Extended Abstract

A Glance on the Network of Scientific Collaborations in Graduate Theses of Al-zahra and Shahid Beheshti Universities

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ABSTRACT: *Master's theses and specialized PhD theses that appear in the research process at these stages are among the important scientific documents of every country. Describing and analyzing data from these documents together, by itself and also compared to data from other sources, can provide new information that is very valuable. However, there is no unified and comprehensive model for such description and analysis. A thesis or dissertation, as a type of document, contains data by itself, some of the most important of which are content, form, originators, institution, and history. The data of theses and dissertations can be analyzed based on each of these data and also in comparison with each other. This analysis also shows the trends of their changes over time for each group of data. If we include data from other sources in this process, the scope of analysis will increase. In this way, in addition to the mentioned data, the scope of analysis can be increased by using data such as professors' information, students' information, and institutions' information. In research and academic environments and discussions about scientific collaborations, co-authorship is considered the most visible and accessible indicator that is used to measure the amount of scientific collaborations. The present study examines the network of scientific cooperation in master's and doctoral theses of the Faculty of Educational Sciences and Psychology in Al-Zahra and Shahid Beheshti University. In most of the texts, researches on the network are co-authored articles. But this research focuses on the scientific cooperation of the department members with each other and with other universities to guide and advise theses. It also evaluates the scientific output of theses. Therefore, the goals of this research are:- Mapping and analyzing the network of scientific cooperation in theses and doctoral theses using macro indicators;- Investigating the performance of researchers based on production and centrality indicators.The current research is a scientometric type and uses the network analysis method co-authored by researchers and social network analysis indicators. In the current research, the network of scientific cooperation in theses and PhD theses is analyzed at two macro and micro levels. The macro indicators of social network analysis examine the configuration and possible functioning of the social structure, the function of the authors, and the general characteristics of the networks. Among the available indicators for the analysis of networks at the macro level, in the present study, the density, clustering coefficient, network constituent components, and network diameter are examined. For nodes, it is determined based on the principle that connections to high-scoring nodes contribute more to the score of a particular node than to low-scoring nodes. Also, the cooperation coefficient, cooperation index, and cooperation degree were calculated based on the following formulas for the desired years and then for the total number of years.*

Keywords: Co-authorship Network, Social Network Analysis, Density, Clustering Coefficient, Components, Mean Distance, Centrality Measures, Degree Centrality, Betweenness Centrality, Closeness Centrality, Alzahra University, Shahid Beheshti Univesity, Thesis

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