
INTERDISCIPLINARY RESEARCH: NEED OF THE DAY

Dr. Vipin Kumar

Assistant Professor of English

KIET Group of Institutions, Ghaziabad, India

Abstract

Today each discipline is interdisciplinary in one way or the other as all are interconnected together. That's why interdisciplinary research is the dire need of the day. Interdisciplinary research may be defined as finding something innovative by analyzing different disciplinary boundaries and connecting these ideas to come to a comprehensive output. Studying different disciplines and to reach to a conglomerated idea is the best way to deepen the knowledge. It is the best approach of interdisciplinary research that enables one to frame one's interdisciplinary pathways by selecting a course that makes sense to him. It is one way to study topics thematically as it brings different ideas together which usually results in more meaningful knowledge and learning. The advantage of this research is to achieve a unique outcome which would never be achieved by old monodisciplinary research. At the same time, this research suffers from several potential shortcomings/ disadvantages compared to mono disciplinary research. This research paper discusses how choosing different topics related to different disciplines and relating these ideas together, allows a researcher to learn something specific.

Keywords: interdisciplinary, innovative, output, approach, learning, mono disciplinary

Introduction:

Interdisciplinary research is the need of the day as it has become more and more important today. The term interdisciplinary implies to learn something by making connections between different ideas and concepts taken from different disciplines. It enables the researcher to apply the knowledge acquired in one particular discipline to the different other disciplines to deepen his knowledge. Mr. Jacobs says interdisciplinary research as *"a curriculum approach that applies the language and methodology based on more than one discipline to examine a theme, issue, problem or an experience"*.

The subjects like interdisciplinary and multidisciplinary came into existence after World War-I when Herman Muller highlighted the requirement of this research in finding DNA structure. He stated "must the geneticist become bacteriologist, physiological chemists and physicist

simultaneously with being zoologist and botanist? Let's hope so?" In academics, it requires an instruction process that "simultaneously integrates the knowledge, skills, and perspectives of different disciplines rather than simultaneously teaching the subjects in these disciplines". Therefore, it is necessary to establish distinct connections between subjects regarding related disciplines.

Interdisciplinary research combines two or more disciplines/ areas into one and draws knowledge from different other fields such as sociology, anthropology, psychology, economics, etc. It is all about finding something by thinking beyond boundaries. It is obvious that this approach of studying several disciplines strengthens the understanding of the researcher and student to find their own pathway. Hardly there is any scientific literature that discusses the term 'interdisciplinary'. Some thinkers like J.T. Klein associate the term with the old philosophers like Aristotle, Plato, Kant, and others and regard them as 'interdisciplinary thinkers'. But it is evident that at that time this term was not coined. It was coined in the twentieth century when science and technology were emerging and with the advent of science and technology, many disciplines were nomenclature. These newly born and old disciplines together extended the area of research and the viewpoint of the people. Lately it was discovered that there are several areas that are internally associated with one another and to study one particular requires the ideas from the other ones. In this way to study all connected disciplines became the need of the day.

Like the term 'interdisciplinary' there are other terms which are slightly different from the basic term 'interdisciplinary' are 'transdisciplinarity' and 'multidisciplinary'.

The above discussion proves that the concept of Interdisciplinary Research is the result of modern science and is of late origin. The different discipline uses this practice because of its advantage over the traditional way of research. The approach of this research methodology is to get new result which would never be achieved otherwise. Along with its' advantages/ benefits, this research has some limitations as it faces many potential threats. It has some disadvantages as compared to mono disciplinary research that is advantageous in some other ways. Some basic restrictions of an interdisciplinary research are:

- It is more time consuming rather than mono disciplinary research as the researcher has to compile and consult the information from different fields.
- It requires more effort as a researcher/ student has to consult many sources from different sources and has to collect data.
- It suffers from the contradiction between/ among different results drawn from various disciplines because researches from different fields can have different outcomes. It sometimes becomes impediment for a research scholar.

-
- It sometimes, becomes tedious as a researcher has to work in a multicultural environment.
 - It requires extensive knowledge of different disciplines.

No doubt interdisciplinary research requires more time to study as a researcher has to collect data from different disciplines. Sometimes, this process of collection sources consumes more time than expectation. On the contrary traditional research consumes less time as a researcher has to collect selected sources. Interdisciplinary research becomes difficult when a researcher merges different methods of different disciplines to achieve on a unified conclusion. Here in this research one has to be well exposed to different thought patterns (paradigms) of different cultures and traditions. At the same time, one has to face/study special terminology of associated disciplines to understand the viewpoint. Another limitation of interdisciplinary research is the quality of research. Sometimes, a researcher finds a very simple and common result which is most of the time irrelevant and insignificant. In such a situation the whole research becomes unproductive.

It is also worth-noting that except the above mentioned disadvantages, interdisciplinary research possesses numerous advantages over traditional mono disciplinary research which has a narrow outlook. According to a research conducted in 1988 clearly states the need of interdisciplinary research, "...who study interdisciplinary are more likely to develop: affective cognitive skills; reading, writing, speaking, and thinking skills; higher curiosity for learning; more creativity and originality in thought processes; and an ability to integrate traditional ideas with current ideas." Of course there are numerous advantages of interdisciplinary research including all those which are not expected. Creativity is one of those advantages which is not plannable but fosterable by a change in perspective. "Creativity requires interdisciplinary knowledge" is an apt saying in this regard. In fact, one becomes creative when he analyses one disciplines with different perspectives of different disciplines. In this way, he goes out from his main discipline and analyses other related areas of research. That is the reason why many intellectual, social and practical problems require interdisciplinary approach to achieve a broad understanding. Flexibility is another advantage of interdisciplinary research and that is the reason why the interdisciplinary researcher enjoys this flexibility in his research. Unlike narrow understanding of a mono disciplinary scholar, an interdisciplinary researcher enjoys a broad understanding.

By now it is an established fact that interdisciplinary research/study nurtures high thinking skills and leads to a future of discovery and innovation. Here, Willard Libby, a chemist sets an example who discovered radiocarbon dating, applied his findings in Chemistry to the discipline of Archeology and won the Nobel Prize in 1960. It is worth noting that his research technique is a great foundation for interdisciplinary studies.

References;

- Klen, *Discourse of Interdisciplinary Education | Klein | JSSE – Journal of Social Science Education*. N.p., n.d. Web. 18 Oct. 2016.
- Boehm, Richard, 2003. "The Best of Both Worlds: Blending History and Geography in the K-12 Curriculum." Gilbert M. Grosvenor Center for Geographic Education. http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/0d/4f.pdf
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4625396/>
- Gruenwald, O. (2014). THE PROMISE OF INTERDISCIPLINARY STUDIES: RE-IMAGINING THE UNIVERSITY. *Journal Of Interdisciplinary Studies*, 26(1/2), 1-28.