

Abstract:

The aim of the research is to identify the effectiveness of technology learning centres in developing some creative thinking skills among 8 deaf middle schoolers (1st grade). The researcher used the one-group quasi-experimental designs in which both groups were pretested and post tested. The prescribed environmental unit for first-grade middle school students was taught in the first semester using technology learning centers. Torrence Test of Creative Thinking (Figures –Image B) was administered to participants. There is a statistically significant difference at the 0.01 level between the average levels of hearing-impaired students in the first year of the middle grades in favor of the posttest.

Key words:

Technology learning centers – creative thinking skills – hearing impaired.

Introduction:

Creative thinking skills are crucial skills to develop for the hearing impaired learners in the twenty-first century, being prerequisite for scientific progress that may enable the hearing impaired to learn and face the challenges facing them in the future.

The hearing-impaired person faces many problems due to the negative impact on his interaction and communication with others, and on the skills he possesses, which qualify him to continue studying and working. Therefore, teaching approaches and strategies should be used in a way that suit the characteristics of the hearing impaired, their needs, the nature of their disability and contribute to their education and rehabilitation. (Muhammad and Amer, 2008, 195)

Pchenitchnaia (2007,6) and Ballinger (2011,3) mentioned that learning centers allow students to acquire knowledge, see concepts and skills in different ways and methods in a way that suits the individual differences.

Providing scientific material and richer activities, technology represents a tool for diving deep into the subjects, especially science. The role of technology depends not

only on the acquisition of knowledge, but also on the acquisition of basic skills of importance adopting the logic of the "era of information explosion" .

Therefore, attention must be paid to introducing technology in teaching science, whether using technological devices in teaching science, or using educational programs. (Riyadh, 2000, 641).

As a result of the opportunities offered by learning centers and the use of technology in the teaching and learning process, the employment of technology within learning centers can contribute to the development of many skills necessary for the hearing impaired in the preparatory stage, including creative thinking skills.

Making sense of the problem

The development of creative thinking skills is one of the most important outputs of learning science in the twenty-first century. Through these skills, the hearing impaired can learn a lot of competences through experience, discovery, application, and modification of ideas and they can express themselves creatively.

Many previous studies have emphasized the need to develop creative thinking skills for the hearing impaired. Among these studies are Issa study (2004), Al-Qatawi Study (2012), Flores & Rumjanek Study (2015), and Abdullah Study (2017).

Despite the importance of these skills for the hearing impaired, the science curriculum provided for them does not contribute to developing these skills. They are curricula drawn from the general education curricula with some modifications represented in deleting some subjects presented to the hearing impaired who are two years older than the ordinary learners, in addition to their lack of activities and illustrations. Also, the teacher does not care much about using teaching methods and strategies to develop thinking skills among his hearing-impaired students, as he is mostly interested in communicating the education message to them, which hinders the development of their creative thinking skills.