



EFFECT OF PERCEPTUAL SKILLS ON ENHANCING STUDENTS' ACHIEVEMENT IN SCIENCE AT HIGH SCHOOL LEVEL

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ABSTRACT The Present School education system takes effort to render focus on science education by inculcation of perception skill among high school students. On the other hand, efforts have been taken to make students away from rote memory so that the students can have scientific attitude by their perception skills with a view to enhance to learn science in high schools. At this juncture, learner of high schools is expected to do their own research to define the nature of science. Perception is our sensory experience of the world around us and involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about properties and elements of the environment that are critical to our survival. Perception not only creates our experience of the world around us; it allows us to act within our environment. Perceptual skills are entirely different from perspective learning. However perceptual skills have more influence on learning content. As far as science is concerned, perceptual skills plays a vital role in learning science content and concept in scientific and systematic manner. At high school level, many students lack in spirit of learning science and on the other hand science teachers give more importance for theoretical knowledge than practical aspects. Science education is more important to make the students aware of environment and also make them adapt to the prevailing environment Science without religion is lame, religion without science is blind. The perceptual skills alone help the students to enhance their achievement in science and this study took more efforts to improve science learning of the students through perceptual skills only. Teachers may achieve the scientific goals and therefore the investigator rationally presents the study to find out effect of perceptual skills for enhancing students' achievement in science at high school level.

KEYWORDS : Perceptual skill, Science, Achievement and High school

INTRODUCTION

The Present School education system takes effort to render focus on science education by inculcation of perception skill among high school students. On the other hand, efforts have been taken to make students away from rote memory so that the students can have scientific attitude by their perception skills with a view to enhance to learn science in high schools. Science is just as important as learning other subjects like mathematic, history and languages. Because, the subject is so vast, learning from students early learning days will enable them to decide whether they want to pursue a higher education in the subject. Perception is our sensory experience of the world around us and involves both recognizing environmental stimuli and actions in response to these stimuli. Through the perceptual process, we gain information about properties and elements of the environment that are critical to our survival. Perception not only creates our experience of the world around us; it allows us to act within our environment. Perception includes the five senses; touch, sight, sound, smell, and taste. It also includes what is known as perception, a set of senses involving the ability to detect changes in body positions and movements. It also involves the cognitive processes required to process information, such as recognizing the face of a friend or detecting a familiar scent. It is indeed that the perceptual skills play a vital role for the development scientific knowledge even at high schools level (Saravanakumar.AR (2013). Perceptual skills are entirely different from perspective learning. However perceptual skills have more influence on learning content. As far as science is concern, perceptual skills plays a vital role in learning science content and concept in scientific and systematic manner. At high school level, many students lack in spirit of learning science and on the other hand science teachers give more importance for theoretical knowledge than practical aspects. Science education is more important to make the students aware of environment and also make them adapt to the prevailing environment Science without religion is lame, religion without science is blind. The perceptual skills alone help the students to enhance their achievement in science and this study took more efforts to improve science learning of the students through perceptual skills only. Teachers may achieve the scientific goals and therefore the investigator rationally presents the study to find out effect of perceptual skills on enhancing the students' achievement in science.

NEED AND SIGNIFICANCE OF THE STUDY

Scientific Knowledge remains the mother of invention to make nation compete with world countries the development scientific attitude

among the high school becomes a question hang. Learners must learners and that it is dynamic process, without specific procedures competing theories exist in many areas of science learners also try to understand the difference between a scientific question and non scientific question i.e philosophical question. They may be aware of scientific developments are communicated to the scientific world. They may also demonstrate that they are aware of the general perception about science as indicated in the content designed at high school level.

It is generally identified that the teachers at high school level may lack in spirit of developing perception skills and scientific attitude. It is also known that there has been inadequate science apparatus which suit to content designed at high school level (Saravanakumar.AR (2016). Learners are seldom taken to the laboratory and thus they feel difficult to know the names and use of the available science instruments. It is further identified that the learners of high school are taken to science have ever felt for a week before the practical exam they are permitted to meet out the requirement of practical exam not or perception skill influencing the enriching learning achievement in science at high school level. Most of the science teachers preferred to use chalk and talk method to teach science content. This study took effort to develop perceptual skills to make a great effect on enhancing learning achievement in science at high school. Therefore, the investigator made an attempt bring the title "Effect of perceptual skills on enhancing students' achievement in science at high school level".

OBJECTIVES OF THE STUDY

1. To identify the level of perceptual skills among students at high school level
2. To identify the perceptual skills to be incorporated on selected lessons taken for the study
3. To prepare an instructional plan for the selected topic using perceptual skills in science
4. To develop the perceptual skills through some activities related to science
5. To conduct experiment for students who are familiar in perceptual skills related to science
6. To find out the effect of achievement of students perceptual skills through pre and post test
7. To find out the significant difference between students achievement in science who are studying high school with relation to certain demographic variables

RESEARCH METHOD

In the present investigation, experimental method was adopted. The stratified random sampling was adapted after treatment given, this study made an attempt to find out the differences between pre/post test for learning achievement in science incorporating with perceptual skills.

SAMPLE

The present study sample was selected by using a simple random sampling technique. From the population of IX standard students, a school namely Gurukulam High School School, Amaravathipudur, Tamil Nadu was selected; in the selected school a homogeneous group of 37 students were identified.

HYPOTHESES

Hypothesis 1: The level of perceptual skills in learning achievement of science will be high

Test	N	Percentage (%)
Pre Test	37	37.77
Post test	37	62.22

It is inferred that the level of percentage in pre test of experimental group 37.77 It is inferred that the level of percentage in post test of experimental group 62.22. The level of percentage in post test is higher than the pre test. The level of perceptual skills in learning achievement in science in Post test of experimental group is higher than the Pre test of experimental group.

Hypothesis: 2 There is no significant difference in the mean value scores of the experimental group students in their pre test and post test for perceptual skills.

Test	N	Mean	SD	t	*Level of significance
Pre test	37	45.51	10.47	12.12	S
Post test	37	74.97	10.42		

*Significant at 0.05 level 1.99

The pretest mean score is found to be 45.51 and post test mean score 74.97 for the experimental group. The mean difference is obtained as 29.46. Since the calculated 't' value 12.12 is higher than the table value (1.99) at 5% level, it is inferred that there is significant difference between the mean value scores of the experimental group students in their pre test and post test for perceptual skills.

Therefore, the stated hypothesis is rejected. It is concluded that there is significant difference between the experimental group pre test and post test scores.

Hypothesis : 3 There is no significant difference in the mean value scores of the experimental group students in their retention test and post test for perceptual skills.

Test	N	Mean	SD	t	*Level of significance
Post test	37	74.97	10.42	2.68	S
Retention test	37	75.91	9.59		

*Significant at 0.05 level 1.99

The post test mean score is found to be 74.97 and retention test mean score 75.91 for the experimental group. The mean difference is obtained as 0.94. Since the calculated 't' value 2.68 is higher than the table value (1.99) at 5% level, it is inferred that there is significant difference between the mean value scores of the experimental group students in their post test and retention test for perceptual skills.

Therefore, the stated hypothesis is rejected. It is concluded that there is significant difference between the experimental group post test and retention test scores.

CONCLUSION

The present study has provided the effectiveness of perceptual skills on the achievement of science at high school level. At high school level, many students lack in spirit of learning science and on the other hand science teachers give more importance for theoretical knowledge than practical aspects. Science education is more important to make the students aware of environment and also make them adapt to the prevailing environment Science without religion is lame, religion

without science is blind. Perceptual skills play a vital role in secondary student's science educational achievement in high school academics. It is indeed that the perceptual skills play a vital role for the development scientific knowledge even at high schools level. Science learning may reneweins constant as unchangeable even in the absence of perceptual skills. The scientific research attitude can be developed only by the inculcation of perceptual skills. If there is no important for perceptual skills the students may not have positive and critical thinking. As science education is more important for the students at high school level, teachers may provide opportunities for developing perceptual skills so as to make the students aware of environment and also make them adapt to the environment prevailing in their day to day life.

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