INTERNATIONAL RESEARCH JOURNAL OF HUMANITIES AND INTERDISCIPLINARY STUDIES
(Peer-reviewed, Refereed, Indexed & Open Access Journal)
DOI : 03.2021-11278686 ISSN : 2582-8568 IMPACT FACTOR : 8.031 (SJIF 2025)

A Study ofKnowing andEmpowering Young Minds Through PRAYAAS, an Initiative of NCERT

[1]Shilpi Bhandari, [2]Anit Kaur, [3]Dr. Shankar Singh, [4]Prof. Seema Dhawan

[1]Research Scholar, Department of Education, HNBGU, Srinagar Garhwal (Uttarakhand, India)

[2]Research Scholar, Department of Education, HNBGU, Srinagar Garhwal (Uttarakhand, India)

[3]Assistant Prof., Department of Education, HNBGU, Srinagar Garhwal (Uttarakhand, India)

[4]Prof. Department of Education, HNBGU, Srinagar Garhwal (Uttarakhand, India)

DOI No. 03.2021-11278686 **DOI Link ::** https://doi-ds.org/doilink/05.2025-23729251/IRJHIS2505050

Abstract:

Curiosity to know more and more about the things and phenomena that happen around us is the nature of a child. This curiosity of a child helps to develop their critical thinking. The school environment and the teacher are important in accelerating critical thinking among students. The students of secondary and higher secondary levels of school education become very curious and highly energetic in finding the answers to their questions. By cultivating curiosity, encouraging questioning, providing scaffolding, fostering collaboration, modelling critical thinking, and offering constructive feedback, teachers empower students to become independent thinkers and problem solvers. As a teacher, it is the responsibility of every teacher to nurture the next generation of critical thinkers who will shape the future with their intellect, creativity, and informed decision-making abilities. PRAYAAS (Promotion of Research Attitude among Young and Aspiring Students) is an initiative taken by the governmental authority of India that has been developed to provide a platform that will help a student to become a divergent thinker by developing their critical thinking and problem-solving skills. The study was conducted to know the status of PRAYAAS. A survey method has been adopted for the study. The results reveal the status of the PRAYAAS among the teachers and students.

Keywords: ***P****RAYAAS, Students, Teachers, HNBGU, Research attitude, Critical thinking.*

Introduction:

Research attitude among young children is crucial for fostering curiosity, intellectual growth, and problem-solving skills from an early age. Encouraging children to develop a positive research attitude involves nurturing their natural curiosity and providing opportunities for exploration and discovery. At a young age, a child exhibits an innate curiosity to know about the world around them and they start to think about the world. When students are trained to think critically, their curiosity

increases to know more about the world around them. Students with a strong sense of curiosity want to evaluate and process information and experiences. They generate their educated ideas, most of which are out-of-the-box, as a result of this process, which boosts their creativity. (Tilak, 2022). This curiosity can be harnessed by introducing them to simple research activities, such as conducting experiments, making observations, and asking questions and with the help of encouraging children to explore their interests and investigate phenomena, collecting data and, analysing the data educators can in still a lifelong love for learning and inquiry. Moreover, fostering a research attitude among young children promotes critical thinking, creativity, and resilience. This helps them to approach challenges with a problem-solving mindset and to persevere in the face of obstacles. By nurturing a research attitude from a young age, we empower children to become independent learners and active participants in the pursuit of knowledge. In today's rapidly evolving world, where information is abundant and easily accessible, the ability to think critically has become indispensable. Critical thinking goes beyond memorizing facts; it involves analysing, evaluating, and synthesizing information to make reasoned judgments. Several hands-on activities also improve students' critical thinking (Piergiovanni, 2014).

In the educational landscape, a teacher works as a catalyst in fostering this essential skill among secondary and higher-secondary students. Their role transcends traditional instruction; they are guides, facilitators, and mentors in the journey of intellectual development. Curiosity to find the answers is the cornerstone of intellectual growth and academic success. It enables students to question assumptions, challenge biases, and arrive at well-reasoned conclusions. In essence, it equips them with the tools to navigate complexities and make informed decisions. However, critical thinking is not innate; it must be nurtured and honed through deliberate practice and guidance. Teachers ignite the spark of curiosity in their students by presenting thought-provoking questions, real-world problems, and engaging activities. They inspire students to delve deeper into subjects, fostering a thirst for knowledge and understanding. So, to develop critical thinking in students and prepare them as independent thinkers, the Department of Education in Science and Mathematics, NCERT (National Council of Educational Research and Training) has launched a program named, PRAYAAS for school students. The program also provides opportunities for the creative minds of young students to realize and recognize the importance of STEM (Science, Technology, Engineering, Arts, and Mathematics) in real-life situations (NCERT-PRAYAAS Guidelines, 2023). In this, students have to work on a problem under the guidance of their teachers and experts from Higher Educational universities/Collages/Institutions by following the research steps. For this they have to find a problem on which they have to prepare a research proposal. This research proposal will be presented with the help of power point presentation or charts etc. in front of the authority followed by a discussion with the members. Only one project from a school is acceptable under the

scheme of PRAYAAS. A provision of grant of 50,000/-, which will be released in two instalments will be given to the group of members working on a project. In this amount, 10,000/- will be given to the student and 20,000/- will be given to the expert. If two students from a school are working then the amount will be equally divided between the both students. There are also other criteria for being a 'PRAYAAS STUDENT' and 'PRAYAAS TEACHER'. Some of the Criteria are as follows-

Criteria for PRAYAAS STUDENT:

- The students from the age group of 14-18 will be eligible.
- Only the students of class IX-XI can take part in this.
- Students from all schools are eligible.
- A group of single or a maximum of two students along with a faculty member of the school and an expert from a Higher Education Institute from a School will be considered in PRAYAAS.

Criteria for PRAYAAS TEACHER:

- A postgraduate teacher is eligible to be a PRAYAAS teacher.
- A teacher, who is teaching Science/Physics/Chemistry/Biology and Mathematics to the classes of IX-XI can be a PRAYAAS TEACHER.

Objectives of the Study:

The objective of the present study is to know the status of PRAYAAS among students and teachers of class IX-XI and to know their perception for the research process. The research also has been conducted to identify the areas on which they want to do research.

Methodology:

A survey method has been adopted for the present study. Tools namely, *'PRAYAAS Teachers'* and *'PRAYAAS Students'* has been developed to collect data. Six questions have been framed for teachers while five questions have been framed for students. Responses have been collected from 20 government teachers (assistant teachers and lecturers) and 63 students of class 9^{th}, 10^{th} and 11^{th} classes of government and private schools. The data has been collected through Google form and offline form which has been shared with the respective teachers and students.

Result:

Analysis of Teachers:

Table No.- 1

Gender		Designation		Subject		Teaching experience (In yrs)		
Male	Female	Assistant Teacher	Lecturer	Science	Art	0-5Yrs	6-10Yrs	More than 10Yrs
7	13	13	7	8	12	4	14	2

Q1- Do you have any information about PRAYAAS?

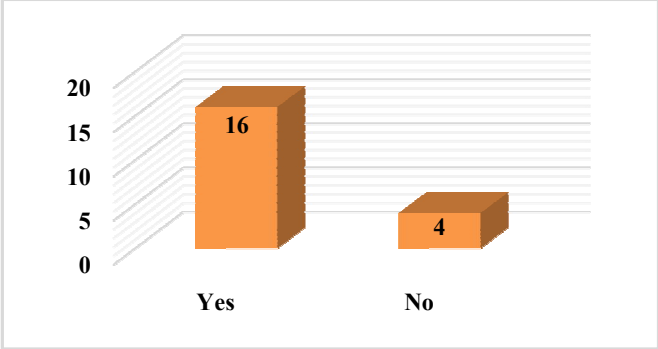

Fig. No.- 1.1

In this question, we try to find out that either the respondents have any information about PRAYAAS or not and the Responses show that 16 out of 20 in-service teachers have information about PRAYAAS, while only 4 out of 20 in-service teachers did not have any information about PRAYAAS. This also shows that information about anything plays an important role in starting new things with the learners.

Q2- Have you started working on PRAYAAS? if, yes then what is your research area?

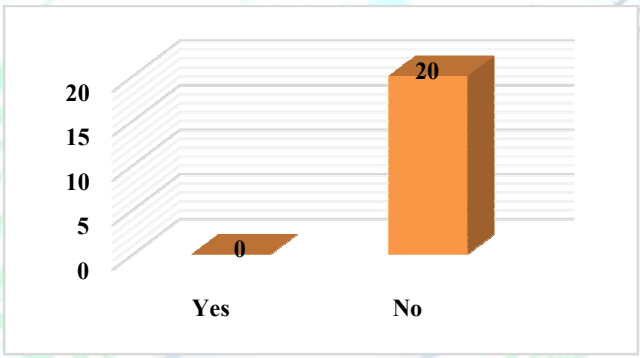

Fig. No.-1.2

With the help of this question, we try to find, whether any project has been started under the scheme of PRAYAAS or not. The responses show that although some teachers have only information about PRAYAAS but, no one of them has started any research project with their students.

Q3- How many students (of which class) under your supervision are working on any topic?

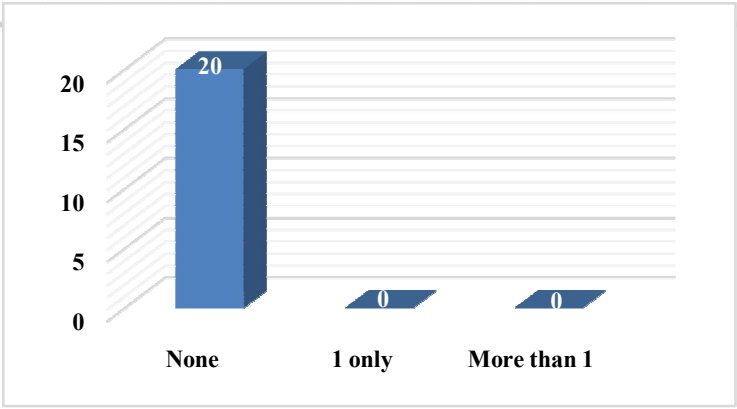

Fig. No.- 1.3

PRAYAAS is an initiative that is not for students or teachers only. This initiative involves both of them and provides a suitable platform to explore ideas of students and to improve the skill of guidance and supervision among the teachers. But the responses show that none of the teachers were guiding and supervising the students for any project of their school.

Q4- Have you done any research work during the entire period of your job?

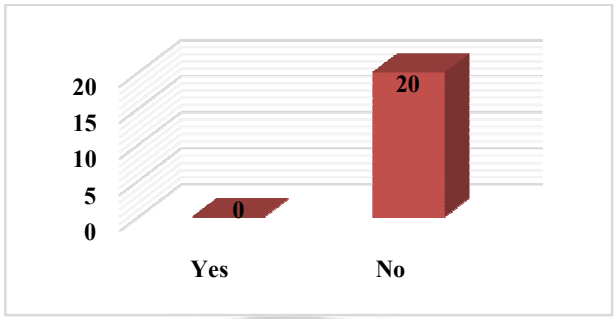

Fig. No.- 1.4

This question was asked to the teachers to know the research attitude of teachers but responses show that no teacher has done any research work during the period of their job. This also may be one of the reasons that teachers did not start working on any project.

Q5-Would you like to do research?

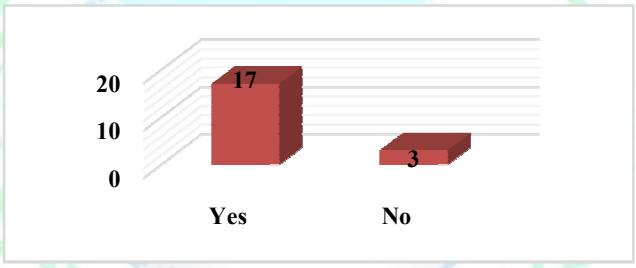

Fig. No.- 1.5

This question shows the interest of teachers in starting research and responses show that 17 teachers are interested in doing research. This also can help the students to explore different ideas. The teachers who want to start a project under the PRAYAAS also can have guidance from a professor from any recognized university. This also may be helpful for the teachers and students as well to have a guidance from an expert in the field of research.

Q6- If you get a chance to do research, in which area would you like to do research?

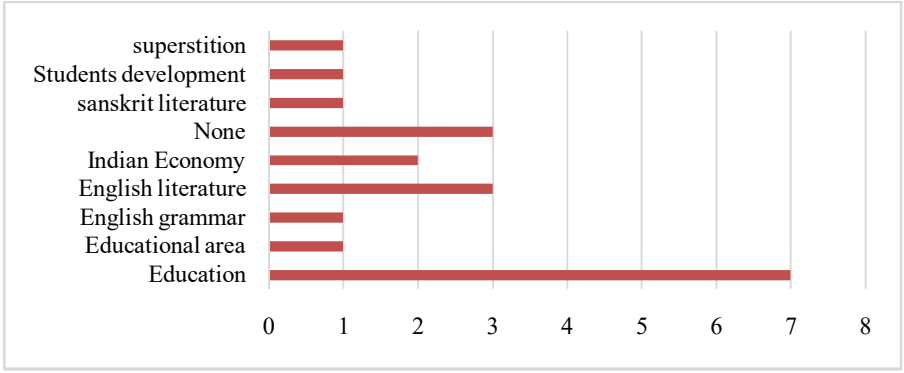

Fig. No.- 1.6

The different areas suggested by the respondents show interest in doing research in different fields. The figure shows that collectively 9 respondents show their interest in doing research in the field of education. In which 1 respondent named this as Student development and the other one named it as an educational area. The remaining respondents named the different areas as superstition, Sanskrit literature, Indian economy, English literature, and English grammar. While, 3 out of 20 teachers did not suggest any area of research. The interest areas may be related to their pedagogy subjects.

Analysis of Students:

Table No.- 1

CLASS		GENDER		AGE		STREAM		SCHOOL TYPE	
10th	11th	MALE	FEMALE	14-16	17-18	ART	SCIENCE	GOVT	PRIVATE
45	18	8	55	47	16	40	23	53	10

Table no. 1 shows that 45 students from 10th class and 18 students from 11th class, 8 male and 55 female students, 47 students from the age group of 14-16 and 16 students from the age group of 17-18, 40 students from art stream and 23 students from science stream, and 53 students from government schools and 10 students from private school has participated in the study.

1- Do you have any information about NCERT?

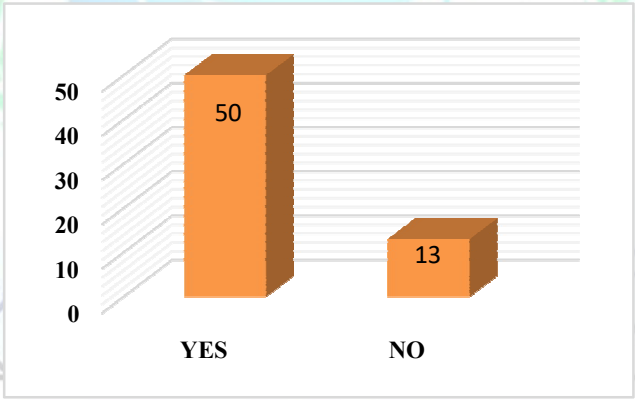

Fig. No.- 2.1

Responses show that 50 out of 63 students, have information about NCERT while 13 have no information about NCERT. However, it has been also observed that only a few students who know about the functioning of NCERT have very little information about the organization and its functions.

Q2- Do you have any information about PRAYAAS?

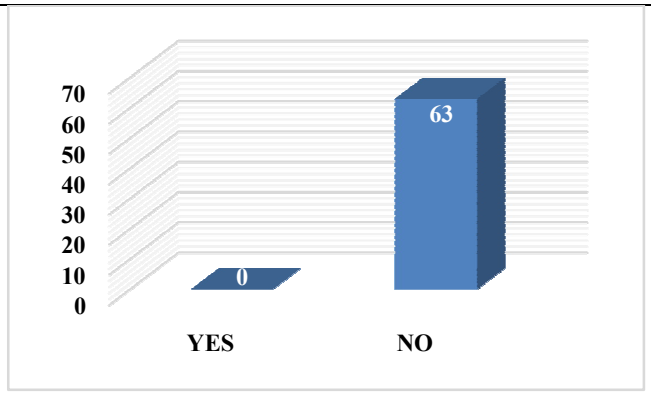

Fig. No.- 2.2

When we were collecting data and started to talk about PRAYAAS, students were surprised about the question. Because any of them do not know anything about PRAYAAS. Responses also favoured the situation and showed that, no student had any information or idea about PRAYAAS.

Q3- Do you know about research?

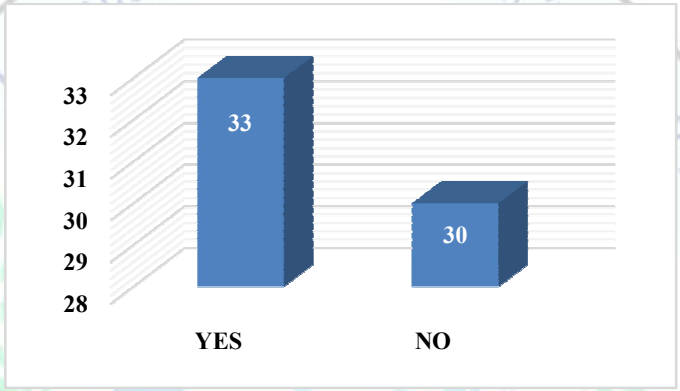

Fig. No.- 2.3

Responses show that 33 out of 63 students know about the research process. However, we also observed that the students, who knew about the research, they knew very little about that. The students who did not have any knowledge about the process of research, some of them were very curious to know about the process of research. This question also helped us to know the perception of students for research.

Q4- Would you like to do research?

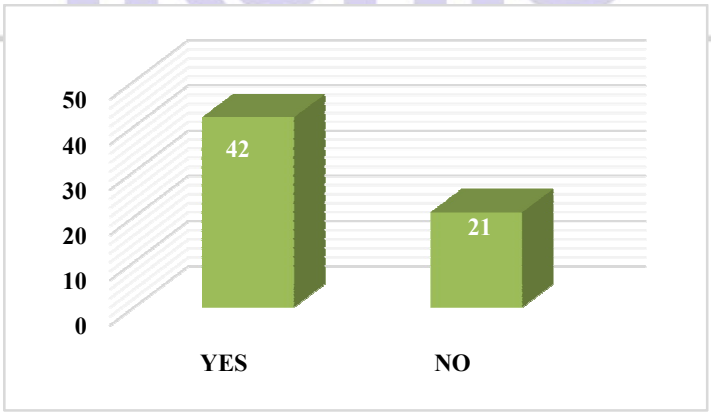

Fig. No.- 2.4

Research is a process that helps to build critical thinking in an individual and provides an opportunity to explore things and increase knowledge. Responses show that 42 out of 63 students wanted to do research in their school.

Q5- If you get a chance to do research, in which area would you like to do research?

Responses show that home science, history, English, geography, politics, technology, civil service, astrophysics, mysterious things, biology, Space science, Environment, Art, Astronomy, Sports, and, Science, are some areas suggested by the students in which they want to do research. While 21 students out of 63 did not suggest any area of research.

Discussion:

PRAYAAS (Promotion of Research Attitude in Young and Aspiring Minds), is a government initiative taken by NCERT to develop research attitudes among students. The results show that very few teachers have little information about this initiative. Although, some of the government schools have started working on this. But still, many teachers did not have any information about this aspiring initiative by NCERT. Teachers of secondary and higher secondary did not have any information about the process of research, but they are still interested in doing research work. When we distributed the tool to the teachers and students, it was also observed that some teachers and students did not have any information about the initiative. Teachers and students shared some areas on which they want to do research. But, when it comes to the students the findings show that most of the students have information about NCERT but no one has any information about PRAYAAS. Some of the students have some idea about research. PRAYAAS The students should know about this. However, the scheme has been launched to develop a research attitude among science students and teachers of science subjects (Science/Physics/Chemistry/Biology/Mathematics) only. But in this research, the data has been collected from the students and teachers of science and arts. The results show that the responses of science and art students are quite similar and the responses of science and arts teachers are quite similar. Any individual uses his mental abilities for the betterment of themselves and society also. So, initiatives like PRAYAAS should be for students of all streams so that students can get equal opportunities to explore their ideas. Because, we use our abilities in different aspects of life to make it better.

Conclusion:

Effective teachers encourage a culture of questioning in the classroom. They welcome students' inquiries, challenging them to explore different perspectives and seek evidence to support their arguments. By promoting open dialogue, teachers empower students to think critically about various issues. Teachers also scaffold students' learning by breaking down complex concepts into manageable parts. They provide guidance and support as students navigate unfamiliar terrain, gradually increasing the level of challenge to stretch their critical thinking abilities. Teachers'

Collaboration enhances critical thinking by exposing students to diverse viewpoints and fostering constructive debate. Teachers facilitate collaborative learning experiences where students work together to solve problems, analyse information, and evaluate solutions collectively. This can help students to enhance their ability to think critically and analyse the situation. Teachers also serve as role models of critical thinking by demonstrating how to analyse information, evaluate sources, and construct well-reasoned arguments. Through their example, teachers inspire students to emulate these cognitive processes in their learning. So, it becomes necessary that, all the teachers and students should know about the PRAYAAS program. This is a platform that can help students to develop a research attitude among them. Constructive feedback is essential for developing critical thinking skills. Teachers provide timely and specific feedback on students' reasoning processes, highlighting strengths and areas for improvement. By scaffolding students' reflection and self-assessment, teachers guide them towards deeper levels of critical thinking. Cultivating critical thinking in students yields far-reaching benefits for students' academic achievement and personal growth. Students who think critically are better equipped to excel in their studies, adapt to new challenges, and become lifelong learners. Moreover, critical thinking fosters autonomy and independence, empowering students to navigate complex issues and make informed choices in their lives. However, innovative teaching strategies and supportive educational policies can mitigate these challenges. Professional development opportunities equip teachers with the knowledge and tools to integrate critical thinking across subject areas.

Additionally, curriculum reforms emphasize inquiry-based learning and interdisciplinary approaches provide avenues for nurturing students' critical thinking skills and teachers professional skills. Helping students to develop self-directed learning ability and critical thinking skills is an invaluable contribution to students' learning journey(Chukwunemerem,2023). Although, 75 projects have been shortlisted for the session 2023-24 from all over India under the scheme of PRAYAAS. But still, in this study, we also found that several schools do not have any information about the PRAYAAS. So, the authorities have to take the responsibility to inform all the schools about their visionary steps and initiatives, so that every student can get the chance to explore their ideas and reflect their knowledge.

Suggestions:

PRAYAAS is an excellent initiative by NCERT. It provides a platform for the students to enhance their mental abilities and maximize their learning experiences. Still, there are some suggestions as follows-

- Students of arts should be involved in any other means so that they can also get the benefits of the initiatives.
- The organization should take action to make sure that the individuals of their targeted area

should have all the information about their initiatives.

- The organization can also provide some themes and sub-themes related to some relevant topics.

References:

1. Chukwunemerem, O. P. (2023). Lessons from Self-directed Learning Activities and Helping University Students Think Critically. *Canadian Center of Science and Education*, *12*(2), 79–87. https://doi.org/10.5539/jel.v12n2p79
2. Piergiovanni, P. R. (2014). Creating a Critical Thinker. *College Teaching*, *62*(3), 86–93. https://doi.org/10.1080/87567555.2014.896775
3. Tilak,R. (2022). Importance of Critical Thinking in Education. *World Journal of English Language*, *12*(3), 126–133. https://doi.org/10.5430/wjel.v12n3p126
4. https://ncert.nic.in
5. https://schemesinfo.in