Understanding of Research Culture Levels: A Review of Literature

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Abstract
The purpose of this study is to obtain a deeper understanding of the meaning and research culture approaches in educational organizations. Various models of the literature review and the related research on research culture which is used in this review, therefore the definitions and research culture elements described based on organization culture. This study concludes by identifying and providing an overview of the four-phase approaches to the research culture that consists of creating, growing, developing, and nurturing a research culture.

Keywords: Establishment, developing, research culture, research productivity.

Introduction
Generally, the research serves to provide and increase human understanding of the development of science through research (Thompson, 2003; Tien, 2007; Zolfaghari, Sabran, & Zolfaghari, 2009). Specifically, research activity aims at generating a new knowledge from a variety of disciplines (Cheetham, 2007; Gardner, & Nunan, 2007). In fact, some people do not understand the research activities as more appropriate dominant views and associated with productivity. Thus, there is a paradigm that every individual will be judged how much research he/she has produced which can be physically measured from the output through scientific products and other publications.

Nowadays, the levels of research productivity in higher education institutions can be seen from the number of scientific publications produced (Altbach, 2009; Babu, & Singh, 1998; Brotherton, 1998). Although, scientific publication is not one standard size that is ideal for measuring research productivity, but Green, (2005) states that scientific products and publications are the proof of the excellence of educational institutions. Thus, the factors that affect the productivity of research become positive topic in effort to improve the productivity of research in higher education institutions.

Furthermore, Bland, & Ruffin, (1992) explains the factor that influences a research productivity environment is a research culture. Thus, Altbach, (2009) said that the term research culture become a topic of debated either at the scientific forum or even on a regular discussion among academics and policy makers related with strategies in increasing research productivity. Therefore, the debate will end if the establishment a research culture more deeply understood in an educational institution. Establishment of a research culture can not only be seen on one side because every educational institution has a different academic environment, so it requires a different approach to suit the environmental conditions of an educational institution.

Essentially, research culture related to the academic environment in which research activity is not only appreciated and seen as a result of scientific work but as an integral aspect of a routine activity in an educational institution or other organization (Serow, 2000; Shrivastava, & Mitroff, 1984; Skoie, 2000; Thompson, 2003). Therefore, the research culture can be understood and viewed as an approach that has four distinct phases in the process of any environmental conditions, namely (i) creating a research culture, (ii) growing a research culture, (iii) developing a cultural research, (iv) nurturing a research culture. Thus, the correspondence between the levels of research culture phase with the academic environment of an educational institution can boost the productivity of research effectively and efficiently.
Studies on research cultural term raise some common perceptions, among which is research culture can be seen as organizational culture or whether research culture is a combination of research activity become a culture into the organizational that were previously not considered a part of the cultural activities, or research culture only limited understanding of the process in creating a new knowledge sustainably and collectively. Thus, the perceptions bring out many different understandings of research cultural. Therefore, the research culture studies in this paper will be based on these views and perceptions.

Tierney (1988) conveys that the study of culture in the organization will generate a lot of definitions, but the definition is sometimes used to make adjustments on a goal. Thus, Tierney said that the term culture in research is generally understood as a set of beliefs, attitudes and values that exist within an organization. Tierney interpret the term "common" in the collectivity of member organizations that have beliefs, attitudes and values are the same, despite the fact that it is difficult to be realized, especially in an institution of higher education.

Research culture is a set of values, beliefs, assumptions and behaviors related to the implementation of research that owned by the organization collectively (Nadeem, 2001; Parker, 2007). Meanwhile, Mike, & Phil, (1998) interprets the research culture as an activity that has become a custom in the form of research activity that is based on a norm or rule and planning by members of the organization, so that it becomes a collective activity. In the context of organizational culture, Schein, (1996; 1999) defined that research culture can be positively understood as a form of basic assumptions about the creation, discovery and development of knowledge through research activities by certain groups that can be passed down and taught to the next generation. Therefore, the research activities in the cultural perspective into the attributes that implemented collectively are dynamic and may change from time to time.

According Studman (2003) that research cultural is a knowledge about the process of research that refers to the value which consists of the beliefs, assumptions and principles are supported by rules as a norms that implemented in the form of behavioral research. Similar expressed by Bazeleya (1994) and Morgan (2006) that research culture is a series of values, beliefs, principles, assumptions that framed in a rules as cultural norms related to conduct of research within an organization. Thus, the research culture can be understood and seen as common perceptions about the implementation of research held by members of the organization in a system of shared meaning collectively.

Research culture reflects the values, ideals and beliefs about research in the organization, thus it can be reflected in the behavior simply, implementation and research symbols of organizational (Hill, 1999). Furthermore, Hill illustrated that the research culture similar as the teaching culture at the teaching university, in which there is the values and style of teaching, and management culture contained the values and managerial styles, including research culture will reflect the values and style of research in it. Therefore, it is very interesting to see how an organization view the values and classify the support for the implementation of the research.

Principally, that beliefs, attitudes and values about research held and owned by the members of the organization which derived from the history and the organization environment itself (Hofstede, 1984; Kwon, et al., 2000; Michael & Walton, 1987; Robbins & Judge, 2006). Thus, Deem & Lucas (2007) viewed that the research culture would appear to be obvious when there is a special language of a general nature about the conduct of research and some common agenda such as the process and the appropriate sanctions. Therefore, the tradition and the history of the research group will determine the success of an organization in establishing a research culture. Thus, the induction and socialization to new staff is essential in improving or building a research culture.

However, the research culture should refer to the pattern of basic assumptions about research. Not only limited to what to be done by a researcher, but more specifically why he/she was doing research. Therefore, the purpose of reviewing the question of why, it means will find the core values and philosophy of research. So, it can be concluded that creating, growing, developing and nurturing a research culture requires effort and a long time.
Identification of Cultural Research

Research culture studies specifically carried out by Ferguson (1999) at the University of Waikato, began his studies with the quote from Tripp (1990) related to teaching. He said that the content of the teacher culture consists of attitudes, values, beliefs, habits, assumptions and ways of doing that is owned collectively in a community or group of teachers. Thus, the content of the culture of the teacher can be seen from the way they think, reveal and do. Therefore, if the content of teacher culture is translated into research culture, then Ferguson assumes that the values, behaviors, and ways of conducting research, then research culture can be identified within an educational organization, especially in higher education institutions.

Similarly, Schein (2010) identifies research culture with refers to the organizational culture literature through six general meanings of culture in the organization. Then, Schein translates the six general meanings intended are:

1. Observe the regularity of behavior when engaged in the conduct of research, such as language and ritual used.
2. Observe the norms that developed in the research group or research environment.
3. Observe the dominant value of research supported by the organization, such as the used of research focus.
4. Understand and identify the philosophy on which to base policy on the implementation of the research organization.
5. See and understand the procedures or regulations of research implementation in organizations, such as whether new members learn to be researchers that can be accepted by the organization.
6. Feel the environmental climate related with research implementation in organizations through research facilities and administrative processes as well as how researchers interact with others in the organization.

Identify the values and collective behavior that is manifested in the research implementation equal to identify the research culture within the organization. Then, Hill (1999) describes in detail the aspects that are the focus in identifying and analyzing the research culture within an organization, including higher education institutions, namely:

1. Reviewing the process of socialization and discussions to each new member related to the implementation of research. Socialization process and discussion are intended to determine; (i) why he wants to do research, (ii) whether he had done the previous research, (iii) whether he understood about the conduct of research, (iv) how the relationship of research to teaching.
2. Assessing primary focus and the core status in the history of the organization trip. The goal is to determine; (i) whether the organization is suitable to develop research culture, (ii) whether position or organizational chart decline or on the verge of decline, or (iii) whether the organization has stagnated. The answer from the results of these questions is intended to provide instructions and guidelines on what benefits the organization when conducting development research culture.
3. Examine the selection process and do the proper selection. The purpose of selection and process are done to find out; (i) what kind of person it takes to be recruited into the organization, (ii) whether the organization requires a researcher, practitioner or teacher, (iii) the kind of person suited to do the work within the organization. The aim of the question is to know the internal and external perceptions of the organization.
4. Identify any problems in the implementations of research in order to find similarities and differences.
5. Conduct the in-depth study of the beliefs, values and research assumptions are developed through the use of stages techniques (laddering technique). This procedure involves the technique of asking people to list of questions about what they are doing, and then ask why they are doing and what they are doing and so on to ask why.
6. Identify and examine the symbols, traditions, physical objects, behavioral characteristics, the language that associated with the research implementation of existing in the organization.
7. Conducted a surveys through various dimensions of research environment climate, both internally and externally to determine the perceptions about research. The intent of the survey was to determine: (i) whether the implementation of research is covered by a regulation or not, (ii) whether the leader, supervisor or head of research institutes that know or don’t know research is being conducted, (iii) whether the organization of research resources is sufficient or not.

However, the aspects mentioned above become the focus on identifying and analyzing the research culture within an organization. But, to all the aspects must be studied and explored synergistically then synthesized into one description become a scheme of a research culture.

Levels of Cultural Research

Establishment of a research culture dominantly is always being connected with new universities and the university is undergoing a transition from an academic environment that does not emphasize on research into the demanding environment of research activities. Even Kim (2005) and Levin & Stephan (1989) expressly say that encouraging research culture aims to increase the volume of research and publication is appropriate for faculty status is still young and new educational institutions upgrading to the university form. However, this point of view is not a negative but a deeper understanding is needed to see the universal research culture. For those who are relatively new university or faculty that important need is to establish or formed a research culture.

Number of studies and research literature on cultural research have been carried out in a variety of models to be a basic of consideration in elaborating the research cultural levels, among which; (i) growing a research culture at the university of Botswana by Studman (2003), (ii) developing research culture in Philippine higher education institutions by Salazar & Almonte (2003), (iii) developing a research culture in a university faculty” di School of Management Studies, university of Waikato by Pratt, Margaritis, & Coy (1999), (iv) developing a research culture in a Polytechnic at Waikato polytechnic by Ferguson (1999), (v) Building a research culture in nursing by Polk (1989), (vi) fostering a research culture in nursing by Thompson (2003), (vii) nurturing research culture in Malaysia by Habibah Ahmad, Hamzah Jusoh, & Amriah Buang (2001).

Based on the results of the research that have been carried out in the context of the research culture indicates that the establishment of a research culture based on the interests and the goals, as well as organization conditions. The universities are relatively new in emphasizing the importance of research activity suitable when it created a research culture, and the universities that has had a pattern of research environment, it is suitable for growing a research culture. Meanwhile, the university has established a research culture but not too strong, it is necessary to develop the research environment to be healthy. Then, after the research environment has become strong (strong research culture), so the university needs to make a strategy to preserve the research environment kept strong.

However, the ideal research culture can be described through several phases in the process of creating, growing, developing, and nurturing. Simply that the fourth phase of the process in establishing a research culture can be described as planting the seeds of a tree (creating), the seed grow into a tree buds (growing), the buds develop into a tree (developing), and keep the tree to remain fertile and survive (nurturing).

Conclusion

The high productivity on research is always measured with a complete research facilities and the a huge financial support. Thus, caused some new universities does not have a research planning visionary. Whereas, the establishment of a research culture is one path toward achieving productive of research economically. In fact, a strong research culture assumption would bring high research productivity. Meanwhile, high productivity in scientific work is not a guarantee to reflect the strong research culture and healthy. Although, scientific publications are one of the embodiments of the research culture.
However, there are differences between research culture and research productivity. Research culture is seen as something that is relatively stable and may persist over time. While the research productivity is the same as organizational atmosphere can change from season to season. Therefore, the establishment of a strong research culture not only requires the good human resources and research infrastructure, but it takes a long time with good planning. Thus, it can create an environment climate has a strong research.

References


