

Barriers to educational researchs and studies in Jordan and Arab countries as perceived by experts

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Abstract

This study aims at identifying barriers to educational research in Jordan and Arab countries (with the same conditions of Jordan), as perceived by national and international experts.

To achieve the aims of the study, a self-completed questionnaire consisting of 48 items was developed with five domains were considered: data and information-related, Human Resources-related, institutional and policy-related, fund and financial-related, and findings dissemination and utilisation). The questionnaire was administered to a sample of (140) national and international experts. The results revealed that the most common barriers were related to the following three domains, and the sub-barriers within these domains; policies and institutionalization of educational research and studies, dissemination and utilization of research outputs, and barriers pertaining to funding the educational research and studies, these domains scored the highest means, respectively (4.09, 3.99, 3.96).

The study conclude with several recommendations.

Keywords: barriers, educational research, jordan, arab countries

1. Introduction

Education is considered as the essential foundation for modern development of any society and the progress of every country. However, education cannot play this vital role unless it ensures the highest quality of its inputs, process, and outputs. Educational research can play a critically important role in improving the quality of education, and this is germane to its importance as one of the factors, within the whole system (inputs. Process, and outputs), that contributing to the quality of education system in any country, and thus it is a fundamental pillar to upgrade the educational field. In connection to that it is believed that educational research is contributing in finding solutions to the educational, scientific, behavioral and social problems. This, in turn, is considered a vital requirement for the development of the whole educational field.

More importantly, and since educational studies and research reflect the most pressing and current educational issues to be improved in a country, it is imperative to guarantee its quality. Thus, it is expected by identifying the barriers that may contribute to misleading outputs and to the inefficient utilization of research findings by policy makers and other education stakeholders, we will be able to contribute to the improved quality of educational research and studies. Within this context, this study aims to identify barriers to educational research, in Jordan and Arab countries, as perceived by national and international educational experts. Furthermore, the study seeks to compare the overall challenges faced by Jordan and other countries (in the Arabian countries with the same conditions of Jordan). For the purpose of this study, five domains were considered, related to issues of: data and information, human resources, institutional and policy, fund and financial, and findings dissemination and utilisation.

1.1 Background

Educational research aims at improving education: 'making a

difference' through developing ideas that aid education. In this regard, Al-Katib, *et al.* (1985) ^[2] and Mwiria (1996) reported that educational research conducted in developing countries can be classified into several types, among these are the following:

- Disciplinary research
- Educational projects research
- Policy evaluative research
- Documentary and statistical research

For the purpose of this study, more focus was mostly (but not restricted) devoted to educational projects research and policy evaluative research.

Within this context, Amare (2002) ^[5] identified several issues as among the issues of: relevance and quality of educational research, funding sources, research environment, communication between researchers and policy makers, educational research initiating, research promoting and disseminating, and educational research recognition by all stakeholders.

Institutionally, in Jordan and the other arab countries, there are different types of institutions where educational research is carried out. Among these institutions (in Jordan) are the following:

1. Independent Research centers (public and private), such as National Center for Human Resources Development NCHRD.
2. Planning and Research Directorate located at the Ministry of Education MoE.
3. Consulting firms (mainly within the private sector).
4. International organizations and agencies, such as studies conducted in collaboration with several international agencies, for instance USAID, EU, WB, GIZ, and CIDA.
5. Academic institutions (public and private), in particular the faculties of educational sciences in the universities.

Having such institutions and centers, it is expected that

investment in carrying out educational research and studies must bring about benefits and returns. Haiyan and Valeria (2013) ^[9] reported that those benefits and returns are the utilization of the studies' findings for action plans and improvement strategies that will be implemented. Which means that reading about the results of those studies, mainly the evaluations, are essential steps towards utilizing the newly produced information to inform the next round of policy planning and decision making.

In connection to what have been mentioned, it can be emphasized that the development of any country is, by way or another, related to how much it expend on education in general and educational research in particular. According to Abu-Orabi (2014) ^[1] and Montoya & Chaland (2016), it can be reported that the number of Arab universities expanded from 233 Universities in 2003 to about (500) Universities in 2014. While the number of students rose from about (4,400,000) to about (11) million students in 2014. In link to that Abu Orabi mentioned that among the challenges facing Arab universities is poor scientific research, where the Arab's expenditures on scientific research are about (0.2-0.4%) of the national income GDP, with Morocco tops the league in the Arab states with just (0.7%), whereas it is around (4-6%) in developed countries, with South Korea-the world leader- with (4.3%), and Israel with an impressive (4.1%). Moreover, the number of researchers per million inhabitants is (450) in the Arab Countries, whereas in the developed countries the number is 5000 per million inhabitants, and globally, there were almost (1083) researchers for every one million people in 2013.

With regards to barriers to research in the Arab world, Abu Orabi enumerated some challenges facing scientific research, among these are the following:

- Low rates of Expenditure on Scientific Research.
- Low outputs of Scientific research (publications and patents).
- Non-compliance with the implementation of a national policy or a clear strategic plan for scientific research.
- Lack of cooperation and coordination among universities as well as lack of exchange of information, experiences, publications and co-research.
- Disconnection between scientific research and national sustainable development plans.
- Lack of scientific research activities and its impact on sustainable development.
- Unemployment of research results in economic projects due to weak links between research institutes and production sectors.
- Lack of specialized centers for scientific research.

In connection to that, Al Zayyat (2013) ^[4], reported that due to the fund shortage to research, in Arab countries, many negatives were imposed, among these are the following:

1. The gap between research system and societal and economical needs.
2. The decline in the research publishing movement in the arab countries.
3. The research operations are ill-equipped with modern network to exchange the research findings.
4. The weaknesses of research applicability.

Aligned with that, Mustafa and Al-Qudah (2014) ^[12] concluded that, even in the rich Arab countries (such as Gulf States), there is insufficient and/or un-sustained funding for research

and researchers, and the fund for educational research have been relatively scarce. Bearing in mind that fund scarcity, in turn, could simply prevent the publishing of research findings.

Based upon the aforementioned arguments, and based upon the researcher's direct observations (as researcher, university lecturer, and Vice President of the NCHRD), it was noticed, that there is a loose link between the involved institutions, on one hand, and between the educational researchers and the policy/decision makers, on the other. Moreover, it is been reported that the quality of educational research is constrained by several barriers and challenges. For instance, Haiyan and Valeria (2013) ^[9] conclude that the relevance and usefulness of the NCHRD studies, for instance, demonstrated that there is a social distance between researchers and policy makers in Jordan. This conclusion was reached when the answers of their study questions led, while conducting focus group, to a debate by both stakeholders (policy makers and researchers). One of the quoted statements of participants: "*By some accounts, the outputs of external evaluation studies, including those of NCHRD, have not always been used for new policy development in the Kingdom. This should be considered an essential step in using data to promote strategic and evidence-based policy decision-making at the MoE*" pp (9).

Furthermore, Haiyan and Valeria (2013) ^[9] reported that, under the project of Education Reform for Knowledge Economy ERfKE II (in Jordan), multiple evaluation studies were carried out. The number of stakeholders who read the full report was, on average, smaller than the number who read the executive summaries and/or policy briefs. Such this situation was attributed to the reason that some directorates of education were not directly involved in the studies, thus they do not receive the final versions of the study reports produced by NCHRD. In some instances, organizations may not even be aware that a study was completed and disseminated to the MoE.

Within this context, it can be claimed that there is urgent need to investigate more deeply the barriers that hindering the commitment of politicians, policy makers and researchers in research work in education sector.

2. Materials and methods

2.1 Problem Statement and Questions of the Study

The goal of the study was to gather information that will contribute in identifying the barriers that may contribute to misleading outputs and to the inefficient utilization of research findings by policy makers and other education stakeholders. Specifically, the study has focused on the following questions:

- What are the most challenging barriers to educational research in Jordan and the Arab countries, as perceived by national and international experts.
- Are there statistical significant differences in identifying the barriers to educational research in Jordan and Arab countries, as perceived by national and international experts, that can be attributed to any of the study variables; Expert Nationality(Jordanian/ non-Jordanian), expert gender (Male/Female), and expert experience(less than 10 years/10 years and more).
- Are there statistical significant differences in identifying the barriers to educational research in Jordan and Arab countries, as perceived by national and international experts, that can be attributed to the interactions between or among the study's variables; Expert Nationality(Jordanian/

non-Jordanian), expert gender (Male/Female), and expert experience(less than 10 years/10 years and more).

2.2 Literature review

The purpose of the literature review is to give an overview of the current context in which this study is situated, thus researcher was keen to consult those studies address similar question(s) or that may offer suggestions for key elements of the study framework. Among these studies are the followings: As-Sulaymani and Al-Jifri (2000) ^[7], conducted study with the aim to discovering the causes which have prevented educational research findings from being used in the educational development process. The sample consisted of 69 school principals, 56 educational supervisor, and 43 staff members. The main findings were as follows: 1) the causes were assumed in the following order: deficiency in term of capabilities, people involved in the implementation of educational process, decision maker, and the nature of educational research. 2) There was no difference of statistical significance between male and female participants in identifying most of the causes; whereas, there were differences of statistical significance in the domain of techniques employed to serve educational research. The study of Al-Khawaldeh and Magableh (2013) ^[3] which aimed at identifying the obstacles facing Jordanian teachers in conducting educational research. The study sample consisted of (592) male and female teachers working in the Jordanian schools. A self-completed questionnaire was designed and consisting of (32) items, the validity and reliability of the questionnaire were verified. The followings were the most significant results: 1) among the most encountered obstacles the following were ranked based upon its impact: lack of sufficient funding for educational research, Lack of enough time for conducting the research, inappropriate research environment at the schools, and no opportunity for employing the research outputs. 2) There were statistically significant differences between the means for the obstacles to research facing Jordanian teachers due to gender variable in favor of female teachers and due to type of school in favor of public schools, whereas, there were no statistically significant differences attributed to the years of experience. The study of Al Zayyat (2013) ^[4], emphasised that among the indicators confirms the absence of educational research philosophy is the absence of partnership among all the involved stakeholders. Moreover, he recognised that among the requirements of the society of knowledge economy is the availability of adequate fund for educational research. And he concluded with raising two critical points; the need to deepening research culture in fragmented society/human resources and, tackling the absence of any systematic communication channels between researchers and decision makers. The study of Mustafa and Al-Qudah (2014) ^[12], which aimed at investigating the barriers which hinder conducting educational research by Arabic language teachers from their point of view. The research population consisted of all Arabic language teachers in UAE with the total of (2017) teachers, while the sample consisted of (151) male teachers and (149) female teachers. A self-completed questionnaire was developed and consisted of (35) items, in addition to an open question to probe suggestions which could alleviate the barriers and develop the teacher competencies in conducting educational research. The findings showed that the identified barriers were ranked and relevant to

the following; human resources and technological problems, academic issues, economical issues, the last was the managerial and administrative. In addition, the findings showed no statistical significant differences that can be attributed to research variables: gender, academic and educational qualifications, and teaching. Finally, the study of Bokmach (2014) ^[8], which aimed to illustrate the most important obstacles that prevent the employment of scientific research in the service of development in the Arab world which is still suffering from underdevelopment and needs improvement in various fields. The most significant findings were the identification of the following obstacles as the most frequently encountered in the Arab World; a) absence of a clear vision of development; b) absence and lack of goals and strategies of scientific research; c) weak financial funding, d) a gap between research bodies and the surrounding environment, e) weak link of scientific research results to development, f) lack of scientific production; and g) lack of valorization for scientific research results.

2.3 Comments and conclusions on the literature review

In view of the previously mentioned/browsed studies, it can be concluded that in recent years, there has been increase in the body of knowledge in educational research in general. This increase in interest may be attributed to the influence of educational research and studies in reflecting the most pressing and current educational issues to be improved in a country. However, there is a scarcity in the studies that examined the obstacles and barriers to educational research in general, and with special reference to Jordan as developing country, in particular. Which in turn, means there is urgent need to investigate more deeply the challenges and obstacles that hindering the commitment of politicians, policy makers and researchers in research work with special focus to Jordan and nearby Arab countries.

2.4 Significance of the study

It is expected that this study will contribute on the positioning of educational research at the national and international scales. That is through identifying barriers confronting research in education. Moreover, by answering the research question(s), it is expected that the findings of this study will add new knowledge to the existing literature to develop a niche in education research, which led to several subsequent studies.

2.5 Definitions of Terms

Several terms were employed in this paper, which need to be defined operationally, as follow

Educational Research

It can be defined as scientific research that deal with educational problems, through a systematic process to collect data or information, and analyze them with the aim of reaching answers or solutions to questions or problems facing the individuals or institutions in the field of education.

National Experts

A person, having, involving, or showing knowledge and skill and aptitude in educational research, in particular those who are working in the; Ministry of Education, the universities, and those who have been witnessed performing, or monitoring, or evaluating skillfully educational research, and thus their views

are taken as definitive. (Restricted to Jordanians working in Jordanian organization/ institution/ ministry).

International Experts

A person, having, involving, or showing knowledge and skill and aptitude in educational research, in particular those who are member(s) of a highly skilled elite group(such as the international agencies involved in educational projects in developing countries), and those who have been witnessed performing, or monitoring, or evaluating skillfully educational research, and thus their views are taken as definitive. Mainly those of foreign nationality (could be Jordanian but working for international agency such as but not limited to; WB, USAID, CIDA, and GIZ).

2.6 Methodology

2.6.1 Population and Sample

The target population for this study comprises key persons from those involved in educational research, in particular; key officials and policy/decision-makers at the MoE, academic researchers at the national universities, expertise and consultants working (in Jordan and other Arab countries) with the international donor agencies, and those working in the independent research centers in Jordan and accessible Arab countries. The original list comprised 241 individuals. However, only 140 participants answered the questionnaire. The distribution of the sample by study variables are presented in Table 1.

Table 1: The sample characteristics

Variable	Number		Total
	Less than 10 years	More than 10 years	
Experience	59	81	140
Nationality	Jordanian	International	140
	93	47	
Gender	Male	Female	140
	89	51	

2.6.2 Instrumentation

In order to reach the objectives of the study, a self-completed questionnaire was developed and distributed to study targeted sample. The development of the study instruments was based upon conducting a literature review to determine the current status and situation of educational research in Jordan and the Arab countries. The questionnaire consisted of 48 items distributed over five domains.

It is worth noting that the targeted sample were asked to response on a five-point Likert scale with the following descriptors:

Degree of Agreement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Numerical Values	5	4	3	2	1

2.6.3 Instrument’s Validity and Reliability

To verify the validity of the instrument, (11) expertise were asked to check content-validity and clarity for all the items in the questionnaire. They have been asked to check the instruments in general, and the items/questions in particular, for accuracy, clarity, comprehensiveness, and applicability. In addition (3) qualified person with vast experience in the field of measurement and evaluation was also asked to validate the items. All (11) content validating specialists found the items to be suitable for the purpose of the study. However, very minor alteration were proposed by measurement and evaluation specialists.

To verify its reliability, the instrument was pilot tested on a group of (25) researchers from the population of the study. The researchers selected for the pilot study were excluded from the sample of the study. An overall reliability alpha coefficient of 0.94 was calculated. Reliability alpha coefficients of the five domains of the questionnaire were as presented on table (2).

Table 2: Cronbach-Alpha values for the instrument’s domains

Domain Name	C-Alpha Value
Data and information	0.94
Human Resources	0.95
Policies and institutionalization of Educational research and studies	0.91
Dissemination and utilisation of research outputs.	0.94
Funding the educational research and studies.	0.93
The whole instrument’s domains/items	0.94

Participants from international organizations were contacted via e-mail only to request their participation. Participants were given three weeks to fill out the questionnaire, although some of them completed the task in a shorter time. All respondents were informed they would remain anonymous. If a participant did not respond after three weeks, s/he would be contacted via phone and/or e-mail for encouraging him/her to fill the questionnaire and send it to the author email. If there was no response after the third attempt, which is after two months, the participant would be considered to have dropped out. All collected data was entered into a computer database and carefully validated and cleaned for analysis.

3. Results of the study and Discussions

3.1 Results related to the study’s first question, regarding the most challenging barriers to educational research in Jordan and the Arab countries, as perceived by national and international experts, table (3) represent the descriptive analysis for the five main domains of the barriers scale. As mentioned before, these domains includes (48) items; measured the experts’ perceptions.

The results revealed that the overall mean score for all items was (3.92), which indicating, generally, that educational research and studies are encountering real barriers, which, in turn requiring urgent action plan(s)

Table 3: Mean scores and standard deviations for domains of barriers

	Domain	Total N=140		Arab Countries N=56		Jordan N=84		Rank
		M	SD	M	SD	M	SD	
1.	Barriers Pertaining to Data and Information.	3.71	.719	3.87	.743	3.61	.687	5
2.	Barriers Pertaining to Human Resources	3.74	.596	3.83	.540	3.67	.624	4
3.	Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies	4.09	.621	4.16	.590	4.05	.639	1
4.	Barriers Pertaining to Dissemination and Utilization of Research Outputs	3.99	.861	4.01	.587	3.97	1.00	2
5.	Barriers Pertaining to Funding the Educational Research and Studies	3.96	.779	4.01	.710	3.93	.825	3
	Total	3.92	.552	3.99	.511	3.88	.563	

to invest adequately in the educational researches.

The identified barriers were ranked respectively and relevant to the following; policies and institutionalization of educational research and studies, dissemination and utilization of research outputs, funding the educational research and studies, human resources, and data and information. Generally speaking this result aligns with the findings of several recent studies, such as; Al Zayyat (2013)^[4], and Bokmach (2014)^[8].

Moreover this result, although it revealed that all the barriers domains are in need to be tackled, however, the priority should be urgently paid to all these barriers with mean score above the overall mean score for all items; which was (3.92). Thus, the domains of barriers which falls into the level of urgency are respectively, barriers pertaining to the following domains: policies and institutionalization of educational research and studies, with score mean of (4.09); dissemination and utilization of research outputs with score mean of (3.99); and funding the educational research and studies, with score mean of (3.96).

Actually, such aforementioned results suggests the importance to building bridges between researchers and policy makers, making research findings and works available and accessible to decision makers, making more opportunities and resources available to researchers, and by developing platform for dialogue between research and development. More importantly, these results raised a number of common issues

that can be considered and dealt with as barriers to educational research in Arab world as a whole, and in Jordan in particular. Seeking solutions for such these barriers might open the door to deal with the common barriers by identifying the priorities within each domain. More interestingly, and within the Jordanian context the economic problem will involve more than injections of funds. Her, institutionalization of educational research and studies and dissemination and utilization of research outputs are of great importance and require more discussions by all the stakeholders by developing platform for dialogue in this regard. Furthermore, it is worth noting that these findings are almost aligned with the findings of the studies of: As-Sulaymani and Al-Jifri (2000)^[7], Al-Khawaldeh and Magableh (2013)^[3], and Mustafa and Al-Qudah (2014)^[12].

More specifically, the means of the meant items were distributed over the instrument’s domains as following:

i) Findings Related to the Barriers Pertaining to Data and Information

This section of the survey instrument asked participants to rate their level of agreement relevant to the presence of (8) barriers pertaining to economic factors. The results related to this category of challenges are presented in Table 4, which in turn presents the mean scores and standard deviation of experts’ perceptions of the items within the domain of Data and Information.

Table 4: Mean scores and standard deviations for domain of Barriers Pertaining to Data and Information

S. No	Items of the First Domain: Barriers Pertaining to Data and Information	Total		Arab Countries		Jordan	
		Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
		3.71	.719	3.87	.743	3.61	.687
1.	Absence of accurate data bases.	3.78	1.194	4.02	1.104	3.62	1.231
2.	The size of available data is insufficient.	3.51	1.208	3.77	1.236	3.33	1.165
3.	Data are not rapidly processed.	3.68	1.127	3.88	1.126	3.51	1.103
4.	Data are not accurately collected.	3.59	1.099	3.84	1.005	3.43	1.133
5.	Absence of technical analyses of raw data.	3.36	1.074	3.52	1.062	3.26	1.077
6.	Weak or limited demand for information from planners, policy makers, and practitioners.	4.29	.859	4.34	.880	4.25	.848
7.	Most key stakeholders have no access to the printed research and studies.	3.56	1.271	3.73	1.272	3.45	1.265
8.	Weak demand for the results of educational research	3.98	1.153	3.93	1.237	4.05	1.097

This domain, Barriers Pertaining to Data and Information, occupied the fifth rank. It includes the following barriers that need (generally and within Jordan context) to be tackled urgently: weak or limited demand for information from planners, policy makers, and practitioners; and weak demand for the results of educational research. Although the same barriers are in need to be tackled within the Arab context, however there are additional barriers germane to absence of accurate data bases. These findings are almost aligned with the

findings of the studies of: Al-Khawaldeh and Magableh (2013)^[3], Bokmach (2014)^[8], which in turn affirmed that the aforementioned barriers are repeatedly revealed in several studies, and this in turn confirmed the necessity to tackle them urgently. That is through taking full advantage of findings from these studies, and this in may allow educational decision makers and educators to understand both their efficiency and effectiveness in interpreting these findings into policy options.

ii) Findings and Discussions Related to the Barriers Pertaining to Human Resources

This section of the survey instrument asked participants to rate

their level of agreement relevant to the presence of (10) barriers pertaining to economic factors. The results related to this category of barriers are presented in Table 5.

Table 5: Mean and standard deviations for domain of Barriers Pertaining to Human Resources

S. No	Items of the Second Domain: Barriers Pertaining to Human Resources	Total		Arab Countries		Jordan	
		Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
		3.74	.596	3.83	.540	3.67	.624
1.	The general inappropriate awareness on the importance of educational research for the future generations	4.01	1.056	4.07	.951	3.96	1.124
2.	Insufficient international technical assistance support to human resources.	3.26	1.148	3.32	1.162	3.23	1.144
3.	Researchers are often vulnerable to conflicting demands made by different agencies overtime.	3.42	.787	3.46	.785	3.39	.792
4.	Researchers are seldom consulted in the process of identifying research projects and allocating resources	3.49	.978	3.66	.978	3.37	.967
5.	Lack of skilled researchers.	3.52	1.109	3.79	1.107	3.35	1.081
6.	Researchers have inadequate training.	3.62	1.069	3.59	1.108	3.64	1.049
7.	Absence of networking between researchers and institution in the same country to discuss technical issues.	4.09	.978	3.96	1.044	4.17	.929
8.	Relying on international consultant and thus providing little support to national researchers.	3.84	1.154	4.13	1.046	3.64	1.189
9.	Absence of transparent consultation with a broad range of stakeholders partners in educational development.	4.08	.945	4.20	.883	4.00	.982
10.	Weakness of communication among researchers themselves.	4.08	.997	4.20	.999	4.00	.994

This domain, Barriers Pertaining to Human Resources, occupied the fourth rank;. Which includes the following barriers that, (generally and within Jordan context) need to be tackled urgently: absence of networking between researchers and institution in the same country to discuss technical research issues, absence of transparent consultation with a broad range of stakeholders partners in educational development; and weakness of communication among researchers themselves, and the general inappropriate awareness on the importance of educational research for the future generations issue. Although the same barriers are considered within the Arab context, however, there are additional barriers related to relying on the international consultant, which minimize the opportunity of supporting the national expertise that might be coupled with the absence of

national vision for how to tackle the barriers. Additional explanation of these findings are germane to the concerns of the position of educational research which often given low priority on national agendas.

These findings are almost aligned with the findings of the studies of: Al Zayyat (2013) [4], and Bokmach (2014) [8].

iii) Findings and Discussion Related to the Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies

This section of the survey instrument asked participants to rate their level of agreement relevant to the presence of (11) barriers pertaining to economic factors. The results related to this category of barriers are presented in Table 6.

Table 6: Mean scores and standard deviations for domain of Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies

S. No	Items of the Third Domain: Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies	Total		Arab Countries		Jordan	
		Mean	St. Deviation	Mean	St. Deviation	Mean	St. Deviation
		4.09	.621	4.16	.590	4.05	.639
1.	Insufficient political support.	4.24	.897	4.36	.773	4.26	.903
2.	Political instability (frequent staff turnover and changes in educational leadership).	4.21	1.007	4.05	1.102	4.31	.931
3.	Difficulty in establishing educational research priorities (Educational studies and research are not on national priority lists and agendas).	3.98	1.021	4.02	.963	3.95	1.063
4.	Policy making is seldom based on national educational research.	4.07	1.008	4.04	1.078	4.10	.965
5.	There is no clear overall research strategy in education.	4.36	.712	4.41	.654	4.33	.750
6.	Lack of viable research units/centers to support the educational system.	3.88	.971	3.95	1.086	3.83	.889
7.	Ineffective visibility and utility of research to policy-makers and practioners.	4.10	.859	4.29	.731	3.98	.918
8.	Managerial bureaucracy practices.	4.21	.896	4.29	.780	4.26	.876
9.	The environment for educational research has stagnated or deteriorated in the last decades.	3.79	.985	3.91	.996	3.71	.976
10.	Absence of support to foster the innovative research on problems of education.	4.13	.776	4.23	.809	4.06	.750
11.	The policy makers' practices do not reinforce linkages between them and researchers in education.	4.35	.739	4.32	.741	4.35	.739

This domain, Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies, occupied the first rank; Which includes the following barriers that (generally and within Jordan context) need to be tackled urgently: the policy makers’ practices do not reinforce linkages between them and researchers in education; there is no clear overall research strategy in education; insufficient political support; political instability (frequent staff turnover and changes in educational leadership); absence of support to foster the innovative research on problems of education; managerial bureaucracy practices; policy making is seldom based on national educational research; ineffective visibility and utility of research to policy-makers and practioners; and difficulty in establishing educational research priorities (Educational studies and research are not on national priority lists and agendas), whereas, within the Arab context, all the items, within this domain are considered as barriers to be urgently tackled. As a reflections of the aforementioned findings, it can

be claimed that educational research suffering from scattered and isolated efforts to raise its priority as a development need, and thus, the status of research institutionalization re-emerging as important aspect of educational research development. In Addition, this may allow decision makers and educators to review the effectiveness and the efficiency of their policies and practices germane to educational researches and studies. These results are aligned with the results of the studies of Al Zayyat (2-13) and Bokmach (2014) [8].

iv) Findings and Discussions Related to the Barriers Pertaining to Dissemination and Utilization of Research Outputs

This section of the survey instrument asked participants to rate their level of agreement relevant to the presence of (10) *barriers pertaining to Dissemination and Utilization of Research Outputs*. The results related to this category of barriers are presented in Table (7).

Table 7: Mean scores and standard deviations for domain of Barriers Pertaining to Dissemination and Utilization of Research Outputs

S. No	Items of the Fourth Domain Barriers Pertaining to Dissemination and Utilization of Research Outputs	Total		Arab Countries		Jordan	
		Mean	S.D	Mean	S.D	Mean	S.D
		3.99	.861	4.01	.587	3.97	1.00
1.	The absence of a “research culture” prevents research findings from being appreciated and utilized.	4.28	.945	4.12	1.063	4.38	.849
2.	Language barriers hinder the national understanding of research written in foreign language.	4.34	5.860	3.77	1.144	4.37	.750
3.	Serious language barriers hinder the exchange of research information with international community.	3.45	1.213	3.59	1.304	3.36	1.147
4.	Research finding are not always published in accessible form.	3.87	.896	3.96	.785	3.81	.963
5.	In-efficient use and development of educational research.	4.02	.754	4.00	.714	4.04	.783
6.	The results of educational research and studies are not widely disseminated to relevant education stakeholders.	4.23	.851	4.34	.745	4.26	.851
7.	Educational research have longstanding barriers to effective utilization of research findings.	3.89	.911	3.86	.980	3.92	.867
8.	Inadequate utilization of the studies’ results for policy decisions or improving quality	4.30	.895	4.39	.705	4.24	1.001
9.	The deterioration of educational system in many countries.	3.99	.978	4.20	1.001	3.87	.915
10.	Inappropriate presentation of the available research results.	3.93	.942	4.00	1.079	3.88	.842

This domain, Barriers Pertaining to Dissemination and Utilization of Research Outputs, occupied the second rank. Which includes the following barriers that (generally and within Jordan context) need to be tackled urgently: language barriers hinder the national understanding of research written in foreign language; inadequate utilization of the studies’ results for policy decisions or improving quality of education; the absence of a “research culture” prevents research findings from being appreciated and utilized; the results of educational research and studies are not widely disseminated to relevant education stakeholders; in-efficient use and development of educational research; the deterioration of educational system in many countries; and inappropriate presentation of the available research results. Whereas, within the Arab context, all the items, within this domain are considered as barriers to be urgently tackled except items number: 31, 32, and 36. These results, in some of its aspects, are aligned with the results of the studies of: Alkhalwaldeh and Maqableh (2013) and Bokmach (2014) [8]. In particular, most of the interpretations of the results germane to this domain’s findings for polices purposes affirmed the necessity to have proper dissemination for results of these researches or studies, and direct utilization for the recommendations of these researches in improving the quality of education. Once again the concern of the position of educational research arising, which in turn prevents research findings from being appreciated and efficiently utilized, and such this situation may

require suggestion of strategies to improve the status and utilization of educational research.

v) Findings and Discussions Related to the Barriers Pertaining to Funding to Educational Research and Studies

This section of the survey instrument asked participants to rate their level of agreement relevant to the presence of (9) *barriers pertaining to Funding to Educational Research and Studies*. The results related to this category of barriers are presented in Table (8).

This domain, Barriers Pertaining to Funding the Educational Research and Studies, occupied the third rank; which includes the following barriers that that (generally and within Jordan context) need to be tackled urgently: *the practices of the Ministries of education (bureaucracy) does not help bridges the gap between funding agencies and research committees in Jordan/Arab countries; unstable mechanisms for funding research; absence of clear involvement of the involved governmental institutions/Ministries to inject the appropriate funds and multiplication of research projects; insufficient and/or un sustained funding, and; the limited possibilities for the private sector to finance educational research*. Additionally, within the Arab context, all the items, within this domain are considered as barriers to be urgently tackled except items number: 40, 43, and 47. The explanation of these findings affirmed that the fund for educational research have been

Table 8: Mean scores and standard deviations for domain of Barriers Pertaining to Funding to Educational Research and Studies

S. No	Items of the Fifth Domain: Barriers Pertaining to Funding to Educational Research and Studies	Total		Arab Countries		Jordan	
		Mean	St. Deviation	Mean	St. Deviation	Mean	St. Deviation
		3.96	.779	4.01	.710	3.93	.825
1.	Funds for educational research have been relatively scarce.	3.91	.963	3.89	.923	3.91	.993
2.	Unstable mechanisms for funding research.	4.11	.919	3.98	.924	4.19	.911
3.	Absence of clear involvement of the involved governmental institutions/Ministries to inject the appropriate funds and multiplication of research projects.	4.07	.854	4.04	.762	4.10	.913
4.	Insufficient and/or un sustained funding	3.97	1.017	3.86	1.103	4.05	.956
5.	The practices of the Ministries of education (bureaucracy) does not help bridges the gap between funding agencies and research committees in Jordan/Arab countries.	4.29	.902	4.37	.752	4.24	.989
6.	Absence of financial for the researchers	3.87	1.002	4.05	.883	3.75	1.063
7.	The limited possibilities for the private sector to finance educational research.	3.94	1.081	4.02	1.036	3.88	1.113
8.	Suffering from an accumulation of problems of finance.	3.78	.982	3.86	.999	3.73	.974
9.	The general deterioration of academic infrastructure (adequate staff, physical and technical facilities) at the universities, research institutions and Ministries of Education	3.91	1.060	4.11	1.039	3.80	1.062

longstanding barriers to educational research, which have not been tackled, and it is the time for tackling it. Having said that, it is worth suggesting that Jordan and Arab countries are required to map out a road for cooperation between themselves and the international financing bodies or donors or agencies. These results, in some of its aspects, are aligned with the results of the studies of: Alkhaldeh and Maqableh (2013). Al Zayyat (2013)^[4] and, Bokmach (2014)^[8].

3.2 Results related to the study’s second question, related to “Are there statistical significant differences in identifying the barriers to educational research in Jordan and Arab countries, as perceived by national and international experts,

that can be attributed to any of the study variables; *Expert Nationality (Jordanian/ non-Jordanian), expert gender (Male/Female), and expert experience (less than 10 years/10 years and more).*

To answer this question(s), the t-test was employed to determine statistically significant differences attributed to any of the study’s variables based on the responses of the participants. The t-test was utilized to compare the level of perceived barriers due to the study’s variables; Gender, Experience, and Nationality on the total barriers of the scale. Findings of the t-test, as shown in Table 9, revealed that there is significant

Table 9: T-Test Results of expertise Perceptions of Barriers Due to the variables of Gender, Experience, and Nationality

Variable	Details	N	Mean	SD	df	Mean Square	F	Sig
Gender	Female	51	4.00	.455	1	1.401	5.685	0.019
	Male	89	3.88	.587				
Experience	Less than 10 years	59	4.09	.516	1	0.117	0.473	0.493
	10 Years or above	81	3.81	.539				
Nationality	Jordanian	93	4.07	.519	1	2.957	11.957	0.001
	international	47	3.65	.512				
Total		140	3.92	.552				

statistical difference at the 0.05 level attributed to the variables of gender and nationality, and, respectively, in favor female expertise, and of the Jordanian expertise. This result is aligned with the findings of Khawaldeh & Magableh (2013)^[3], whereas, the results of this question are contradicted to findings of As-Sulyman & AlJefrei (2014). The explanation of this contradiction is related to the differences of the population of the two studies.

3.3 Results related to the study’s third question, related to “Are there statistical significant differences in identifying the barriers to educational research in Jordan and Arab countries, as perceived by national and international experts, that can be attributed to the interactions between or among the study’s variables; Expert Nationality(Jordanian/ non-Jordanian), expert gender (Male/Female), and expert experience(less than 10 years/10 years and more). The ANOVA-test was utilized to find out if there are any interactions between or among the study’s variables.

Table 10: ANOVA for the Expertise Perceptions on the Barriers due to the Several Variables and the Interaction Between and Among Them

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	9.027 ^a	7	1.290	5.095	.000
Intercept	1129.452	1	1129.452	4462.514	.000
Gender	1.345	1	1.345	5.315	.023
Nationality	3.084	1	3.084	12.184	.001
Experience	.134	1	.134	.531	.467
Gender * Nationality	2.405	1	2.405	9.503	.002
Gender * Experience	1.154	1	1.154	4.560	.035
Nationality * Experience	.229	1	.229	.905	.343
Gender * Nationality * Experience	.685	1	.685	2.708	.102
Error	33.409	132	.253		
Total	2204.422	140			
Corrected Total	42.436	139			

a. R Squared = .213 (Adjusted R Squared = .171)

Findings of the ANOVA-test, as shown in Table 10, revealed that there are an interaction, with statistical significance, between the variables of gender and nationality, and between the variables of gender and experience. These results explain that the effect of each variable is not independent, but the variables are effecting each other.

4. Conclusion and Recommendations

Despite the revealed barriers, it can be noted that there are some positive indicators that can be recorded among these are; the sense of barriers urgency are less in Jordan than it is in the Arab world; the sense of barriers urgency are less pertaining to data and information availability, sufficiency, and accurate technical analysis. Equally important, there is a need for increasing awareness and changing attitudes about research importance for the policy makers. Moreover, it can be concluded that the state of educational research in Jordan and the Arab countries is influenced by many interrelated barriers, in respectively; Barriers Pertaining to Policies and Institutionalization of Educational Research and Studies, Barriers Pertaining to Dissemination and Utilization of Research Outputs, Barriers Pertaining to Funding the Educational Research and Studies, Barriers Pertaining to Human Resources, Barriers Pertaining to Data and Information.

However, the recommendations for further action on educational research issues is urgent need.

Among the findings-based recommendations the following are suggested

1. It is necessary to utilize systematic and creative ways to understand the importance of educational research and to arrive at strategies for enhancing its policies and institutionalization within both; the Jordanian and the Arabian context.
2. Jordan and Arab countries are urgently required to create ways to strengthening the dissemination and the utilization of the research outputs more efficiently and effectively. For instance, but not limited, publishing, training seminars, and sometimes utilizing practice-oriented, and teaching-related research findings.
3. A well-considered plan of actions must be established, to guarantee closer collaboration and coordination between the educational research community and government policy makers in light of the importance of educational researches and studies in dimensions of international and national development.

4. Enormous barriers can be tackled through tackling the barrier of sustainable funding for the educational researches and studies that is through closer cooperation and collaboration with the international granting agencies, in particular with special focus on the educational sector.
5. Governmental platform should be established to contribute in increasing the awareness or establishing the culture of reading studies' reports, to guarantee maximizing the efficiency of benefiting from the policy options that these studies may come out with.

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