

Chapter 14

Historical Development of the Interdisciplinary Studies

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ABSTRACT

In a fast-changing world, which depends on science and technology, it is very hard for disciplines to remain isolated and hide away from each other. When disciplines are isolated, students' outcomes and achievements are affected negatively. A graduate will be equipped with multi skills, when disciplines interact with each other instead of just one skill when a particular discipline exists in isolation. To address this problem of graduates, many universities offer "interdisciplinary studies". This chapter discusses the "interdisciplinary studies" and their history. To discover the history of the "interdisciplinary studies", the current study aims to explore the definition of the "interdisciplinary studies", as well as their historical development. This study is a theoretical study designed to trace the history of "interdisciplinary studies". The study adopted a qualitative research methodology, as the essential purpose of the qualitative methodology is to understand reality. The findings revealed that the literature is full of studies that define "interdisciplinary studies", and all the studies that related to the "interdisciplinary studies" agreed that the "interdisciplinary studies" involve researchers from different institutes and disciplines to solve a problem that is hard to solve by a single discipline. With respect to historical development of "interdisciplinary studies", the study found that, as a term, it appeared in the 20th century, but as a practice, it is imbedded in the work of old societies, where several millennia ago, the Mesopotamians, the Egyptians, and the Greeks put interdisciplinary into practice.

INTRODUCTION

In this changing world, which depends on research, science and technology the integration of disciplines is to solve the problems of humanity and to bring innovations. We need the interdisciplinary studies because as Stephenson (2017) believes single-discipline research may have limited effectiveness if it fails to take into account cogent knowledge from other fields, and especially if it fails to communicate using terms that are meaningful to other disciplines and to policy makers. The problem for humanity

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Historical Development of the Interdisciplinary Studies

as a group and as an individual is not the same and is not related to a single factor or a reason by itself; it is related and connected to different reasons. Therefore, it needs several disciplines to solve it too. In other words, it means that we need an interdisciplinary vision to address any problem from different angles. Klein & Newell (1998) introduced interdisciplinary researcher as: a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to deal with adequately by a single discipline or profession. The feature of interdisciplinary research as Klein & Newell (1998) continue [It] draws on disciplinary perspectives and integrates their insights through construction of a more comprehensive perspective (p. 393-4). This is in agreement with Sternberg (2009) who says when a society faces a problem, it needs an individual who has some background in each of the areas so that he or she can understand the issues from a variety of disciplinary standpoints, rather than just his or her own. In the absence of such background, the individual is like a blind person feeling one part of an elephant, but not understanding that it is an elephant that he or she is feeling.

In our world, there is no way to avoid interdisciplinary research if we want to develop the humanity and if we want to understand the whole picture of the problem. In the last five years, the humankind has faced several diseases such as bird flu, Ebola, Salmonellosis, etc. These diseases need different visions and several disciplines to understand the disease and to find a way to prescribe an effective treatment. For example, we need to understand the environment of that place, so we need someone from Geography. In the Arab world, the concept of interdisciplinary studies is new and recent (only around seven years old concept) and it is the same in the West world. For example, in Europe the concept of “interdisciplinary studies” is novel too. For ages, the scientific world was isolated from each other and depended on the individual research. It did not know the interdisciplinary studies. So, is the “interdisciplinary studies” a novel field? What is “interdisciplinary studies”? Is it an achievement of the new era? How did these “interdisciplinary studies” develop? Do we need it in our modern life?

BACKGROUND

Researchers from different disciplines use different terminology to understand “interdisciplinary studies”. For example, we hear about “interdisciplinary studies”, “multidisciplinary” as well as “the study of interdisciplinary”. In this literature review, we will focus on “interdisciplinary studies”. i.e. the “definition of interdisciplinary studies”.

The study by McGonagill (1995) titled “Defining, developing, and modeling interdisciplinary curriculum” attempts to define the interdisciplinary curriculum starting by defining the “interdisciplinary” itself. The problem of the study was that those teachers who are under increasing pressure from district and building administrators are expected to develop interdisciplinary units. Unfortunately, neither they nor local administrators are able to describe interdisciplinary curriculum in specific terms. Therefore, this study analyzed the theoretical foundations of interdisciplinary curriculum as a means of providing a definition for such a curriculum. A conceptual definition of interdisciplinary curriculum was developed based on a systematic review of the structure of knowledge, conceptualizations of curriculum, and curricular terms that are often used synonymously with interdisciplinary curriculum. This conceptual definition provided the foundation for a multi-step process to create curriculum that addresses the critical attributes of the definition and enabled developers to distinguish it from other curricular terms.

The study by La Fever, (2008) about the interdisciplinary teacher education: Reform in the Global Age believes that the global age can be understood as an era of interdisciplinary studies and the complex

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