

DISTRICT INSTITUTE OF EDUCATION AND TRAINING, MAYANUR

KARUR DISTRICT

RESEARCH PROJECT 2023-24

S.NO	FACULTY NAME	RESEARCH PROJECT TOPIC
1.	P. Murugapandiyam	IMPROVING THE UNDERSTANDING OF SPACE SCIENCE AT HIGHER SECONDARY LEVEL IN KARUR DISTRICT.
2.	Dr.J.Felicita Vimala	ASSESSMENT ON ILLAM THEDI KALVI SCHEME IN TERMS OF STUDENTS CLASSROOM PERFORMANCE IN KARUR DISTRICT
3.	Dr.D.N,Rayar Rozario	IMPACT OF NAAN MUDHALVAN SCHEME ON HIGHER EDUCATION ENROLLMENT IN KARUR DISTRICT
4.	T. GEETHA	DEVELOPING ON-LINE QUESTION CREATION AND EVALUATION SKILL AMONG SECONDARY LEVEL TEACHERS IN KARUR DISTRICT

1.INVESTIGATOR : P. MURUGAPANDIYAN

TITLE : IMPROVING THE UNDERSTANDING OF SPACE SCIENCE AT HIGHER SECONDARY LEVEL IN KARUR DISTRICT

SUMMARY:

1. INTRODUCTION:

Space, the final frontier, has always ignited curiosity and wonder in the hearts of humanity. Exploring the vastness of the cosmos has led to remarkable scientific discoveries and technological advancements. But beyond exploration and scientific research, there is another critical aspect that holds immense importance—space education. The field that encompasses all of the scientific disciplines that involve space exploration and study natural phenomena and physical bodies occurring in outer space, such as space medicine and astrobiology. In classical physics, physical space is often conceived in three linear dimensions. Modern physicists usually consider it, with time, to be part of a boundless four-dimensional continuum known as space time. The concept of

space is considered to be of fundamental importance to an understanding of the physical universe.

NEED AND SIGNIFICANCE:

A traditional classroom students learning is a where a teacher moderate and regulate the flow of information and knowledge. Students are expected to continue developing their knowledge of a subject outside of school through homework, project work exercise in space science. Here, students' main resource is their instructor who only teaches them face to face. A traditional classroom involves a standard curriculum delivered by a teacher in person. Standardized tests are administered at regular intervals to test student's comprehension. It is therefore very important to ensure the improvement of understanding in space science among XII standard students. To improve the understanding in space science, the investigator decided to enhance the knowledge and hands on activity to improve the understanding among XII standard students.

OBJECTIVES OF THE STUDY:

2. To identify the level of achievement of the XII standard students in the concept Space science.
3. To enhance the understanding level necessary to achieve the improvement in the concept space science through proper hands on activities and videos among XII standard students.
4. To analyse the understanding level based on dimensions in space science.
5. To find out the significant difference after treatment based on gender.

HYPOTHESES OF THE STUDY/ RESEARCH QUESTIONS:

1. There is no significant difference in the understanding level between the Experimental and Control group students before treatment.
2. There is no significant difference in the understanding level between the Experimental and Control group students before treatment.
3. There is significant difference in the understanding level between the Experimental and Control group students after treatment.
4. There is significant difference in the understanding level between the Experimental and Control group students after treatment.
5. Gender wise there is no significant difference in the understanding level of the Experimental group after treatment.

METHODOLOGY:

- a) Method: Double group - Experimental Method**
- b) Sample:** 30 students of Government higher secondary school, Panjapatty as a Experimental group and 30 students as a Control group of Karur District.
- c) Intervention:** A Training programme for ten days on space science education through hands on activities and demonstration and video teaching on making of satellites and launching methods.
- d) Tool:** The investigator developed the tool namely question paper based on space science contains 20 multiple choice questions.
- e) Data Analysis:** Statistical techniques used for analyzing the data are
 1. Descriptive Analysis – Level of dimensions of understanding of space science by finding Mean, Standard Deviation.
 2. “t”- test to find the significance of difference between the two groups experimental and control groups.

6. MAJOR FINDINGS:

- The gain score of the students proves that the space science training was effective in developing the understanding of space science among higher secondary students.

EDUCATIONAL IMPLICATIONS:

1. The findings of the study will be useful to know whether the XII standard students have understanding in space science (physics).
2. The study will be helpful in analysing the level of understanding in space science among XII standard students.
3. The results indicate that the level of understanding in space science has potential to effect positive changes on young minds.
4. This study may be helpful to teachers, teacher educators, curriculum writers and educational policy makers for understanding how the understanding in Space science provides an interdisciplinary avenue for engagement and participation.
5. Based on the findings of this study, key facts with the potential of increasing the future of space science instruction which will necessitate a paradigm shift towards the value of space education in the phase of integrating a space science program in the curriculum.

7. CONCLUSION:

The study attempts to advance knowledge in the discipline of space science education highlighting the role and value of Space towards establishing a new space science program. The research outcomes from the qualitative information compliments the quantitative data. The treatment given to the students has an impact on the understanding level of the students irrespective of gender, Results revealed that students level of understanding positively increased. Separate study can be conducted among students at secondary level for other aspects.

Name and designation of the researcher: Dr.J.Felicita Vimala, Lecturer

Title: ASSESSMENT ON ILLAM THEDI KALVI SCHEME IN TERMS OF STUDENTS CLASSROOM PERFORMANCE IN KARUR DISTRICT

1.Introduction

Illam Thedi Kalvi means Education at doorsteps. School Education Department, Govt. of Tamil Nadu has launched a brand new scheme specifically TN Illam Thedi Kalvi Scheme 2021. Tamil Nadu state government has launched this scheme for Class 1 to 8. In the past few years, there has been seen education damage for those students who are in Class 1 to 8 mostly. To fill the education gap, state government has ditched the learning app and relied on volunteers who are eligible enough to provide education on doorsteps.

2. Need and Significance

The Illam Thedi Kalvi scheme is an excellent educational approach in the state. Due to the Covid situations during couple of years, there is a gap in the education of the students and the Tamil Nadu government wants to reduce this gap for classes 1 to 8 through Illam Thedi Kalvi (ITK) scheme. Illam Thedi Kalvi scheme is giving the school students an interactive learning experience, making it interesting for the kids. ITK classes are different from regular classes as it channelises kids with their area of interest. At present in Karur district 3029 centres are in function under this scheme. So far no studies were made to analyse whether ITK influences students classroom performance in Karur district. To strengthen ITK scheme, it is necessary to analyse its influence in improving the students classroom performance.

3. Objectives

- To assess the ITK scheme considering the ITK volunteers level of commitment, ITK module relevance with respect to current text book, reliability of ITK scheme and students involvement in ITK.
- To assess the ITK students classroom performance considering the study habits, participation in classroom activities, learning performance and student-teacher relationship.
- To find out the significant difference in the volunteers opinion about ITK scheme based on the level of students and locality.
- To find out the significant difference in the teachers opinion about students classroom performance based on Gender, cadre and locality.
- To find out the relationship between ITK scheme and students classroom performance at primary and upper primary level.

4. Hypothesis

- The urban volunteers opinion about ITK scheme significantly differs from rural ITK volunteers opinion.
- The classroom performance of urban ITK students differ significantly from rural ITK students.

- There is a significant relationship between ITK scheme and ITK students classroom performance in rural schools.
- There is a significant relationship between ITK scheme and ITK students classroom performance in urban schools.

5.Methodology

a)Method

The investigator adopted survey method in this research. Simple random sampling technique was used for sample selection

b)Sample

Four blocks of Karur district namely Thogaimalai block, Kadavur block, Kulithalai block and Krishnarayapuram block were selected for this study. In each block 30 volunteers (15 primary level and 15 upper primary level) and 30 teachers (15 BT and 15 SGT). Hence a total of 240 samples were selected for the study.

c)Intervention

The investigator visited schools in the four blocks of Karur district for tool administration. Data were collected from primary and upper primary classes handling teachers and ITK volunteers.

d)Tools

The investigator developed the tools namely Questionnaire for teachers and Questionnaire for volunteers to collect the data about the ITK and ITK students classroom performance. The tools prepared were standardised and finalised.

e)Data Analysis

Statistical techniques used for analysing the data were Descriptive Analysis(Mean and Standard Deviation, Differential analysis("t"- test), Relationship study("r" Correlation co-efficient)

6. Major Findings

- The calculated t-value -2.865 for opinion about ITK Scheme mean score of urban and rural group is higher than the table t-value 2.0 at 0.05 level of significance. Therefore, it is proved that there is significant difference in the opinion about ITK Scheme between urban and rural ITK volunteers group
- The calculated t-value -2.908 for ITK students classroom performance mean score of urban and rural group is higher than the table t-value 2.0 at 0.05 level of significance. Therefore, it is proved that there is significant difference in ITK students classroom performance between urban and rural group.
- The co-efficient of correlation “r” calculated for ITK scheme and ITK students classroom performance in rural schools is 0.0587. The Co-efficient of correlation ‘r’ lies between 0.00 and +1.00. Hence both ITK scheme and ITK students classroom performance in rural schools have significant relationship at 0.1 level. The strength of correlation is weakly positive.
- The co-efficient of correlation “r” calculated for ITK scheme and ITK students classroom performance in urban schools is 0.1617. The Co-efficient of correlation ‘r’ lies between 0.00 and +1.00. Hence both ITK scheme and ITK students classroom performance in urban schools have significant relationship at 0.1 level. The strength of correlation is weakly positive.

7. Conclusion

The investigator assessed the Illam Thedi Kalvi scheme by considering ITK volunteers level of commitment, ITK module relevance with respect to current text book, reliability of ITK scheme and students involvement in ITK. Students classroom performance was assessed by considering their study habits, participation in class activities, learning performance and student-teacher relationship. The investigator being a DIET educator, understood the need and analyzed the effectiveness of ITK in filling the learning gap of 1 to 8 standard students and its influence on students classroom performance in Karur district. The findings will definitely help the policy makers to take steps for strengthening the scheme.

8. Educational implications

- Findings of the study will be useful for the ITK volunteers to realize the ITK student's performance in the regular classroom.
- Findings of the study will be useful to the teachers, teacher educators, curriculum writers and educational policy makers for understanding the current status of ITK scheme.
- The tool prepared by the investigator will help the educationists to analyse the current status of ITK scheme in all the districts of Tamil Nadu.

Name and designation of the researcher: Dr.D.N,Rayar Rozario,Lecturer

Title: IMPACT OF NAAN MUDHALVAN SCHEME ON HIGHER EDUCATION ENROLLMENT IN KARUR DISTRICT

1. Introduction

The honourable Chief Minister of Tamil Nadu, M. K. Stalin launched an ambitious skill development Naan Mudhalvan Scheme on 1st march 2022. Through this scheme academic guidance will be provided to higher secondary students in government and aided schools. This scheme will identify the talents and train the students. Which will ultimately help them in getting a better career. The introduction of this Naan Mudhalvan scheme, more students are identifying their goal, skills, strength and various courses and its job opportunities.

2. Need and Significance

Naan Mudhalvan Scheme is implemented for the betterment of the students. Many students who have the ability to do something in life. But they are not able to do it. Because of lack of awareness or information about higher education and its job opportunities, less finance and fewer resources. In order to overcome these issues the government of Tamil Nadu introduced the Naan Mudhalvan Scheme for better career of the students. It provides access to boost the attitude, knowledge, and skills among students. To strengthen Naan Mudhalvan scheme, it is necessary to analyse the impact of Naan Mudhalvan scheme.

3. Objectives

- 1.** To assess the students and teachers opinion towards Naan Mudhalvan scheme regarding awareness on Naan Mudhalvan scheme, academic guidance, career guidance and career goal settings.
- 2.** To assess the parents opinion on Naan Mudhalvan scheme.
- 3.** To find out the significant difference in the students, teachers and parents opinion towards Naan Mudhalvan scheme between the selected variables: Locality of school and Gender.

4. To find out the relationship between Naan Mudhalvan scheme and students higher education enrollment in Karur district.

4. Hypotheses

- ❖ There is significant difference in the opinion on Naan Mudhalvan scheme between boys and girls.
- ❖ There is no significant difference in the opinion on Naan Mudhalvan scheme between rural and urban teacher counsellors.
- ❖ There is no significant difference in the opinion on Naan Mudhalvan scheme between rural and urban parents.
- ❖ There is significant relationship between Naan Mudhalvan scheme and higher education enrollment.

5. Methodology

a) **Method:** The investigator adopted survey method in this research. Simple random sampling technique was used for sample selection.

b) **Sample:** Eight schools were selected from four blocks of Karur district. Totally 160 students (each school 20 students) 30 teachers counsellors and 30 parents were selected sample for this study. Hence a total of 220 samples were selected for the study.

c) **Intervention:** The investigator visited schools in the four blocks of Karur district for tool administration. Data were collected from students, teacher counsellors and parents.

d) **Tools:** The investigator developed the tools namely Questionnaire for students, teacher counsellors and parents to collect the data about the opinion on Naan Mudhalvan scheme. The tools prepared were standardised and finalised.

e) **Data Analysis:** Statistical techniques used for analysing the data were Descriptive Analysis (Mean and Standard Deviation, Differential analysis ("t"- test), Relationship study ("r" Correlation co-efficient)

6. Major Findings

- In rural schools, the calculated t-value 4.6573 for Naan Mudhalvan scheme mean score of boys and girls is higher than the table t-value 2.023 at 0.05 level of significance. Therefore, it is proved that there is significant difference in the opinion about naan mudhalvan scheme between boys and girls.
- In urban schools, the calculated t-value 2.6569 for Naan Mudhalvan scheme mean score of boys and girls is higher than the table t-value 2.023 at 0.05 level of significance. Therefore, it is proved that there is significant difference in the opinion about naan mudhalvan scheme between boys and girls.
- The calculated t-value 4.8697 for Naan Mudhalvan scheme mean score of boys and girls is higher than the table t-value 1.99 at 0.05 level of significance. Therefore, it is proved that there is significant difference in the opinion about Naan Mudhalvan scheme between boys and girls.
- In teacher counsellors, the calculated t-value 1.383 for Naan Mudhalvan scheme mean score of rural and urban teacher counsellors is higher than the table t-value 2.048 at 0.05 level of significance. Therefore, it is proved that there is no significant difference in the opinion about Naan Mudhalvan scheme between rural and urban teacher counsellors.
- In parents, it is seen that, the calculated t-value 0.8181 for opinion about Naan Mudhalvan scheme mean score percentage of rural and urban parents is lower than the table t-value 2.11 at 0.05 level of significance. Therefore, it is proved that there is no significant difference in the opinion about Naan Mudhalvan scheme between rural and urban parents.
- The correlation coefficient 'r' value between Naan Mudhalvan mean score percentage of boys students and higher education enrollment is 0.7761. The Co-efficient of correlation 'r' lies between 0.00 and +1.00. Hence Naan Mudhalvan mean score percentage of boys and higher education enrollment have significant relationship at 0.01 level. The strength of correlation is moderately positive.
- The correlation coefficient 'r' value between Naan Mudhalvan mean score percentage of girls and higher education enrollment is 0.8165. The Co-efficient of correlation 'r' lies between 0.00 and +1.00. Hence Naan Mudhalvan mean score percentage of girls and higher education enrollment have significant relationship at 0.01 level. The strength of correlation is strongly positive.

7. Conclusion

The investigator assessed the students and teachers opinion towards Naan Mudhalvan scheme regarding awareness on Naan Mudhalvan scheme, academic guidance, career guidance and career goal settings. And also assessed the parents opinion on Naan Mudhalvan scheme. The relationship between Naan Mudalvan scheme and students higher education enrollment were assessed. The investigator being a DIET educator, understood the need and analyzed the impact of Naan Mudhalvan scheme on students higher education enrollment in Karur district. The findings will definitely help the policy makers to take steps for strengthening the scheme.

8. Educational implications

1. The career guidance program should be integrated with the existing curricular subjects.
2. Findings of the study will help the students to select their higher education courses and career path.
3. The tool prepared by the investigator will help the educationists to analyze the present status of Naan Mudhalvan scheme in all the districts of Tamil Nadu.

INVESTIGATOR : T. GEETHA

**TITLE : DEVELOPING ON-LINE QUESTION CREATION
AND EVALUATION SKILL AMONG SECONDARY
LEVEL TEACHERS IN KARUR DISTRICT**

1. INTRODUCTION:

The increasing development of digital technologies and their application in education facilitates new learning ecologies that offer students new web-based learning opportunities and resources. This rapid spread of interactive technologies has facilitated the adoption of innovative approaches in school education. Assessment in education employing web tools, also known as e-assessment, deals with the effective use of technology to support successful instruction. In this line, the development of innovative student-centered approaches has encouraged teachers to rethink educational processes to shift the focus from them to the students, facilitate student participation, develop

practical thinking, and improve digital skills (Wright, 2011). These trends announced a significant increase in the need for online assessment software.

6. NEED AND SIGNIFICANCE: The purpose of the study was to develop online question creation and evaluation skill among secondary level teachers in Karur district. Technology has almost always been part of the teaching and learning process. New terms, such as interactive learning environment (ILE), information and communication technologies (ICT) and blended learning have been introduced. Assessment in education employing web tools, also known as e-assessment, deals with the effective use of technology to support successful instruction. Online assessment tools are not merely for exam evaluation. By evaluating many students' performance at a time is difficult with traditional assessment. They provide a range of benefits that include efficiency, lessened expenditure, scalability, security, flexibility, and standardization. These make it a valuable tool for assessment as well as Evaluation for students. Being new to teachers and students, in this study, the researcher aims to develop online question creation and evaluation skill among secondary level teachers.

7. OBJECTIVES OF THE STUDY:

- To assess the level of online question creation and evaluation skill of teachers at secondary level.
- To design a module on web tools for improving the skill of online question creation and evaluation among teachers at secondary level.
- To train the teachers using the module through Hi-tech lab.
- To find out the effectiveness of the module in enhancing the online question creation and evaluation skill of teachers at secondary level.
- To find out the significant difference of skill development after treatment based on gender, locality of school, type of school.

8. HYPOTHESES OF THE STUDY/ RESEARCH QUESTIONS:

1. There is improvement in the online question creation and evaluation skill of teachers after giving training.
2. There is improvement on online question creation and evaluation skill based on dimension after treatment.

3. There is significant difference in the Online Question creation and evaluation skill among teachers after treatment based on Locality of school, Type of school and Gender.
4. There is significant difference in the dimension-wise scores of teachers' based on locality of schools, Gender, Type of School- after treatment.

9. METHODOLOGY:

- f) Method: Single group - Experimental Method**
- g) Sample:** 60 Government high and higher secondary school teachers from 4 blocks of Karur District.
- h) Intervention:** A Training programme for three days (Face to face training one day and two days google meet) Online Assessment on web tools was conducted for 60 teachers. Teachers were provided a module containing the details such as: the meaning of Assessment, Introduction about web tools, brief explanation about four web tools such as Mentimeter, Google Forms, Quizlet, H5P. The participants were made to prepare online assessment questions using above four web tools and evaluate the students in the high-tech labs. in any selected topic within 20 days.
- i) Tool:** The investigator developed the tool namely Questionnaire to collect the data about the technological awareness, knowledge, classroom management and the usage of online assessment tools among secondary teachers.
- j) Data Analysis:** Statistical techniques used for analyzing the data are
 1. Descriptive Analysis – Level of dimensions of online question creation and evaluation skill among teachers by finding Mean, Standard Deviation.
 2. “t”- test to find the significance of difference between the two groups like gender wise, locality wise, type of school etc.

6. MAJOR FINDINGS:

- The gain score of the teachers is 24.2. This proves that the online web tool training was effective in enhancing the online question creation and evaluation skill among graduate teachers.

- The online question creation and evaluation skill mean score percentage of rural and urban teachers is 26.2 and 26.1, high and higher secondary school teachers is 26.5 and 25.78 and male and female teachers is 25.27 and 26.477 Hence teachers have basic knowledge about classroom online evaluation after treatment.
- The mean score percentage based on dimensions on online question creation and evaluation before and after treatment where technological Awareness is 66 and 80.8, knowledge on online tools is 60.8 and 90.4, usage on online tools is 60.8 and 96 and classroom management during online evaluation is 69.2 and 94.4. Hence there is improvement among teachers' after enhancing online question creation and evaluation skill based on dimensions.
- The calculated t-value for online question creation and evaluation skill before and after treatment is greater than the table t-value at 0.05 level of significance. Therefore, it is proved that there is significant difference in online question creation and evaluation skill before and after giving training based on Locality of school, Type of school, Gender and based on dimensions.

8. EDUCATIONAL IMPLICATIONS:

- Findings of the study will be useful to the teachers, teacher educators, curriculum writers and educational policy makers for understanding the teachers' current status of online question creation and evaluation skill.
- Findings of the study will enhance and even transform assessment skill of teachers through effective, innovative and creative way. The usage of online tools will help them to utilize the inherent features such as immediate feedback and scalability.

9. CONCLUSION:

The digital world brings with it more and more opportunities to be innovative around assessment. With a variety of digital tools and the pervasive availability of information anywhere anytime, there is a tremendous capacity to creatively employ a diversity of assessment approaches to support and evaluate student learning in education. These findings may be helpful to enhance the usage of online tests. It can be valuable in the assessment of twenty-first century learning.