



# The Impact of Education Research in a Multidisciplinary Perspective: An Overview

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<p><b>Abstract:</b> Research in almost every field has been completed so far without restriction to any one topic. Among them include innovation, healthcare services, safety, cautious actions against typical calamities, and a few more. So, examination plays a big role in our daily lives. The most effective and reliable way to understand and investigate the intricacies of many challenges that we as humans are facing is via research. Research becomes more and more necessary as our demands increase. It is also possible to argue that the act of inspection simplifies our lives. Numerous studies have shown how research influences a wide range of life domains. We hypothesized that, as scientific knowledge grows, research has an influence on a variety of scientific domains, including schooling. Since the word "impact of research" has many uses and no accepted meaning, it is difficult to define it properly. The goal of the study was to evaluate the influence of education research. Thus, research generally contributes to the advancement and enhancement of society. For the understudies, the investigation is important since it gives them a detailed examination of everything. When you do a thorough internal and external inquiry on any topic, the results are fruitful, and the information is updated. This comprehensive systematic review fills in the knowledge vacuum about the contribution of research to elementary education. It also gives foreigners a better grasp of how research impacts education management, policy, and instructional methodologies. The writers conducted a comprehensive evaluation of peer-reviewed journal publications concerning the effect of research. Reviewing the literature has shown how research affects educational management, policy, and instructional strategies. The study findings provide a comprehensive overview of action research, including its components, the vital role it performs in refining the practice of teaching, and the significance of conducting action research in the education sector.</p> <p><b>Keywords:</b> Learning, investigation, development, Research, implications, importance, education.</p> <p><b>Copyright © 2024 The Author(s):</b> This is an open-access article distributed under the terms of the Creative Commons Attribution <b>4.0 International License (CC BY-NC 4.0)</b> which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p>	<p><b>Review Paper</b></p>
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## INTRODUCTION

The research aims to use amazing logical skills to carefully analyze the problems or conduct an in-depth examination of the specific concerns. Any topic, whether it be IT, clinical, non-clinical, or something else entirely, should be open to research. Above all, to do research, you must have a topic or problem that you can focus on. There must be pertinent questions to address at this stage. To be investigated, several steps must be taken, such as initial observation, foundational analysis, theory design (Polanyi, 1974), and ultimately, simple investigation guidance. Studies often do not conclude; instead, they delve deeply and profoundly. Sometimes, you will have to put in the work to get the typical results, but in any case, you will receive the outcome. One thing you will

notice time and time again while doing research is the problems that develop gradually. These questions often result in fresh ideas, improvements, and adjustments. As a result, all of these will be very beneficial in the exploration process, making the material (Shulman *et al.*, 2006) more interesting and valuable. Although research is not limited to any one division, it has been completed for almost all of them. Among them are safety, innovation, human services, and proactive measures to avert frequent disasters, among others. Thus, research plays a big role in our daily lives. The most effective and reliable method for understanding and tracking the intricacy of the many problems that affect us as a society is research. Action research is very useful for educators as teachers and administrators are the ones who are

actively engaged in the education system and are motivated to find solutions to its issues, according to Johnson (2012) and Koshy (2012). Teachers are particularly encouraged to do action research because it allows them to find, solve, and reflect on problems outside of their comfort zones in the classroom. According to Lesha (2014), action research is appropriate for any individual seeking to enhance their performance as well as any group or organization seeking to achieve the same goal. Numerous studies have shown how science affects various aspects of life. These studies demonstrate that research has the power to spark a change in the way things are investigated and pursued. According to Harris and Clayton (2010), the lack of a consistent definition for the effect of research is exacerbated by how this influence is applied. The influence of educational research on curricular revisions, education policy, and management generates and adapts information (Penfield *et al.*, 2014). The objective of conducting this scientific research is significant and plays research in the education process in our daily lives. On the other hand, for the understudies, the investigation is important because it forces them to examine everything in detail. When you do a thorough and proper inquiry into any topic, the results are fruitful, and the knowledge is enhanced. The following are some of the several benefits of research for students: such as enhancing data, clarifying dysfunction for a suitable understanding of the topic, learning about the tactics and problems, understanding the dispersed work, and understanding the mystery and the origins of the first inquiry.

### Concerns Pertaining to Research Conducted at Academic Institutions

Academic research studies in general and interdisciplinary research studies in particular are not the main focus of the present educational system. The following issues are important to remember.

1. Research is typically done in academic settings to get a Ph. D. At the undergraduate and graduate levels, it should not be obligatory.
2. Less emphasis is placed on qualitative, multidisciplinary, and cross-disciplinary research studies, and more emphasis is placed on quantitative research studies, which are simpler to obtain a Ph. D.
3. For a variety of reasons, research on issues and circumstances related to the workplace is typically not done.
4. There is a set deadline for finishing the study, which has an impact on how long people take to get employment.
5. Research positions are not accessible in Indian organizations or industries; thus, applicants who wish to embark on a career in academia must do their research.
6. Since most universities lack fundamental competency in research topics, they do not accept research proposals from the working

world. The majority of the academic members lack extensive experience in serious research.

7. Insufficient funds and budget to support universities with research initiatives.
8. Because they both operate independently, educational institutions and businesses/societies lack mutual understanding.
8. Academic institutions' sluggish reaction to industry requests for research and problem-solving assistance.
9. The bulk of the nation's universities lack modern facilities for carrying out research projects.
10. Limited scholarly exchange across departments within the same institution about issues and developments in the workplace

### Developing a Conceptualization of Mono-, Multi-, Inter-, and Trans-Disciplinary Approaches

According to Lattuca *et al.*, (2017), even though academics and educators often use terms such as "multi-," "inter-," and "trans-disciplinary" interchangeably, in actuality, they deploy these terms in a manner that seems incongruous. For example, multidisciplinary learning and interdisciplinary learning are frequently combined. Multidisciplinary learning emphasizes integrating multiple fields to develop knowledge, whereas interdisciplinary learning places an emphasis on acquiring new information from a variety of fields (Dezure, 2010; Holley, 2009). This perspective on multidisciplinary learning is supported by Klein (2015), who states that "individuals also remain anchored in their respective expertise, and collaboration is lacking" (p. 15). Since multidisciplinary learning is one aspect of this approach, representing several disciplines, it may be seen as incomplete interdisciplinary learning.

### How one Acquires Knowledge

According to the findings of a large number of recent studies, the interaction between research and teaching is very important and advantageous to the learning process of students, particularly for those students who have a strong academic bent. Research has shown that pupils are able to acquire more knowledge when they actively participate in the process of learning the material that they are being taught. In comparison to when students are encouraged to work alone, they perform at a higher academic level when they are given the opportunity to work together on research projects that are connected to the instructional materials. It is useful for learning when there is diversity within a group in terms of the knowledge and experience that members possess (Jenkins, 2000).

### The Relationship between Research and Higher Education

To provide a clear understanding of the connection between research and education, we have established certain indicator criteria as our basis. This section offers detailed explanations of these crucial

aspects and their significance in the link between research and higher education. The following will be thoroughly examined and explained.

### **Solving Issues**

Actually, "training the trainers," that is, teaching them how to become better at connecting the dots and comprehending scientific phenomena, is the main goal of teachers. They use a predetermined approach, such as solving, to apply the pertinent strategies. When they are organizing their problem-solving techniques, students encounter a variety of scenarios and interpretations. One technique utilized to enhance problem-solving techniques in collaborative learning is the internalization of both external information and critical perspective abilities that are received from the research results (Gokhale, 1995).

### **Knowledge Revision**

Lecturers are required to remain "current" in their respective teaching domains. This can be acquired through various means. They are required to participate in advanced academic activities. "Researching" is one of these activities that is founded on numerous investigations. The investigations conducted have demonstrated that students hold a positive perception of staff research. The inclusion of staff involvement in research into the curriculum of these studies resulted in students perceiving their courses as current and providing them with a glimpse into the minds of their instructors and an opportunity to observe what they do, how they do it, and why (Neumann, 1994). There is an assumption that scientific updating has the potential to impact teaching and learning scenarios.

### **Enhances Data**

When you investigate any subject, you get an understanding of the specific facts that pertain to that subject. You now have a greater understanding of the subject matter. The success of the research will be directly proportional to the amount of information that is easily accessible as it pertains to the issue. For the students to ensure that they are successful to a high degree, they need to do a thorough study. According to (Wilkinson, 2002; Johnson, 2008; & Hoover and Abrams 2013), action research is different from other types of research in the educational context because it is more adamant about altering specific teachers' or practitioners' practices to address issues that arise daily in the classroom and school and aims to improve both student learning and teacher effectiveness. The process of gathering data should be deliberate, organized, and goal-oriented. According to Ferrance (2000), the instructor has to consider how organized and methodical the data-collecting process would be. Action research often employs data-gathering instruments that are also utilized in other research procedures; it is not always associated with special techniques. For instance, the instructor may record her checklists, interviews, observations, writing, documentation, and audio recordings in a notebook.

Johnson (2008) warns that since action research is a dynamic process, it is typical to switch between different kinds of data collecting while the study is being conducted.

### **Clarifies Dysfunction**

The inquiry helps better grasp the intricate statistical data points by contributing to a better comprehension of those points. In the case when the student is unsure about the subject matter, the student needs to do research and examine the subject matter in great detail. This must be done to remove a wide range of uncertainty and get an adequate understanding of the topic matter. According to Ferrance (2000), research conducted by a single teacher usually concentrates on a specific topic in the classroom. The instructor can be looking for answers to issues with how to organize the classroom, employ instructional tactics, make use of resources, or improve student learning. Similarly, Tomal (2010) contends that educators might use a variety of school-related contexts to inform their action research.

### **For a Suitable Understanding of the Topic**

The whole work, from the very beginning to the very end, must be read to have a comprehensive comprehension of the subject matter. It is impossible for the pupils who are being examined to acquire anything of value as a result of the analysis of the available information. Investigating, studying in detail, and conducting a full evaluation are the most efficient approaches to familiarise oneself with the subject matter and get a grasp of the concealed facts. Conversely, district-wide research is much more involved and requires a greater investment of resources, but the benefits may be substantial. Problems may be of an organizational, community, performance, or decision-making nature. The district may decide to deal with an organizational management issue or a problem that affects many schools (Ferrance, 2000).

### **To Learn about the Tactics and Problems**

The finding is the major approach by which you may acquire information about the procedures and the issues that are now being confronted. This can be accomplished via suitable reading. It is not just the present difficulties that can be learned about in detail via the research; the problems that occurred in the past can also be learned about. An assortment of approaches, all of which are included within the trip, might be used to accomplish the task of completing the exploration.

### **Understand the Dispersed Academic Work**

The accomplishment of research is made possible by the effort that has been made in the past. The specialists and the analysts had just finished a portion of the study, and the students were requested to experience the information that was provided (Smith, 2004) to have an appreciation for the way those scientists think and the vision that they have. When the students have finished their studies, they will have acquired the knowledge

necessary to understand how to find a balance between the work that is done on a separate basis and the work that is focused on the community. Community-oriented work, on the other hand, refers to work that has been recently finished by workers who came before them in the scientific community. The student is expected to conduct individual work, which is in contrast to community-oriented work. Consequently, as a consequence of this, the pupils have a better understanding of which elements of the content need to be taken into consideration and which aspects ought to be avoided. Without making any preparations, research is carried out to grasp the concept. For instance, if you are interested in determining the origin of the concept, then you should be able to do it just via the investigation process. In addition, it might be considered an examination because the student will ultimately be required to do a substantial amount of research. Students can grasp the concept more straightforwardly as a result of their participation in the study process. This is because the technique of thinking about the topic is known in a more superior manner. By way of illustration, by establishing the conjecture, one can appreciate the nuances of the exploration subject. Additionally, the understudies get familiar with the subject area that they are interested in, which is a significant benefit. Several students who are now enrolled in the program have shown an interest in pursuing employment as analysts in the not-too-distant future. This is a very advantageous development. The conclusion that we get from this is that the analysis not only helps in the completion of the work that is now being done, but it also helps in the grasp of what has to be done moving forward for the project. Another thing to keep in mind is that action research involves recurring data gathering over an extended period rather than a single event. Consequently, using a calendar or checklist is one technique to guarantee that the data gathered is constant.

### Research in Education is Confronted with many Challenges

The concerns surrounding public education were no longer the primary focus of educational research at the start of the twenty-first century. These days, educational research also aims to comprehend how education, schooling, and higher education relate to the advancement of society. Educational research was seen as a social science and a diverse area of study from its inception until roughly the 1960s and 1970s (Ponce *et al.*, 2018). Atactic to improve the scientific efficacy of educational research is the study of educational policy. The phrase "multidisciplinary field of study" implies that information from the social and natural sciences may be used in the field of education. The study of education was seen as a social science in many European nations. Studying the social and cultural phenomena that take place in educational institutions to create learning was the main goal of this discipline. Many philosophical and methodological factors must be taken into account for educational policy research to be successful. These

include (a) having an inquisitive mindset to question and comprehend what information and evidence is needed to determine the scope and impact of policies and (b) the possibility of having to use different techniques and approaches to data collection. According to Greig, Taylor, and Mackay (2007), rigorous approaches should not be mistaken with rigid ones while doing flexible research.

### Some Challenges Faced by Researchers in Multidisciplinary Fields of Study

1. There is a lack of normalization in the examination technique for the investigation of separation instruction. It is necessary to pay attention to the strategic concerns that are associated with the exploration method. There are times when what looks to be a smoothed-out technique on paper does not work out as such when it is used. During the training process, research involves interpreting the exploration plan and putting it into action at the structuring stage, the information assortment stage, and the inquiry stage to learn how to differentiate between different types of teaching. To identify the productivity and abilities that educators must possess to satisfy the standards-defining objectives, learning was standardized. Outside of the profession, standards have supplanted traditional ones. This introduced a new vocabulary to the field of education: (a) from reaching an objective to producing an educational product; (b) the teacher is the one who implements a curriculum that has been designed by someone else, not the teacher; and (C) instructional strategies must be grounded in science or have undergone empirical validation (Arnold *et al.*, 2021; Pring, 2007).
2. The challenge for many detachment education researchers is finding enough study participants and personnel to support a solid, evidence-based research project. Since the financial climate affects many institutional assets, it is hard to find motivational factors based on money, or the boost only results in little investments. In light of this, analysts struggle to come up with creative ways to empower assistance with limited resources. The standardization of both public and university education characterizes education in the modern era.
3. Dependency on self-announced knowledge: This suggests that our information is "equivalent to the reactions we request," as is the case with every investigation effort involving people's beliefs and behaviors. The accuracy of self-reported information is unclear if it cannot be accessed for cross-checking, which is a test conducted on research populations. It is not possible to conceive of education in the 21st century in a manner that is



isolated from other realities, such as health, the environment, or the technical tools to comprehend the outcomes of education (Choi *et al.*, 2010).

4. Although group-based research is conducted, there is a lack of cultural awareness. That is, to effectively explore within the zone of separation training, a group effort is usually necessary. However, many places do not encourage group-based projects, which is usually evident when there are no resources that would enable different individuals to communicate and work together on the same project.
5. Reaching solitary-level information: Businesses like to provide whole-level information when dealing with sensitive and confidential data. While overall level data may be a great tool for gaining a general impression of the students at a certain institution, detailed experimental research is often best guided by unique level data. Data and information at the degree of the understudy, or "single level information," are becoming more difficult to get yet are crucial for examining certain populations and understudy outcomes. According to Arnold *et al.*, (2021), education evolved into a distinct field that was unrelated to psychology and other social sciences.

### Logical Reasoning and Cognitive Neurology

The objective of study in the field of psychological neuroscience is to get a deeper comprehension of human potential about the movement of the brain. The inquiry has several primary objectives, one of which is to broaden our comprehension of human awareness while also taking into consideration methods that might potentially boost human prosperity. The area of psychology is always expanding and gaining popularity (Gough & Lyons, 2016). The use of research methodologies in the wide area of psychology is a key point of exploration (Stangor, 2011). This is because of the expansion of the field as well as the need for scientific research to serve as a foundation for making judgments about health (Perestelo-Pérez, 2013).

### Biotechnology

Described as the application of natural life shapes, structures, or processes by various businesses, associates, and experts, biotechnology integrates science and life, enhancing the assessment of materials and living organisms via drugs, crops, tamed animals, and the environment. While research in plant biotechnology seeks to identify specific characteristics to eliminate various forms of arsenic poisoning, advances in microbial biotechnology may also be used in the development of microbial bioreactors. The enhancement of subatomic markers that will enable researchers to identify between various mussel species is a component of the mussel research project that is conducted in

conjunction with environmentalists. Karl Erkey, an agricultural economist and engineer from Hungary, is credited with being the first person to use the phrase "biotechnology." This event took place precisely one hundred years ago. In English, Karl Erkey described biotechnology as "all the lines of work by which products are produced from raw materials with the aid of living organisms" (Amarakoon *et al.*, 2017; Bud, 1994). This definition was translated from Karl Erkey's original definition into English.

### Investigation of the Administration of Educational Institutions

It is the responsibility of educational management to ensure that schools have proper operations. This comprises the administration of financial, administrative, and academic matters, as well as the environment of the organization and the creation of working circumstances that allow for the work of instructors and the learning of students. A study conducted in the field of education investigated management practices, their efficacy, educational technology, and their influence on the effectiveness of institutions. To successfully translate these needs into educational research initiatives, academics need to be just as inventive. These studies can provide findings that conflict with political agendas or educational practices, which causes issues (Diko & Bantwini, 2013). The successful outcome of educational research is negatively impacted by political platform shifts, government changes, and the absence of a national schooling and achievement research agenda because there is no scientific continuity in the research funding educational issues and problems (Lee, 2010; Hammersley, 2007).

### Studies on Policy in Education

Educational policies are the standards that organizations use to control how they operate. The "rules of the game" that specify how participants in the educational system are supposed to behave are known as policies. By defining the dates, procedures, roles, and responsibilities of the staff in the operation of the system processes, policies control how the education system operates. Policies provide the direction that human resources must take for the educational system to succeed and govern every aspect of the establishment, including student assessment, teaching-learning, and interactions with the community and parents. The influence that educational policies have on the efficacy of education has drawn increased attention in the study of educational policy since the 1990s. Many writers presented more in-depth critiques while mostly opposing the teacher-centered educational methodology. Less research has been done to develop and enhance the teacher-centered education method, as observed by Katukula (2018). The fact that educators continue to employ teacher-centered rather than student-centered teaching strategies is more evidence of this (Gurses *et al.*, 2015; Awe & Kasanda, 2016). Because there is a body of research that debates the optimal teaching

methodology, there is evidence of the influence of research on educational practices. Because some educational institutions adopted the notion of a student-centered teaching approach at the expense of a teacher-centered teaching approach, the impact is more evident (Ottander & Ekborg, 2012).

## CONCLUSION

Research is just a fundamental viewpoint carried out in more enlightened organizations. People start asking questions regarding poles' separate zones while they are working with master or Doctoral theories. It involves intentional advancements and methodologies, and individuals must possess enough knowledge about them to effectively finish their test. A variety of topics are covered in the field of training questions. These include socialization, anxiety, and weight related to assessments, humanizing learning forms, instructional methodologies, study hall conditions, academic subject, scholarly execution of the understudies, bent and capability about the instructors, execution assessment techniques, extracurricular exercises, imaginative exercises, and more. Among the several types of research are action inquiry, applied research, critical research, quantitative research, and subjective research. The political aspect of education, the difficulty in defining educational research as a science, and the disconnect between educational research and practice are, in general, the areas where educational research faces efficacy issues. The primary avenues for achieving scientific efficacy in educational research encompass reaching a consensus on education knowledge that propels a paradigm towards congruence, utilizing knowledge in professional practice to validate its scientific efficacy, and conducting research on educational policies. With a methodical focus on three primary areas, the study aimed to examine the influence of education research. Among these were the effects of research on educational management, policy, and instructional strategies. One may argue that the study has achieved its goal since it critically examines the influence of education research, particularly in basic education.

## REFERENCES

- Amarakoon, I. I., Hamilton, C. L., Mitchell, S. A., Tennant, P. F., & Roye, M. E. (2024). Biotechnology: principles and applications. In *Pharmacognosy* (pp. 627–645). Academic Press.
- Arnold, A., Cafer, A., Green, J., Haines, S., Mann, G., & Rosenthal, M. (2021). Perspective: Promoting and fostering multidisciplinary research in universities. *Research Policy*, 50(9), 104334.
- Awe, G. A., & Kasanda, C. D. (2016). The perceptions and practice of learner-centered teaching in Namibia. The case of Physical Science teachers in the Omusati education region.
- Bud, R. (1994). *The uses of life: a history of biotechnology*. Cambridge University Press.
- Choi, S. Y., Lee, H., & Yoo, Y. (2010). The impact of information technology and transactive memory systems on knowledge sharing, application, and team performance: A field study. *MIS Quarterly*, pp. 855–870.
- DeZure, D. (2010). Interdisciplinary pedagogies in higher education. *The Oxford handbook of interdisciplinarity*, 372-386.
- Diko, N., & Bantwini, B. D. (2013). Research politics: Some issues in conducting research for government as a client. *Perspectives in Education*, 31(4), 15-26.
- Ferrance, E. (2000). Themes in education: Action research. *Brown University: Educational Alliance*, 34(1), 1-33.
- Gokhale, A. A. (1995). Collaborative learning enhances critical thinking. *Volume 7 Issue 1 (fall 1995)*.
- Gough, B., & Lyons, A. (2016). The future of qualitative research in psychology: Accentuating the positive. *Integrative Psychological and Behavioral Science*, 50, 234-243.
- Greig, A., Taylor, J. & Mackay, T. (2007). *Doing Research with Children* (2nd Ed). Los Angeles: Sage Publications
- Gurses, A., Dogar, C., & Geyik, E. (2015). Teaching of the concept of enthalpy using problem based learning approach. *Procedia-Social and Behavioral Sciences*, 197, 2390-2394.
- Hammersley, M. (2007). The issue of quality in qualitative research. *International journal of research & method in education*, 30(3), 287-305.
- Harris, R., & Clayton, B. (2010). Impact in vocational education and training research: the case of the Australian VET Research Consortium. *International Journal of Training Research*, 8(1), 6-24.
- Holley, K. (2009). The challenge of an interdisciplinary curriculum: A cultural analysis of a doctoral-degree program in neuroscience. *Higher education*, 58, 241-255.
- Hoover, N. R., & Abrams, L. M. (2013). Teachers' instructional use of summative student assessment data. *Applied Measurement in Education*, 26(3), 219-231.
- Jenkins, A. (2000). The relationship between Teaching and Research: where does geography stand and deliver?. *Journal of Geography in Higher Education*, 24(3), 325-351.
- Johnson, A. P. (2012). *A short Guide to Action Research* (4th ed.). Pearson: Minnesota.
- Katukula, K. (2018). *Teaching methods in science education in Finland and Namibia* (Master's thesis, Itä-Suomen yliopisto).
- Klein, J. T. (2006). A platform for a shared discourse of interdisciplinary education.
- Kemmis, S., & Wilkinson, M. (2002). Participatory action research and the study of practice. In *Action research in practice* (pp. 21-36). Routledge.

- Koshy, V. (2012). Action research for improving practice: a practical guide. Paul Chapman: London.
- Lattuca, L. R., Knight, D., Seifert, T. A., Reason, R. D., & Liu, Q. (2017). Examining the impact of interdisciplinary programs on student learning. *Innovative Higher Education*, 42, 337-353.
- Lee, I. (2010). Writing teacher education and teacher learning: Testimonies of four EFL teachers. *Journal of Second Language Writing*, 19(3), 143-157.
- Llesha, J. (2014). Action research in education. *European Scientific Journal*, 10(13).
- Neumann, R. (1994). The teaching-research nexus: Applying a framework to university students' learning experiences. *European Journal of Education*, 29(3), 323-338.
- Ottander, C., & Ekborg, M. (2012). Students' experience of working with socioscientific issues-a quantitative study in secondary school. *Research in Science Education*, 42(6), 1147-1163.
- Penfield, T., Baker, M. J., Scoble, R., & Wykes, M. C. (2014). Assessment, evaluations, and definitions of research impact: A review. *Research evaluation*, 23(1), 21-32.
- Perestelo-Pérez, L. (2013). Standards on how to develop and report systematic reviews in Psychology and Health. *International Journal of Clinical and Health Psychology*, 13(1), 49-57.
- Polanyi, M. (1974). Scientific thought and social reality: Essays by Michael Polanyi. *Psychological issues*.
- Ponce, O. A., Pagan-Maldonado, N., & Gomez-Galan, J. (2018). Research of educational policies: science over ideology. *Revista Espacios*, 39(43).
- Pring, R. (2007). Reclaiming philosophy for educational research. *Educational Review*, 59(3), 315-330.
- Shulman, L. S., Golde, C. M., Bueschel, A. C., & Garabedian, K. J. (2006). Reclaiming education's doctorates: A critique and a proposal. *Educational Researcher*, 35(3), 25-32.
- Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative research in psychology*, 1(1), 39-54.
- Stangor, C. (2011). *Research methods for the behavior science*. Cengage Learning.
- Tomal, R. D. (2010). Action Research for education. Lanham, Maryland: Rowman & Littlefield.