

Identifying and Prioritizing Strategies for Realizing Reflective Creativity in Universities Using Interpretive Structural Modeling (ISM)

Seyed Hedayat Davarpanah^{1*}, Reza Hoveida²

1. Assistant Professor, Department of Education, Faculty of Education and Psychology, University of Isfahan, Isfahan, Iran. (*corresponding author*) E-Mail: h.davarpanah@edu.ui.ac.ir
2. Associate Professor, Department of Education, Faculty of Education and Psychology, University of Isfahan, Isfahan, Iran E-Mail: r.hoveida@edu.ui.ac.ir.

Abstract

Introduction : In the last few decades, several studies have emphasized the necessity of facilitating creativity in higher education and academic environments. However, researchers have rarely studied reflective creativity and how the university institution can creatively reflect on its procedures and activities and evaluate and revise them. Therefore, the aim of this study was to identify and analyze the strategies for realizing reflective creativity in academic environments.

Method: This research is based on purpose, applied and based on method, exploratory mixed (qualitative-quantitative). The potential participants of the present study included university professors and elites with significant expertise and scientific experience in the field of creativity in higher education. In the qualitative part, the data collection method were semi-structured interviews which was conducted with 25 interviewees using the purposeful sampling method of opting for key experts type and theoretical saturation as a criterion. Also, in the quantitative section, 9 experts responded to the researcher-made questionnaire extracted from the qualitative section using the focus group method. Finally, We employed thematic analysis in the qualitative part qualitative part and the ISM approach in the quantitative part for data analysis.

Results: The results of the qualitative part showed that the strategies for realizing reflective creativity in the university included: 1. Establishing institutional research offices; 2. futurology; 3. Acceptance of pluralism in different dimensions; 4. Free circulation of knowledge and information; 5. Supporting critique and theorizational chairs; 6. Holding open tribune; and 7. designing local creative evaluation systems. The results of the quantitative section also showed that according to experts, the identified strategies are placed in five levels. so strategies 5 and 6 as **driver** variables at level four; Strategies 1 and 4 as **linkage** variables at level three; And strategies 2, 3 and 7 were placed as dependent variables at levels two and one.

Conclusion: This research has made it possible to better understand the issue and adopt appropriate policies and measures to realize reflective creativity in academic environments by identifying the strategies and leveling and determining the relationships between them.

Keywords: Strategy, Reflective Creativity, Thematic analysis, Interpretive Structural Modeling

Introduction

In the past decade, creativity has been developed under new titles and terms such as the creative age, creative economy, creative industries, creative citizen, creative class, and creative cities (Means, 2013). The term that has recently been raised by researchers and thinkers in the field of higher education is the "creative university". So that some believe that the era of the creative university has begun and universities, in order to become places for the "desired future", will be forced to realize the instability of collective creativity (Lund & Arndt, 2018). According to Barnett (2020), the idea of a creative university works at least at five levels, and the creative university is only fully realized when all five levels are achieved. These five levels are: 1) intellectual/rational creativity (creativity in research, knowledge production, scholarly activities); 2) pedagogical creativity (creativity in curriculum design and educational processes); 3) learning creativity (encouraging creativity in learning environments, creativity in student assignments); 4) environmental creativity (creativity in its own international and transnational activities, in interaction with the world of business and industry); 5) reflective creativity (in openness to discussion and dialogue throughout the university about the possibilities of its future, in criticizing its own activities). According to the Barnett model, each level of academic creativity in the Barnett model has a certain degree of independence (Barnett, 2020). However, among the forms of academic creativity, reflective creativity has a special place and is one of the most important prerequisites for the realization of creativity at other levels and in general, the realization of the idea of a creative university, which needs to be considered.

Barnett's (2020) model suggests that facilitating creativity in the university requires understanding creativity in various fields (research, teaching, learning, environment). What it means to be creative in each field. Meanwhile, reflective creativity is a priority and requires more attention from academics, thinkers, and researchers. A review of the research literature indicates that in recent decades, numerous studies have emphasized the need to facilitate creativity in higher education and university environments, however, reflective creativity and how the university institution can creatively reflect on its procedures and activities and evaluate and revise them, has been less considered by researchers. Therefore, the present study was conducted with the aim of identifying and analyzing the strategies for realizing reflective creativity in university environments.

Materials and Methods

This research is based on purpose, applied and based on method, exploratory mixed (qualitative-quantitative). In fact, this research was carried out in two main stages. In the first stage, the potential participants included professors and academic experts specializing in the subject area of the research from all over the world. Sampling was done using a purposeful approach and by selecting "key experts". The sample size was based on theoretical saturation, so that the interviews continued until theoretical saturation was reached, and finally, 25 interviews were conducted (17 interviews with Iranian experts in person; 8 interviews with experts from all over the world via email). In the qualitative stage, a semi-structured interview

was used to collect data. Data analysis was done simultaneously with data collection and using the thematic analysis method. Finally, in order to ensure the validity of the obtained data, while comparing the data and summarizing and categorizing the information through repeated study, the method of reviewing the collaborating researchers was used.

In the second (quantitative) stage, in order to establish a relationship between the identified strategies extracted from the qualitative stage and to achieve its structural pattern, the interpretive structural modeling (ISM) method has been used. Considering that the ISM approach is based on the judgment of experts, in order to collect data, a focus group consisting of 9 faculty members of the country's universities who also participated in the qualitative section was used. The research instrument was an ISM questionnaire extracted from the qualitative section. In order to ensure the content validity of the compiled questionnaire, the Lawshe method (1975) was used and its validity was confirmed. After ensuring the validity of the designed questionnaire, the questionnaire was adjusted in accordance with the ISM method and in the form of a square matrix and provided to the participants. Finally, the data collected in the quantitative section were analyzed with ISM software.

Findings

The results of the qualitative part showed that the strategies for realizing reflective creativity in the university included: 1. Establishing institutional research offices; 2. futurology; 3. Acceptance of pluralism in different dimensions; 4. Free circulation of knowledge and information; 5. Supporting critique and theorizational chairs; 6. Holding open tribune; and 7. designing local creative evaluation systems. The results of the quantitative section also showed that according to experts, the identified strategies are placed in five levels. so strategies 5 and 6 as **driver** variables at level four; Strategies 1 and 4 as **linkage** variables at level three; And strategies 2, 3 and 7 were placed as dependent variables at levels two and one. The final model obtained in the present study is presented in Figure 1.

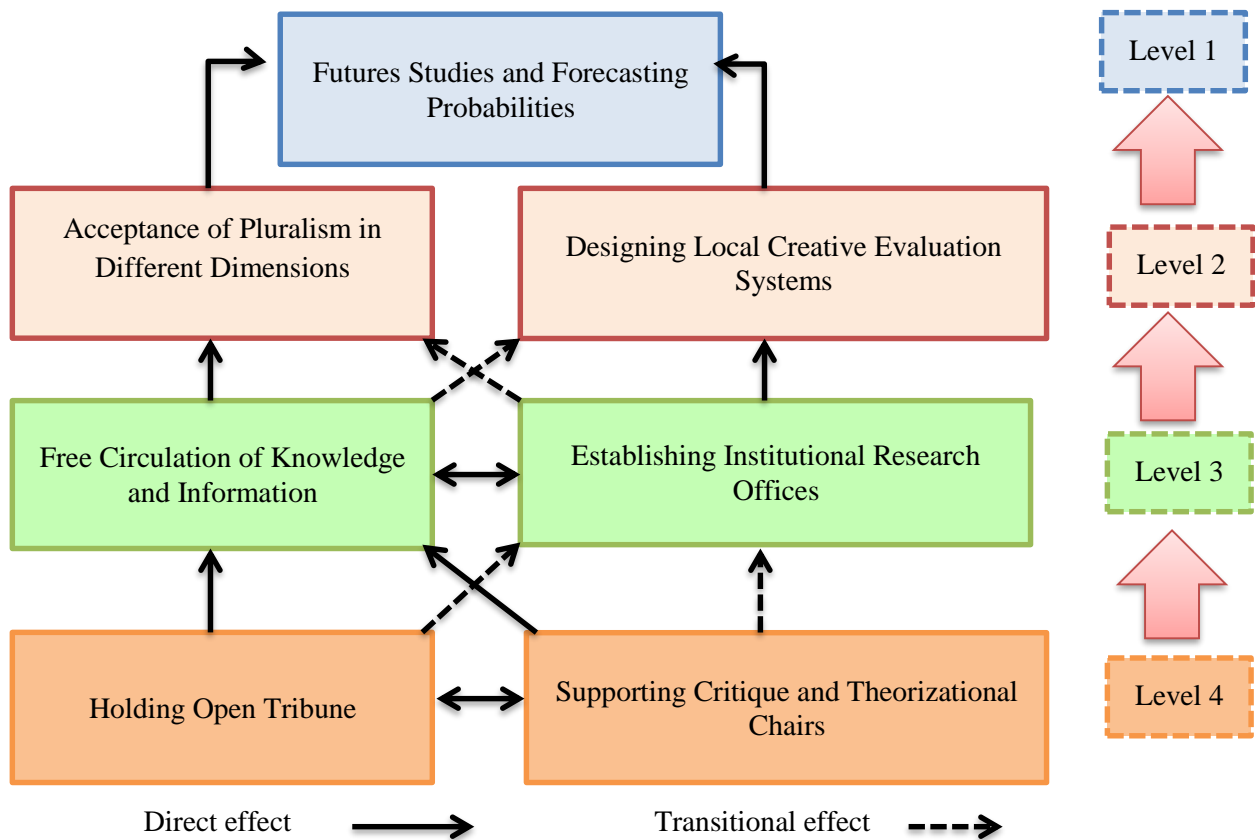


Figure 1: interpreive Structural Model of Reflective Creativity strategies in the University

Conclusions

Undoubtedly, progress towards a knowledge-based society and economy requires that universities, as centers of knowledge creation, always pay attention to creativity. In other words, it can be said that due to the role of universities in social and economic development, the need to improve and foster creativity in university environments is more evident than ever (Gaspar & Mabic, 2015). The present research, by identifying the strategies and leveling and determining the relationships between them, has provided the possibility of a better understanding of the issue and adopting appropriate policies and measures in order to realize reflective creativity in university environments.

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