implication for adult and community education researchers and practitioners is that they should be aware of the types of methodologies that are being used to advance the understanding of the realities of the field. As practitioners, they should be able to respond to the research community with their approval and support or their censure and request for change. The needs of the practitioners and the advancement of the understanding of the discipline of Adult, Continuing and Community Education should continue to drive the Midwest R2P Conference selection committee decisions.

There appear to be two different selection criteria trends: one for the MR2P and the other for the Adult Education Journals reviewed by Donaldson and Rentfro (2006). The emphasis on the practice is

informed by research as opposed to the development of theory in the journals that may account for this difference. The Mission of the MR2P Conference appears to be guiding the selection committee. Authors should be guided by these trends both in the articles that are proposed and the research orientation that is used.

A major implication appeared from the literature review of major journals in the field such as *Adult Education Quarterly*, *Adult Learning* and the *Journal of Continuing Education*. The reviewers reported that out of 44 empirical articles in adult education literature, 15 (34.1%) used qualitative and 24 (54.6%) used quantitative methods (Donaldson and Rentfro, 2006). Similarly as reported in the literature McElhiney's analysis of the *Adult Education Quarterly* (1985) identified 26 studies (40%) as naturalistic, 32 (49%) as quantitative, and 7 (11%) as one or the other.

References

- Al-Ain University: College of Education, Humanities and Social Sciences, aau.ac.ae
- Almalki, Sami (2016). "Integrating quantitative and qualitative data in mixed methods research-challenges and benefits". *Journal of Education and Learning*: vol.5, No.3.
- Austin, Ann (1998). The use of literature in qualitative research: A practitioner-driven perspective. *The proceedings of the Midwest research-to-practice conference in adult, continuing, and community education*.13-16.
- Barrett, A. J., II, and Ahmed, A. K. (2000). "Midwest adult education research methodology" *Proceedings of the 19th annual Midwest research-to-practice conference in adult, continuing, and community education, Madison, Wisconsin, September 27-29, 2000*. (ED 445 203) http://labweb.education.wisc.edu/mr2p2000/MR2P_Proceedings2000.pdf
- Barrett, A. J., II, and Ahmed, A. K. (2007) . "Midwest adult education research methodologies: An update with a twenty-five-year review and implications for research at the College of Education, UAEU. *Proceedings of 26th Annual Midwest Research-to-Practice Conference in Adult, Continuing, Community, and Extension Education. Ball State University – Alumni Center Ball State University, Muncie, Indiana, September 25-27, 2007*. <http://mdudka.iweb.bsu.edu/mr2p2007>. <http://www.ulib.iupui.edu/collections/digital/>.
- Blunt, A. "The Future of Adult Education Research" in *Research Perspectives in Adult Education*, edited by D. R. Garrison, pp. 167-209, Malabar, FL: Krieger, 1994
- Bryman, Alan (1984) "The debate about quantitative and qualitative research: A question of method or epistemology?" *The British Journal of Sociology, Vol.35, No 1*.
- Cizek, Gregory, J. (1995). Crunchy granola and the hegemony of the narrative. *Educational Researcher* 24 (24): 26-28.
- Donaldson, J. F. & Rentfro, A. L. (2006). Adult undergraduates in the Adult Education literature: Mainstream or marginal? *Proceedings of the 25th. annual Midwest research-to-practice conference in adult, continuing, extension, and community education. The University of Missouri-St.Louis*. edited by P. Isaac
- Fisher, J. C., and Martin, L. G. (1987). A decade of research contributions to the adult basic education literature in *Proceedings of the Midwest research-to-practice conference in adult, continuing, and community education*. 1-5.
- Gilad, Sharon (2019). "Mixing qualitative and quantitative methods in pursuit of richer answers to real-world questions. *Public Performance & Management Review*, DOI:

- 10.1080/15309576.2019.1694546. <https://www.tandfonline.com/loi/mpmr20>
- Hochbein, Craig & Smeaton, S. Katherine (2018). "An exploratory analysis of the prevalence of quantitative research methodologies in journal articles". *International Journal of Education Policy and Leadership*, Vol. 13(11).
- Hoepfl, M. C. (1997). Choosing qualitative research: A primer for technology education teachers. *Journal of Technology Education*, 9 (1), 1-17.
- Johanek, C. L. (1998). A contextualist research paradigm for rhetoric and composition. Unpublished Doctoral Dissertation: Ball State University, Muncie, IN.
- Jones, C. (2004). Quantitative and qualitative research: Conflicting paradigms or perfect partners in *Proceedings of the networked learning conference, 2004*, 1-8.
- Mackenzie, Noella, and Knipe, Sally (2006). "Research dilemmas: Paradigms, methods, and methodology. *Issues in Educational Research*. 16 (2).
- McElhinney, James (1985). Transitional experiences as experimentalists utilize naturalistic research methods. *The Proceedings of the Fourth Annual Midwest Research-to-Practice Conference in Adult, Continuing and Community Education*, 125-130.
- Merriam, Sharan, B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey-Bass.
- Merriam, Sharan, B., and Simpson, Edwin, L. (1995). *A guide to research for educators and trainers of adults*. Florida, Malabar: Krieger Publishing Company
- Ramlo, E, Susan (2020). Divergent viewpoints about the statistical stage of a mixed-method: qualitative versus quantitative orientations". *International Journal of Research & Method in Education*, Volume 43, 2020 - Issue 1
- Tuli, Fekede (2010). The basic distinction between qualitative and quantitative research in social science: Reflection on ontological, epistemological and methodological perspectives" *Ethiopean Journal of Education and Science*, Vol.6, No 1
- Queiros, Andre, Faria, Daniel and Almeida, Fernando (2017). "Strengths and limitations of qualitative and quantitative Research Methods" *European Journal of Education Studies*, Vol.3 Issue 9.
- United Arab Emirates University (2006) College of Education: College with a mission. <http://www.fedu.uaeu.ac.ae/> or <http://www.fedu.uaeu.ac.ae/main-pages/college.htm>