



St. Joseph College of Teacher Education for Women Ernakulam



CRITERION II

2.7.5 Performance of students on various assessment tasks reflects how far their initially identified learning needs are catered to

(Documentary evidence in respect to claim)

Submitted to

**National Assessment and Accreditation Council (NAAC)
3rd Cycle of Assessment**



**ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN ERNAKULAM
KOCHI-682035, KERALA**

2.7.5 Performance of students on various assessment tasks reflects how far their initially identified learning needs are catered to

(Documentary evidence Of the need Student Diagnosis)

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Case Study

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Introduction

Case study in psychology refers to the use of a descriptive research approach to obtain an in-depth analysis of a person, group, or phenomenon. A variety of techniques may be employed including personal interviews, direct observation, psychometric tests, and archival records. In psychology case studies are most often used in clinical research to describe rare events and conditions, which contradict well established principles in the field of psychology.

Case study is generally a single-case design, but can also be a multiple-case design, where replication instead of sampling is the criterion for inclusion. Like other research methodologies within psychology, the case study must produce valid and reliable results in order to be useful for the development of future research. Distinct advantages and disadvantages are associated with the case study in psychology. The case study is sometimes mistaken for the case method, but the two are not the same:

One major advantage of the case study in psychology is the potential for the development of novel hypotheses for later testing. Second, the case study can provide detailed descriptions of specific and rare cases. Major disadvantage of case studies is that it cannot be used to determine causation. It cannot necessarily be generalized to the larger population and cannot demonstrate cause and effect. It may not be scientifically rigorous and can lead to bias.



Researchers may choose to perform a case study if they are interested in exploring a unique or recently discovered phenomenon. The insights gained from such research can help the researchers develop additional ideas and study questions that might be explored in future studies.

However, it is important to remember that the insights gained from case studies cannot be used to determine cause and effect relationships between variables. However, case studies may be used to develop hypotheses that can then be addressed in experimental research.



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Objectives

The main objective of the case study is to provide understanding of a child's total personality and to help in removing the undesirable behaviour. It is useful to obtain specific information about innerspart of one's life.

Some other general objectives of a case study are:

- * describe an individual situation (case).
eg. a person, business, organisation or institution in detail.
- * identify the key issues of the case.
- * to analyse the case using relevant theoretical concepts from unit or discipline.
- * recommend a course of action for that particular case.
(particularly for problem-solving case studies).
- * generalise the knowledge obtained to all similar cases.
- * explore reality to formulate a theory.
- * to describe what happens in the case.
- * explain the causes that cause it.

Unlike many of the other existing types of research, the case study is inductive, i.e., it goes from concrete situations to a general explanation.



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Scope in Education

Child study provides information in psychological states evaluating the development of the states and norms of behaviour of child. Piaget gives information in psychological process like learning motivation, maturation and socially acceptable life, moreover it gave practical suggestions for guidance of the child on growth and development how to pass personal and social components of their culture and each culture with the number of other characters.

Case studies are often used in exploratory research. They can help us generate new ideas. They are an important way of illustrating theories and can help to show different aspects of a person's life are related to each other.

Case studies allows a researcher to investigate a topic in more depth than might be possible if they were trying to deal with a large number of research participants with the aim of energy. The method is important for psychologist who adopts a holistic point of view.



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Common Procedure

A case study research design usually involves qualitative methods, but quantitative methods are sometimes also used. Case studies are good for describing, comparing, evaluating and understanding different aspects of a research problem.

Observation

It is the popular method to study the behavioural pattern of an individual in actual life situation. In this method, the observer decides what personality traits and characters are needed to know and then observe the relevant activities of the subject in real life situation.

The following are the important types of observation:

- (a) Participant observation: It is the type of observation in which the observer becomes the part of the group which he wants to observe.
- (b) Non-participant observation: In this type of observation, the observer observes the group under study without actually participating in its activities.
- (c) Controlled observation: In controlled observation, observation is made under controlled conditions. In this, the observer may equip an experimental laboratory with manifold objects.
- (d) Uncontrolled observation: Here the observation is done in natural setting as they occur spontaneously.

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Interview

An interview is a data-collection encounter between two or more people where questions are asked by a person (interviewer) to obtain information from another person (interviewee). It is a face-to-face or long distance discussion between two or more people to collect information.

Types of interview: There are two types of interview - structured and unstructured.

- (a) Structured interview: The interviewer follows a predetermined plan of interview. He may use either a list of questions or checklist of general topic as a guide.
- (b) Unstructured interview: In unstructured interview, the interviewer is free to develop the conversation along the lines that seems most suitable to him.

Questionnaire

A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents through survey in statistical study. The questionnaire was invented by statistical society of London in 1838. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort, have standardized answers that make it simple to compile data.



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Sociometry

It is a method of answering the social relationship among the members in a group through the measurement of frequency or non acceptance between the individuals of the form. The data collected teacher could be make a social map which is known as sociogram. A sociometric technique is an important standard, non standard technique to observe the nature of relationship of individual within a group.

Biography

It is a detailed description of a person's life. It involves more than just the basic facts like education, work, relationships and death; it portrays a person's experience of life events. Unlike a profile or curriculum vitae (resume), a Biography presents a subject's life story, highlighting various aspects of their life, including intimate details of experience, and may include an analysis of the subject's personality.



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Introduction to Case Study

As a part of B.Ed curriculum we have an internship programme for about four months from October to 3rd February 2023. It was to improve our teaching competency. My teaching practice was at St. Mary's C.G.H.S., Ernakulam. I took Biology for the classes VIII D and IX A. As a part of this internship programme, for the practical work of EDU 302.1, I have done a case study based on learning problems on one student from class IX A. Dr. Sr. Soya Mathew gave us proper instructions regarding the case study and for the completion of work.

For finding out one student who have learning problems, I observed students of my concerned class for one month. Within one month itself I could find the student. With proper observation and analysis, I was able to select the student and studied her problem. Her name was Anupama Sumesh.

Anupama Sumesh is basically an introvert child who struggles to communicate or interact in a group. She has a very low and slow action in all classes and in group activities. She very rarely participates in group discussions and need a back support to open up her mind to present her views. Even though she know the answer she has a guilt feeling and hesitation to speak up in the class. She has low academic performance and has no interest in extra and co-curricular activities.



She regularly fails in exams and not even completes her homeworks. When an attempt to talk to her was done, it requires great effort for me to make her talk about herself and her family. Beyond this, she finds it very difficult to write and completing sentences. Her writing skills are very poor.

She joined this school when she was in 7th standard which was fully conducted in online sessions. Because of this, teachers also had a low idea about her proper conditions. I selected her for my case study and collected information from her old class teachers, friends and by many methods like observation, interview, questionnaire etc.

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Methods used to collect data

Relevant data are collected from the teachers, friends, parents and herself through various methods. This methods helped a lot to complete the case study well. The methods used for data collection are observation, interview, class test, achievement test and other classroom activities.

1) Observation

Observation means the examination of something especially for the collection of data. It is the oldest and most commonly used technique of observing. I started observing Anupama from the first week itself. I noticed her for the first time when she was sitting alone in the last bench. She replied to my questions only through nodding the head. She always wanted to be alone. She talk only to just one student who sit aside her. She is not attentive to the class. She talks less. I observed her for one month about her behaviour, way of talking, preventing herself to the class, way of presenting etc. and prepared interview questionnaire to ask to Fidha Fathima her friend and then to identify the problems.

2) Interview

Interview is a technique of collecting information directly through face to face interaction. After one month observation, I decided to talk to her personally. I asked about her studies, friends, family, place etc. I note down the



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details in the diary. I noticed her performance in the class and talked to her when she comes to school. Most of the day, me and Anupama were in the same bus in the morning. So we had conversation and understand about her problem.

3) Cumulative Record

The cumulative record is the compilation of information maintained in the school for the student. It contains factual, objective and professional information regarding a student's academic progress, mid-term and final marks etc. Anupama joined at St. Mary's C.G.H.S.S., Kanakulam when she was in 7th standard. The information regarding her studies, extra curricular activities, health conditions etc. was collected from his 7th standard class teacher Mrs. Meenu Shekhar. She gave me academic information and classroom interaction details. Moreover her knowledge was limited since the entire year was done online.

4) Achievement test

Class tests are conducted after the completion of each unit. First class was taken on the chapter 'respiration'. So I conducted class test on that topic. She secured very less marks in the class test. The class test or achievement test helped me to understand about her learning level and to understand her learning problems. She was not taking effort to get good marks in the exams.

5) Projective tests

A projective test is a personality test designed to let a person respond to ambiguous stimuli, presumably



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revealing hidden emotions and internal conflicts projected by the person into the test. This is sometimes contrasted with a so-called "objective test" / "self-report test", which adopt a "structured" approach as responses are analysed according to a presumed universal standard and are limited to the content of the test. She completed the test properly and handed it to me.

Procedure of the Study

The present study of understanding the child lasted for about three months during the internship programme. The selection of the child was done within a month and relevant data was collected within a particular time period.

Valid information was collected through observation, interview, achievement test, projective test etc. I used to observe her during the school hours and during my class hours. In order to collect more informations about her, in detail, I interviewed her as well as her peers and did a projective test.



Description of the Case

The child I have selected for the case study was a student from class IX A of St. Mary's C.G.H.S.S., Ernakulam. She was Arupama Somesh. She was seemed to be an introvert with least interest in academics

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or non-academic activities. When I observed, I found that she had some difficulties in writing and usually she secures lowest scores. She hesitates to speak in classroom and not have friends except one. She won't answer if we asked anything and used to nod her head to answer the questions. She also used to be absent in the class regularly. It requires great effort for the teacher to make her talk.

General Data about the child

Name of the student : Anupama Suresh.

Age : 14

Sex : Female.

Home : Nellikkapparambil (A)
Trumbanam P.O
Puruthura

School Address : St. Mary's C.G.H.S.S, Kanakulam.

Standard : IX A

Name of the father : Suresh Saji

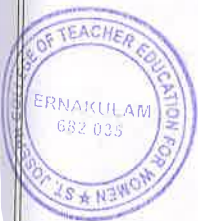
Education : +2

Occupation : Auto driver

Name of the Mother : Minamol P.K.

Education : Degree

Occupation : Office staff in a private firm



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Siblings : Brother
(studying in fourth standard)

Physical Condition and Health

Anupama's health is normal. She is 155 cm and weight around 53 kg. She seems to be healthy and fit.

Fear / Phobias

Anupama said that she feels hesitation to come to school and have fear of teachers. She does not have fear of failing the exams but afraid of oral test.

Happiness

She feels happy to be alone and likes to draw pictures. She used to paint occasionally.

Anger

She feels anger when friends make fun of her and when parent scolds her.

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Educational Conditions.

She hates to study the regular topics and hates her school and fellow beings. She said that she don't want to do any kind of school activities. She scores the lowest scores in the class.



Co-curricular activities

She is not found active in any co-curricular activities. Her teacher told when she is compelled to participate any kind of extra activities she used to be absent on those days. However Anupama loves drawing and paintings, but never participated in competitions.

Ambition

When I asked about her ambition she doesn't wanted to reply. It seems like she doesn't wanted to focus on any kind of goals or she may not have any ambition. When I compelled her, she said that she just wanted to be an artist.

Achievements

There were no considerable curricular or co-curricular achievements to be mentioned.

Memorable life experience

Happy moment → when she says about the happy moment she smiled and she says that she became happy when she see a beach, which was happensed two years before. And she watched sunset there. That was the happiest moment in her life.

Painful moment → Her heart broken when she found that her grandmother is no more. She said that, she felt alone at home during the covid online class.



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From the projective test, I gained information about her general mental emotion and personality to an extent, which was all normal.

Analysis

This case study provide an opportunity to have an overall information about a child in my classroom. With the use of data collected, I concluded that Anupama Sumesh is an extreme introvert child who have fears about school, class, teacher etc for some reasons. She lacks to gain confidence in things like painting. She is not interested in doing any activities at school. She feels bad or hesitates to present her drawings in front of her classmates even in front of her parents.

Because of lack of interest in studies, she has low academic improvement. She doesn't want to share her ideas in front of the class. Always used to sit alone. She doesn't talk too much. She become blank when the teacher asks her anything. She starts shivering. From the informations, I understood that she need extra care and time. Teacher should consider specially. Extra classes and workshops might help her to bring up from the ashes of hesitations.

Alice Joseph

Guidance and Counselling

Guidance is a process of assisting or helping the students by properly trained teachers. Guidance and counselling have, in all places, been a vital aspect of higher education. One of the purposes of education is to help the individual in becoming a useful member of society. If an individual receives education without proper guidance and counselling, he/she is not able to develop his/her personality fully.

Guidance based upon the fact, human being needs help. Every one needs assistance at some time in his life, some will need it constantly while others need it only at rare. "Counselling is a method that helps the client to use a problem-solving process to recognize and manage stress and that facilitates interpersonal relationships among client, family and health care team".

Anupama is a girl who demands care and affection. When I noticed her for the first time, I started to talk to her and communicated slowly with her. I put my effort to give her maximum support to bring her up and to be motivated. I asked questions and seeks from her. I encouraged her during my class by asking questions in a very friendly manner and asked her opinion.

Mlice Joseph

Remedial Recommendations.

Popit should motivate and should friendly connect to Anupama so that she interacts in a social mini environment. It is the duty of teacher to feel her secure and comfort during the class and should encourage her to make friends with other students. Parents should be little more aware about her behaviour and how the class reacts to her.

Proper guidance and counselling should be given for her mental development. Parents and teacher should take special attention and help her to make her academic performance better. Compel her to speak up and to take part in extra-curricular activities. Give her responsibilities, that may help her to bring herself up. Extra tuition should be provided in the school for improving her academic performances.

Implementation procedure to overcome difficulty

After summarizing the informations collected on Anupama Sumesh, I regularly observed her behaviour, performance, character during the class and outside the class. I created a favourable environment inside the classroom for Anupama. After a few days, compared to the earlier times, she became little more active in class activities.



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I used to give her attention and make her read the content from biology text. I gave her assistance and slowly I used to give her some tips and guidelines to study. I encouraged her drawings and paintings and appreciated in the class.

Result

After the implementation, there were some changes that I observed in Anupama's character. She began to be pleasant in the class. She started to ask doubts. Started to put efforts to improve her academic performance.

Towards the end of internship days, she became friendly with me and tried to learn new words each day.

She started to draw and paint whenever she get time and took to the school to show me. She took part in poster competition conducted as a part of club activity.



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Report

As a part of B.ed curriculum, we have an internship programme for about four months from October 2022 to 3rd February 2023. My teaching practice was at St. Mary's C.G.H.S.S, Karakulam. As the part of internship programme, a practical work of EDU 302.1 was there. That was case study. After one week of observations I selected one student and completed my case study within two months.

I selected Anupama Suresh of class IX.A. I selected her because I found some observable backwardness in the student from the early days of my internship programme.

After observing the student during the initial days, I prepared some questions to ask her. I collect informations from peers and teacher. Firstly she hesitated to answer, but I tried my best to collect maximum information. I referred the previous records of Anupama and concluded some findings from it. The answer sheet of her during the class test was observed and found that she has some writing problem. I also conducted a projective test to know her character and her mental conditions.

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From the data collected, I got an overall idea about my case. I understood that she is an introvert

and shows difficulties in communication and writing. After analysing the data proper remedial measures are implemented. I tried my best to make her active in the class and encouraged her in her academics. I tried to give confidence in her interesting areas like painting and drawing.

Doing this practical case study, I felt a sense of satisfaction. I got an insight on how to act accordingly and how a teacher should be in the class. Teachers should observe each and every student. Individual attention can improve student's academic performances. That will in turn leads to enhance the hidden talents of the students.

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in-depth investigations of a
of or community. Typically,
a variety of sources and by
methods (eg. observation and

The case study research method originated
in clinical medicine (the case history, i.e., the patient's
personal history). In psychology, case studies are often
confined to the study of a particular individual. The
information is mainly biographical and relates to
events in the individual's past (i.e., retrospective), as well
as to significant events which are currently occurring in
his/her everyday life.

The case study is not itself a research
method, but researchers select methods of data collection
and analysis that will generate material suitable for
case studies.

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BIODATA

General Information

1. Name:
2. Sex:
3. Date of birth
4. Religion
5. Community
6. Birth place
7. Address
8. Father's name
9. Occupation
10. Mother's name
11. Occupation
12. Siblings
13. Nature of family

Health status

1. Physical conditions
 - a. Height
 - b. Weight
 - c. Physical illness (if any)
2. Mental conditions
 - a. Emotional balance
 - b. Ways of expression
 - c. Introvert/Extrovert
 - d. Fears, phobias
 - e. Anger with what/whom
 - f. Happy with what/whom



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g. At peace-when

3. Educational conditions

a. School life

b. Favourite subject

c. Least favourite subject

d. Special interests

e. Co-curricular – Literary, Social, Nature, NCC, Sports, Arts

f. Hobbies

g. Achievements

h. Ambition

i. Experiences in life – memorable, painful, happiest

4. Projective test

a. Word association test

- Father
- Mother
- Teacher
- Friend
- Life
- School

b. Sentence completion

- I am
- I like
- I fear
- I value
- I enjoy
- I want
- I hate



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Reflective Journal

1) Description of the events

As a part of EDU 302.1 a case study was conducted based on the learning problem of a student. I selected a student from IX A of St. Mary's C.G.H.S.S., Ernakulam. The time period was from October 2022 to 3rd February 2023. I selected tools and conducted the case study.

2) Feeling

I felt satisfaction and happy. Through the observation, I found the student and in my inner heart, there generated genuine concern towards her. This case study was my first work and I was very thrilled in this work.

3) Evaluation

At first I found difficulty in interviewing her, but after few conversation, we become more close and that connection helped a lot to complete my work. In the limited time, I tried to encourage her to perform better.

4) Analysis

As a teacher trainee, I found that I am able to know more about the strength and



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weakness of the students and can guide them properly.

5) Conclusion

Case studies are generally a single-case design. It is not itself a research method. It is generally an in-depth investigation. This work helped me a lot to understand the problems faced by the student in my class.

6) Action plan

If I had more time, then I could help her more in learning basics and spellings. With this practical, I gained confidence to build up appropriate remedial activities for the children. I will definitely apply the case study model to understand the difficulties in my class.

(Signature)



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EDU 302.1 PRACTICALS

ACTION RESEARCH

A STUDY ON THE INEFFECTIVE
NOTE-MAKING SKILLS OF STANDARD
IX STUDENTS OF ST. AUGUSTINE'S
HIGH SCHOOL, KALOOR.

Submitted by,
Vyshnavi N. Sarma
2132 40112350,
Natural Science



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Submitted to,
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Date of submission : 07/02/2022

ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR
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ERNAKULAM, KERALA

CERTIFICATE



This is to certify that **Vyshnavi N. Sarma (Reg: 213240112350)** of St. Joseph College of Teacher Education for Women Ernakulam, has completed action research entitled as **“A Study on the Ineffective Note-making skills of Standard IX Students of St. Augustine’s High School, Kaloor.”** for the partial fulfilment of the requirement for the award of the B.Ed. degree course during the academic year 2021-2023.



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Date: 06/02/2023

Place: Ernakulam



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Introduction

Action research refers to a wide variety of evaluative, investigative and analytical research methods designed to diagnose problems or weaknesses - organizational, academic (instructional) - and help the educators develop practical solutions to address them quickly and efficiently. Action research may also be applied to programs or educational techniques that are not necessarily experiencing any problems, but that educators simply want to learn more about and improve.

Action research is an approach to educational research that is commonly used by educational practitioners and professionals to examine and ultimately improve their pedagogy and practice. Thus, action research presents an extension of the reflection and critical self-reflection that an educator employs on a daily basis in their classrooms.

When the students are engaged in active learning processes, the dynamic and uncertain nature of the classrooms demands the attention of the educator constantly. Considering these demands are not being met, the educators owing to the lack of time, finance and other issues. Action research offers one path to more deliberate, substantial and critical reflection that can be documented and analyzed to improve an educator's practice.



Steps in Action Research.

Action Research is a 6-step process. They are:

1. Identification of the Problem

An educator should be serious about various activities. The problems of the class shall appear large, which need to be treated at the grassroots levels. Thus one must isolate the problems from the broad fields. The researcher should also realize the seriousness of the problems.

2. Definition and Delimitation of the Problem.

After a problem has been identified, one needs to properly define and delimit the issue so as to pinpoint the exact problem that is troubling the class. Defining the problem specifies the goal for action research. Delimitations means to localize the problem in terms of class, subject, group and period in which a teacher perceives the problems.

3. Analyzing the Causes of the Problem.

The causes of the problems are analyzed with the help of some evidence. The nature of causes is also analyzed so as to check whether it can be brought under the control of the educator or not. This is a crucial step in action research as it helps the educator in the formulation of action hypotheses.

4. Designing the Action Hypothesis

The formulation of the action hypothesis is the fourth and important step of action research.

An action hypothesis is formulated by taking the causes of the problem into account, and tailoring solutions that specifically aims to solve the problem. Two or more action hypotheses may be formulated, that aims to solve the issue. A design for testing the most important action hypotheses is developed, and if the hypotheses are not validated, a second design is developed for testing the hypothesis.

Conclusions and Findings of Action Research.

The accepting or rejection of action hypotheses shall lead to the drawing of some conclusions. These conclusions are useful in either redesigning the research or in modifying and improving the current practices of school and classroom teaching.

Reporting the outcome of Action Research.

The issues, causes of the issue, the hypotheses and the processes underwent to find a viable solution to the issues are recorded and finalized into an Action Research report for future references.

Alice Joseph

Characteristics of an Action Research

According to Creswell, Action Research has six key characteristics :

- A practical focus ,
- The education- researcher's own practices ,
- Collaboration ,
- A dynamic process ,
- A plan of research and
- Sharing research.

Creswell asserts that understanding the above features help teachers design their own study to read, evaluate and use an action research study published in literature even better.

Principles of Action Research

Borgia and Schuler describe the principles of action research as Five C's.

Commitment

Collaboration

Concern

Consideration

Change.

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Significances of Action Research.

Action research has the following merits, as it helps to:

Professionalize the work of teachers, and their efficiency.

Comprehend the teacher's own work or practices.

Find out ways and measures to make one's teaching or other practices better

Find out ways to bring changes that are thought necessary to make one's teaching or practice more effective.

Work on or deal with problems identified by teachers and principals themselves.

Make the work of teachers more effective

Meet the needs of divergent student body on the basis of research.

Encourage teachers to study and evaluate their own teaching and to think about improvements.

Encourage collaborative work by teachers and principals.

Effectively professionalize the development of teachers and principals through continuous learning and progressive problem solving.

Develop theoretical problem-solving skills and expanding scientific knowledge leading to better future decisions and actions.

Enhance the competency of the teacher researcher through a learning process that is integrated to the action research project



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Action Plan

As part of the B.Ed. Curriculum, I had to conduct action research at the school where I was to do my Internship programme of Semester III. I did my research among the students of class IX B of St. Augustine's High School, Kabor, and the problem I had addressed during my term there was their lack of proper note making skills.

As I was routinely correcting the notes submitted by the students, I realized that the students were mindlessly copying down the paragraphs of data given in their textbooks as such. When I asked the students to share their notes of other subjects, I realized that the same problem persisted across almost every other subject, especially Sciences and Social Studies. Upon quizzing them about the content, I could see that the bulk of the contents that was copied down from the texts were either mugged up by them, or partially or totally lost on them. This made me understand that their note making skills had to be improved, and that this ~~should~~ be the problem I need to address in my Action Research. I commenced my research on 27th October 2022 and finished the study in 27th November 2022. I titled the subject



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my study as "The Ineffective Note-making skills of standard IX students of St. Augustine's High School, Kaloar."

Statement of the Problem.

The topic or the problem that I selected for my action research was titled "A study on the Ineffective note-making skills of standard IX students of St. Augustine's High School, Kaloar."

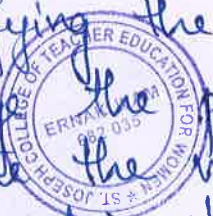
Definition of key Terms in the Problem

Note-making : The process of reviewing, connecting and synthesizing ideas from a lecture or from reading.

Note-making skill : The ability to record important information accurately and concisely so as to recall it correctly later.

Objectives of the Study

- To improve the overall note-making skills of students
- To simplify difficult processes into understandable chunks
- To improve the retainability of information in memory by simplifying the complexity of the notes.
- To encourage the practice of making lecture notes
- To stimulate the visual element and sense of learning so as to retain the information in long term memory.



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To help students save time and energy that they invest in copying down large texts without grasping the content. To improve the speed and efficiency of note-making in students.

Causes of the Problem

During a routine correction of the notes, I randomly checked a few students on the contents that they had written in their books. To my shock, I could see that the students were struggling to even remember the concept of their own notes, let alone put them into properly structured sentences. Upon further enquiry, I received a lot of reasons for their inability to answer questions on quizzing the contents, of which the highlight was the bulkiness of the notes, which simply confused them about the entire processes that they had written on.

I could see that the students remembered a few relevant terms regarding the questions, from which I could understand that they were attentive during lectures, but their minds were confused once they read the bulk of the textual information in their textbooks. The lack of proper maintenance and correction of notes was also another reason for poor note-making.

A List of Probable Causes of the Problem

lack of paying attention to the content being taught
lack of interest of students in the subject.

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Teacher not providing simplified teaching-notes.
Teacher giving less input towards note-making styles of students
Teacher asking to make note of every relevant and irrelevant piece of information, confusing the students
Students highlighting the relevant and irrelevant pieces of information without any form of prioritizing.
Writing without listening to the instructions being provided.
Lack of proper review of the notes by both teachers and students
Noting down everything.
Not being topic specific.
Incomplete notes or total absence of making notes.

I found out the probable causes of the problems enquiring the students and a few teachers, through observation of the note-making practices of the students and the review practices of teachers and the students. This made me help formulate a few action hypotheses and solutions for the problems.



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Formulation of Action Hypothesis

"A hypothesis is an assumption or proposition whose testability is to be tested on the basis of the compatibility of its implication with empirical evidence with previous knowledge."

-George, J. Mouly.

An action hypothesis is one that is formed in an action research, which involves the collection of data on all variables, causes and conclusions, and choosing the most appropriate and likely among them. Thus, an action hypothesis provides clarity and direction to solve problems.

After thoroughly studying the various probable causes of the ineffective note-making skills of the class IX students of St. Augustine's High School, Kaloor through surveys and observation, the following hypothesis is proposed:

"Construction of mind maps makes information simpler to note down, recall and quick to review, and considerably improve the note-making skills of the students."

A mind map is a diagram used to visually organize information into a hierarchy, showing relationships among various ideas. A good Mind Map shows the "shape" of the whole.

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the subject, the relative importance of individual points and the ways in which facts relate to one another.

Mind maps were popularized by the author and consultant, Tony Buzan, who used a two-dimensional structure instead of the list format that was conventionally used to take notes. Mind maps are more compact than conventional notes, often taking up just one side of paper. Association and generation of new ideas can be made easy by the construction of mind maps. They can also be used to break down large processes or projects into manageable chunks so that one can learn or learn a content without getting overwhelmed not getting something important.

Implementation and Testing of Action Hypothesis.

The concept of mind map construction was novel to students. Therefore a mind map construction training was provided to the students on 4th November, 2022. The basic steps in the construction of a mind map were taught to the students along with an example from the topic "Mechanism of Breathing" from the unit "Breathing for Health".

The steps to implement the action hypothesis, mind map construction are as follows:



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1. Write the title of the subject or project that you're exploring in the centre of a page and draw a circle around it.
2. Draw lines out from this circle as you think of subheadings of the topic, or important facts or tasks that relate to the central topic. Label these lines with your subheadings.
3. Dive deeper into the subject to uncover the next level of information such as related sub-topics, facts etc. Then, link these to the relevant subheading.
4. Repeat the process for the next level of facts, tasks and ideas.
5. As you discover new information or think of additional tasks, add them to your Mind Map in the appropriate places.

A completed mind map may have main topic lines radiating in all directions from the center, with sub-topics forking off these like branches and twigs from the trunk of a tree. The structure produced after mind-map construction is immaterial, as it shall evolve of its own accord.



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Analysis and Interpretation

The students of class IX of St. Augustine's High School, were found to prepare notes that served their purposes effectively. The notes prepared by the students were either too bulky, or partially or totally absent owing to lack of bulkiness. Quoting the exact statements as such from textbooks without proper editing made their notes decipherable and very tough to review and/or reference need.

After the training session on mind mapping techniques the note-making skills of the students began to improve a great degree within very less time. The students began to plot down the contents in their notebook and they were found to consume very little time as compared to their early notes.

For a qualitative analysis of the note-making skills, the students were asked to prepare mind maps of different processes after certain topics as a follow-up activity instead of preparing short or brief notes twice in a week. By the third week, the students became efficient and better note-makers, and their note-making skills were found to have improved remarkably. The students were tested by asking them to construct a mind map of Urine Formation, which was done very well by nearly every student in the class, indicating



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that the hypothesis resulted to be true and that the test was successful.

Findings of the Study

At the end of this action research, I discovered a lot many causes that render the note-making skills possessed by students ineffective, various strategies that may be employed to help them improve their note-making skills, of which I chose to test the hypothesis Mind-map construction as the strategy to solve the problem. I chose to implement the strategy by providing the students with proper insight about the steps in mind mapping, a demonstration session on mind mapping, various opportunities to develop their mind mapping skills through follow-up activities of lessons, well as conveying to them the benefits of mind mapping compared to their regular note-making style.

The findings of this study were:

Most of the children do not prepare proper notes.

The notes prepared by the students are mostly the unedited bulky texts in their textbooks, in the form of passages

Many students lack the bulkiness of



act of

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note making owing to the

Making notes in large unedited passages lead to poor recollection and understanding of the content by the students.

The bulkier the notes, the tougher its reference and review - by students and the teachers.

Structured note-making is the appropriate solution to this problem, which can be brought about by the construction of mind maps, during or post-lectures. Providing proper training, awareness of the benefits and the opportunities to practice mind mapping technique for note-making significantly improved the note-making skills of the student.

Classroom Action Research is important for teachers to observe and reflect their processes of teaching. It is quintessential in education as it steadily enhances the teaching-learning environments and processes, as well as the abilities of teachers, and by extension to all their students. Action research that target the practical and theoretical skills of the students can solve various curricular and co-curricular problems and make them better and more organized learners and individuals in life.



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Suggestions and Recommendations.

As an instructor, these are a few suggestions I believe can help the students to improve their note-making skills.

offer a copy of the teacher's notes to the students
Allow students to add their own thoughts and connections in shared teacher's notes by providing ample space in the notes.

Enabling students to use technology and applications to prepare simplified notes to the students.

Training and encouraging the students to prepare lecture notes.

Slowed down and evenly paced lecture, so that students receive time to copy the notes.

Continually evaluate the students' note taking abilities and aiding them to fill in the gaps.

Give students time to digest the content, and utilize more ICT aids to make the lessons more lively, catering to multiple senses.

Use other modalities in the learning process to increase the engagement of students, such as hands-on-activities, discussions and skits.



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Conclusion

Action research is a vital tool in identifying the challenges affecting students, teachers and communities in general. It must be encouraged to improve and mend the future career of the students.

The action research on the topic "A study on the ineffective Note-making skills of standard IX students of St. Augustine's High School, Kaloor" made me realize the troubles and problems faced by students that can escape the eyes of instructors and students alike, due to a lack of awareness, due to oversight by the authorities or many such factors. It also made me understand the importance of conducting such studies in an educational organization, as they not only improve the quality of teaching and learning processes, but also improves the organizational and professional qualities of the teachers, management and the institutions.

With improved information and communication technology, it is possible to reduce educational challenges and, as a result, improve the performance of both students and teachers. Though action research is affected by many factors, patience and tolerance must be embraced to enhance its success.



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DIAGNOSTIC TEST

CONSTRUCTION OF DIAGNOSTIC TEST

1. PURPOSEFUL PLANNING

The pupil were administered with a test to identify the area of difficulty. The unit taken for the test was why classification and diversity for sustenance for class 8. After the test, it was assessed and analyzed. The students were diagnosed with problem of inability to understand five kingdom classification and six kingdom classification.

2. ANALYSIS OF TEACHING UNIT

The content area 'classification' was divided into different teaching units. There were 5 subunits or teaching units. The teaching unit was focussed on the basic knowledge and then to complex one.

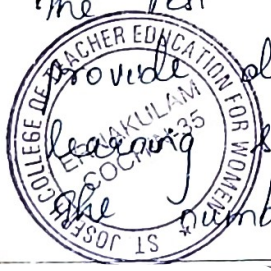
The subunits were:

- (i) Binomial nomenclature
- (ii) Two kingdom classification
- (iii) Five kingdom classification
- (iv) Six kingdom classification
- (v) Virus

3. WRITING THE TEST ITEMS

The test items were prepared based on the teaching units or sub units. The test items consist of 50 multiple choice questions. The questions were of different difficulty level.

The test items were prepared in such a manner to provide deep knowledge in the content area. Different subunits had different number of test items. The number of test items in each subunit are:



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DIAGNOSTIC TEST

NAME OF THE SCHOOL: Sacred Heart High School, Thevara

NAME OF THE STUDENT:

SUBJECT: Biology

UNIT: Why Classification

LEARNING POINTS: Classification

1. Binomial nomenclature
2. Two kingdom classification
3. Five kingdom classification
4. Six kingdom classification
5. Virus

1. _____ proposed binomial nomenclature.

- a) Carl Woese b) Carl Linnaeus c) Robert Hooke d) Robert h. Whittaker

2. According to binomial nomenclature, scientific name of an organism consists of _____ words

- a) one b) two c) three d) four

3. _____ was proposed to solve the difficulties arising out of an organism being known by various names.

- a) nomenclature b) naming c) binomial nomenclature d) scientific naming

4. Scientific name of _____ is *homo sapiens*

- a) human b) dog c) bird d) cat

5. Scientific name of cow is _____

- a) *Corvus splendens* b) *cassia fistula* c) *Bos taurus* d) *homo sapiens*

6. The first word of scientific name indicates the _____

- a) genus b) species c) phylum d) taxon

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7. Organisms are classified into _____ kingdoms according to two kingdom classification
 a) one b) two c) three d) four
8. All plants are included in the kingdom _____
 a) Archaea b) Animalia c) Plantae d) Bacteria
9. Kingdom plantae includes plants according to two kingdom classification
 a) Plants b) Animals c) Fungi d) Bacteria
10. Organisms that are _____ were included in kingdom Plantae
 a) Heterotrophic b) Saprophytic c) Autotrophic d) epiphytes
11. Organisms that are _____ were included in kingdom animalia
 a) Heterotrophic b) Autotrophic c) Saprophytic d) Epiphytic
12. Plantae and Animalia are the two kingdoms included in _____
 a) five kingdom classification b) Six kingdom classification c) Two kingdom classification d) classification
13. Who proposed five kingdom classification?
 a) Carl woese b) Carl Linnaeus c) Robert H. Whittaker d) Robert Hooke
14. Choose two statements among the following which is the drawback of two kingdom classification
 a) all animals have different characteristics
 b) does not distinguish between eukaryotes and prokaryotes
 c) Does not include all organisms
 d) does not distinguish between photosynthetic and non-photosynthetic organisms
15. organisms with cell wall are included under kingdom _____
 a) Animalia b) Archaea c) Plantae d) Bacteria
16. Organisms which can move are included under kingdom _____
 a) Animalia b) Archaea c) Plantae d) Bacteria
17. Organisms are classified into _____ kingdoms according to five kingdom classification.

- a) one b) two c) three d) five
18. Bacteria is included under kingdom _____ according to five kingdom classification.
 a) fungi b) Protista c) Monera d) Animalia
19. Kingdom Monera includes _____
 a) Bacteria b) Mushrooms c) Amoeba d) Plants
20. Mushrooms are included under kingdom _____ according to five kingdom classification
 a) Fungi b) Plantae c) Protista d) Monera
21. Kingdom fungi includes _____
 a) Bacteria b) Amoeba c) Mushroom d) Animals
22. Amoeba is included under kingdom _____ according to five kingdom classification
 a) Fungi b) Monera c) Protista d) Plantae
23. Kingdom Protista includes _____
 a) Bacteria b) Amoeba c) Mushroom d) Plants
24. Which among the following is an unicellular organisms without nucleus?
 a) Humans b) Plants c) Bacteria d) Euglena
25. Bacteria is a _____ organism
 a) Multicellular b) Unicellular c) Acellular d) Nuclear
26. Which among the following is a unicellular organism with a nucleus
 a) Bacteria b) Amoeba c) Mushroom d) Plants
27. Mushrooms have _____ mode of nutrition
 a) Autotrophic b) Heterotrophic c) Saprophytic d) Epiphytic
28. Choose the organism having the peculiarities: Non motile, heterotrophic, unicellular/ multicellular organisms
 a) mushrooms b) Bacteria c) Amoeba d) Plants
29. Choose the kingdom having these peculiarities: Autotrophic, multicellular, non-motile organisms.

- a) Fungi b) Animalia c) Plantae d) Monera
30. Robert H. Whittaker proposed _____
 a) five kingdom classification b) two kingdom classification c) six kingdom classification d) classification
31. In five kingdom classification, archaebacteria was included in kingdom _____
 a) Monera b) Protista c) Fungi d) Animalia
32. Which kingdom includes organisms that has capacity of locomotion and are heterotrophic.
 a) Plantae b) Amoeba c) Animals d) Mushrooms
33. Which kingdom includes organisms that are non-motile and autotrophic
 a) Animals b) Plants c) Fungi d) Bacteria
34. Who proposed six kingdom classification?
 a) Carl Linnaeus b) Robert. H. Whittaker c) Carl Woese d) Robert Hooke
35. Organisms were classified into _____ kingdoms in six kingdom classification
 a) 5 b) 2 c) 6 d) 7
36. In six kingdom classification, one more level of classification named _____ was added above the kingdom
 a) Domain b) Class c) Phylum d) Kingdom
37. In six kingdom classification, kingdom _____ was divided into two kingdoms
 a) Bacteria b) Monera c) Fungi d) Animalia
38. Kingdom _____ and bacteria were the two kingdoms included under kingdom Monera
 a) Archaea b) Fungi c) Plantae d) Animalia
39. Choose from given options and complete the blank

DOMAIN EUKARYA

Kingdom- Protista

Kingdom - _____



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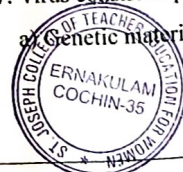
Kingdom- Plantae

Kingdom - Animalia

- a) Fungi b) Archaea c) Bacteria d) Mushroom
40. Kingdom _____ was included under domain Archaea
 a) Bacteria b) Archaea c) Fungi d) Plantae
41. Choose the domain to which humans belong?
 a) Eukarya b) Archaea c) Bacteria d) mushroom
42. _____ is the species to which humans belong?
 a) sapiens b) indica c) sativa d) Tigris
43. Primates is the _____ to the humans belong
 a) Kingdom b) Genus c) Species d) Order
44. _____ virus causes Ebola
 a) Ebola virus b) Corona virus c) Germs d) Streptococcus
45. Identify the given picture:



- a) Bacteria b) Virus c) Fungi d) Germ
46. Name the organism that can live inside a live cell?
 a) Virus b) Bacteria c) Fungi d) Germ
47. Virus consist of protein coat and _____
 a) Genetic material b) Cell membrane c) Cell wall d) Organelles



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48. Virus is a _____ causative organism of many dreaded disease

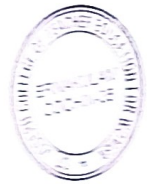
- a) Bacterial b) Pathogen c) Viral d) germs

49. Virus cannot be included under any kingdoms because it is _____

- a) Cellular b) Acellular c) non-living d) living

50. Covid is caused by _____ virus

- a) Ebola b) Bacteria c) Corona d) HIV



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- (i) Binomial nomenclature - 6
(ii) Two kingdom classification - 7
(iii) Five kingdom classification - 17
(iv) Six kingdom classification - 13
(v) Virus - 7

4. ADMINISTERING THE TEST

The test was administered to the students of standard VIII C of Sacred Heart High School, Thevaxa. The students were made aware that this test is not for any form of assessment but to identify their difficulty and to help them. The test was administered on 27/01/23. There was no time limit for the test.

INTERPRETATION OR ANALYSIS OF THE ANSWERS

The Diagnostic test was administered among students of standard VIII C of Sacred Heart High School, Thevara. Test items of various difficulty levels were present under each teaching unit. The learning unit Binomial nomenclature consist of 12 questions, two kingdom classification contains 7 questions, five kingdom classification had 17 questions, 13 in six kingdom classification and 7 questions in learning unit of Virus.

After the correction of answer scripts a question wise analysis chart / Diagnostic chart was prepared. The analysis of the chart gave information regarding no. of correct and incorrect responses by the students for each particular question. When this data was interpreted that students lacked knowledge on five kingdom classification and six kingdom classification. Students felt difficulty in understanding the various kingdoms included under different types of classification. They also had confusions regarding the examples and peculiarities of each kingdoms and domains. Thus it indicates the difficulty felt by the students in the areas of five kingdom classification and six kingdom classification.

As students showed difficulty in certain teaching units, remediation were given in the areas of the



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REMEDIATION

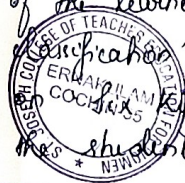
After the administration and assessment of the diagnostic test, the students were identified, having lack of basic knowledge in the content area and confusion about five kingdom classification and six kingdom classification. The students had difficulty in memorising the names of kingdom and also found it difficult to distinguish between the peculiarities of each kingdoms. In order to solve this problem of ineffective transaction of content and perception of knowledge by the learners, various remedial measures were identified, designed and prepared for the students. They were planned in ways which make them interesting and easier to understand the content. It was planned out, designed in creative ways such as quiz, puzzle, videos, powerpoint slides etc.

The major Remedial Programs that were given are:

- Powerpoint presentation
- Videos.
- Quiz
- Puzzle.

POWERPOINT PRESENTATION

Powerpoint presentation increases spontaneity and interactivity among the learners. It can also help to improve the focus of the learners. A powerpoint presentation on 'Five kingdom classification' was prepared. Another powerpoint presentation on 'Six kingdom classification' was prepared. It will help students to avoid confusions between



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five kingdom and six kingdom classification

VIDEO

Videos are utilized to make the class more effective and gain the attention of the students. Videos of five kingdom classification and six kingdom classification were included as the remedial programme for the students which will help them to get clear idea of concept.

QUIZ

A quiz on 'five kingdom and six kingdom classification' was designed for the students. All were 'fill in the blanks' type question for which the answers were to be selected from an answer pool given below. There were a set of 10 questions. They were instructed to select the right answers from the box and to fill in the blanks space. This will encourage the learners to improve their level of understanding.

PUZZLE

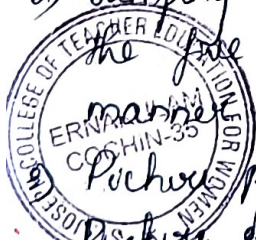
Different types of puzzles were prepared as part of Remedial activities

1) Word search - was designed to familiarise with the terms associated with classification system. In this the students will have to find out the words from the grid.

2) Jumping words - The spelling of different terms related to the five kingdom and six kingdom classification in a jumbled manner. Students have to identify the words.

Picture puzzle

Picture of various organisms are given and students are instructed to identify the kingdoms.



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10/12/2023