

Trends in Arabic Educational Research: A Content Analysis of Eleven Saudi Refereed Journals in 2021

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ABSTRACT This paper aims to uncover trends in Arab educational research published in 11 Saudi peer-reviewed journals in 2021 and analyse them using a set of indicators. In the end, 354 research papers were counted and subjected to content analysis using the 'Systematic Literature Review (SLR) Form'. The results show that Arab education research is scarce at the global scale and disconnected from the global research landscape. There is a large traditional approach that refers to a unified modularity that focuses on quantitative research, does not serve educational research, does not contribute to its development, and does not benefit from its results. These results will be useful for the international community in general and Arab graduate students in particular who study in international universities and for their supervisors. This benefit comes from knowing the negative aspects of Arab scientific research that the study reveals.

INTRODUCTION

Currently, there is a notable increase in the amount of educational scientific research being produced (Goktas et al. 2012; Selçuk et al. 2014), primarily due to the expansion of higher education institutions and their programs. This increase is particularly observable in the Arab Gulf and the KSA, resulting in a substantial growth in faculty members and correlatively in the amount of published scientific research. Although this quantitative escalation is generally regarded as positive, it may generate inconsistencies in study outcomes that investigate the same topic (Egmir et al. 2017).

In numerous countries, educational policies are informed by the results of educational research, providing an empirical basis for impact and guiding decision-making (Feuer et al. 2002; Karadag 2009). Scientific research institutions in developed countries are increasingly striving to enhance research methods, ensuring more precise outcomes (Zirkel et al. 2015). Educational research offers several crucial indicators of an educational system, including its developmental level, the volume of knowledge produced within the educational field, and the field's overall knowledge level (Wachowska 2014). The Dar Almandunah database (Almandumah 2022), the largest Arab database, is central to Arab educational research. It contains over 342 peer-reviewed Arab educational journals, and is used by institutions from 22 countries (Amano et al. 2016). The signif-

icance and potential impact of this database is increased by the likelihood of limited access to other scholarly work, meaning that it will often provide a basis for other research, and the policies that are developed on the basis of it.

Similar to other scientific disciplines, educational studies have increased in significance and academic standing, warranting scrutiny of their quantitative and qualitative aspects for an objective evaluation of research trends, methodologies and tools (Turan et al. 2014). Such scrutiny assists in assessing research quality and the reliability of results, elucidating the field's trajectory, revealing the scope and breadth of the topic, and contributing to the development of knowledge production systems and methods. It also helps to identify less explored or under-researched areas (Hallinger 2013).

A content analysis, a vital aspect of scientific knowledge production, discloses the depth of understanding and assimilation of scientific thinking. It appears to be the case that systematic practice within Arab social and educational research is characterised by uncritical repetition of established approaches and practices, signalling potential deficiencies or dilemmas in scientific production (Elamine 2016; Abdullah 2019). The insularity of much Arab research and its limited support (Brahim and Ben Alhassan 2019) are contributory factors to this recurring pattern in research methods. This is happening at a time of global transformation in research focus, tools, and methods, where Arab researchers strive to

modernise and disrupt longstanding, unchanged research paradigms.

Arab scientific research has faced a multitude of criticisms. Elamine (2021) characterised it as 'empty empiricism,' aligning with Mills' concept of abstracted empiricism, which emphasises data collection and statistical analysis at the expense of meaningful results, thereby resembling a bureaucratic machine producing copious quantities of data but few substantial outcomes (Mills 1959). Jebbour (2018) listed a host of barriers impeding the quality and efficacy of scientific research in the Arab world. The nature of this research, whether in terms of its subjectivity, curricula, or overarching trends, remains ambiguous, muddled, and indistinct, potentially stifling research development and inhibiting the discovery of anything novel. Furthermore, this ambiguity could strengthen the waning of trust in research, which empirical evidence indicates is already underway (Hermén et al. 2013). Indeed, confidence in research may be at its lowest level ever among Arab educational decision-makers (Ouda and Aljawareen 2016). Such scepticism primarily stems from the perceived lack of credibility of existing research outcomes, largely attributed to methodological issues and the inaccuracy of the methods and tools used to derive these results.

Research Objectives

The significance of the current study stems from the researcher's observations of the prevalent stereotypical schematism apparent in Arab educational research and the great similarities in the prevailing research methodologies used. Given the plethora of quantitative and qualitative research methods, there is a need to reveal the most commonly used research trends in educational research published in the scientific journals of the KSA and provide a clear overview of this research. The author aims to enlighten both the Saudi and Arab educational research communities, which to a large extent share a similar research environment, about the trends in Arab educational research. The author also believes that these results will prove beneficial to the international community in general, particularly to Arab postgraduate students studying at international universities and their supervisors, through the identification and development of these trends by these students.

Consequently, this study aims to identify the research trends used in scientific research published in Saudi educational refereed journals. The main research question (RQ1) is divided into six sub-questions:

1. What are the prevalent trends in Arab scientific research published in Saudi educational refereed journals?
2. What is the distribution of research in educational refereed journals in the KSA according to the research language, the number of researchers, and their nationalities?
3. What is the distribution of this research according to the type of subject studied?
4. What is the distribution of this research according to the method and design?
5. What is the distribution of this research according to data collection methods?
6. What is the distribution of this research according to sample type, size, and selection method?
7. What is the distribution of this research according to the methods of analysing statistical data?

Literature Review

Despite the numerous benefits of a content analysis through the systematic review, it remains underutilised in educational studies within the Arab world (Taha et al. 2021). Instead, the trend in research is towards various methodological procedures, with a significant reliance on comprehensive surveys for research production at specific colleges, departments, or educational specialisations (Alhano 2016; Rumaidhi 2018; Shamrani 2018; Subaie 2018; Atari and Otoum 2019; Harbi 2021). Several studies have focused on educational research published in specific scientific journals or groups of magazines, irrespective of specialisation (Otaiby 1993; Hababi 2017; Ayasrah 2018; Ghafairi 2019).

Conversely, another research trend has utilised records from reputable scientific databases such as the System House or Candle, encompassing scientific papers, dissertations, and theses (Elamine 2016). There is, however, some inconsistency in the literature regarding the study of educational research trends and the timeframe covered. Ayasrah (2018) studied the period from 2005 to 2016, Ghafairi (2019) chose the interval from

2014 to 2018, while Hashem (2013) focused on the decade from 2000 to 2010. These reviews revealed significant findings, notably the marginal presence of the analytical research model compared to the more common standard research models.

A brief examination of the results of the studies that analysed this reality suggests clear imbalances, signifying the persistence of certain research issues in Arab research generally, and particularly in the KSA. Alhano (2016), for instance, attempted to review multiple scientific journals in a single study and found that, of 348 publications from ten Arab journals between 2005 and 2014, only three employed qualitative research methods. Ayasrah (2018) considered educational science journals issued by the University of Jordan and *Jordanian Journal* (published by Yarmouk University) from 2005 to 2016, and found that of 96 publications, almost 90 percent utilised quantitative methods to investigate teaching and learning problems.

Shamrani (2018) analysed 70 studies published in peer-reviewed Arab journals between 2011 and 2015 and discovered that all of them (100%) depended on quantitative and descriptive methodologies. The Cronbach's alpha coefficient was most frequently used for consistency calculations, while the referee's integrity was the prevalent means of ensuring the tool's reliability. For the same objective, Abdullah (2019) reviewed five content analyses of methodological practices in educational papers. Key conclusions included an increase in the use of quantitative methods at the expense of qualitative ones, the dominance of descriptive research designs, the existence of experimental and semi-experimental research designs, and the conspicuous use of questionnaires and tests. Khafaji and Al-Amoudi (2010), upon reviewing 139 master's dissertations completed at the Faculty of Education at the University of Aden from 1997-2007, found that questionnaires were frequently used in these theses. It was concluded that the dissertations heavily favoured descriptive methods over experimental research types, with most dissertations focusing on teachers, supervisors, and high school students.

When it comes to studies discussing the content of single scientific journals, the results are similar. Hababi (2017) revealed that research trends in the *Journal of Educational and Psychological Sciences* at the University of Bahrain (reviewed between 2000 and 2015) leaned heavily

towards quantitative and descriptive methodologies. Tests, metrics, and questionnaires were commonly used, often at the expense of other tools. Ghafairi (2019) examined research trends in the house journal of King Khalid University for Educational Sciences in terms of research methodology and analysed all publications of that institution published on its website. Out of a total of 93 publications from 2014 to 2018, the majority (82.79%; $n = 77$) employed quantitative and descriptive methodologies based on questionnaires.

Some studies have attempted to examine the research trends of specific educational specialisations. Elamine (2016), in relation to teachers, analysed all papers concerning teachers in the Candle database. The number of selected studies was 2,329, focusing on seven topics related to teachers. A sample of 231 dissertations and theses were chosen and it was concluded that the marginality of analytical scientific research was evident in the absence of clear methods used to analyse texts, documents, or content in these studies, along with an avoidance of potentially socially and politically sensitive issues. In the field of educational administration, a study by Subaie (2018) showed that the majority of educational management research curricula were descriptive and that questionnaires were used as the primary tool. In the same specialty of educational administration, Atari and Otoum (2019) found that the primary research mode in educational management research in six Arab journals was the descriptive method, was confined to Arab researchers, and relied on descriptive statistics. Harbi (2021) focused on forensic science in eight Gulf magazines and their curricula, reporting that most of the scientific production was oriented towards applied research (82.1%), which emphasised quantitative methods, and descriptive over experimental approaches. In addition, the descriptive approach chiefly relied on content analysis and surveys.

Numerous content analyses in educational research have shown varying results from among Arab studies. For instance, Bulent et al. (2012) surveyed the publications of the *Balbariya Journal of Educational Sciences* between 2002 and 2011 and discovered substantial contributions to publications through research teams, alongside a notable diversity in the nationalities of researchers. Philip and Jun (2014) analysed leadership and

educational management research between 1995 and 2012, and found that studies relied heavily on qualitative methods, especially prior to 2006. Eðmir et al. (2017) found that the International Journal of Education had a high acceptance rate, and received submissions from 35 different countries. This diversity is also reflected in the studies by Cavas (2015) and Li et al. (2020). Anderson and Shattuck (2012) conclude that interest in Design-Based Research (DBR) is growing and that there is cautious optimism that the methodology is delivering on its promised benefits.

The aforementioned results highlight a dearth of scientific reviews of educational research in the Arab world and a distinct lack of research. This significant point underscores the importance of providing an analysis review of contemporary Arabic educational research production across an array of publishing sources. Arab countries in general and the Gulf region and Saudi Arabia in particular are currently experiencing tremendous development in the fields of education, economy and society, following the launch of the country's Vision 2030 and progress in its implementation. It is crucial for Arab educational research to keep up with the scientific advancements evident in Arab universities, some of which have recently earned recognition from international ranking systems such as QS, Shanghai, and the Times Educational Supplement (US News 2022).

METHODOLOGY

To address the research questions and elucidate the Arabic research trends, the study employed descriptive analysis to review qualitative and quantitative studies and to identify and delineate the general trends and research outcomes within a specific specialty (Calik and Sözbilir 2014). The researcher conducted a series of analyses of educational journals published by Saudi universities, utilising the systematic literature review (SLR) methodology. SLR is one of the most recent approaches used by researchers to scrutinise the content of esteemed journals. Danese et al. (2018) and Petticrew and Roberts (2006) have argued that the approach should encompass the evaluation and synthesis of all pertinent studies. In this study, content analysis was employed to establish verifiable, valid conclusions in the domain of educational studies on multiple issues

including the type of topics studied, methodologies and designs utilised, data collection and analysis methods, sample type, size, and selection methods, the number of researchers in each study, and the language in which the study was composed.

Sample

Scientific journals embody a knowledge product crucial in the development of scientific knowledge, and the most significant factor for research publication may well be those published by universities, scientific societies, and specialised organisations. Even though these publications undergo strict peer reviews, they are few in number and are not included in global search engines such as Scopus and Web of Science. Therefore, the authors assembled a comprehensive inventory of all the educational journals issued in the KSA, from both public and private universities, public or private centres, and all scientific societies. These journals were gathered by referring to sources that had compiled this inventory (Salem 2015; King Saud University 2020), through the websites of these periodicals, or via the Google search engine. After excluding journals that did not meet the inclusion criteria, the total number of journals included in the study was 11 (Table 1). In 2021, these journals published 354 scientific papers across 35 issues.

The Saudi educational refereed journals are among the strongest Arab journals and apply strict criteria in accepting research. They occupy a prominent position among all other Arab journals and enjoy the confidence of most of the scientific councils of Arab universities, so the researcher focused on these journals in this study.

The author selected a cross-sectional design rather than a longitudinal one, focusing on one journal over several years of publication. This gave the study more inclusiveness and provided a realistic depiction of current research trends. In contrast, longitudinal studies of a single publishing journal may not have met the goal due to varying publication standards and acceptance of research from one journal to another, which in turn may have affected the variables that the study aimed to consider. As for inclusion and exclusion criteria, the aim was to define specialised journals in the educational field only and those issued regularly as follows.

Table 1: Journals included in the study

S.No.	Journal	Issued by	Start year	Issue no.	Papers number
1	Journal of Educational Sciences https://jes.ksu.edu.sa/ar	King Saud University	1977	4	29
2	Journal of the Arabian Gulf https://library.abegs.org/journal/default/index	Arab Bureau of Education for the Gulf States	1979	4	20
3	Saudi Journal of Educational Science https://sjes.org.sa/index.php/sjes	Saudi Association For Education & Psychology GESTEN	1990	3	19
4	Taibah U Journal of Educational Sciences https://2u.pw/TJ5X3w	Taibah University	2005	2	19
5	Umm Al-Qura University Journal of Educational and Psychological Sciences https://uqu.edu.sa/jep	Umm Al-Qura University	2007	4	46
6	Journal of Educational and Psychological Sciences http://journals.qu.edu.sa/	Al Qussaim University	2012	4	64
7	KKU Journal of Educational Science https://jes.kku.edu.sa/ar/content/545	King Khaled University	2014	3	31
8	Journal of Education Studies https://imamjournals.org/	Al Imam Mohammad Ibn Saud Islamic University	2015	3	66
9	Saudi Journal of Special Education https://sjse.ksu.edu.sa/en	King Saud University	2015	4	24
10	Journal of Educational Sciences https://jes.psau.edu.sa/ar	Prince Sattam bin Abdulaziz University	2016	2	20
11	Journal of University of Hafr Al-Batin Educational and Psychological Sciences https://2u.pw/Z8n5bl	University of Hafr Al-Batin	2020	2	16
Total				35	354

Inclusion Criteria

- ♦ Peer-reviewed educational journals issued within the KSA.
- ♦ Publications issued during 2021 (1443 for journals that follow Hijri history).
- ♦ The title of the journal should include the term 'educational'.
- ♦ Journals published in either the Arabic or English languages.

Exclusion Criteria

- ♦ Newly issued journals, of which four issues have not been published.
- ♦ Journals suspended for more than a year.
- ♦ Miscellaneous journals, including general educational and humanities studies.

Data Collection Tools

The authors used the paper classification form (PCF) developed by Sozbilir and Kutu (2008). The PCF was reviewed and adjusted to fit the current study categories and objectives. The PCF in this

study comprised seven categories: (a) Descriptive information; (b) Number of researchers and their nationalities; (c) Subject; (d) Research and design method; (e) Data collection tools; (f) Sample type, size, and selection methods; and (g) Data analysis methods (see Appendix 1). To ensure validity and reliability, the form was presented to a group of professors, and reliability was confirmed by applying the Cooper equation, with average rates of agreement among the evaluators ranging between 0.82 and 0.93. These rates were sufficiently high to ensure reliability. To boost confidence in the analysis process, the PCF was applied to a random sample represented by one of the study sample journals, a reputed journal that included 24 papers. A colleague, an associate professor in the Educational Administration, performed the analysis according to the form, and the results were compared with those of the author. The rate of agreement between the two analyses was a percentage high enough (96%) to fulfil the purposes of this study.

In terms of research methods and design, the author pointed out that due to the lack of consensus on a unified classification of methodologies

(Good and Scates 1954; William and Irvin 1984), the most prevalent classification of the PCF was employed, particularly for the Arab environment.

Statistical Analysis

Full texts of the research were only accessible to the author via the websites of the chosen open-access journals. When the links were not operational, full texts were procured from Dar Al Mandoumah, one of the most prominent Arab information databases, which houses the vast majority of specialised scientific journals and magazines in their full texts. The data for each study were then organised and categorised using the PCF, and frequencies and percentages for each category were calculated and presented in the results. In 2021, all scientific papers contained within the specified number of journals were downloaded.

RESULTS

Distribution of Research Papers in Peer-Reviewed Educational Journals According to Research Language, Number of Researchers, and their Nationalities

Figure 1 indicates that the dominant language in the research was Arabic, which accounted for 98 percent of the total research, whereas research in English constituted a meagre 2 percent. Approximately 83.3 percent of the published studies were conducted by Saudi researchers, with non-Saudi researchers accounting for 14.1 percent, and all researchers were from the Arab world.

However, research carried out in collaboration had the lowest percentage, standing at 2.5 percent. In terms of the number of participants, 73.4 percent of studies were conducted by a single researcher, 22.9 percent by two, and 3.7 percent by three or more. These results align with those found by Hababi (2017), which showed that most studies were individual efforts. However, these findings contrast with those of Bulent et al. (2012), Cavas (2015), Egmir et al. (2017), and Li et al. (2020), which all revealed that most studies were conducted by more than one researcher.

These results suggest that Saudi educational refereed journals are not reaching global audiences, as they do not include non-Arab researchers and only a small percentage of research is written in English. Furthermore, the lack of collaborative research could negatively impact the quality of research and the integrity of its methodologies, as researchers are not benefitting from the input of joint ideas and multiple reviews from various researchers. This weakness is evident in the 73.4 percent of studies with only a single author, which may be due to several reasons. Firstly, these journals may not be accessible via global search engines. Secondly, the primary language of global academia, English, is not the main language of these journals, which may also highlight a broader issue of the weakness of Saudi and Arab educational researchers in English and their ability to write academic texts in this language. Finally, these journals lack global websites, making it difficult for researchers to access

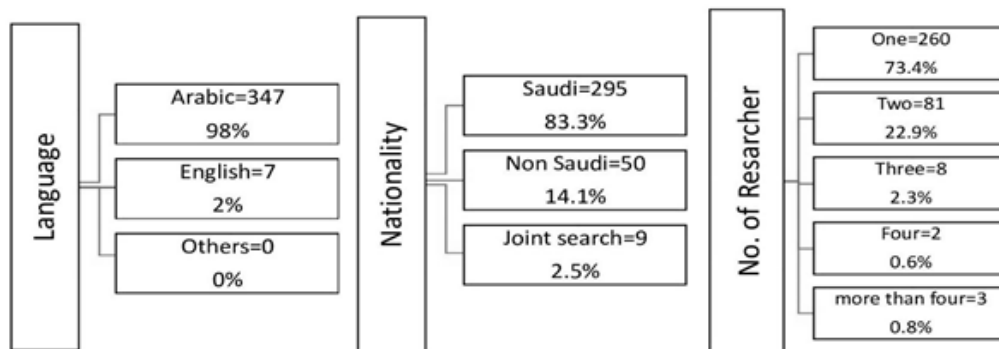


Fig. 1. Distribution of research by language, nationality, and number of researchers

them easily, as most of their official sites are in Arabic and hence not suitable for global use.

Distribution of Research According to the Type of Subject Studied

Figure 2 shows that teaching and learning ranked first in terms of topic researched, with 97 (27.4%) instances of the sample focusing on this area. It was followed by special education topics and educational administration, at 17.5 percent and 16.9 percent, respectively. Next came the essentials of education, at 14.1 percent, followed by the less frequent topic of measurement and educational evaluation, which constituted only 1.7 percent of the publications.

This result is consistent with most previous studies (Hababi 2017; Cavas 2015). Specifically, it is consistent with the percentage of researchers and their specialisations, which increase in the field of teaching, learning, special education, educational management, and assets, and decrease significantly in the specialisation of measurement and evaluation.

Distribution of Research According to Design and Methods

Figure 3 reveals a significant trend towards quantitative methods in the Saudi educational

research landscape, with 92.7 percent of the studies employing this approach. Qualitative and mixed methods, however, in combination only accounted for a mere 7.3 percent of the total studies. This trend is consistent with findings from several previous studies, which looked into the methodological choices of research conducted either across multiple journals or within a single journal, or research focusing on a specific topic (Abdullah 2019; Ghafairi 2019; Harbi 2021; Ayasrah 2018; Khafaji and Al-Amoudi 2010; Rumaidhi 2018; Shamrani 2018; Subaie 2018; Alhano 2016; Atari and Otoum 2019; Hashem 2013). A few international studies have also revealed a noticeable use of qualitative methods (O'Toole et al. 2018; Philip and Jun 2014).

The analysis of research methods showed a clear dominance of non-experimental methods, which comprised 70.6 percent of the total studies. These were primarily descriptive in nature. Some researchers frequently used specific variations of 'descriptive' research, such as descriptive survey, descriptive associative, and comparative descriptive. This overlap was reflected in the analysis, with a considerable number of studies being categorised as both 'descriptive' and something else (such as survey, associative, or comparative). This result agreed with Thoubiti (2008), which revealed a scarcity of the use of real experimental designs versus semi-experimental ones.

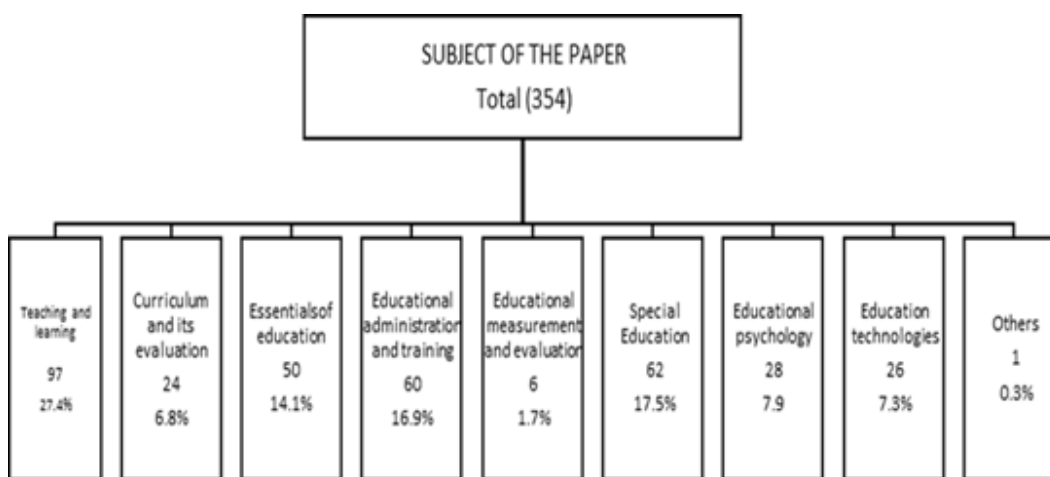


Fig. 2. Distribution of research according to the type of subject studied

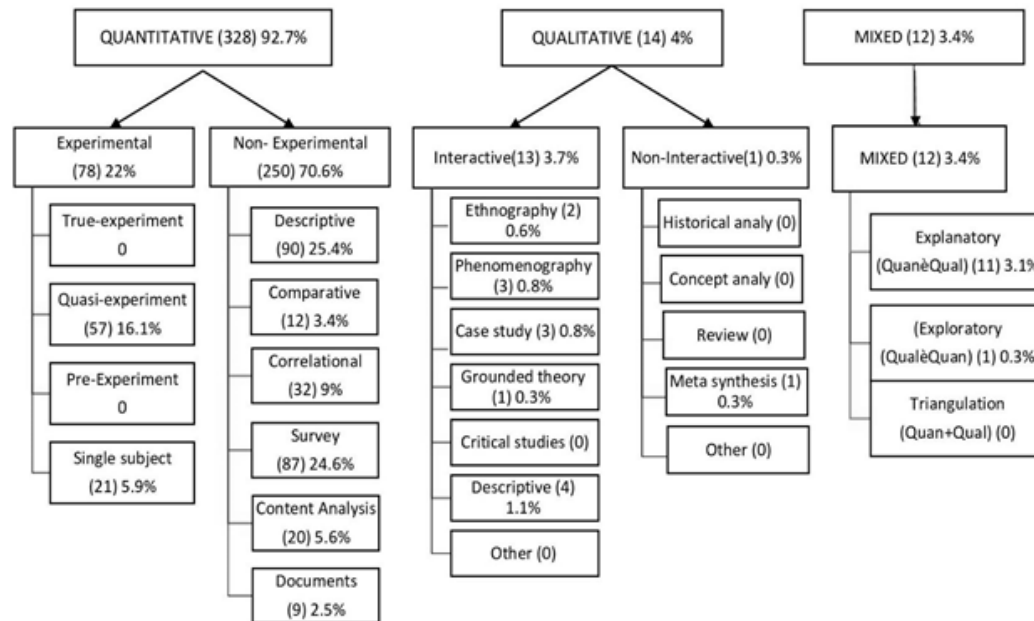


Fig. 3. Distribution of research according to design and methods

Qualitative methods made up a meagre 4 percent of the total studies, with all but one study being interactive. Mixed methods made up 3.4 percent of the total, with all studies using the interpretative method except for one, which used an exploratory approach. The predominance of quantitative studies may be attributed to several factors. The primary reason is likely to be the ease of conducting quantitative studies and their widespread use in the Arab research community. Many researchers, particularly those in graduate programs, are primarily trained in quantitative methods, making this approach a prevalent feature of Arab research (Abdul Karim and Othman 2013). Furthermore, some researchers hold misconceptions about qualitative research, such as that it is lacking in objectivity or not suitable for generalisation (Povee and Roberts 2014).

Distribution of Research According to Data Collection Technique

Figure 4 shows that the questionnaire ranked first as the most used tool, followed by alternative evaluation tools (such as diagnostic tests,

conceptual maps, and portfolios), at 50.0 percent and 26.8 percent, respectively. Less commonly used tools were proficiency, attitude, perception, and personality tests (11.0%) and documents (2.5%). This finding is consistent with the results of most studies that have attempted to reveal the tools used in Arab scientific research (Khafaji and Al-Amoudi 2010; Hashem 2013; Hababi 2017; Rumaidhi 2018; Abdullah 2019; Ghafairi 2019), which have revealed that studies have focused on the survey as the primary data collection tool. This is an expected consequence of the prevalence of quantitative methods, based on the descriptive approach. Figure 4 also reveals the weakness in the use of the observations and interviews, a factor undoubtedly due to the scant use of qualitative approaches, in addition to the high requirements for preparation, application, and analysis (all factors which make qualitative methods undesirable for Arab researchers).

Distribution of Research According to Sample Type, Size and Selection Technique

Figure 5 highlights that the most frequently chosen sample type for research in Saudi educational studies were students, accounting for

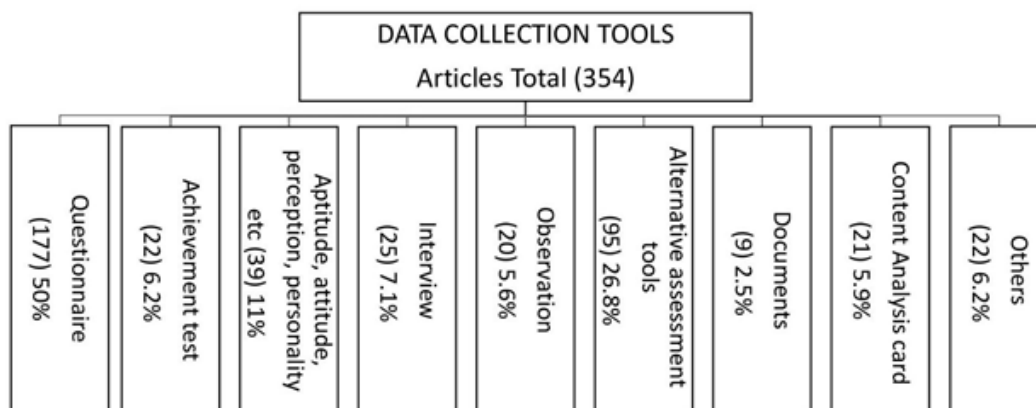


Fig. 4. Distribution of research according to data collection technique

41.5 percent of the samples, followed by teachers and faculty members, making up 23.2 percent and 12.7 percent of samples, respectively. This aligns with findings from multiple earlier studies (Khafaji and Al-Amoudi 2010; Hababi 2017; Rumaidhi 2018; Subaie 2018), which noted that students and teachers tend to be the most common sample types in educational studies. This result is expected, given that many of these studies are directly related to these groups, which are fundamental to the educational field. Moreover, these groups are typically more easily accessible for data collection purposes.

In terms of sample selection methods, the data reveals that nearly equal proportions of studies used random and non-random samples, with 47.5 percent of studies employing random samples and 44.6 percent using non-random ones. The majority of non-random samples were used in experimental studies, with the largest segment of these comprising sample sizes of less than 100. However, when scrutinising the methods used for selecting these samples in many experimental and non-experimental studies, it becomes clear that the techniques researchers used were often somewhat arbitrary, falling somewhere between random and non-random. This issue is further compounded by the fact that 7.3 percent of the reviewed studies did not specify their sample selection methods at all. This pattern confirms the prevailing tendency towards repetitive and schematic approaches in these studies, which often mimic previous models

without adding unique insights or clearly defining their research procedures.

With respect to the sample size, the most common sample size fell within the range of 101 to 300 individuals, accounting for 29.1 percent of the studies. The percentage of studies decreases as the sample size increases, reaching a low of 3.4 percent for samples exceeding 1000 individuals.

Distribution of Research According to the Methods of Analysing Statistical Data

Figure 6 shows an equal use of both descriptive and inferential statistical methods in the studies. The most frequently used descriptive methods focused on measures of central tendency, represented by the mean and standard deviation, accounting for 72.6 percent of the applications. Frequencies and percentages followed at 37.9 percent. These results are predictable, given that the tools primarily employed in the studies, such as questionnaires, necessitate this type of analysis. In terms of inferential statistical methods, the t-test was most frequently used, accounting for 48.6 percent of the studies. This was followed by the one-way analysis of variance (ANOVA), used in 27.4 percent of the studies, and nonparametric tests in 13.8 percent of the studies. These findings emphasise the traditional trend in Arab educational research, which often leans towards specific statistical methods, sometimes without due consideration to the conditions of their use. For

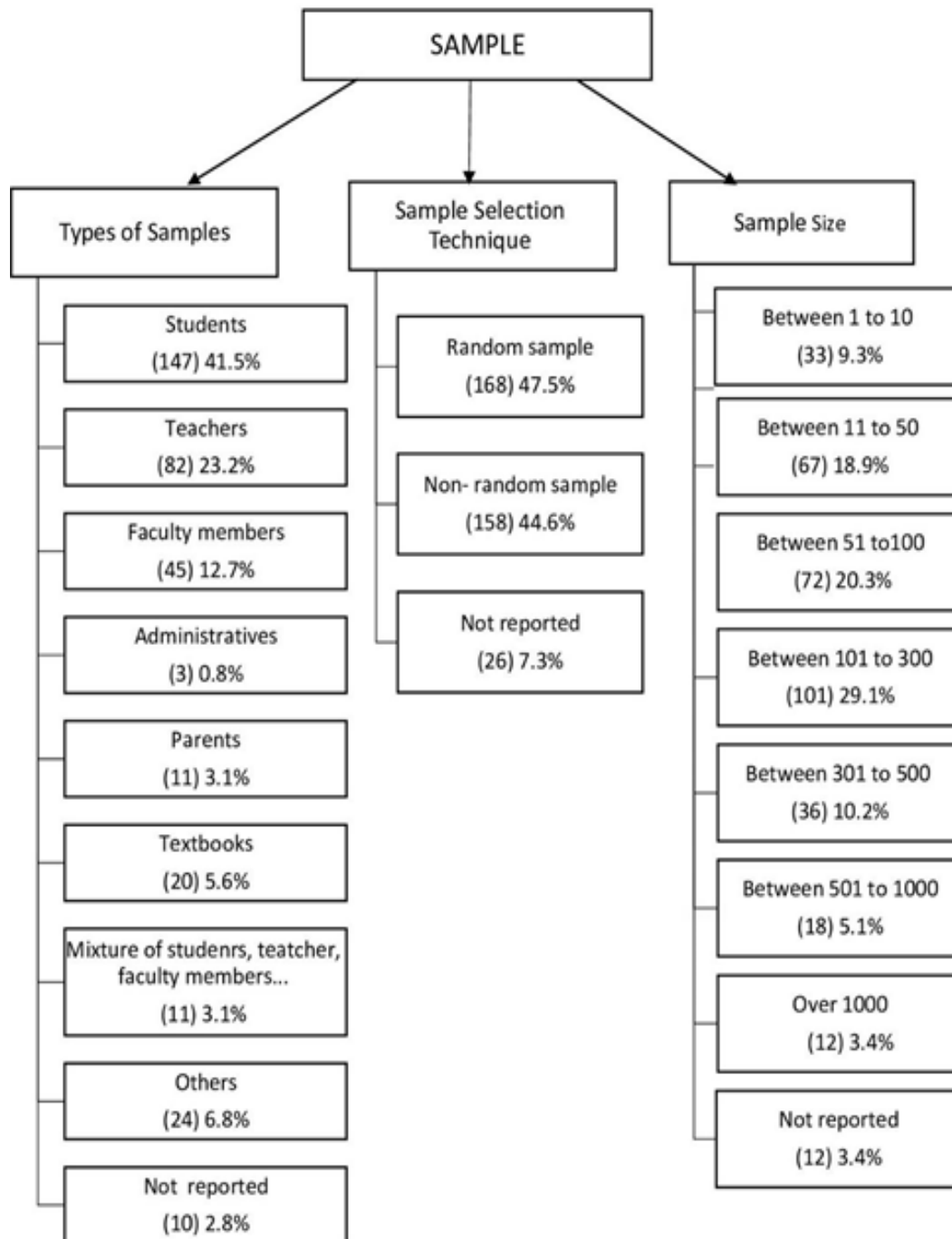


Fig. 5. Distribution of research according to sample type, size and selection technique

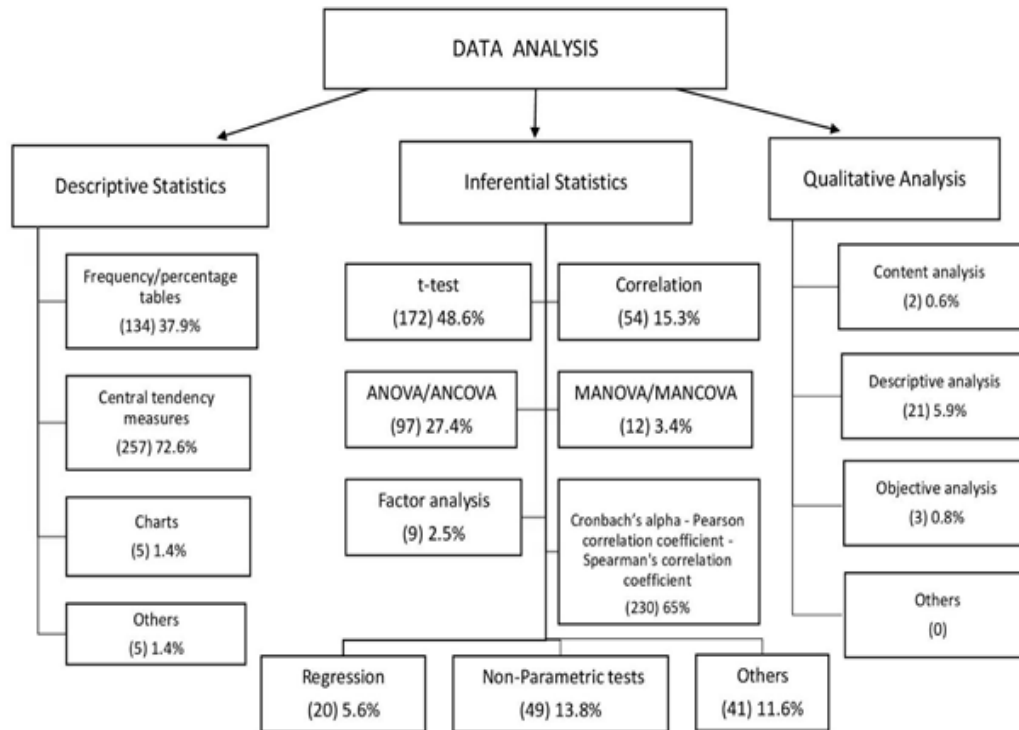


Fig. 6. Distribution of research according to the methods of analysing statistical data

example, the homogeneity of variance should be considered when using the T-test. This result aligns with the findings of Shamrani (2018).

Notably, the examined studies showed a significant reliance on three reliability tools, namely, Cronbach's alpha, Pearson, and Spearman, with 65 percent of the studies utilising one or all of these tests, particularly Cronbach's alpha. This highlights a lack of diversity in tool use according to the needs of the study and the type of data, indicating an inflexible, rote approach to research practice. In terms of qualitative analysis, descriptive analysis was most prevalent, being applied in 21 of the 26 qualitative studies.

DISCUSSION

This analysis review of trends in Arabic educational research, though revealing somewhat predictable results, provides valuable insights

into the trends in Arab educational research. This review unveils a set of general characteristics of the educational research field in the Arab world, which may extend to other scientific disciplines. Perhaps the most salient of these is the 'unified formal pattern' or the Arab research tradition, marked by a series of pre-established conventions. The results indicate that the reviewed studies gravitate towards a set of specific methodologies, topics, data collection tools, samples, and statistical methods, creating a sense of uniformity to the point where one may feel the only differences lie in the numbers reported within the research. Elamine (2016) highlighted the dominance of particular traditions in Arab educational research, which appears to reflect social norms more than a means of advancing knowledge. This problem has deep roots, with Wahba (2009) identifying the control of ritual and tradition over Arab educational research as early as 1998. Unfortunately, these tra-

ditions continue to significantly dominate Arab educational research overall. They have contributed to keeping Arabic studies at a descriptive level, hindering the ability to move beyond that to identify relationships and articulate the deep cause-and-effect between study variables. Oplatka and Arar (2017) attribute this to the absence of a clear and cohesive theoretical framework capable of guiding most studies. Akkari and El-Sahib (2019) have also reported similar findings.

This study also revealed an overwhelming use of quantitative methods and a decline in qualitative methods, leading to an over-reliance on questionnaires as a sole tool for data collection. This reality differs significantly from the global trend that balances quantitative and qualitative research (Philip and Jun 2014; O'Toole et al. 2018; Li et al. 2020). Furthermore, a propensity for stereotypical statistical analysis was noticed, limited in most studies to descriptive statistical analysis and a set of tests recurrent in similar studies, as opposed to more advanced statistical techniques. This result is in agreement with numerous similar studies that have addressed the Arab educational field, such as Samier and Mohammed (2020) and Hammad and Hallinger (2017). This finding leads to the conclusion that building an educational knowledge base in the Arab region requires more methodological diversity and depth capable of generating genuinely useful knowledge. This reality may be a contributing factor to the reluctance of Arab educational decision-making centers to draw guidance from the results of these studies in many crucial decisions occasionally made in the educational field (Alshammari 2022).

The study also highlighted the limited reach of Arab educational research within regional boundaries, and its inability to contribute to global research, this is what Mohammed and Mansour (2019) emphasise. This is evident as no non-Arab foreign researcher has conducted any study within this scope, and an overwhelming majority of the publications were in Arabic. Though this review found seven studies in English (2%), they were conducted by Saudi and other Arab researchers. This narrow perspective has been highlighted by Attari and Essa's study (2023). This reality reinforces the tendency of some Arab researchers to publish exclusively in local journals in their home countries (Mood 2019). It is worth mentioning that studies conducted outside the Arab geographic scope

have reported different results, indicating a high level of international recognition (Cavas et al. 2017; Egmir 2017; Li 2020; Yih et al. 2020).

Another significant finding is the lack of research groups in Arab educational research, with most of the reviewed studies conducted individually or occasionally by two researchers. Research teams can undeniably have positive impacts on the quality and depth of research, especially in the case of multidisciplinary research teams. This is a benefit that, according to the results of this study, Arab educational research is lacking. This confirms, as Eacott (2017) has pointed out, the need for a core group of researchers capable of producing a large number of collaborative research papers rather than individual ones. This reality lags behind studies conducted in non-Arab research environments, as highlighted by the study of Bulent et al. (2012), which reviewed publications in the "Journal of Educational Sciences" during the period 2002-2011. The study revealed apparent collaboration in research preparation through research teams.

The fields of improvement and development require joint efforts starting from the researchers themselves, who need to extend their reach beyond local confines to the global stage. Educational institutions and universities should also adopt improvement and development policies through suitable training programs, the enhancement of post-doctoral programs, and the updating of scientific promotion systems that should give weight to research projects that yield valuable scientific impact. Activating international collaboration programs should be included in the strategic orientations of universities and research centers. It may also be appropriate to benefit from dispersed Arab scientists who have played a crucial role in Arab scholarships, as indicated by Attari and Essa (2023).

The study also found that the reviewed studies primarily focus on teaching and learning issues, often overlooking crucial topics in education such as measurement and educational evaluation. This finding is tied to the core characteristic of Arab educational research, which leans heavily towards applied research over basic research. This is also related to the absence of research maps in educational institutions, which should define research priorities, lay out the future of research, and address the inflexible, rote

approach demonstrated by educational research. This reality emphasizes the need for the existence of educational research centers capable of leading the generation of educational knowledge. Hallinger and Bryant (2014) affirm the role of these centers in achieving high research productivity. One intriguing issue highlighted by Arab studies, focusing on applied research rather than fundamental research, is its susceptibility to the political and socio-cultural context of the Arab world. This context emanates from the centralization of authority and its influence on educational orientations in general, placing researchers under significant pressure and extreme caution when discussing educational policies (Oplatka and Arar 2017).

CONCLUSION

Given study findings, the primary recommendation is to broaden the reach of Arab publishing and pave the way for it to become global. This can be achieved by meeting the standards of global scientific publishing, developing websites that can receive publication requests globally, and requiring these websites to be in English, the global language. It is also crucial to adhere to the stringent requirements of international publishing, such as Scopus and Web of Science. Furthermore, there is a need to break free from the stereotypes of Arab research and its unified formal rituals by exploring more effective methodologies and moving away from the dominant quantitative approach. This can be achieved by embracing qualitative and mixed methods, providing a more comprehensive understanding of the subject matter.

This study also encourages educational researchers to conduct a content analysis of research papers by Arab researchers at a global level. This will provide a clearer picture of their current standing and whether there is a lack of global participation or if there is a trend towards global publishing, which could potentially lead to a decrease in local-level research.

In conclusion, the results of this study reveal a substantial and somewhat disheartening reality about trends in Arab educational research.

RECOMMENDATIONS

This study recommends enhancing global scientific communication and encouraging re-

searchers to publish their work in English. It also advocates for supporting and encouraging researchers to use diverse research methodologies, including quantitative, qualitative, and mixed methods. Providing training courses and workshops for researchers on the use and integration of these diverse methodologies is suggested. Additionally, the study calls for promoting fundamental research and diversifying research topics by encouraging researchers to explore areas beyond teaching and learning, such as measurement and educational evaluation. Establishing research maps in educational institutions to define research priorities and guide researchers towards these priorities is proposed. Lastly, the study encourages collaboration and collective research efforts by promoting the formation of research groups and motivating researchers to work together in multidisciplinary teams.

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