DISTRICT INSTITUTE OF EDUCATION AND TRAINING
UTHAMACHOLAPURAM, SALEM-636010

A Report on the Dissemination programme of

Action Researches

(Completed during the academic year 2019-2021)

Date of Dissemination Programme

24.03.2021 & 25.03.2021

Venue

DIET,Uthamacholapuram ,Salem-10

Submitted to

STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
CHENNAI-600 006
March-2021

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A Report on the Dissemination Programme of Action Researches

The following Action Research Reports were presented by the Resource Persons in each day

S. No	Name of faculty	Title
1	Dr P. Govindaprakash Senior Lecturer, DIET -Uthamacholapuram, Salem -636010.	Developing Design Thinking Skills in Science Class Room Transaction among Upper Primary Teachers
2	Dr S.V.Vijayalakmi Shankar Senior Lecturer, DIET - Uthamacholapuram, Salem -636010.	Developing Numerical Problem Solving Skills in Physics among teachers working in middle schools.
3	Tmt G.Dhanammal Senior Lecturer, DIET,Uthamacholapuram, Salem -10.	Developing Situational Approach of Teaching Skills in Teaching Social Science among Upper Primary Teachers
4	Dr R.Nagalakshmi Senior Lecturer, DIET -Uthamacholapuram, Salem -636010.	To supplement the teaching methodology in order to better reinforce the information To help the learners create, collaborate and exhibit critical thinking.
5	Dr K.Kannaki Senior Lecturer, DIET -Uthamacholapuram, Salem -636010.	Improving the Skill of Engaging Students Actively During Class Room Transaction among the Upper Primary Teachers
6	Dr.T.Prabakaran Senior Lecturer, DIET -Uthamacholapuram, Salem -636010.	Developing the skill of Handling Science Lab Equipment and materials among Upper Primary Science Teachers.

7	Dr P.So.Kesavan Lecturer, DIET -Uthamacholapuram, Salem -636010.	Enhancing Teaching Techniques to Overcome the Challenges with Line Graph Interpretation among the Upper Primary Students
8	Tm tM.Jayamani Lecturer, DIET -Uthamacholapuram, Salem -636010.	தொடக்கநிலைஆசிரியர்களுக்குமொழியறி வைமேம்படுத்துதல்எடப்பாடி, சேலம்,
9	Mr C.Anbarasan Lecturer, DIET -Uthamacholapuram, Salem -636010.	Enhancing Teaching skills to Teach Chemical Reactions among High School Biological Science Teachers.
10	Tmt. B. Ananthi Lecturer, DIET - Uthamacholapuram, Salem -636010.	Enabling the use of wall painting as a TLM to teach English Grammar among Primary School teachers in Konganapuram block.
11	Mr R.Ravi Lecturer, DIET , Uthamacholapuram, Salem -636010.	Promoting Scaffolding Techniques for Teaching History Among the Upper Primary Teachers
12	Tmt M.Mahalakshmi Lecturer, DIET , Uthamacholapuram, Salem -636010.	Enhancing the skill of assigning Life oriented and Zero cost Projects Among Primary Teachers.
13	Mr K.Kalaivanan Lecturer, DIET - Uthamacholapuram, Salem -636010.	பாடப்பொருளைக் கதைகளாக மாற்றும் திறனை ஆசிரியர்களிடம் வளர்த்தல்
14	Mr B.Udhayakumar Lecturer, DIET - Uthamacholapuram, Salem -636010.	Developing knowledge on preparing Testing Devices for Higher Secondary Biology Teachers

District Institute of Education and Training,
Uthamacholapuram, Salem – 636 010.

A Report on Action Research Dissemination Programme

The Action Research (completed during the academic year 2019-2020) dissemination programme was conducted on 24.03.2021 and 25.03.2021 in District Institute of Education and Training, Uthamacholapuram, Salem. Action researches that have been presented by the faculty members of DIET, Uthamacholapuram. SGT and Graduate Teachers have been called from various blocks. The research performed was presented to the teachers in an elobrate manner by the faculty members of DIET. The teachers clarified their doubts with the presenters then and there and hence the researchers were disseminated in a proper manner.

Each day 58 participants were presented in this programme.The participants split in two classes with SOP.The researchers presented their action research report in these two classes.Every day this programme stated at 9.30 a.m and come to end at 5.30 pm. Dr.M.Selvam, Principal of DIET, Uthamacholapuram explained; what is action research? Why do we conduct action research? When will it conduct? and the importance of action research in all classes. Dr.P.Govindaprakash, Senior Lecturer of DIET, Uthamacholapuram co-ordinated this Action research dissemination programme .

The following are the details of the dissemination.

The number of teachers who participated in the workshop is elobrated in the following table.

Date : 24.03.2021

Sl.No	Name of the Block	Number of SGT	Number of TGT	Total
1.	Veerapandi	10	10	20
2.	Panamarathupatti	15	10	25
3.	Salem Urban	10	3	13
Total		35	23	58

Date: 25/03/2021

Sl.No	Name of the Block	Number of SGT	Number of TGT	Total
1.	Salem Rural	12	9	21
2.	Magudanchevadi	10	7	17
3.	Ayothiyapattinam	10	10	20
Total		32	26	58

Dr M.Selvam , Principal, DIET, Salem gave inaugural speech about Action research in Hall 1

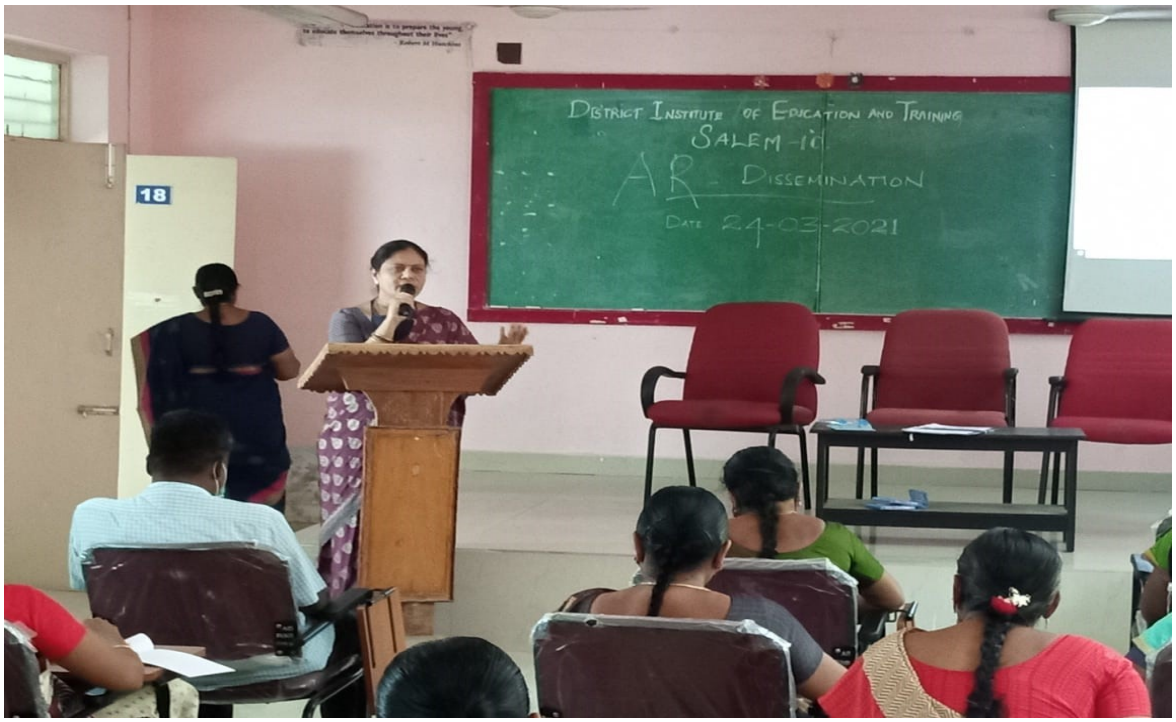
Dr M.Selvam, Principal, DIET, Salem gave motivation speech about action research in Hall 2

Dr P.GOVINAPRAKSH, Senior Lecturer presented his Action Research

Dr S.V.VIJAYALAKMI SHANKAR, Senior Lecturer presented her Action Research

Tmt G DHANAMMAL, Senior Lecturer presented her Action Research and Feedback given by Dr.M.Selvam , Principal DIET, Salem

Dr R.NAGALAKSHMI, Senior Lecturer presented her Action Research



Dr K.KANNAKI, Senior Lecturer presented her Action Research

Dr T.PRABAKARAN , Senior Lecturer presented his Action Research

Dr P.SO.KESAVAN, Lecturer presented his Action Research

Tmt M JAYAMANI, Lecturer presented her Action Research

Mr C ANBARASAN, Lecturer presented his Action Research

Tmt B ANANTHI, Lecturer presented her Action Research

Mr R.RAVI, Lecturer presented his Action Research

Tmt M.MAHALAKSHMI, Lecturer presented her Action Research

Dr K.KALAIVANAN, Lecturer presented his Action Research

Dr M.Selvam , Principal DIET, Salem discussed with participants.

Participants

VALEDICTION FUNCTION

1. **Action Research Title:**

   Developing Design Thinking Skills in Science Class Room Transaction among Upper Primary Teachers.

2. **Name of the Researcher :**

   Dr P.Govindaprakash, Senior Lecturer, DIET -Uthamacholapuram, Salem -10.

3. **Objectives of the Project:**

   - To develop 'Design Thinking Skills' among Upper Primary Science Teachers.
   - To develop 'Design Thinking Skills' in class room activities.
   - To understand various 'Design Thinking Skills' used by the teachers.

4. **Research Tool:** A questionnaire contains15 objective type questions.

5. **Sample of the Project:** 20 Middle Schools Teachers of Salem Rural Block

   Intervention:

   - A Teachers Module is prepared by the practitioner for promoting Design Thinking skill.
   - Training was conducted to the sample based on module.

6. **Findings:**

   1. The average mark achieved by the Upper Primary Science Teachers in Post-test is 85.48 % and the difference between pre-test and post-test mark is 60%.
   2. Female teachers got higher mark than Male teachers.

7. **Implications and Suggestions :**

   Design thinking is one of useful techniques to all Teachers to meet out the challenges in class room activities.

   - This project will be conducted for all blocks of Salem District.
   - The new researchers and practitioners will adopt this strategy for their research.

8. Conclusion:

The teachers developed their Design thinking skills using this intervention training. The strategy enhanced the Design Thinking skills among upper primary science teachers of Salem rural block in Salem District.

1. Action Research Title:

"Developing Numerical Problem Solving Skills in Physics among teachers working in middle schools"

2. Name of the Researcher:

Dr S.V.Vijayalakmi Shankar, Senior Lecturer in Physics, DIET – Salem.

3. Objectives:

- To promote Numerical Problem Solving Skills in Teaching Learning Processes with the content given in new text book.
- To encourage the teachers to do the Problems given in the new textbook.
- To stimulate the teachers to integrate: a. Content Formulate the content, b. Apply the values in the formula

4. Sample:

25 Middle school Teachers and One Pachayat Union Middle School students of classes 6,7 & 8

5. Tool and Interventions Used:

Tool: Numerical Problem Solving Skill questionnaire in Physics given to teachers and to 6,7 and 8^{th} students.

Interventions: Practitioner encouraged the teachers to follow the method given below to solve the numerical problems.

Method

1) Read the question , 2) Organize the information, 3) Check for coherent units, 4) Draw a diagram, 5) Consider the formulas, 6) Solve (symbolically), 7) Verify result(s), 8) rubric based evaluation

6. Findings

- Students need reading skills, especially reading comprehension and text analysis.
- students do not like to read very long problems.
- reading the problem, failed to substitute the correct values in the formula.

7. Implications and Suggestions

- Arranging or organizing tutorial and small group problem-solving periods whereby students can learn to solve problems.
- Preparing a detailed plan or review notes on how to solve problems.
- Explaining equations to be used in solving problems

8. Conclusions:

Therefore, Educational Researchers must continue to work with teachers to ensure they are aware of the difficulties that students have with problem solvers, since effective instruction takes them into account, and also with curriculum developers to ensure that the specific misconceptions are problem solving errors are addressed within the development of the curriculum.

1. **Action Research Title:**

   Developing Situational Approach of Teaching Skills in Teaching Social Science among Upper Primary Teachers.

2. **Name of the Researcher:**

   G.Dhanammal, Senior lecturer, DIET - Uthamacholapuram , Salem

3. **Objectives:**

   - To find out the issues in situational approach teaching in social science teaching.
   - To develop skill among the teachers in situational approach teaching in teaching social science classes thereby to make more comprehensive manner.
   - To encourage the teachers would use situational approach teaching strategies in social science teaching.
   - To ascertain that the teachers would use situational approach teaching strategies in social science teaching

4. **Sample:**

   24 teachers from upper primary schools in Nangavalli block in Salem district

5. **Tool and Interventions Used:**

   Tool: An observation has been used in as Pre test and Post test.

   Intervention: One day workshop on situational approach in social science teaching has organized for the teachers in order to develop skill among the teachers expend situational approach teaching in teaching social science classes.

6. **Findings:**

   The situational approach helps the teacher in teaching social science concepts in more comprehensive manner and able to involve the students in learning process and progress.

7. Implications and Suggestions:

- Depending on situational strategies is essential in transforming the memory of the recurrence into a flexible use of knowledge.
- The application of situational teaching in the education system widens students' knowledge on modernization and globalization.
- Situational approach may be included as mandatory pedagogy in teaching social science.

8. Conclusions:

The objective of present action research is making the teachers to use situational approach in teaching concepts in social science subject. The situational approach in social science teaching is ubiquitous Learning Environments. It is an effective instruction paradigm for social science teaching in terms of providing frequent situations through learning materials, enacting role play, dramatize the historical events, demonstrating the incidents etc.,

1. Action Research Title:

Designing worksheets to improve the teaching strategies of the teachers in the primary level.

2. Name of the Researcher:

Dr R.Nagalakshmi, Senior Lecturer, DIET , Salem.

3. Objectives:

- To personalize the learning process in the classroom.
- To supplement the teaching methodology in order to better reinforces the information.
- To assist students scaffolding their learning.
- To help the learners create, collaborate and exhibit critical thinking.

4. Sample:

30 Teachers in primary schools of Valapady Block in Salem District

5. Tool and Interventions Used:

Tool: Graphic organizer worksheets and online tutorials.

Interventions: This deals with the development of instructional materials and the methods adopted in selection of activity and designing of rubrics treatment to the sample. Since CCE is flexible and dynamic the teacher should be proficient enough to formulate assessment activities according to the content and potential of the student.

6. Findings :

Worksheets are an effective tool in ongoing efforts encouraging our students to engage their brains during class. Worksheets used in class helps direct students' learning out-of-class. It also helps students focus on an underlying concepts. It bridges the gap between watching and doing. It enhances delivering and/or summarizing content efficiently.

7. Implications:

- A workshop can be organized to provide the teachers hands on experience to construct, use and design worksheets and templates.
- Collecting the best practices in designing worksheets and sharing through discussions in EDUSAT will facilitate best teaching strategies.

8. Conclusions:

The students use the worksheets as the source of information during the introductory part of the lesson. They started using the worksheets for practicing what has been taught in the class. The worksheets are used to determine the acquired knowledge. The worksheets used for teaching should guide the students for solving the simplest cognitive tasks.

1. Action Research Title:

Improving the Skill of Engaging Students Actively During Class Room Transaction among the Upper Primary Teachers.

2. Name of the Researcher :

Dr K.Kannaki, Senior Lecturer, DIET Salem.

3. Objectives:

- To find out issues in student engagement (active learning) in class room.
- To develop the skill of implementing active-learning strategies in class room among teachers.
- To ascertain teachers will practice active learning strategies in their class room.

4. Sample:

40 teachers from Municipal Girls Hr. Sec Schools of Salem District.

5. Tool and Interventions Used:

Tool- Observation schedule with 15 questions

Intervention - One Day Training

6. Findings

- Motivation, Body language, Group discussion, One-minute paper. Organize note taking skills, Organize active review sessions
- Organize work at the black board, Concept map
- Organize peer teaching activities
- Organize think-pair-share

7. Implications and Suggestions

- Teachers improve their teaching strategies for active learning in classroom teaching.
- Teachers acquired the knowledge in motivate the students, usage of body language in teaching, organization of one - minute paper, life oriented

concepts while teaching the students, organization of small group discussion of peer teaching activities.

8. Conclusions:

Developed the active learning strategy among the teachers, active learning strategy increased the active participation of the students in the classroom, active learning strategy plays a major role in teaching learning process.

1. Action Research Title:

Developing the skill of Handling Science Lab Equipment and materials among Upper Primary Science Teachers.

2. Name of the Researcher :

T. Prabakaran, Senior Lecturer, DIET - Uthamacholapuram, Salem.

3. Objectives:

- To make teachers know to handle lab equipment.
- To make them utilize lab materials in the proper way.
- To make the teachers teach their students their subject effectively using science equipment and materials.
- To make teachers handle both physical science lab materials and biological science lab materials.

4. Sample:

18 Science B.T Teachers from 18 middle schools in Panamarathupatti Block, Salem

5. Tool and Interventions Used:

- Pre-test :Experiment: Post-test with Questionnaire.
- One-day training and School Based Training for teachers

6. Findings

The analysis of the findings reveals that there is remarkable improvement on the knowledge of the teachers after the training on lab skills.

There is a remarkable difference between the pre-test opinionative and post-test opinionative their improvements is explicitly shown.

7. Implications and Suggestions:

- This present study is useful for science teachers.
- This study will help physical science handling teachers handle biological science lab equipment and materials.
- It also helps biological science handling teachers handle physical science lab equipment and materials.
- This study can be extended to all schools of the district.
- The teacher can use the module in their science classed with case.

8. Conclusions:

The ultimate aim of science teachers is to make their students learn scientific concepts in a better way by doing experiments in the lab using the equipment and materials.

1. Action Research Title:

Enhancing Teaching Techniques to Overcome the Challenges with Line Graph Interpretation among the Upper Primary Students.

2. Name of the Researcher:

Dr P.SO.Kesavan, Lecturer, DIET, Uthamasolapuram, Salem.

3. Objectives:

- To understand graphing competence is important to science education and to science inquiry.
- To create teachers' awareness of students' difficulties with line graph interpretation.
- To expertise teachers to be more competent in line graph interpretation and more confident in guiding students in their interpretation of graphs.

4. Sample:

16 Upper primary teachers who are handling Science subject for classes 6, 7 and 8 in Veerapandy Block , Salem District.

5. Tool and Interventions Used:

Tool: Qualitative data collection tools and methods as open-ended questions and Test of Line Graph Interpretation Questionnaire

Interventions:

- Graph Interpretation Scoring Rubric
- Analyzing and Interpreting Line Graph.

6. Findings

Research has shown that using varying degrees of interactive activities in the classroom can have a significant effect on student achievement.

7. Implications and Suggestions

It is suggested that teachers should provide with opportunities to make transitions from one graph type to another in order to improve students' graph reading and interpretation skills for all graph types.

8. Conclusions:

The study concludes that significant increase of students' line graph interpretation skill can be obtained through the interventions in interpreting graphs (qualitative) as well as in reading values or identifying specific tasks

செயலாராய்ச்சியாளர் பெயர் மூ. ஜெயமணி. தமிழ் விரிவுரையாளர், மாவட்ட ஆசிரியர் கல்வி மற்றும் பயிற்சி நிறுவனம், உத்தமசோழபுரம், சேலம் – 10
ஆய்வுத்தலைப்பு தொடக்கநிலை ஆசிரியர்களுக்கு மொழியறிவை மேம்படுத்துதல்
நோக்கங்கள் • வல்லினம் மிகும் இடம் மிகா இடங்களை பற்றி அறிதல். • எழுத்துகளின் இடஅமைப்பைப்பற்றி அறிதல்.
ஆய்வுமாதிரி தொடக்கநிலை ஆசிரியர்கள், எடப்பாடி
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செயல்படுத்துதல் • முறையாகக் கற்றுக் கொடுப்பதன் மூலம் பிழைகளைக் களைய முடியும் • தகுந்த பயிற்சி அளிப்பதன் மூலம் செயல்படுத்த முடியும்
முடிவு முறையாகக் பயிற்சியளிப்பதன் மூலம் பிழைகள் களையப்படும்

1.Topic Enhancing teaching skills among High School Biological science teachers to teach Chemical reaction.
2.Faculty Member C.Anbarasan, Lecturer in Chemistry, DIET,Salem-10.
3.Subject Science (Chemistry)
4.AR in Block Kolathur
5.Target Group High school Biological Science Teachers
6.Problem Identified Biological science teachers while teaching Chemistry subject in school they felt little difficult compare than biological science subject.
7.Intervention Chemical reaction Work sheet given to teachers and practice them
8.Findings Biological science teachers will enhance their teaching skills in teaching chemical reactions.
9.Recommendations Chemical reaction Work sheet material will be used neighbor block biological science teachers
10.Conclusion Chemical reaction Work sheet material will help to the biological science teachers while teaching chemistry subject

1. Action Research Title:

Enabling the use of wall painting as a TLM to teach English Grammar among Primary School teachers in Konganapuram block.

2. Name of the Researcher:

B.ANANTHI, Lecturer in English, DIET – Salem -10

3. Objectives:

- To help the teachers make optimum use of 'Wall paintings' to teach Grammar.
- To enable the students make use of 'Wall paintings'.
- To enable the students understand Grammar and use them in speaking.

4. Sample:

17 Class 5 English handling teachers from schools having wall painting of Konganapuram Block, Salem were taken as sample for the study.

5. Tools & Interventions Used

- **Tool:** Questionnaire for Pre-test 2. Questionnaire for Post-test
- **Interventions:**

➢ SchoolTeachers handling Primary classes of Konganapuram Block were sensitized with the usage of 'Wall Paintings'.

➢ A **material/Booklet** was developed by the researcher, which contains pictures used in the 'wall paintings'. Grammar topics for class 5 that can be taught using those pictures were explained with examples. It was in turn carried out by the teachers in the classroom. Students were taught English Grammar and were also to speak using the 'Wall Paintings'.

6. Findings:

It was identified that teachers were able to make optimum use of the school 'Wall paintings in teaching of Grammar and enabling the students to speak and comprehend simple English.

7. Implications and Suggestions:

'Wall painting', when used wisely in the classroom by teachers, can bring about a great change in the speaking and comprehending skills among students.

8. Conclusions:

'Wall painting' can be used as an effective tool by the teachers in classroom to teach English Grammar and thereby improve the speaking and comprehending skills of class 5 students.

1. **Action Research Title:**

   "Promoting Scaffolding Techniques for Teaching History Among the Upper Primary Teachers" .

2. **Name of the Researcher** : R.Ravi, Lecturer, DIET,Salem**.**

3. **Objectives:**

   To Develop Understanding the concepts and promoting different types of scaffolding techniques by using the new method like Teaching History very improved the class room students.

4. **Sample:** 30 Upper Primary Teachers of Kadayampatti Block.

5. **Tool:** Questionnaire

   Interventions Used: Training

6. **Findings :**

   Based on this Action research project the upper primary teachers were yielded good hand on practice and well equipped in promoting scaffolding techniques for teaching history subject for upper primary classes used in the study.

7. **Implications and Suggestions :**

   - The concept of promoting scaffolding techniques for teaching history upper primary teachers may be implemented in near future.
   - To try and introduce the new innovative method to develop the skills among the upper primary teachers in their classroom practice.
   - ICT Application methods will be used in scaffolding techniques for teaching in history among the upper primary teachers.

8. **Conclusions:**

   Scaffolding Techniques by using the new method like Teaching History improve the understanding the concepts among students.

1. Action Research Title:

Enhancing the skill of assigning life oriented and zero cost projects among primary teachers

2. Name of the Researcher:

M.Mahalakshmi, Lecturer, DIET, Salem-10

3. Aim and objectives

- To develop the skill of assigning life oriented project works
- To develop the skill of assigning zero cost project works
- To develop the skill of extracting collaborative work among the students
- To develop the skill of demonstrating the project among the students

4. Sample

30 primary school teachers who are handling 3, 4 and 5 classes from Pethanaickenpalayam block in Salem District.

5. Tools & Interventions Used

- A questionnaire consists of 20 questions with five point scale (Always, often, sometimes, rarely and never).
- Remedial measures given through one day workshop and a module consist of life oriented and zero cost projects.

6. Findings

- The teachers are able to life oriented projects for primary students
- Teachers are able to give zero cost projects
- This study will help the students to develop their research and scientific attitudes.
- This study will help the students to develop a hobby. It may develop the entrepreneur skill among the students.

7. Implications and Suggestions:

- This study can be extended to higher classes.
- The teachers are able to give life oriented projects for primary students
- Teachers are able to give zero cost projects

8. Conclusions:

- This study will help the students to develop their research and scientific attitudes.
- This study will help the students to develop a hobby.
- It may develop the entrepreneur skill among the students.

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செயலாராய்ச்சியாளர் பெயர்	கி.கலைவாணன்,தமிழ்விரிவுரையாளர், மாவட்ட ஆசிரியர் கல்வி மற்றும் பயிற்சி நிறுவனம், உத்தமசோழபுரம், சேலம் – 636 010
நோக்கங்கள்	சில குறிப்பிட்ட தொடக்க மற்றும் அனைத்து நடுநிலைப்பள்ளி ஆசிரியர்களுக்கு பாடப்பொருளைக் கதைகளாக மாற்றி கற்பித்தல் மற்றும் கற்கும் திறனை வளர்த்துக் கற்பித்தலை மேம்படுத்துதல்.
ஆய்வுமாதிரி	கெங்கவல்லி ஊராட்சி ஒன்றியத்தில் உள்ள12 நடுநிலைப்பள்ளிஆசிரியர்கள் மற்றும் 3 துவக்கப்பள்ளிஆசிரியர்கள்
ஆய்வுமுறை	தேர்வு. ஆசிரியர்களுக்கு பாடப்பொருளைக் கதைகளாக மாற்றிக் கற்பித்தல் குறித்த பயிற்சி அளித்தல்.
கண்டறியப்பட்டது	இந்த செயலாராய்ச்சியின் மூலம் பாடப்பொருளைக் கதைகளாக மாற்றி வகுப்பறையில் விளக்கும் திறன்கள் மிகவும் பயனுள்ள தகுதியான ஒரு கல்வி கருவியாக இருக்கும் என்பதை இந்த ஆய்வு தெளிவுபடுத்துகின்றது. பாடக்கருத்தைக் கதையாக கூறும்போது மாணவர்களின் கற்றல் முழுமையடைகிறது. இந்த ஆய்வில்

	பங்கு பெற்ற ஆசிரியர்களின் பாடக் கருத்தைக் கதையாக வடிவமைக்கும் திறன் மேம்படுத்தப்பட்டுள்ளது.
பரிந்துரை	இந்த செயலாராய்ச்சியின் கண்டு பிடிப்பிலிருந்து ஆசிரியர்கள் பாடப் பொருளைக் கதைகளாக மாற்றும் திறன்களை வளர்த்து கொள்வது மிக அவசியம் என்று கருதப்படுகிறது. அந்த திறன்கள் வகுப்பறையில் மாணவர்களிடையே மாறுபட்ட அனுபவங்களையும் செயல்பாடுகளையும் தருகின்றது. பாடக்கருத்துகள் முழுமையாக மாணவர்களைச்சென்றடைய இந்தகதைக்கூறும் முறை பயன்படும் . அனைத்து பள்ளிகளிலும் அனைத்து வகுப்புகளிலும் பாடக்கருத்தை கதையாகத் தரும்பட்சத்தில் மாணவர்களின் கவனஈர்ப்பும் ஆர்வமும் கற்றலும் அதிகரிக்கும் என்றுஅறியமுடிகின்றது.
முடிவு	பாடப்பொருளைக்கதைகளாக மாற்றி வகுப்பறையில் கற்பிக்கும்போது மாணவர்களின் கவனஈர்ப்பும் ஆர்வமும் அதிகரித்துள்ளது.

1. **Action Research Title:2019-2020**

   Developing knowledge on preparing testing devises for higher secondary biology teachers.

2. **Name of the Researcher :**

   B.Uthayakumar, Lecturer, DIET - Uthamacholapuram, Salem -10.

3. **Objectives:**

   - To design and develop a module to use different testing devices in framing questions.
   - To develop the teachers to prepare a question bank for competitive examinations.

4. **Sample:** 15 Higher secondary Biology handling teachers

5. **Tool and Interventions Used:**

   Tool: Questionnaire

   Interventions: One day training was given to preparing various types of testing devises, Analysis of previous year's competitive (NEET) questions, Content analysis, Designing and developing competitive based questions

6. **Findings:**

   Findings on Findings on knowledge on preparing testing devices for framing questions

   - 23 percentage of the samples have Knowledge on testing devices used in the competitive examination in the pre-test has increased to 100 percentage in the post test.
   - 47 percentage of the samples have Knowledge on Identification of the stem part in a question in the pre-test has increased to 100 % in the post test

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- Findings on skill on preparing questions using different test devices.
- It was found that all the teachers (100%) have developed their skills in using different test devices to frame questions

7. Implications and Suggestions:

- ❖ It is recommended that all the teachers handling subjects in the high and higher schools should be motivated and trained to prepare competitive based questions using different types of testing devices.
- ❖ The questions prepared based on the competitive orientated exams tom be validated by the subject experts and disseminated to other schools.

8. Conclusions:

All the teachers have developed their knowledge on different test devices in framing questions and they have developed their skill in framing competitive based questions using different types of test devices.