Details of Programme of Enhancement of creativity in teaching

Day 1 -

**Objective** : To enable the student teachers to understand the need of creativity in teaching.

**Specific objectives** : To enable the student teachers to . . . . . 
1) be aware of the drawbacks of present education system.
2) be aware of the constraints on teachers.
3) realise the significance of role of teacher in social change.
4) understand creativity in every field of life and its importance in teaching.

**Content** :
- Drawbacks of present education system.
- Role of teacher.
- Need of creativity in teaching.
- Novelty in each field and various forms of novelty.

**Method** :
- Discussion on drawback of present education system, compulsions that teacher face. Role of teacher in social change.
- An article namely ‘लवचिक चाकोरी’ was provided for reading and was discussed.
- Student teachers were asked to write about a creative teacher that they had experienced during their school or college days.
- Discussion on novelty in various fields.

**Techniques for evaluation** -

**Self analysis** : Write down anything novel that you have created. (It may be a story, joke, poem, recipe...... etc.)
Port-folio cards: What have I learned today?

How will I use it?

Thought for the day:

"The greatest joy of the teacher and the greatest hope for a better world lies in the cultivation of creativity. To teach towards creativity is to teach towards the future of the society."

— Lowenfield and Brittain.

Name of Port-folio card: ओनामा

Day 2 -

Objective: To enable the student teachers to understand the concept of creativity.

Specific objectives: To enable the student teachers to .......

1) understand the definitions of creativity.

2) to classify these definitions.

3) get acquainted with various prejudices about creativity and assumptions behind creativity in teaching.

Content: • Various definitions of creativity.

• Various prejudices about creativity.

• Assumptions behind creativity in teaching.

Method: Group work - Eight groups (5 student teachers in each group) were formed. Student teachers were supplied the descriptions of their creative teachers written by them on the previous day. Each group was asked to define creativity. Each group was asked to define creativity. Each
group reader was asked to present the definition / definitions and these were discussed by others.

- The teacher further explained about the concept of creativity.
- An article ‘कविता काशी सुखते ?’ by a renowned poetess of Marathi literature, Shanta Shelke was supplied.
- Presentation and discussion on assumptions behind creativity in teaching.

**Techniques for evaluation -**

**Port folio cards :** as day 1

**Reinforcement :** Discuss on the following

1. Is everything that is different is creative ?
2. Is creativity same in all fields ?

**Articles for reading :**

1. An article ‘न संपणारा शोध’(An unending search) by Vasant Govarikar was provided and it was asked to find out the difference in creation between Arts and Science.
2. Another passage ‘शोधक प्रवृत्ती’ (Shodhak Pravrutti) by Durga Bhagwat was given and it was asked to find out the basic motives of creativity.

**Thought for the day :**

"Creativity is a type fo learning process where the teacher and pupil are located in the same individual."

— Arthur Koestler
Puzzle 1 -

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Name of Portfolio card: सर्जनशीलतेच्या प्रांतातील पहिले पाऊल

Day 3 -

Objective: To enable the student teachers to understand the left and right hemisphere brain functions.

Specific objectives: To enable the student teachers to ......

1) understand left-right brain functions.

2) understand the exponential effect of potential connections of experiences.

3) be aware of the environmental factors that decrease use of creativity.

Content: • Left and right hemisphere brain functions.
            • Creative brain is a whole brain - an example of Einstein.
            • Research findings about use of creativity.

Method:

• Demonstration - Parts of human brain were explained with the help of a brain model.

• Each student teacher handled the model, dismantled it and watched various centres of it.

Explanation: about L-R brain functions.
Discussion: On the factors that reduce the use of creative potential of an individual.

Techniques used for evaluation -

Port-folio cards: As day 1.

Self analysis: Take three lesson notes from your practice lessons. Consider the questions asked in evaluation and during teaching. Decide which brain hemisphere is utilised while answering the question.

Thought of the day:

"Intuitive mind is a sacred gift. A rational mind is a faithful servant. We have created a society in which a servant is honored and a gift is forgotten."

–– Einstein.

Puzzle 2 - जरा घोंक चालवा

1) नव्या वसाहतीत एका रंगले नुकतेच पाच बंगले उभे राहिले होते. प्रत्येक बंगल्याचा रंग जसा वेगळा होता तसेच प्रत्येक बंगल्यासमोरील झाड वेगळे होते. गरजमधील मोटार वेगळी होती आणि फाटकाजवळ असणारा कुनाती हे वेगळा होता. यावरी ताण म्हणजे कोणत्याही दोन बंगल्यांत राहणाऱ्या लोकांची मातृभाषा सारखी नव्हती.

2) लाल रंगाच्या बंगल्यात बंगाली कुठंब राहत होते.

3) महाराष्ट्रीय कुठंबाच्या घरी डॉक्सर्यन कृष्ण होता.

4) मद्यासी कुठंब राहत असलेल्या बंगल्यासमोर गुलमोहराचे झाड होते.

5) हिरव्या बंगल्याच्या समोर लाल चाप्याचे झाड होते.
6) हिस्या बंगळा पिवळ्या बंगळ्याला लागूनच उजव्या हाताला (तुम्हच्या उजव्या हाताला) होता.

7) कॉण्टेसा मोटारीच्या मालकाकडे अल्सेशिअन कुश आहे.

8) मास्ती मोटारीचा मालक निव्या बंगळ्यात राहत होता.

9) मध्यस्थ बंगळ्यासमोर अशोकाचे झाड झाले.

10) डाव्या हाताच्या पहिल्या बंगळ्यात गुजळीकुंड सरल राहत होते.

11) पद्माची मोटारीचा मालक स्पॉनिंगल कुत्रा पाळ्याच्या कुंडाच्या शेजारीच्या बंगळ्यात राहत होता.

12) मास्ती मोटार असलेला बंगळा पेकिनिज्यु कुत्रा पाळ्याच्या बंगळ्याला लागूनच होता.

13) अंबारेंडर मोटार असलेल्या बंगळ्यासमोर सुरुच्या झाड झाले.

14) कानडी कुंडाच्या रटून्यात झाले.

15) पांढ्र्या बंगळ्याच्या शेजारीच्या बंगळ्यात गुजळीकुंड सरल राहत होते.

तर पारिजातकाच्या झाड कोणाच्या बंगळ्यासमोर होते आणि पामेरियन कुत्रा कोणाच्या कुंडाच्या पाळ्यात होता?

Name of port-folio card : मंदूतील डावे-उजवे

Day 4 -

Objective : To enable the student teachers to understand the characteristics of a creative person.

Specific objectives : To enable the student teachers to .........

1) understand the characteristics of a creative person.
2) identify creative teachers and creative students.

Content:  
- Characteristics of creative individual.
- Negative aspects of a creative personality.

Method: Group work

Activity 1 - The same descriptions of creative teacher were distributed in a group and with the help of that student teachers were asked to decide the characteristics of a creative individual.

Activity 2 - After explanation about the characteristics of creative individual student teachers were asked to decide the characteristics of a creative teacher and also of the creative students.

Techniques for evaluation -

Portfolio method: As day 1

Self analysis: Among the characteristics of creative individual,

I have ..............

I should have ...................

I should change ............... 

Reinforcement: An article on ‘Satish Dhavan - A creative teacher’ by APJ Abdul Kalam was given to student teachers and asked them to identify the characteristics of creative Satish Dhavan.

There were three student teachers who were interested in ‘Drama / Theatre’. Considering this interest, these three student were supplied an article ‘स्कूल चित्रित’ written by Pratima Kulkarni about Vijaya Mehta and were asked to identify the characteristics of this creative drama teachers.

Thought of the day: ——
Day 5 -

On day 5, the researcher could get only half hour because of some college activities. Hence discussion on previous assignments, answers to puzzles, answers to queries was happened.

Day 6 -

Objective : To enable the student teachers to identify the factors both conducive and non-conducive to creativity.

Content : Factors conducive to and non-conducive to creativity, at home and at school.

Method : Eight groups having five student teachers in each were formed. Each group was supplied with an article or part of article to read and was asked to find out which were conducive or non-conducive to creativity. One student teacher from each group presented the factors and were discussed by others.

[The articles or passages were chosen from autobiographies of famous writers - e.g. तराल अंतराळ (Taral Antaral) by Shankar Rao Kharat, झौंब्री (Zomi) by Anand Yadav, धूलपाटी (Dhulpatee) by Shanta Shekle etc.

Some passages or articles were from books describing the process of scientific development e.g. कथा इत्याची (Katha Isrochi) by Vasant Govarikar, बालराला दहा कमी (Barala daha kami) by Padmja Phata. Some part of a novel राज दरबारी (Rag Darbareae) by Shrilar Shukla was also included.
Techniques for evaluation -

Portfolio cards: As day 1.

Self Analysis:

1. Which conducive or non-conducive factors do you get from your home atmosphere?

2. Which conducive or non-conducive factors do you receive through your school atmosphere?

Reinforcement: Some paragraphs from an autobiography धुलपाटी (Dhulpati) of a renowned Marathi poetess Shanta Shelke were provided to student teachers for reading and it was asked to identify the conducive and non-conducive factors.

Thought of the day:

''बच्चे की सृजनात्मक गतिविधियों की सबसे खुबसूरत बात उसकी भूलें हैं। जितनी मासूम भूलें बच्चा अपनी गतिविधियों करने के लिए स्वतंत्र होता है, उतना ही अच्छा है, क्योंकि उस वक्त वो सहज ईमानदारी से अपनी इस स्वाभाविक प्रक्रिया को नकारकर उस पर बने बनाए तरीके थोपता है, बच्चे की कृती उतनीही रश्तरीय और प्रभावी होती है तथा बच्चा इसमें अपनी विशेष पहचान खो देता है।''

फ्रेंक सीजेक
Puzzle 3 -

Join all these dots in either three or four lines and without lifting our hands and without repeating the same line.

Name of port folio card: कुंपण आणि अवकाश.

Day 7 -

Objective: To enable the student teachers to understand the factors of creativity in teaching and their inter-relationship.

Specific objective: To enable the student teachers to understand fluency, flexibility and originality.

Content:
- Definitions of fluency, flexibility and originality.
- Ways to measure them.

Method:
- Explanation about the concept of fluency, flexibility and originality.
- Teacher asked the whole class to tell the white objects. These were listed on blackboard. The researcher asked them to classify these objects. Then she told how to measure fluency and flexibility and hence originality.
- Group activity: Eight groups were made. The researcher asked each group to write down the objects having quadrilateral shape. From this fluency, flexibility and originality were decided.
Techniques for evaluation -

Port folio method: As day 1.

Reinforcement: Choose any lesson note of practice lesson. Write as many introductions you can think for the same topic.

Thought of the day:

"The best way to get an idea is to get a lot of ideas."

— Linus Pauling.

Puzzle 4 -

Join all these 12 dots in 5 lines without lifting your hand or without repeating the line. In how many ways you can do it?

Port folio card: घटक सर्जनशील अध्यापनाचे

Day 8 -

Objective: To enable the student teachers to

1) get reinforced to the concept of fluency, flexibility and originality.
2) to understand the concept of elaboration.

Specific objective: To enable the student teachers to understand fluency, flexibility and originality.

Content: • Definition of elaboration and its meaning.

• Adding details.

• Completion

• Extrapolation.
**Method**: Group work • Group No.2, 4, 6, 8, 10 were asked to write down as many as possible 'motto' for a newly opened school.

• Group No. 1, 3, 5, 7 were asked to write down as many as possible names to a school magazine. Fluency, flexibility and originality was computed and the difference n scores of two cases was discussed.

• Explanation about the concept of 'elaboration'.

**Techniques for evaluation -**

**Portfolio method**: As day one.

**Self analysis**: Take any three lesson notes of practice lesson and find out the content which was elaborated. Decide how many ways it can be elaborated?

**Thought of the day**:

"The supreme art of the teacher is to awaken the joy of creative expression."

—— *Einstein.*

**Name of portfolio card**: किस्तार

**Day 9 -**

**Objective**: To enable the student teachers to understand the factors of creativity in teaching and their inter-relationship.

**Specific objective**:

1) to enable the student teachers to understand the remaining factors - openness, sensitivity to the problem, redefinition and resourcefulness.

2) understand the interrelationship amongst all eight factors.
Content: Definitions of openness, sensitivity to the problem, redefinition and resourcefulness.

Method:

- Brief description of the above four factors and discussion.
- **Group work**: Student teachers in each group were asked to prepare a diagram or flowchart or Venn diagram or any kind to express the inter-relationship between 8 factors of creativity in teaching. Each group representative expressed it on blackboard and others discussed on it.
- After that the researcher presented a block diagram of inter-relations between eight factors of creativity in teaching and explained it.

Techniques for evaluation -

**Port folio method**: As day one.

**Reinforcement**: The researcher provided the descriptions of a creative teacher and asked to identify the factors of creativity in thinking.

**Thought of the day**:

"New opinions are always suspected and usually opposed, without any reason but because they are not common."

— *John Locke*

**Name of the port folio card**: नाते

**Puzzle 5** -

A, B, C and D are 4 equal parts of a square.
1. Do two equal parts of unshaded portion of 'A'.
2. Do three equal parts of unshaded portion of 'B'.
3. Do four equal parts of unshaded portion of 'C'.
4. Do seven equal parts of 'D'.

**Day 10, 11, 12 -**

**Objective**: To enable the student teachers to understand the concept of openness.

**Specific objectives**: To enable the student teachers to ......
1) acquaint with the concept of openness.
2) understand the ways to acquire open-mindedness
3) think about the benefits and losses of open-mindedness.

**Content**: Sub-factors of openness

An individual possessing openness

- without any bias.
- ready to re-examine the values.
- values all emotions.
- democratic in nature.
- have variety of interests.

**Method**: In these three days the methods adopted were - explanation, enquiry training model, Role-play, Discussion, Jurisprudential enquiry model.

**Group work**:

1) Eight themes in the context of teaching were provided to the groups.

Student teachers were asked to play a role of either open-minded or
close-minded teacher with reference to the theme. Each group presented it in front of others.

2) Students were asked to think and discuss in the groups and present the behaviour of an open-minded teacher in the context of core elements mentioned in the National Policy on Education (1986).

**Evaluation -**

**Portfolio cards:** Same as day 1.

**Self analysis:** Among the characteristics of open-minded person,

- I have ..............
- I should have ............... .
- I should change ..............

**Reinforcement:** Suppose that there are two head masters, newly appointed at the same time in two different schools. All other conditions being the same, one Head master is open-minded whereas the other is close-minded. What is your guess about the conditions of both the schools after five years?

**Thought of day 10:**

"A man receives only what he is ready to receive. The phenomenon or fact that can not any way be linked with the rest of what he has observed, he does not observe."

— H. D. Thoreak

**Thought of day 11:**

"Mind is all your beliefs collected together. Openness means no mind. Openness means you put your mind aside and you are ready to look into life again and again in a new way, not with old eyes."

— Osho
Thought of day 12:

"Education is the ability to listen almost anything without losing your temper or your self confidence."

– Robert Frost.

Names of port folio cards:

Day 10: मत्त्यास माइया कुंपण पडणे अगदी मला न साहे

Day 11: आम्हास आम्ही पुन्हा पहावे डोक्यावरचा चण्डा काढूनी

Day 12: डोऱे उघडून बघा गडवावनो, झापड लावू नका . . . . .

Pictures used during 'openness sessions'
Day 13, 14 -

**Objective**: To enable the student teachers to understand the concept of sensitivity to the problem.

**Specific Objectives**: To enable the student teaches to . . . .
1) acquaint with careful listening and thorough observation.
2) find out the variables from given situation.
3) find out the relationship between these variables.
4) identify the unexpected, undesired relationship.

**Content**: • How to listen

• How to observe carefully.

• steps of sensitivity to the problem.

**Method**: Explanation, Discussion.

**Group work**:
1) Different passages describing a school or college situation (selected from ‘प्राचार्य’ ना. य. डोळे, ‘शिक्षण आनंदक्षण’ by Ramesh Panse and.............) were asked to read, find out variables, divide them into dependent and independent variables and state their relationship and find out the problem. Each group presented their variable relationship.
2) Teacher supplied the papers to student teachers in which the conducive and non-conducive factors of creativity faced by them were mentioned. Teacher asked them to give the relationship between these variables.

**Evaluation** -

**Portfolio cards**: Same as day 1.
Self analysis:
1) What will be the changes in coming 10 years in the field of education?
2) To cope with them successfully, what a teacher should learn?
3) Find out the variable relationship of your satisfactory practice lessons and non-satisfactory practice lessons.

Reinforcement:
1) Suppose that the unit of teaching is same but your have to teach it at different level. Which variables should be considered while planning?
2) The researcher supplied an article “परिस्थितियाँ मज आस्था” to student teachers and were asked, "What is the role of the teacher in this article?"
   "How this "परिस्थिति ज्ञान" have helped the students?

Thought of day 13:
"First you become receptive and then you become creative. And once you have dropped your ego, you become so flexible that whatsoever you image will happen. Then your imagination will become your reality."
— Osho

Thought of day 14:
‘‘जरूरी नहीं है कि बहुत कुछ ऐसा देखे, जो आज्ञातक किनी ने नहीं देखा, बल्कि ज्यादा जरूरी यह है कि जिसे सब रोजाना देखते हैं, उसपर ऐसा सोचें, जो आज्ञातक किसी ने नहीं सोचा।’’

Puzzle of day 14: Chinese Tangrams
A set of 7 pieces of a square was supplied to each student teacher. It was asked to prepare as many meaningful shapes as you can from these pieces.

Name of port folio cards:

Day 13: Sharpen the saw.

Day 14: Let us look a bit higher.

Day 15, 16, 17, 18

Objective: To enable the student teacher to understand the process of redefinition.

Specific Objectives: To enable the student teachers to

1) understand the concept of redefinition.

2) understand the techniques of redefinition.

Content: • Concept of redefinition.

• Techniques for redefinition.
1) Attribute listing

2) SCAMPER

**Teaching Strategies:**

- Explanation about concept of redefinition
  - about attribute listing
  - about SCAMPER

**Group work:**

1) Each group was asked to suggest changes in the format of lesson note and in the rolling board, by using attribute listing.

2) Following subjects were given to redefine them using SCAMPER technique. (one subject for each group)
   1. Examination system
   2. Competitions in schools
   3. Classroom teaching
   4. Cultural programmes in schools
   5. Text books.
   6. Board examination
   7. Steps of practice lesson
   8. Present formal school system

Group interaction related to the allotted subject took place.

Representative student teacher presented the outcome of their discussion.

**Evaluation:**

**Portfolio cards:** As day 1.

**Self analysis:** Take any lesson note of your practice lesson. Think about the question asked in the step evaluation. Use SCAMPER technique and prepare questions.
Reinforcement: Following poems, passages and articles were provided and asked "What is redefined?" in each.

1) मनाचे म्याक : विडंबन – प्र. के अत्रे

2) विरामचिन्हे –गोविंदग्राज

3) अध्यापन : एक भावनात्मक अनुभूति

4) ध्यास प्रयोगशीलतेचा

5) a passage from a story ‘कैरी’ of G.A. Kulkarni.

Thoughts of the day:

Day 15:

"Problems can not be solved by thinking within the framework in which the problems were created."

— Einstein

Day 16:

"Discovery consists of seeing what everyone has seen and thinking what nobody has thought."

— Author unknown

Day 17:

"It is better to have enough ideas for some of them to be wrong, than to be always right by having no ideas at all."

— Edvard de Bono
**Puzzles:**

1) If you put a small coin in an empty bottle and replaced the cork, how would you get the coin out of the bottle without taking out the cork or breaking the bottle?

2) A man wanted to double the size of square swimming pool in his garden. There was a tree growing at each corner. How to double the size still keeping it square and without cutting down any tree?

3) Fold a horse puzzle.

**Names of port folio cards:**

- **Day 15**: केलिडोस्कोप
- **Day 16**: Paradigm shift
- **Day 17**: Jigsaw
- **Day 18**: The road not taken.

**On day 15th**: The researcher could get only 35-40 minutes of time for a programme.
Pictures used during redefinition sessions:
Day 19, 20 -

**Objective**: To enable the student teachers to understand the creative thinking process.

**Specific objectives**: To enable the student teachers to . . . .

1) to analyse the characters in ‘दहावी फ’ in the context of openness, sensitivity to the problem and redefinition.

2) to acquaint with various techniques of creative thinking.

3) to revise their knowledge of creativity.

**Content**:

- Some specific incidences from ‘दहावी फ’

- CD of creative thinking
  
  What is creative thinking?
  Need for creative thinking
  How to encourage creative thinking
  Process of creative thinking
  Tools to develop creative thinking

- CD of invention highway
  
  Examples of creative solutions
  Rules in creative thinking
  Thinking techniques
  Creative games.

**Method**: Display of CDs on LCD projector. Discussion on various shots about behaviour of teacher, Head master, parents, other teachers in ‘दहावी फ’ The contents of CD on creative thinking were learnt. There was a small quiz on it. It was also attempted.
Evaluation:

Portfolio: Same as day 1.

Thought for day 19:

"The world of reality has its limits. The world of imagination is boundless."

— John Rousseau.

Names of portfolio cards:

Day 19: मतिलांध

Day 20: मागील अंकावल्ण

Day 21, 22

Objective: To enable the student teachers to understand the concept of resourcefulness.

Specific objectives: To enable the student teachers to

1) understand the concept of resourcefulness.
2) get acquainted with techniques for resourcefulness.

Content:

• Concept of resourcefulness.
• Brainstorming and its use.

Teaching Strategy: explanation - concept of resourcefulness.

Brainstorming session - modification in benches.

Group work: 4 groups were formed. The themes for brainstorming allotted were:

• Methods for crowded classes.
• Solutions to reduce absenty.
• Ways to avoid the distraction of attention.
• Strategies to develop reading habits.

Presentation of each group and discussion on it.

**Group work :**

• Method wise groups were formed. Student teachers were asked to brainstorm and prepare games for learning a particular school subject. To stimulate their thinking process, some pages having creative games were supplied. Each group presented their games.

**Evaluation :**

**Portfolio cards :** Same as day one.

**Reinforcement :** An article of P. G. Vaidya namely ‘चमत्काराशिवाय नमस्कार नाही’ was supplied to each one. Student teachers were asked to analyse with respect to resourcefulness and were asked to present them.

Some articles of resourceful teachers from 'An attempt worth resembling', ‘बिजली व दर्पगुजरी राणी यांचे अध्यापन’ ‘अणू संरचना’ were supplied methodwise and were asked to analyse accordingly to factors of creativity in teaching.

**Thought of the day 21 :**

"When there is joy, there is creation. When there is no joy, there is no creation, know the nature of joy"

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**Day 22 -**

The concept of creativeness and the concept of healthy, self actualizing full human person, seem to be coming close and closer together and may not be the same thing."

— *Abraham Maslow*
Names of port folio cards:

Day 21: रामबाण

Day 22: घेतला वसा

Pictures used during resourcefulness sessions:
"Fold a Horse" Puzzle

Step 1: Print out the above picture and cut out the star shape.
Step 2: Fold back and forth on the dotted lines to make hinges.
Step 3: Cut along the bold dotted line from the center of the star
to the right edge.

Fold the triangles on the hinges until three triangles come
together
to make a complete silhouette of a horse, like the one shown in the
upper right-hand triangle (a head, a body, and a tail).

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http://www.creativepuzzels.nl/speel/speel1/speel2/horsfld2.htm