

Addressing the Gap: Educational Research and its Implementation

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Abstract

Education is an essential feature of every civilization as it attempts to develop the various aspects of knowledge of the community. Research in education is a significant topic for study itself to connect research and practice in Education. Therefore, research in education must become a priority as it bridges the existence of any gap between the findings of research and the implementation of the recommendations, and to limit any future possibility of its existence. The applicability of research findings is not whether it leads to clear implications for practice, but also whether the implications will materialise in the educational setting and whether the stakeholders will accommodate to the required changes (Bridges, 2015). This paper offers some definitions of educational research and its characteristics, types and levels of educational, and investigates its limitations in practice- the gap between research and practice. There is reference to research in higher education in the Arab world in general and Lebanon in particular. Suggestions are made to support the connection between educational research and educational practice mainly through Research-Practice collaboration. These include the need to support researchers by various bodies in the education field such as universities, governmental institutions, research centers and educational organisations, and more importantly to offer the findings and follow up the implementation practices to help practitioners overcome the real world problems.

Key words: applied research, educational research, educational practice, educational research in the Arab countries, educational research in Lebanon

1. Introduction

1.1. Background of the Study

Educational research is vital to the general development of different fields of study. It draws from different disciplines and feeds into a variety of fields of knowledge. It aims to develop the knowledge stakeholders have in the field of education to improve pedagogical practices such as learning programs, policy formulation and classroom management. Researchers in education aim to find answers to questions in teaching and learning, and to suggest solutions to problems that worry the teachers as well as the learners. The findings

of educational research, therefore, are multi-dimensional, but can be limited by the scope of interest, the identified problems, and the educational context. Bridges (2015) talks about the importance of educational research as a form of *applied* research, that is whether and how it relates to and engages the practitioners in the real world of educational practice

1.2. Statement of the problem

There exists a gap between Research and Practice in Education. Academic research can inform practice, but translating it into practice in diverse and complex school contexts is challenging (MacMahon, Leggett & Carroll, 2021). Bridges (2015) identifies a number of problems. There is often disappointment that the research does not quite deliver what it promised. There is research intended to be applied, but, in fact, is not. And there is research that may not be relevant to practice. Furthermore, there is research that can leave an amount of work for practitioners to interpret its implications for practice. These problems can be generalised to a large number of research contexts

1.3. Purpose of the Study

The purpose of this article is to connect between educational research and its practical implementation in the real world. The review of literature sheds light on educational research and its characteristics, and its types and levels as means to increase its value to practitioners, mainly teachers in the classroom. The paper then discusses the gap between research and practice. This is followed by a study of the status of educational research in the Arab world in general with specific reference to Lebanon. It then suggests means to bridge the gap between findings of educational research that may remain theoretical and practice that needs solution through Research-Practice Collaboration. Thus, it answers the following question: How do we bridge the gap between research and practice?

2. Review of Literature

This section is of two parts. The first focuses on educational research: definition, characteristics, types and levels, and investigates its limitations in practice. The second part refers to research in higher education in the Arab world in general and Lebanon in particular.

2.1. Educational Research: Definition and characteristics

Educational research is a systematic investigation that implements well-defined scientific processes to gather and analyze data to solve problem (Formplus, 2023) Wani (2023) presents a number of definitions for educational research by Good, Munroe, Mulay, Crawford, and Traverse. He quotes J. W. Best's definition of educational research as aimed towards the development of a science of behavior in educational situations to provide knowledge that allows the educator to achieve goals via effective methods

One of the characteristics of educational research **is that it** is interdisciplinary; it draws from different fields and studies complex factual relations. It can vary in form and approach, but has characteristics that define them. Educational research aims to solve an identified problem and discover cause and effect. It adopts primary and secondary research methods to collect data from primary sources or using existing data to reach a conclusion. Educational research is objective as it is based on observable experience and empirical evidence and requires accurate observation and description. The researcher adopts specific methodologies, detailed procedures, and analysis to arrive at the most objective responses. The findings are useful to the development of principles and theories related to persistent issues, and are documented for peer review (Siegle, 2019; Wani, 2023; formplus, 2023). **Thus, the importance of educational research derives from the above mentioned characteristics.** Educational research plays a significant role in the development of knowledge across different fields of study and in policy reformulation. It provides answers to practical educational challenges and improves teaching methods- strategically and effectively- and learning methods- students apply their knowledge to practical situations- using scientific methods (formplus, 2023; Jawaid, 2022)

2.2. Types and Levels of Educational Research

Educational research can be *Descriptive*, *Correlational* or *Experimental*. In the first, the researcher aims to collect data related to a present situation and uses quantitative research methods including surveys and questionnaires to gather the required data. Thus, it can be termed observational research. An example is a study of students' behavior in the classroom. The second is also known as *Associational*, i.e. *Causal-comparative*. The researcher studies two variables intending to establish a statistical relationship between them, and there is no need to alter the natural environment. An example is a study to examine the relationship between students' behaviors and classroom performance. The third, also known as *Intervention*, seeks to establish the causal relationship between two variables in the research environment. The researcher states a hypothesis and uses -quantitative research experimental, quasi-experimental, and action research methods- and statistical analysis to test the hypotheses, accept or reject. The research study involves a control group that does not undergo any change and an experimental group that undergoes some changes, **Siegle, 2019; Jawaid, 2022; formplus, 2023; Wani)2023 An example is .(a study of how extracurricular activities affect the learning process.**

Another way to study educational research is its level. One of which is ^[1]_[SEP] *Basic* or *Fundamental Research* which aims to add more scientific knowledge, to formulate or evaluate a theory, and .to provide insights into research variables It does not solve any specific problems nor necessarily produce results of immediate practical value. On the other hand, Applied Research aims to find solutions to specific problems in school practices, policymaking and administrators' and teachers' effectiveness. It uses the scientific method of inquiry and the findings are useful in solving practical challenges in the educational sector such as improving teaching methods, modifying learning curricula, and simplifying pedagogy, thus evaluated in terms of local applicability, not

universal validity. The third level is *Action Research* which focuses on immediate and current challenges in a specific setting. Its purpose is to improve school practices. Thus, its findings are evaluated in terms of local applicability. However, many teachers may not have the time, resources, or technical background to engage in such research ,Wani) 2023; .(formplus, 2023

3. The Gap between Educational Research and Practice

A number of factors that create a gap between educational research and practice can be identified. One argument is that this gap reflects two contrasting types of knowledge: (a) Research-based which is published by researchers who seek new knowledge, and (b) Pedagogical which is used by practitioners, i.e. classroom teachers, who seek solutions to problems in their day-to-day classroom teaching (McIntyre, 2005 in Vanderlinde & van Braak, 2010). This in turn reflects the existence of two gaps: (a) a fundamental gap- differences in opinion about ‘knowledge’ and ‘theory’, differences in vocabulary and reward systems, and (b) a practical gap- differences in the distribution of time and resources for research projects, authority issues, and the collaboration across organisations (de Vries and Pieters, 2007 in Vanderlinde & van Braak, 2010).

Moreover, problems arise when we expect educational research to inform us what we ought to do in practice in a particular context, such as one’s classroom. Educational research can help us understand all kinds of aspects of educational policy and practice but it does not help us decide what to do in a specific situations, such as to weigh the probability of likely outcomes in a particular situation (Bridges, 2015). Boser and McDaniels (2018) stated that "Research alone does not change practice... just putting information into someone’s hands does not help them understand how to use that information to improve their work” (p1). They added that change is difficult, that effort is needed to relate a study to what happens in reality, and that practitioners can be doubtful of experts (Boser & McDaniels, 2018).

Bridges (2015) stated that most studies do not reflect the context in which local stakeholders function, governmental research offices often do not have nor can maintain the budget or personnel to fulfill the research needs, education departments often do not have the capacity to interpret and implement timely the latest research, the majority of time is spent fulfilling accountability reporting requirements, not research on how to improve teaching and learning. And this list may be generalized to a number of educational context around the world.

MacMahon, Leggett and Carroll (2021) added that schools may have limited access to research, relevant journals and research presentations which lowers the perceived relevance of research to practice. Teachers have limited time to engage with research and to evaluate the impact of evidence-informed practices and it has been reported that they may have low self-efficacy for engaging with research and applying findings.

Along the same paths, Broekkamp and Van Hout-Wolters (2007) stated that educational research does not lead to valid, reliable, conclusive and practical results that are strengthened by clear and powerful evidence. Moreover, practitioners believe that

educational research is not conclusive nor meaningful for teachers. They make little use of educational research or they do not have the skills to use the results. [SEP]

Such problems raise questions about the applicability of educational research- the concept of Applied Research and the researcher's responsibility and intentions to influence educational practice via the implications or to adhere to theory (Bridges, 2015)

After reviewing the literature on Educational Research: definition and characteristics, types and levels, and limitations in practice, the following is a study of research in higher education in the Arab world with specific reference to Lebanon.

4. Educational Research in the Arab World

Moustafa (2018) states that scholars in the Arab world are responsible to be ethically and professionally honest in producing, interpreting and communicating knowledge, and to interact with each other. Research can be superficial at all levels ranging from the absence of basic communication ethics, to biased funding and recruitment, to a serious misconduct in research. It is also limited by tough and long administrative procedures. Among the 22 countries of the Arab League, no country has ever reached the threshold of 1% of Gross domestic product (GDP) According to the UN records, the gross domestic expenditures on research and development (R and D) for Egypt, Tunisia, and Bahrain were about 0.67, 0.64, and 0.099% respectively of the gross domestic product (GDP) (United Nations, 2014)

Abu Orabi (2016)- Secretary General, Association of Arab Universities- states that Arab universities face a challenge in scientific research. Arab's expenditures on scientific research are about 0.2-0.6% of the national income GDP and the number of researchers per million inhabitants is 500 in the Arab Countries. Abu Orabi (2016) also identifies the lack of the following: publications and [SEP] copyrights, a clear national policy or a strategic plan for scientific research, cooperation and coordination among universities, exchange of information, experiences, publications and co-research, connection between scientific research and national sustainable development plans, scientific research activities and its impact on sustainable development, employment of research results in economic projects due to weak links between research institutes and production sectors, specialized centers for scientific research, interaction with team work, universities' autonomy, governance and institutional performance. The following table presents some statistics about the status of scientific research and publication in the Arab world (adapted from Abu Orabi, 2016).

Table 1. Scientific research and publication in the Arab world

1st column: % of World Contribution for Scientific Articles - UNESCO Report 2009

2nd column: Published Scientific Articles in 2008- Institute of Scientific Information (ISI)

3rd column: Number of Scientific Technical Journal articles in 2011

Egypt	0.3	3459	2515
Saudi Arabia	0.1	1715	1491
Lebanon	0.04	1563	251
Jordan	0.02	959	342

Abu Orabi (2016) adds to the list of problems above: a lack of clear focus in research priorities and strategies, insufficient time and funding to meet research goals, low awareness of the importance and impact of good scientific research, inadequate networking opportunities and databases, and limited international collaborative efforts. An additional factor is the brain-drain which is caused by lack of political stability, social justice, appropriate environment to conduct research, research facilities and quality research standards, freedoms, work motivations and incentives and good salaries.

Derived from the limitations to advance the educational research in the Arab world, one may speculate the role of universities. The Association of Arab Universities (AARU) was established in 1964 as a result of the Arab League seminar, Libya. The aim was to study the problems of higher education in the Arab world and to set frameworks of cooperation among Arab universities. The First General Conference was summoned in Alexandria in 1969; at that time, there were 23 Arab Universities only (Abu Orabi, 2016). The AARU set guidelines to support scientific research, such as funding research based on vision, strategy, logistics, human resources directed towards problem-solving rather than just publishing. Another step is to increase the budget for scientific research, select meaningful priority areas, put down “workable strategic goals and action plans, establish adequate databases and networking capabilities, and robustly encourage private sector input and participation” (slide 43). Abu Orabi (2016) states that only 14 public and private universities were established in the Arab World by 1953, and now there are now more than 700 Universities. In Lebanon, Lebanese University, the only public university, was established in 1951. The two other pioneering universities are private and were established in the 19th Century: the American University in Beirut (1866) and Saint Joseph University (1875). Now there exist 41 private universities.

5. Research Centers in Lebanon

As to the research centers in Lebanon, the Center for Educational Research and Development (CERD) comprises the heads of the units directly related to the consultative body to the Minister of Education and Higher Education, headed by the minister or his " delegate. It is a national institution concerned with educational modernization and development by setting educational plans and policies and directing educational curricula and requirements for building the citizen learner” (CERD, 2021). It is a national organization ‘ charged with modernization and development of education, based on educational planning, in collaboration with all stakeholders in the country ’(United Nations, 2020). Another center is the Centre for Lebanese Studies (CLS) - an independent academic institution established in 1984 to undertake impartial and balanced research in the Social Sciences focused on education among other fields. CLS is affiliated with the History Department at the University of Cambridge, and focuses on Lebanon, Jordan and the UK though it undertakes research in various countries (Center for Lebanese Studies, 2023).

Among the leading centers of local universities is the Centre for Applied Linguistic Research (CALR) of the Arab Open University. It links with the British Association of Applied Linguists (BAAL) and the University of London Research Support Group on seminars and conferences. It is also supported by the British Council in research activities (AOU Research Centres, 2022).

6. Addressing the Gap

In an attempt to attain the goal of this paper, i.e. to bridge the gap between educational research and practice, a brief review of related suggestions is due here. Wani (2023) states that the first level of research, *Fundamental research*, must continue to contribute to behavioural theory and applied research to improve educational practices for the improvement of educational practices. The activities will be the function of research specialists and subsidized by universities, private and government agencies and professional associations. The second level of research, *Action research*, is where classroom teachers will remain involved in research activity bearing in mind the limitations. Research may be carried on at various levels of complexity; simple descriptive fact-finding variety that leads to useful generalizations and can be followed by more complex experimental studies suggesting further hypotheses for more precise analysis.

A number of researchers proposed to build better communication links between researchers and practitioners, and encourage practitioners to get more involved in the research process. They agree that practitioners should be involved in the research plan and its implementation along with the researchers. Both parties ought to collaborate: set research plans, publicize findings and come up with ideas together. Teachers and administrators could also undergo research training (De Vries & Pieters, 2007; Gather- Thurler, 1993; Kaestle, 1993; Mortimore, 2000; Hemsley-Brown & Sharp, 2003; Levin, 2004; Edwards *et al.*, 2007 in Vanderlinde & Jvan Braak, 2010).

Sara (1975) in her article “Problems of Educational Research in the Middle East” states that educational research in the Arab region needs to mature. She suggests the formation of voluntary groups of researchers and other educators; the establishment of a regional council for educational research with advisory, training and dissemination functions.

The above mentioned challenges necessitate the proposition of a model to identify the role of research and the researcher.

7. Research-Practice Collaboration Model

It is here recommended that a Research-Practice collaboration approach is required throughout the process. This comprises the following main steps:

- WHAT to research
- HOW to research
- How to GET THE FINDINGS OUT to the stakeholders.

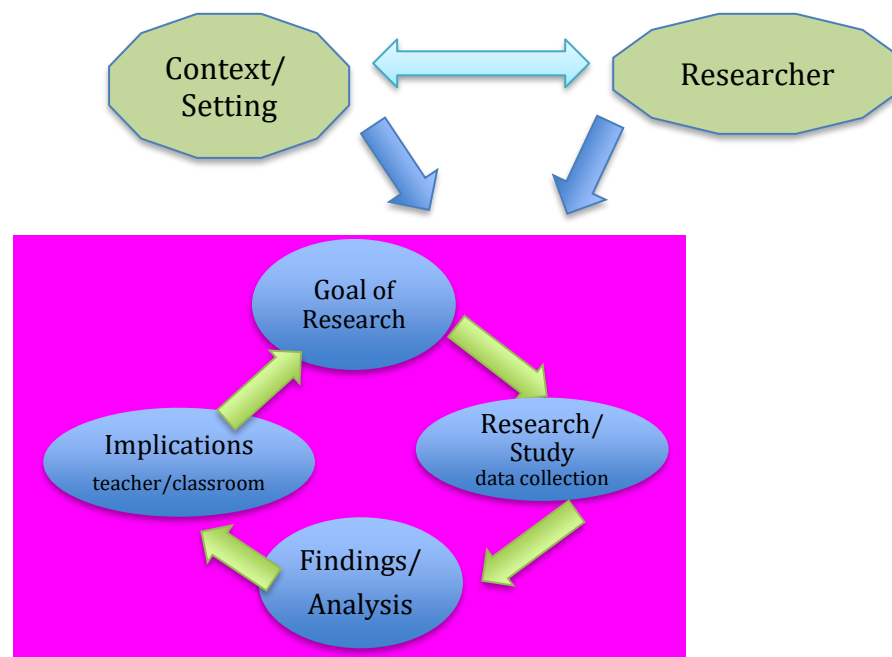
The procedure clarifies the role of each of the practitioner and the researcher. The role of the practitioners is to share the problem they are facing in their classrooms, and to implement the obtained feedback to make constructive change for their own and their learners' favour.

The suggested role of the Researcher is the following

- to identify a problem in education in collaboration with the practitioners
- to conduct the research and publish the results
- to suggest implications
- to reach out to the educational institutions to share the findings and suggestions
- to follow up with the results of the implementation
- to use the feedback for further research.

The Research-Practice Collaboration Model is demonstrated in the following graph

Graph: The role of the researcher in the research cycle



- Educators and researchers communicate about a problem (**CONTEXT/ SETTING**)
- Researchers plan the study (**GOAL**)
- Researchers study interventions targeting the problems (**RESEARCH/ STUDY**)
- Researchers report and interpret the findings (**FINDINGS, ANALYSIS**)
- Researchers help educators decide how to use them in practice (**IMPLICATIONS**)
- Researchers follow up with research as needed.

This suggested approach puts the load on the researcher to initiate, communicate and collaborate with the stakeholders in the educational field. At the same time, the researcher asks for a supportive body from institutions that benefit from research studies, namely official or governmental bureaus, funded research centers, publishing houses and local schools. The benefit feeds into the teachers' practices and the learners' acquisition of knowledge and skills

8. Conclusion

The paper attempted to bridge the gap between educational research and practice. The answer to how we bridge the gap between research and practice came as a suggestion of the *Research-Practice Collaboration Model*. The researcher bears the burden of contributing to the specific field of education with collaboration of the educational institutions in general and teachers in particular. The aim is to help attain the research goal which is to help practitioners solve the problem. At the same time, the researcher needs the support, financial and otherwise, of educational organisations- governmental offices, research centers and universities to fulfill the role efficiently.

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