

INTERDISCIPLINARY RESEARCH EDUCATION AND ITS IMPORTANCE TO FUTURE CAREER

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ABSTRACT

Interdisciplinary research is a procedure of research where the researcher explores two or more academic disciplines in their studies. The word interdisciplinary refers to the association of more than one discipline, which is defined as a field of study or a branch of knowledge. Interdisciplinary research combines various disciplines, academic, artistic, or scientific to better develop the perspective of the project. And also, interdisciplinary refers to a method or mindset that merges usual educational concepts or methods in order to arrive at a new approaches or solutions. This interdisciplinary study is now considered basic to education, problem solving, professional practice and innovation. Interdisciplinary study allows for the creation of ideas from many disciplines. Interdisciplinary study addresses students' differences and helps develop important, transferable skills. These skills, such as critical thinking, communication and analysis are essential and develop continually at all stages of life.

KEYWORDS: Communication, Collaboration, Education, Interdisciplinary, Opportunity

INTRODUCTION

The word interdisciplinary from Latin, "inter" means "between" and "disciplinary" means teaching or knowledge. It integrates information, data, techniques, tools, perspectives, concepts or theories from two or more disciplines or bodies of specialized knowledge. Interdisciplinary instruction relies on various content cogs working together to develop student knowledge, problem-solving skills, self-confidence, self-efficacy and a passion for learning while supporting students' various learning styles, diverse backgrounds, interests, talents, backgrounds and values.

Interdisciplinary research enables active knowledge and concept sharing between academics and researchers across different disciplines.

Interdisciplinary provides a time-tested practical way to address the inherent complexity of real-world problems, including those problems arising in the workplace. The core principles of interdisciplinary can be called the three "C's": Collaboration, Cooperation and Communication among disciplines in addressing a particular issue (Klein, 1993). It challenges them to ask unconventional questions, consider different perspectives, and make connections between diverse concepts. This process develops their ability to think critically, make informed decisions and solve complex problems a vital skill set for the challenges they will face in their future careers.

IMPORTANCE OF INTERDISCIPLINARY RESEARCH

Interdisciplinary collaboration fosters creative thinking by combining diverse perspectives, methodologies, and skills. This synergy often leads to "ground-breaking" discoveries and solutions that might not be possible within a single discipline. There are several reasons why an interdisciplinary approach is important in research field: An interdisciplinary approach to research is crucial for addressing complex problems that cannot be adequately addressed by a single discipline alone. It involves bringing together researchers from different fields to collaborate, share their expertise and knowledge, and apply their unique perspectives to a common problem. For example, to solve a complex problem like the construction of a dam, one requires knowledge of geography, geology, hydrology, engineering, architecture and economics. There are numerous international journals that have taken this approach to make the research credible and more efficient.

❖ Enhanced critical thinking

Interdisciplinary researchers need to consider varied viewpoints and synthesize concepts from different subject areas to solve a specific research topic. This helps to build their critical thinking skills, enhance their knowledge and advance their career.

❖ Well rounded difficulty solving approach

By looking across to other disciplines, researchers may increase fresh or better insights on their own data and methods. Interdisciplinary research also allows scientists to understand and apply interdisciplinary concepts and ideas to support and explain their own research.

❖ Visibility to a wider viewers

Interesting topics of research often lie on the boundaries of more traditional research disciplines. By thinking creatively, applying your expertise in collaboration with peers across different disciplines, gain better visibility to research.

❖ **Tackle complex problems**

Many of the most pressing problems facing the world today, such as climate change, healthcare and scarcity, are complex and multifaceted. No single discipline can fully understand or solve these problems alone. Interdisciplinary research can bring together diverse perspectives and expertise to address these complex issues.

❖ **Improve creativity and innovation:** Interdisciplinary learning encourages students to think outside the box and explore unconventional approaches. Combining knowledge and techniques from different disciplines can create innovative solutions to complex problems.

❖ **Enhancing research excellence**

An interdisciplinary approach can lead to more rigorous research by bringing together a diverse range of methodologies, data sources, and analytical tools. This can help to ensure that research findings are more robust and can be applied in a variety of contexts.

❖ **Bridging the gap between theory and practice**

Interdisciplinary teams can facilitate the translation of research findings into real-world applications. For example, interdisciplinary teams working on healthcare issues can help to ensure that research findings are translated into clinical practice, improving patient outcomes.

❖ **Broadening perspectives**

Interdisciplinary research can broaden researchers' perspectives by exposing them to new ideas, concepts, and approaches. This can lead to new ways of thinking about problems and can help researchers develop more comprehensive and nuanced understandings of complex issues.

❖ **Integrating diverse methodologies**

Interdisciplinary research involves the integration of diverse research methodologies and techniques. By combining different research methods, interdisciplinary teams can develop more comprehensive and robust approaches to understanding complex problems.

❖ **Increasing funding opportunities**

Interdisciplinary research can open up new funding opportunities from government agencies, private foundations, and other organizations that seek to support research that addresses complex societal challenges. Funding agencies may be interested in supporting such research because of its potential to inform policy decisions.

GUIDING PRINCIPLES FOR INTERDISCIPLINARY RESEARCH

The following are some of the principles of an interdisciplinary approach:

- Grounding in disciplines is a prerequisite to interdisciplinarity.
- Nonstop recognition of a common goal, regular communication, consultation, replace of data and provisional conclusions between the team members and a strong commitment to teamwork are central to the interdisciplinary process.
- The quality of interdisciplinary research depends on attention to preparation, quality of disciplinary inputs, process of interaction and quality of the synthesis.
- The main distinction between multi- and interdisciplinarity relates to the intensity of the contact and communication between the disciplines, ranging from minimal consultation in the former to repeated interaction throughout the research process, in the latter.
- Preparation for interdisciplinary research can be promoted by encouraging normal networking between academics and researchers from different disciplines, policy makers, and the broader community. Openness to connections beyond specialized domains can provide the foundation upon which interdisciplinarity is developed.
- Costs related to interdisciplinary research (ie. time, people, money) are generally higher than those for monodisciplinary research. This is especially pronounced at the beginning of a project when teams are identified, leaders chosen, and channels of communication developed among team members.
- The interdisciplinary process requires use of electronic and/or social networks for input and dissemination of knowledge and information.

CHARACTERISTICS OF INTERDISCIPLINARY RESEARCH

Interdisciplinary research (IDR) is a study or group of studies that involves scholars from at least two different academic fields. It's characterized by its capacity to integrate different perspectives and approaches, which can lead to more practical and comprehensive solutions. Here are some characteristics of IDR are as follows:

- ❖ Conceptual model
- ❖ Methodology
- ❖ Bridging function
- ❖ Different perspectives
- ❖ Awareness of biases
- ❖ Clarity of objectives
- ❖ Sharing
- ❖ Adaptability
- ❖ Team members' willingness to cooperate
- ❖ Flexibility
- ❖ Improvement in communication strategies
- ❖ Dedication

ADVANTAGES OF INTER DISCIPLINARY APPROACH

Interdisciplinary approach is significant tool for high quality and successful learning and teaching situations. It has the following advantages:

- Learners work independently and collaboratively.
- Learners are motivated and involved; they demonstrate an inquisitive attitude.
- Learners develop self-confidence in facing challenges, both intellectual and practical.
- Learning is connected and directly related to real life experiences.
- It allows more in-depth exploration of topics, issues and problems within and across subject areas and disciplines.
- It supports the development of skills of learning, life and work.
- It promotes critical thinking by supporting learners.
- It enables the understanding of different perspectives across subject areas and disciplines.
- It makes learners want to understand the different curricular areas in greater depth.

ROLES AND RESPONSIBILITIES OF INTERDISCIPLINARY TEAMS

❖ Leadership

A team leader should give clear direction and management, while also sharing power with other team members. The leader should also encourage and support team members.

❖ Co-ordination

Interdisciplinary teams often need to manage between different disciplines, fields, approaches, or theories.

❖ Communication

Effective communication is very important for interdisciplinary teams, as it can assist with problem solving, decision-making, and conflict resolution. Some studies say that communication is like "glue" that holds the team together and it enable to collaboration.

❖ Patient advocacy

Some team members, like clinical social workers, may advocate for patients. For example, they can ensure that the team keeps end-of-life preferences and wishes in mind.

CONCLUSION

An interdisciplinary teaching is a great way and provides them with a further comprehensive education. It encourages to explore topics from multiple perspectives and to develop critical thinking skills. The interdisciplinary approach in education is a dynamic and innovative pedagogical strategy that transcends traditional disciplinary boundaries. By fostering holistic

understanding, critical thinking and practical skills, it equips students to tackle complex issues in the real world. Emphasizing collaboration, adaptability and creativity, this approach not only enriches the learning experience but also prepares students for a rapidly changing and interconnected global landscape. While challenges such as evaluation methods and teacher collaboration exist, the generally benefits underscore the importance of adopting an interdisciplinary perspective to cultivate well-rounded, engaged and flexible learners.

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