USE OF CONCEPT MAPS AS AN EFFECTIVE TEACHING TOOL FOR BLOOD CIRCULATORY SYSTEM

AND ASSOCIATED DISEASES IN GRADE 10 BIOLOGY

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During the teaching learning process to get the maximum outcome the teacher has to adopt efficient and effective teaching strategies. They are designed to promote meaningful learning, relies upon connecting prior knowledge to new concepts. The concept mapping is a tool, which was based on the learning psychology of David Ausubel and Joseph Donald Novak is one of the strategies which can be used as a tool to connect the prior knowledge with the new knowledge. It is a graphical tool for organizing and representing knowledge. It includes concepts, enclosed in circles or boxes, and relationships between concepts linked by linking words. The research was done to find out the effect of concept maps for teaching Biology. The most suitable Biology lesson to teach using the concept maps was found by doing interviews and surveys with the teachers and students. It was "Prevention of diseases related to main systems in the human body". Out of these four systems my special attention was paid on the "Circulatory System" The research was based on four objectives. The above mentioned objectives were achieved by using both qualitative and quantitative research methodologies. Four concept maps were prepared to teach the lesson. The experimental groups were taught using the concept maps and the control groups were taught according to the teachers' instructional manual. Finally both groups were given the same test paper. The statistical calculation was done using the Excel and Mini tab. The data were analyzed using one tail t – test. The Assertion "Use Concept Maps to Enhance the Collaborative learning and Peer Learning" was formed and an attitudinal survey was done. According all these results the new teaching method was more successful than the normal method. Finally following recommendations were made, integrate the prior knowledge with the available knowledge using the concept maps, the teacher can use the concept maps as a pre-reading strategy, it helps students to brainstorm and generate new ideas, and the teachers can use concept maps for lesson planning, as an assessment tool and for summarizing.