District Institute of Education and Training, Pudukkottai.

Action Research Abstract (2023-2024)

S. no	Name of the Faculty	Title
1	Dr.G.Murugan SL	Facilitating understanding of the concept organization of lifeamong VIII students
2	Dr.M.Rajkumar SL	Enhancing the understanding the Concept of "making efforts to protect Environment" among VIII standard students
3	Mr.M.Mariyappan SL	Developing the skill classifying the materials based on properties among VIII standard students
4	Dr.V.Narayanan SL	Enhancing the skill of describing theTeaching learning materials for thestudents of standard VII
5	Dr.M.Dhanasekaran L	Enhancing the understanding of the concept “people’s revolt” through blended learning among VIII standard students
6	Dr.P.Palanisamy L	EnhancingtheunderstandingtheconceptoflightamongVIIIstandardstudentsthroughmultimedia
7	Dr.S.Muthukkaruppan L	எட்டாம்வகுப்புமாணாக்கரிடையேகனமூலம்கணக்கிடும்திறனைபல்லூடகம்வழியில்மேம்படுத்துதல்
8	Dr.M.A.Sankaran L	ஆறாம்வகுப்பு மாணவர்களிடையே கோ-கோ விளையாட்டில் உள்ள திறன்களைதகவல் தொழில்நுட்பம் மூலம் மேம்படுத்துதல்
9	Mrs.U.Bhuvaneshwari L	Enhancing understanding the concept of motion among VI standard students through ICT
10	Dr.R.Gobalakrishnan L	Enhancing the understanding of the concept “Cell structure” among VII standard students through ICT

Action Research Number (2023-2024) **:TN-PDK 01**

1. Name of the Investigator: Dr.G.MURUGAN, Senior Lecturer.

2. Name of the DIET: Pudukkottai

3. Topic of the Research: Facilitating understanding of the concept organisation of life among VIII students

4. Objectives of the study:

1. To identify the reason for Student's inability to achieve the competency.
2. To design the strategies to enable the pupils to achieve above competency.
3. To implement the strategies.
4. To measure the achievement after the implementation of the strategies

5. Sample:

The investigator followed the single group experimental design. The self-made achievement test was selected and administered to the VIII standard PUMS, Perunkondanviduthy, Pudukkottai Block. The pretest was conducted after the classroom transaction. The Researcher used an activity and multi-media projector with explanation as an innovative approach. A post test was conducted, and the scores were tabulated.

6. Tools:

Teacher made achievement test-tool was used. The same test tool was used for both pre-test and post-tests. The investigator conducted pre-test at the beginning of the study and a post-test was conducted after providing a suitable teaching learning experience. Data was collected face to face method from the samples.

7. Methodology:

The investigator adopted single experimental group for this research. The investigator follows the following strategies to enhance students learning the concept of organisation of life.Multimedia Power Point Presentation, Lecture cum Demonstration Method and Experimental Method, Organisation of life – Video were used for implementation of the strategies. Procedure of data collection: The investigator collected the primary data through direct communication with students in the form of examination using a content related question paper. A statistical technique, descriptive and inferential analysis were used in the study.

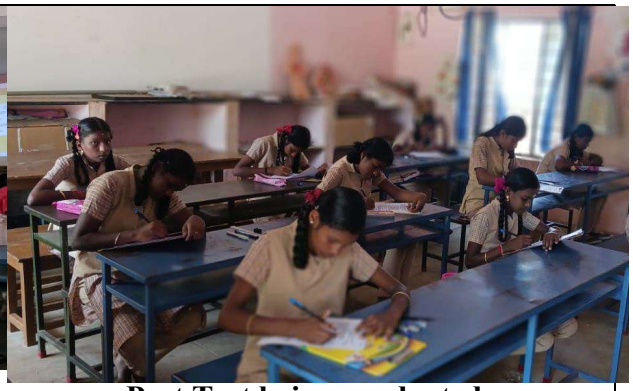
8. Findings:

The following are the main findings of the study.

- In the Pre-test the average percentage of the class is 31.78%.

- In the post – test the average percentage of the class is 67.5%
- The difference in the average of the class between pre and Post test is 35.8%.

Pre Test going on



Post Test being conducted

Interaction with the students

Action Research Number (2023-2024) **:TN-PDK 02**

Name of the investigator: Dr.M.Rajkumar, senior lecturer.

2. **Name of the DIET**: Pudukkottai

3. **Title :**ENHANCING THE UNDERSTANDING THE CONCEPT OF "MAKING EFFORTS TO PROTECT ENVIRONMENT" AMONG VIII STANDARD STUDENTS

4.**Objectives**

- ✓ To identify the initial level of understanding the concept of making efforts to protect environment among Vlll standard students.
- ✓ To improve the understanding the concept of making efforts to protect environment through ICT.
- ✓ To find out the post level of understanding concept of making efforts to protect environment.

5. **Sample**

For the present study 32 VIII standard students from PUMS, Illupakudipatti, Kundrandarkovil Block, Pudukkottai District were selected.

6. **Tool**

For this study 20 questions were prepared for the assessment of understanding the concept of making efforts to protect environment.The action research tool was designed by the researcher based on understanding, comprehension and application. All the questions were designed to choose the correct answer and fill in the blanks. The questions were prepared for 20 marks on the basis of one mark for each question.

7. **Methodology**

Single group pre test, post test experimental design adopted by the investigator.

7.1 .**Intervention:**7.1.1 Videos

A. Video on deforestation , causes of deforestation and effect of deforestation.

B. Videos on the list of endangered species \

C. Videos on importance of conservation of wildlife and

D. Videos on functions of animal welfare organisations.

7.1.2. Visual images:A. Story of Dodo and Calvaria tree.

B. Biography of Wangari Mathai.

C. Information about Span Swallow bird.

D. Fact about global warming.

7.1.3. Field demonstration

8. **Findings**

* The pre-test mean score on understanding the concept of making efforts to protect environment among 8th standard students is 26.71% and standard deviation is 8.60 .

* The post-test mean score on understanding the concept of making efforts to protect environment among 8th standard student is 67.65% and standard deviation is 14.41.

* The difference between the post test and pretest mean score is 40.94%.

* The effect size of the mean of pre test and post test of the student is 3.45 Which is consider large effect size by Cohen (1992).

<table>
<tr>
<td> 

Videos</td>
<td> 
Interactive Class room</td>
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Visual Image</td>
<td> 
Implementation</td>
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Action Research Number (2023-2024) **:TN-PDK 03**

1. **Name of the Investigator**: Mr. M. Mariappan
2. **Name of the DIET** : Pudukkottai
3. **Title** : DEVELOPING THE SKILL CLASSIFYING THE MATERIALS BASED ON PROPERTIES AMONG VIII STANDARD STUDENTS

4. Objectives :

- To identify the level of understanding of students on classification of materials
- To design activities to tech them the concept of classifying materials
- To executed the activities to reach them the same
- To measure the improvement of understanding students of the intervention

5. Sample **:**50 Students from VIII standard students in Panchayt Union Middle School, Ponpudupatti, Ponnamaravathi Block in Pudukottai district.

6. **Tool:**Pre-test and Post-Post were used to assess the understanding properties of material based amongVIII standard students.
7. **Methodology:** In the present study, experimental method was adopted.
8. **Findings** :

- The level of understanding in pre test30.15 %and post test 69.84%.
- The mean scores of post test 70.00 is higher than the mean scores of pre test 30.22. The calculated 't' value24.10 is greater than the table value 1.98 significant at 0.05 level. It is concluded thatthere is significant difference between pre and post test of Understanding of material based Properties among Standard VIII Students through skills classifying
- The mean scores of pretest of boys 30.96 is higher than the mean scores of pretest of girls 29.27.The calculated t value 0.90 is less than the table value 2.01 significant at 0.5 level. It is concludedthat there is no significant difference between pre test of boys and girls of understanding of material based properties.
- The mean scores of posttest of girls73.68 is higher than the mean scores of post test of boys 67.10. The calculated tvalue is 2.55 is higher than the table value 2.01 significant at 0.5 level. It isconcluded that there is significant difference between post test of boys and girl so understanding of material based properties.

PHOTOS

Class Room interaction

Students readying for pre test

Activity for the students

Post test going on

Action Research Number (2023-2024) **:TN-PDK 04**

1.Name of the Investigator: Dr.V.NARAYANAN, Senior Lecturer

2. Name of the DIET: Pudukkottai

3. Topic of the Research: ENHANCING THE SKILL OF DESCRIBNING THE TEACHING LEARNING MATERIALS FOR THESTUDENTS OF STANDARD VII

4. Objectives of the study:

1. To identify the entry level of the students in describing objects and pictures.
2. To design various activities to motivate them to describe the things and pictures given to them.
3. To execute the activities among the students to develop their skill of describing.
4. To assess the improvement of the students after the intervention.

5. Sample:

The investigator followed the single group experimental design. The self-made achievement test was selected and administered to 39 Students of Class VII in Panchayat Union Middle School, Aavudayarkoil, Pudukkottai district.

6. Tools:

Teacher made achievement test-tool was used. The same test tool was used for both pre-test and post-tests. The investigator conducted pre-test at the beginning of the study and a post-test was conducted after providing a suitable teaching learning experience.Data was collected face to face method from the samples.

7. Methodology:

The investigator adopted single experimental group for this research. The investigator follows the following strategies to enhance students learning the concept of organisation of life. Multimedia Power Point Presentation, Lecture cum Demonstration Method were used. **Procedure of data collection**: The investigator collected the primary data through direct communication with students in the form of examination using a content related question paper. A statistical technique,descriptive and inferential analysis are used in the study.

8. Findings:

The following are the main findings of the study.

1. The level of skills for teaching learning materials 30% in the pre-test to 70% in the post-test. This improvement indicates that there has been a significant enhancement in the level of skills for teaching learning materials.
2. The mean score of the post-test, 18.05, is higher than that of the pre-test, 7.73. The calculated 't' value of 8.23 exceeds the critical value of 2.02 at the 0.05 significance level. Therefore, it is concluded that there is a significant difference between the pre and post-test scores for teaching learning materials among VII standard students.

3. The mean score of the pre-test for girls' students, 9.6, is higher than that of boys' students, 7.4. The calculated 't' value of 0.89 is less than the critical value of 2.10 at the 0.05 significance level. Therefore, it is concluded that there is no significant difference between the pre-tests of boys and girls for teaching learning materials among VII standard students.
4. The mean score of the post-test for girls' students, 18.53, is higher than that of boys' students, 17.2. The calculated 't' value of 1.05 is less than the critical value of 2.10 at the 0.05 significance level. Therefore, it is concluded that there is no significant difference between the post-tests of boys and girls for teaching learning materials among VII standard students.

Class Room interaction

Activity by the Investigator

Discussion with the students

Post test going on

Action Research Number (2023-2024) **:TN-PDK 05**

1.Name of the Investigator: Dr. M. Dhanasekaran, Lecturer.

2. Name of the DIET: Pudukkottai

3. Research Title :

Enhancing the understanding of the concept “people’s revolt” through blended learning among VIII standard students

4.Objectives:

- To determine the level of pre-existing knowledge among standard VIII students regarding the concept of "People's Revolt."
- To create blended learning activities specifically designed for VIII standard History, focusing on the concept of "People's Revolt."
- To implement the blended learning activities among VIII standard students.
- To evaluate the level of understanding of the concept of "People's Revolt" through a post-test assessment

5. **Samples:** For the present study 19 students of VIII from Government High School, Nambanpatti, Karambakudi block, Pudukkottai district were selected by the investigator. Purposive sampling techniques was used for this action research.

6. **Tool :**Questions for the assessment were constructed for this study. 25 questions from the history section of the VIII Standard lesson " **people’s revolt** " were included in it.

7. **Methodology:**Single group experiment design adopted by investigator.

Intervention:1. YouTube Video Series - "People's Revolt Chronicles":

2. YouTube Expert Interviews - Insights from Historians
3. Play way Method
4. Role Play

8.Findings

- The pre-test and post-test scores reveal a notable improvement in student achievement after the implemented activities.
- On average, students' pre-test scores were 32.63, while their post-test scores increased substantially to 61.94.
- The total marks obtained in the post-test (1177) surpassed the total marks in the pre-test (620), indicating an overall positive trend in student performance.

- Individual student data highlights significant improvements for each participant.Notable examples include Dineshkumar S. and KailsasaNathar V., who showed remarkable increases of 40 and 35 marks, respectively, from pre-test to post-test.The positive differences in scores suggest that the interventions positively impacted students across the board.

	
Students actively enjoying the YouTube videos on the topic..	Students enjoying visual clipping on the topic.
	
Students actively engaging in a play way method during interaction.	Students responding to the game play activity in class room.

Action Research Number (2023-2024) **:TN-PDK 06**

1. **Name of the investigator**: Dr.P.PALANISAMY, LECTURER.
2. **Name of the DIET**: Pudukkottai

3. **Title** ENHANCING THE UNDERSTANDING THE CONCEPT OF LIGHT AMONG VIII STANDARD STUDENTS THROUGH MULTI MEDIA

4.**Objectives**

1. To identify the level of pre knowledge about light and its laws and applications among VII Istandard students.
2. To design activities incorporating multimedia on light and its laws andapplicationsexplained with different teaching learning process (Videomode)
3. Toimplementthedesignedactivitiesonlightanditslawsandapplicationsfor betterunderstandingof students.
4. To find out the level of post knowledge about light and its laws andapplications

5. **Sample**

For this present study 49 students of VIII from Panchayath Union Middle School, Meboothakudi, Viralimalai block, Pudukkottai district.

6. **Tool**

The investigator made achievement test was conducted. The same test toolwas used for both pre -test and post -tests. The investigator conducted pre-test at the beginning of the study and a post test was conducted after providingasuitable teachinglearning processthroughMultimedia.

7. **Methodology**

The present study experimental method with single group design was adopted.

7.1 .**Intervention:**

The selected upper primary school students were taught through Multimedia.

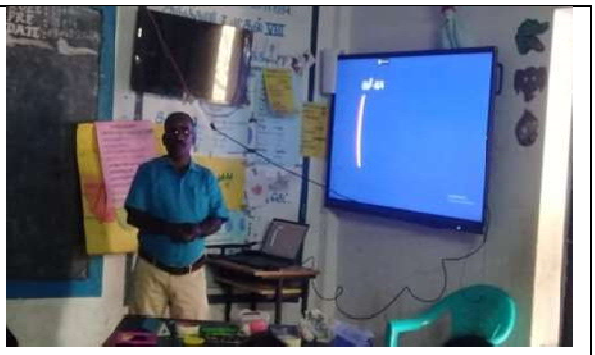
8. **Findings**

1.The post-test level of understanding the concept of light, at 64.23%, is higher than the pre-test level, which is 35.76%, among VIII standard students.

2.The mean score of the post-test for understanding the concept of light is 8.10, which is

higher than the mean score of the pre-test, which is4.51. There is a significant difference between the pre-test and post-test scores for understanding the concept of light among VIII standard students.

Activi going for students



ICT usage as part of Intervention

Pre Test for the sample

Post Test going on

Action Research Number (2023-2024) :TN-PDK 07

1. Name Investigator: Dr. S. Muthukaruppan, Lecturer
2. Name of the DIET: Pudukkottai

3.Title:**எட்டாம் வகுப்பு மாணாக்கரிடையே கன மூலம் கணக்கிடும் திறனை பல்லூடகம் வழியில் மேம்படுத்துதல்**

4.ஆய்வின் நோக்கம் (Objectives of the study)

1. கன எண்களுக்கு கனமூலம் காண்பதில் உள்ள இடர்பாடுகளைக்கண்டறிதல்.

2.இடர்பாடுகளைக் களைய தனிநபர் செயல்பாடுகள் தயாரித்தல் மற்றும் செயல்பாடுகளை பல்லூடக வழியில் நடைமுறைப் படுத்துதல்.

3. தனி நபர் செயல்பாடுகள் மூலம் அடைவுத்திறனை மேம்பாடு அடையச் செய்தல்.

4.அடைவுத் திறன் மேம்பாட்டைக் கண்டறிந்து தரவுகளை பகுப்பாய்வு செய்து, ஒப்பிட்டு முடிவினை வெளிப்படுத்துதல்.

5.மாதிரி (Sample)

இவ்வாவின் மாதிரியாக புதுக்கோட்டைமாவட்டம், திருவரங்குளம் ஒன்றியம், ஊராட்சி ஒன்றிய நடு நிலைப்பள்ளி மேலக்கோட்டையில் பயிலும் அனைத்து எட்டாம் வகுப்பு மாணாக்கர்களும் (27) எடுத்துக்கொள்ளப் பட்டார்கள்.

6.கருவி (Tools)

ஆய்வாளரால்தயாரிக்கப்பட்டமுன்தேர்வு-பின் தேர்வு வினாத்தாள் இவ்வாய்வின் ஆய்வு கருவியாக பயன்படுத்தப் பட்டது.

7.**ஆய்வுமுறை** (Methodology) ஒரு குழு முன் தேர்வு-பின் தேர்வு பரிசோதனை முறை இச்செயலாய்வின் ஆய்வு முறையாக கையாளப்பட்டது

இடைவினையாக்கம் (Intervension): மாணவர்களுக்கு கன மூலம் கணக்கிடும் கணக்குகள் காட்சி பாடம் (video lesson) மூலமாக செயல்பாட்டு முறையில் மடிக்கணினி மூலம் காண்பிக்கப்பட்டு செயல்பாட்டு தாள்களில் பயிற்சி செய்து மாணவர்களின் அடைவுத்திறன் மேம்பாடடைய செய்யப்பட்டது.

8.(**முடிவுகள்** (Major findings)

முன்தேர்வு சராசரி 49.30%, பின்தேர்வு சராசரி 80.37%. இரண்டிற்கும் உள்ள வேறுபாடு 31.07%. மேலும் முன்-தேர்வு , பின்-தேர்வுக்கு இடையேயான விளைவு அளவு (Effect size) 3.49 ஆகும். இங்கு விளைவு அளவு 3.49>0.8 என்பதால், முன்-தேர்வு மற்றும் பின்-தேர்வுக்கு இடையே அதிக விளைவு அளவு (Large effect) உள்ளது.

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9. Photos

1. pre-test for the sample

1. Treatment for the students

2. Treatment going for the sample

3. Post-test going on smoothly

Action Research Number (2023-2024) :TN-PDK 08

1. ஆய்வாளர் பெயர்:முனைவர். மு. ஆ. சங்கரன், விரிவுரையாளர்

2.நிறுவன பெயர்: மாவட்டஆசிரியர் கல்வி மற்றும்பயிற்சி நிறுவனம் புதுக்கோட்டை

3**தலைப்பு**:ஆறாம் வகுப்பு மாணவர்களிடையே கோ-கோ விளையாட்டில் உள்ள திறன்களை தகவல் தொழில்நுட்பம் மூலம் மேம்படுத்துதல்.

4.ஆய்வின்நோக்கம்:

- மாணவர்களின் கோ-கோ விளையாட்டின் திறன்களை பற்றிய முன் அறிவை கண்டறிதல்
- கோ-கோ விளையாட்டில் திறன்களை தகுந்த உத்திகள் வடிவமைத்தல்
- உத்திகளை பயன்படுத்தி மாணவர்களிடையே கோ-கோ விளையாட்டின் திறனை மேம்படுத்துதல்
- மாணவர்களே கோ-கோ விளையாட்டின் திறனை பயிற்சிக்கு பின் கண்டறியப்பட்டது

5.ஆய்வுமாதிரி: புதுக்கோட்டை மாவட்டம் அறந்தாங்கி ஒன்றியம் நகராட்சி நடுநிலைப்பள்ளி ஆய்விற்காக எடுத்துக் கொள்ளப்பட்டது. இப்பள்ளியில் பயிலும் ஆறாம் வகுப்பில் 40 மாணவர்கள் ஆய்வுக்காக ஆய்வு மாதிரியாக எடுத்துக் கொள்ளப்பட்டது.

6.ஆய்வுகருவிகள்ஆறாம் வகுப்பு மாணவர்களுக்கு கோ-கோ விளையாட்டில் உள்ள திறனை தகவல் தொழில்நுட்பம் மூலம் மேம்படுத்துதல் என்ற தலைப்பிற்கான ஆய்வை மதிப்பீடு அறிய வினாப் படிவம் ஆய்வாளரால் தயாரிக்கப்பட்டன.

7 ஆய்வுமுறைகள்

- விரிவுரை முறை
- காணொளி காட்சிகள் மூலம் விளக்குதல்
- செய்து காட்டும் மூலம் விளக்குதல்

8.ஆய்வின்முடிவுகள்:

- 1.ஆறாவது மாணவர்கள் கோ-கோ விளையாட்டின் திறன்களை முழுமையாக அறிய முடியும்.

- 2. மாணவனுடைய விளையாடுவதில் முக்கியத்துவத்தை உணர முடியும்.
- 3. உடல் வளர்ச்சி பற்றிய அறிவு மேலோங்கும்.
- .4. விளையாடுவதை மூலம் உடம்பில் எந்தப் பகுதிகள் வலிமை பெறுகின்றது என உணர முடியும்.
- 5. விளையாடுவதன் மூலம் மாணவரிடம் சமத்துவ தன்மை உருவாகும்.

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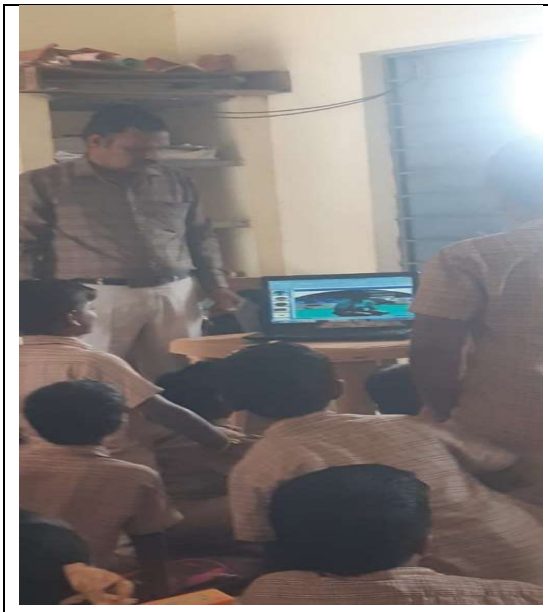
<td> 
கோ- கோ விளையாட்டில் விரிவுரை முறை , காணொளி காட்சிகள் மூலம் விளக்குதல்.</td>
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கோ- கோ விளையாட்டில் முக்கிய திறன்கள் ஆன தவிர்த்து ஓடும் திறன் மற்றும் சங்கிலி கோ ஓட்டம்</td>
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<td> 
Students play co-co and learn skills</td>
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Students have direct experience by playing the game</td>
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Action Research Number (2023-2024) **:TN-PDK 09**

1. Name of the Investigator : U.Bhuvaneswari , Lecturer in chemistry
2. Name of the DIET : Pudukkottai
3. Title :ENHANCING UNDERSTANDING THE CONCEPT OF MOTION AMOMG VI STANDARD STUDENTS THROUGH ICT
4. Objectives :
    - To identify the current level of understanding of the Students about the concept of motion.
    - To Plan and Prepare activities for understanding the concept of motion.
    - To enhance the understanding of the Students about motion through the developed activities incorporated with ICT.
    - To find out the level of understanding by implementing the developed activities.
5. Sample :

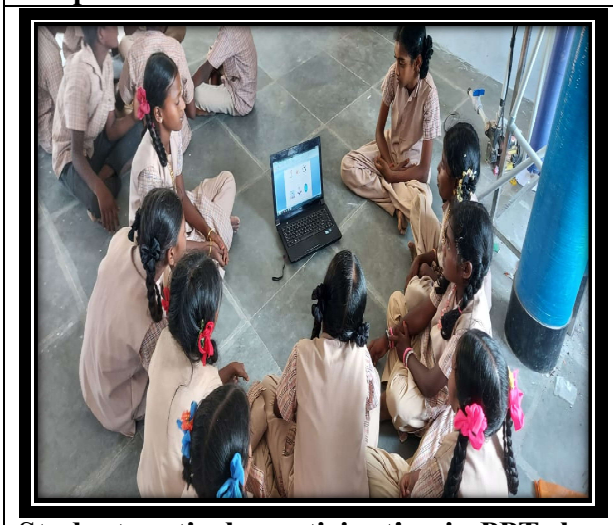
    Simple Random sampling technique used in this research, 20 students were selected from VI standard student's studying in PUMS Kadayakudi, Arimalam Block in Pudukkottai district.
6. Tool :

    Achievement test questionnaire was prepared by the investigator and was used as a tool for both Pre test and Post test.
7. Methodology :

    A single group pre test and post test approach was followed in this Action Research.
8. Findings :
    - The mean score of the Post Test was 80.77 is greater than the Pre Test score 49.23.
    - The standard deviation varies from 10.77 to 9.97 for Pre and Post test.
    - The usage of Worksheets, power point and videos were an effective to enhance the students understanding about the concept of motion.

Investigator explaining the concept to the sample.

Students eagerly watching videos to learn the concept.



Students actively participating in PPT show.

Investigator reinforcingthe concept through worksheets.

Action Research Number (2023-2024) **:TN-PDK 10**

Name of the Investigator: Dr.R.Gobalakrishnan, Lecturer.

2. Name of the DIET: Pudukkottai

3. Topic of the Research: Enhancing the understanding of the concept "Cell structure" among VII standard students through ICT

4. Objectives of the study:

5. To identify the current level of understanding in the concept of "Cell Structure" to the VII standard students.
6. To design the strategy using ICT tools to the concept of Cell Structure.
7. To enhance the understanding in the concept of "Cell Structure" to the VII standard students.
8. To measure understanding in the concept of "Cell Structure" to the VII standard students after the implementation of strategy.

5. Sample:

52 students of male studying in class VII of Government Higher Secondary School, Thiruvarankulam, Thiruvarankulam Block, Pudukkottai District were taken as sample for analysis.

6. Tools:

Teacher made achievement test-tool was used. The same test tool was used for both pre-test and post-tests.

7. Methodology:

The investigator adopted single experimental group for this research. Procedure of data collection: The investigator collected the primary data through direct communication with students in the form of examination using a content related question paper. Data Analysis: The following statistical techniques are used in the study: Descriptive and inferential analysis, box plot and effect size.

8. Findings:

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- The average means score of the pre-test was 7.81 and that the post-test was 10.87 and achievement difference percentage was 3.06.
- The pretest results percentage is 39.04 and after the achievement results percentage is 54.33. The enhancement variation between pre and post tests percentage is 15.29.
- In addition, Boxplot pre-test interquartile range (IQR) between 3 to 13 and post-test interquartile range (IQR) between 6 to 16. Therefore, after the treatment students were performed better than the pre-test attainment.
- Present action research study achieved a large effect size (< 76%) between the pre and post-test statistically as per Cohen`s rule of thumb guidelines.

The pre-test and post-test differ significantly in their achievements. It means, after the integrated of ICT into teaching and learning method students are understood the Cell structure concept more compare than the pre-test knowledge

The researcher during online 3D model teaching activity to the sample

Distribution of TLM to students by the researcher.

Students working together on the theme.

A group of students presenting their theme in the class room.