

**Improving Student's Critical Thinking, Creativity, Analytical Power & Scientific Temperament***Dr. Sumit Kumar Gupta¹, Pradeep Kumar² & Nitesh Kumar²¹Dean, Faculty of science, Department of Physics Parishkar College of Global Excellence Jaipur, India²Assistant Professor, Department of Physics Parishkar College of Global Excellence Jaipur, IndiaSubmission Date: 21st Oct. 2021 | Published Date: 30th Oct. 2021

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Abstract

Physics professors hold to stand the assignment of really making ready their college students for the workplace. College college students regularly lack abilities which are valued with the aid of using employers, including vital thinking, creativity, communication, war resolution, and teamwork abilities. Traditional lecture room methods, including lectures, can also additionally fail to supply good enough scholar participation and talent development. More revolutionary methods, like client-based, lecture room projects, are yielding extra favorable outcomes in those areas. To higher put together college students for the physics world, In order that scholars can broaden researching, questioning, vital thinking, hassle fixing and choice making abilities, in order that they end up lifelong gaining knowledge of individuals, they need to be advanced concerning their knowledge, expertise and mindset in the direction of Basic sciences. Attitudes in the direction of physics instructions and bodily experiments of Graduate and Post Graduate college students had been tested for this purpose. Sample of the look at is the a hundred college students decided on a number of the populace with the aid of using random sampling. A questionnaire such as 12 gadgets concerning college students' mindset in the direction of physics instructions and eight gadgets concerning bodily experiments have been used withinside the look at. It changed into located the ones college students' attitudes in the direction of physics instructions and bodily experiments were 75%, which is a few better than the indecisive level, 60 on this research. Some of the scholars are indecision approximately physics instructions and bodily experiments, and also, there are as many college students of terrible opinion as people with a advantageous opinion.

Keywords: Graduate and Post Graduate Physics Education, Physical Experiments, Attitude. Questionnaire**INTRODUCTION**

As a science, Physics performs an crucial position in explaining the occasions that arise withinside the universe. In all occasions that round us may be observed bodily legal guidelines and principles. The traits in physics withinside the twentieth century, it's been extraordinarily a success in that it additionally significantly benefited to the alternative simple and carried out sciences from those traits (Fishbein 1975). Although physics is in each place in our existence and facilitate our lives, countrywide and global research display that achievement in physics schooling is decrease than different disciplines (Gok and Silay 2008; Dieck 1997; Rivard and Straw 2000, Mattern and Schau, 2002). In physics schooling, numerous techniques and strategies may be used in line with the content. Laboratory techniques, which can be the usually used technique that gives everlasting gaining knowledge of, is an academic technique encouraging intellectual sports and permitting college students to paintings personally or in groups (Stack 1995). Laboratory techniques make sure that scholars examine approaches to apply the expertise with this technique in preference to memorizing it. Students enhance their competencies to higher apprehend of concepts, and adapt them to day by day existence in addition to their private competencies, and it offers a advantageous mindset closer to physics classes (Algan 1999, Stack 1995). Physics schooling is in a chronic evolving collectively with the converting global conditions. Therefore, advent of latest gaining knowledge of media withinside the constantly enhancing academic packages and figuring out of the scholars closer to physics classes and bodily experiments in a choice of gaining knowledge of substances and techniques are important for powerful gaining knowledge of of the lectures. Attitudes are associated with managing and control of the feelings taking

place at some stage in gaining knowledge of technique, and that they play an crucial position in directing human behavior. Whether attitudes taking place as a part of a device of values and ideals are advantageous or negative influences gaining knowledge of technique in an instantaneous way and affects destiny lives of individuals (Seferoglu, 2004; Sunbul et al., 2004)

Limitations of the Study

1. This observes is constrained to a hundred college students randomly decided on from Graduate and Post Graduate Parishkar College of Global Excellence Jaipur India in instructional yr 2020-2021.
2. Sample of the studies represents the population.

Methodology

In this examine, we aimed to investigate college students' attitudes in the direction of physics training and experiments, completed collectively with scanning version withinside the Parishkar College of Global Excellence Jaipur India in instructional 12 months 2020-2021

Research Facilities

Research is the soul of better training; hence, studies is the essential goal of the Parishkar College of Global Excellence training.

- ❖ The coaching and studying withinside the Parishkar College of Global Excellence is studies orientated with an purpose to make our college students researchers succesful in fixing all of the issues in their lives. Parishkar College of Global Excellence college students examine with the purpose– “we aren't born to copy the matters however to create and innovate new ideas” that is feasible simplest because of the improvement of the studies mind-set and studies way of life furnished via way of means of the university.
- ❖ All the vital centers together with right infrastructure, library, Internet and system’s are furnished to the school and college students for studies activities.
- ❖ Laboratories for Physics, are wealthy in system’s and to be had for studies activities.
- ❖ Books associated to investigate are bought each 12 months as in keeping with the necessities of the academics and the scholars.
- ❖ Research journals in all of the topics are subscribed for the library.
- ❖ E-library and INFLIBNET centers together with approximately 1.five lacs books and approximately 7000 journals are to be had for studies activities. Wi-Fi facility is to be had withinside the university.
- ❖ College students are endorsed to take part significantly withinside the State/National/ International degree seminars and meetings funded via way of means of the university management.
- ❖ Research way of life is advanced to sell studies mind-set amongst college students and create their hobby in taking over minor/essential studies tasks.

Research Activities

Impact of the studies activities

Proper steerage is being given to the scholars even for his or her small studies practices to orient their mind-set in the direction of studies, to assist them, to formulate hypothesis, to put together questionnaires, to behavior interviews, to gather the data, to research the data, to attract conclusions and to put in writing a record in a right order with explicitness, in a descriptive, analytical and medical language.

- Some of the scholars are engaged in studies paintings on great topics
- Day via way of means of day lecture room practices and studying achievements of the scholars are endorsed, that is the dire want of the country’s better training today.
- The Parishkar College of Global Excellence is engaged withinside the improvement of the studies abilities of the college students in phrases of taking over tasks, making use of experimental coaching and studying procedures blended with studies flair and operating on small studies tasks with greater hobby and involvement to encourage
- The university ascertains that the studies centers furnished in phrases of the library, laboratories and system are used to the fullest via way of means of the scholars It is located that a studies mind-set has been advanced over all and inclination in the direction of taking over studies practices is growing gradually, and an increasing number of studies paintings is to be materialized.

Research Awards

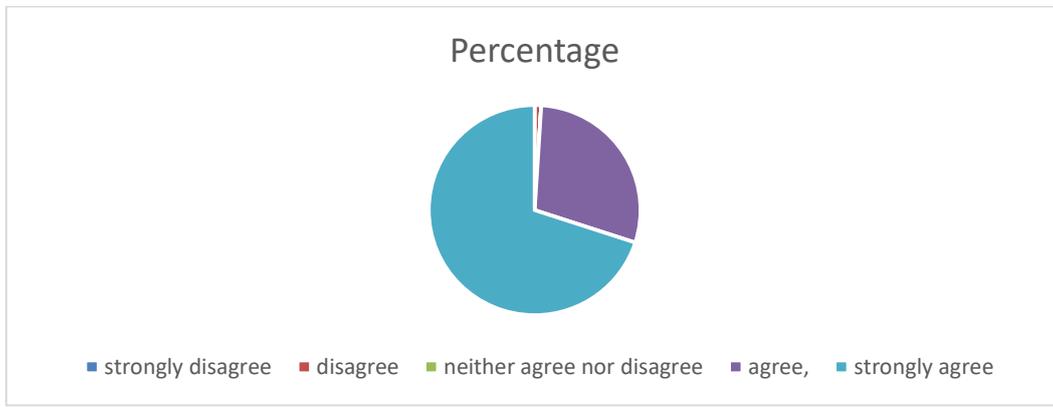
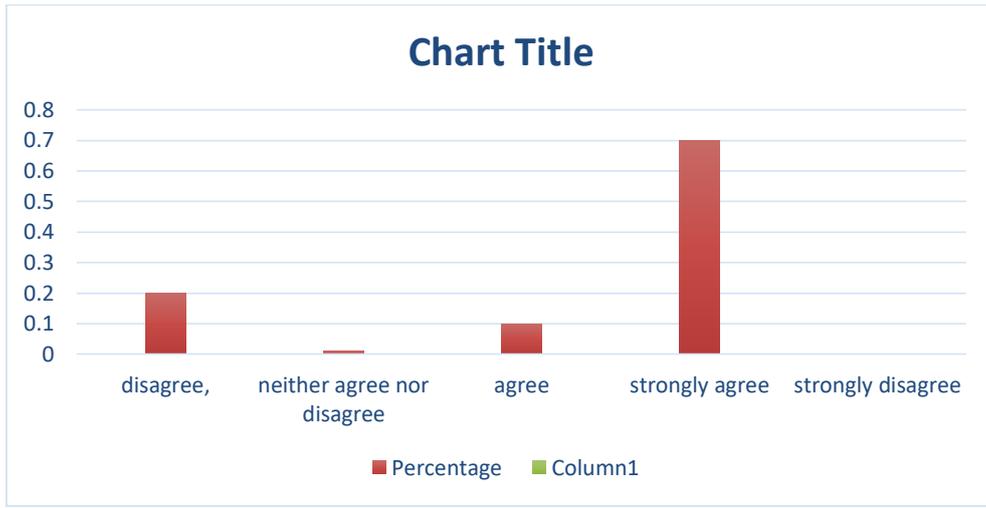
The questionnaire consists of sections. First phase includes multiple-choice questions checking the demographical capabilities of the scholars, gender, grade and age. Second phase of the questionnaire is consisting 20 gadgets in total, 12 gadgets are about the scholars’ way of thinking withinside the route of physics education and 8 gadgets about the scholars’ way of thinking withinside the route of physical experiments.

Data analysis

In this analysis, primarily descriptive statistics (frequency, percentage, mean, standard deviation) was calculated and the distribution characteristics have been revealed. For each question in the survey, students' level of participations as [(1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, (5) strongly agree] for the positive comments, and as [(1) strongly agree, (2) agree, (3) neither agree nor disagree, (4) disagree, (5) strongly disagree] for the negative comments

Findings

Attitude towards physics lessons of students



Findings related to the characteristics of the students

- Lectures** You can also additionally of direction immediately educate crucial wondering ideas in your college students all through lecture, however that is neither required nor advisable. Stay together along with your problem matter, however gift that is this kind of manner that scholars might be recommended to assume seriously approximately it. This is finished all through lecture through wondering the scholars in approaches that require that they now no longer most effective apprehend the material, however can examine it and use it on new situations.
- Laboratories** Students unavoidably exercise crucial wondering all through laboratories in technology class, Because they're mastering the medical method.
- Homework** Both conventional analyzing homework and unique written hassle units or questions may be used to beautify crucial wondering. Homework gives many possibilities to inspire crucial wondering.
- Quantitative Exercises** Mathematical sports and quantitative phrase issues educate hassle fixing abilities that may be utilized in normal lifestyles. This glaringly complements crucial wondering.

5. **Term Papers** The nice manner to educate crucial wondering is to require that scholars write. Writing forces college students to arrange their thoughts, ponder their topic, compare their records in a logical fashion, and gift their conclusions in a persuasive manner. Good writing is the epitome of correct crucial wondering.

6. **Exams Exam** questions may be devised which sell crucial wondering instead of rote memorization. This is authentic for each essay query checks and multiple-preference checks.

CONCLUSION

Physics classes being held withinside the study room on the only theoretical foundation is one of the elements that have an impact on mindset of the scholars closer to those classes in a terrible manner. Thus, bodily subjects consist summary standards have to be lectured withinside the college students' day by day lifestyles, collectively with simulations, animations and different movies to preserve the eye of the scholars alive. Learning through discovery is higher than passive listening, so it have to be proven the way to companion bodily standards with their day by day lifestyles of the scholars. Instead of growing physics laboratory classes' hours, hands-on-technology experiments which can be carried out with effective, appeal to interest with easy substances have to be developed. Studio physics that's a technique of coaching that offers an included mastering surroundings with hands-on lab measurements coupled with lively scholar hassle-fixing have to be follow withinside the physics classes.

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