

The Critical Size of Research Groups and It's Study in Iran

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The critical size of research groups is one of the most important factors that affects on the quality of the research. Varied empirical studies show that the average output of a scientific research group is directly proportional to its size and there is linear relationship between the quantity and quality of the scientific research group. But recently simple, sociophysical, agent-based model was used. The model suggests a linear relationship between group research quality and group quantity up a certain limit. It further suggests that above this size, research quality no longer increases significantly with group quantity due to a tendency for large research groups to fragment. This certain limit is upper critical mass that varies according to the field. Statistical studies on life sciences and biomedical topics of Iranian scientific community showed that the size of these research groups are very low than upper critical mass and it is necessary to improve the quality of Iranian research groups.

Keywords: The Critical Size of Research Groups, Critical Mass, Quality and Quantity of Research Groups, Size of Research Group in Iran.

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