EFFECTIVENESS OF ONE TO ONE MENTORING AND MONITORING BY DIET FACULTY ON ACADEMIC PERFORMANCE OF GOVERNMENT SCHOOLS

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Abstract

In the modern competitive life style everyone has to update themselves time to time. It is challenging to spare time separately for updating in-service personnel. Mentoring and monitoring of in- service personnel are the important wyas to update them without spending separate time. Mentoring is the process to provide support at their work place without disturbing them and its effectiveness should also be monitored. This study was planned with the aim to assess the effectiveness of mentoring and to providethe special supportto the needful persons.

***Tools:** Students' academic performance was assessed by using the NIPUN Lakshya App and a self-developed semi-structured pro-forma for identifying School's NIPUN Status and Challenges in Making NIPUN School reported by Head Teacher were used for 78 poor performing schools data collection in this action research in three phases. Data was analyzedby using SPSS 21.0. Result: of the study depicted that the class wise percentage of the NIPUN student score increased significantly in four months as Class 1- 23.15%, to 82.38%, Class 2 – 27.3% to 81.7% and Class 3- 35.77% to 84.75%. The findings suggested that regular quality based one to one mentoring and monitoring is playing important role in enhancing teacher's teaching performance and improving students' academic achievements. Involvement of higher authorities like deputy director/principal DIET, BSA, BEOs DIET faculties is also very much needed in monitoring the quality of teaching learning processes and outcomes. Future Recommendations: The mentors (ARPs and SRGs) selection process should be refined to ensure that only the most dedicated and committed, experienced, knowledgeable, trained and passionate individuals are chosen for the Mentoring. The Academic Development Unit (DIET) should also create a feedback form for both mentors and mentees to complete at the end of each term. This will enable the mentors to enhance the quality of mentoring.Additionally, the mentors who are providing good mentorship should be kept intact (by not sending them to their previous level of designation) by any way. They should also be appreciated and promoted time to time.*

***Keywords;** Mentoring, Monitoring, Feedbacks, NIPUN Bharat Mission, Lakshya.*

Introduction;

Mentoring and monitoring are key aspects of enhancing the performance of any worker. Mentoring is the process of observing a worker's work processes, style, and performance on assigned tasks. Based on these observations, the mentor provides necessary support and constructive

feedback, which helps to improve the worker's performance in a positive and outcome-oriented manner."Mentoring is a long term relationship that helps to meet the developmental needs, helps to develop full potential and benefits all partners, mentor, mentee and the organization". - Suzanne Faure.

Monitoring, on the other hand, involves the regular evaluation of performance. Based on this evaluation, appropriate feedback, reinforcement, or corrective actions are provided to workers regarding their assigned tasks. According to Haynes, "Monitoring makes a contribution in the evaluation of work methods and employee performance". This process is applicable to all workers, whether they are engaged in health, wealth, education, or social sectors.

In last few decades, numerous studies related to Indian education system and education in India have emphasized the significance of two key areas: (a) establishing effective teachers mentoring and monitoring systems to improve teacher attendance with evidence suggesting that inspections are often more cost-effective in reducing student-teacher ratios than appointing additional teachers (Chaudhury et al., 2006; Muralidharan, 2013; Muralidharan et al., 2017), and (b) implementing pedagogical innovations aimed at enhancing classroom instruction and quality of education. These interventions include strategies such as teaching at the appropriate level, remedial instruction, and providing cash incentives for teachers (Muralidharan, 2013).

An increasing number of researches have established that teacher quality is the most influential factor in determining students' achievement, surpassing other commonly assessed school-level inputs such as class size, curriculum, school envirnment, textbooks, uniforms, and technology. Enhancing teacher quality has been shown to significantly improve students' test scores (Chetty et al., 2014; Goldhaber, 2007; Rivkin et al., 2005; Eide et al., 2004; Schacter & Thum, 2004).

Teacher characteristics are closely associated with students'achievement and can be categorized into two types of factors: process and structural factors. Process of a teacher's teaching encompasses the quality of interactions between teachers and students, along with the activities conducted in the classroom. Structural factors include the resources that support these interactions, such as teachers' education, experience, subject-specific knowledge etc. While process quality is a strong and consistent predictor of student outcomes, structural quality accounts for a smaller portion of student learning (Molina, E., Fatima, Syeda F., Ho, Andrew D., Melo, C., Wilichowski, Tracy M., Pushparatnam, A., 2020). So, enhancing teacher quality, both through pre-service training programs prior to their entry into the profession and through in-serviceContinuousProfessional development (PD) programs during their careers, is a key for improving student achievement.Studies have also identified positive relationships between teacher coaching and improvements in their instructional practices (Kraft, Blazer, & Hogan, 2017).The World Bank report emphasized that most students fall behind their grade level in achieving proficiency in reading and math, even with support from resource persons. It also highlighted that teacher absenteeism continues to be a significant challenge in achieving positive learning outcomes. Despite resource persons reporting high levels of effort, they face difficulties in translating these efforts into effective teaching practices. This may stem from disparities in contractual terms, which hinder effective mentoring (World Bank, 2021).

The Uttar Pradesh Basic Education Department is also implementing this process for primary and upper primary schools under the Uttar Pradesh Government. The mentoring system operates through supportive supervision, while monitoring is conducted under the **MISSION PRERNA** (Program for Result Enhancement Resources Nurturing and Assessment) and **NIPUN BHARAT MISSION** (National Initiative for Proficiency in Reading with Understanding and Numeracy) programs.

According to the National Education Policy 2020, achieving universal foundational literacy and numeracy in primary schools is the highest priority for the education system. This initiative aims to meet the learning needs of children aged 3 to 9 years by 2025. The successful achievement of foundational skills in reading, writing, and arithmetic is essential for the implementation of other aspects of the policy.

To accomplish this, the Ministry of Education has established National Mission on Foundational Literacy and Numeracy as a priority. State and Union Territory (UT) governments are required to immediately create and execute action plans with clear stage-wise goals to ensure universal foundational literacy and numeracy across all primary schools. Progress will be closely tracked and monitored to achieve the targets by 2025.

Foundational Language and Literacy

A child's prior knowledge of language forms the basis for developing literacy skills. Key components of foundational language and literacy include:

1. **Oral Language Development**: Building reading and writing skills through rich oral language experiences.
2. **Phonological Awareness**: Developing awareness of words, rhymes, and sounds within words through meaningful language interactions.
3. **Decoding**: Learning print awareness, akshara recognition, and word decoding.
4. **Vocabulary**: Enhancing oral and written vocabulary alongside morphological word analysis.
5. **Reading Comprehension**: Building the ability to understand, retrieve, and interpret text.
6. **Reading Fluency**: Cultivating accuracy, speed, expression, and comprehension to enable meaningful reading.
7. **Concepts about Print**: Gaining exposure to print-rich environments to enhance comprehension.
8. **Writing**: Developing skills to write aksharas, words, and express ideas effectively.
9. **Reading Culture**: Fostering a love for reading through access to diverse books and materials.

Foundational Numeracy

Foundational numeracy refers to the ability to reason and apply basic mathematical concepts to solve everyday problems. The primary components of early mathematics include:

1. **Pre-Number Concepts**: Understanding counting and the numeration system.

2. **Numbers and Operations**: Mastering the use of the base-ten system and performing operations like addition, subtraction, multiplication, and division.
3. **Measurement**: Applying standard algorithms to solve problems involving numbers up to three digits.
4. **Shapes and Spatial Understanding**: Engaging with computations and applying them to real-life scenarios.
5. **Patterns**: Expanding understanding of space, objects, and relational vocabulary.

The Uttar Pradesh government initiated **MISSION PRERNA** in 2018. Later, in 2021, the mission was integrated into the central government's **NIPUN BHARAT MISSION**. Under the NIPUN Bharat Mission, the government set minimum educational achievement goals for grades 1, 2, and 3. In 2024, the mission's targets were revised, and the focus was narrowed to grades Balvatika, 1 and 2.

Category	Balvatika (Age 5–6)	Class I (Age 6–7)	Class II (Age 7–8)
Oral Language	1. Talking to friends, classmates and teachers. 2. Reciting rhyming words/ poems with understanding and gestures.	1. Talking and asking questions to friends, class teachers about their needs, familiar people and environment. 2. Talking about print material available in the class, school and environment and its content. 3. Reciting poems and songs with gestures.	1. Talk and discuss print material available in the class. 2. Join in conversation to ask questions and listen to others. 3. Recite songs and poems with gestures and inflections. 4. Repeat familiar words appearing in stories/poems/ print etc.
Reading	1. Looking at books and trying to read stories with the help of pictures. 2. Beginning to recognize and point to some familiar repeated rhyming words (sight words or words printed on food containers/ wrappers) 3. Recognizing letters and corresponding sounds. 4. Reading simple two to three letter words.	1. Actively participating during storytelling sessions and answering questions during and after the storytelling session and acting out familiar stories using puppets or other props. 2. Using the appropriate sound to read new words. 3. Reading short sentences with at least 4-5 simple words from an age appropriate unknown text.	1. Read/narrate/retell stories from children's literature and text books. 2. Make new meaningful simple words from the letters of a given word. 3. Read age appropriate unknown text of 6 to 8 sentences containing simple words with comprehension, clarity and fluency.

Category	Balvatika (Age 5–6)	Class I (Age 6–7)	Class II (Age 7–8)
Writing	1. Drawing and colouring pictures with pencil for self expression. 2. Trying to write recognizable letters. 3. Holding pencil properly and using it to form recognizable letters. 4. Recognizing and writing own written name.	1. Becoming familiar with the pronunciation of vowels in words used in familiar contexts (story/poem/environmental print etc.) 2. Explaining meaning by writing or drawing. Write names in your worksheet or greeting card, draw pictures of recognizable objects/persons. 3. Use sound-signs along with writing words with correct spellings. 4. Write 2 to 3 sentences with understanding.	1. Write short simple sentences correctly to express own understanding and feelings. 2. Write 4 to 5 short sentences with legible writing.
Numeracy	1. Count objects upto 09 and match them with the corresponding numbers. 2. Recognise, read and write numbers upto 09. 3. Recognise and copy/draw and colour simple patterns. 4. Compare two groups of objects with reference to number of objects and use words like more/less/equal etc. 5. Arrange numbers/objects/shapes/events in a sequence. 6. Classify objects on the basis of their observable characteristics and state the criteria for classification. 7. Use comparative vocabulary with reference to different objects around you like- long, longest, short, smallest, light-heavy etc	1. Counting objects and recognising numbers upto 20. 2. Recognising and reproducing simple patterns in your surroundings, shapes and numbers. 3. Using addition and subtraction of numbers upto 9 in daily life situations (sum should not exceed 20). 4. Observing and describing the physical properties of 3D shapes (solid shapes) in your surroundings like round, flat surface, number of corners and edges etc. 5. Estimating length using non-standard and unequal units like hands, feet, fingers etc., measuring capacity using uniform units like cups, spoons, mugs etc. 6. Recognize Indian currency (notes and coins) up to Rs. 20.	1. Counting objects upto 1.99 and having number sense. 2. Create new patterns with different shapes and numbers. 3. Add and subtract numbers upto 99 in daily life situations (sum should not exceed 99) 4. Solve multiplication as simple addition and division as equal distribution and construct multiplication facts (tables) of 2, 3 and 4. 5. Identify and describe 2-D shapes like rectangle, triangle, circle, oval etc. 6. Estimate and measure length/distance/capacity using non-standard units like rod, pencil, thread, cup, spoon, mug etc. and compare weight using scales. 7. Use spatial vocabulary like far/near, inside/outside, above/below, left/right, front/back etc. 8. Carry out simple transactions using currency upto Rs. 100.

Under the NIPUN Bharat Mission, all the states and UTs are striving to achieve the targets as per the schedule. In this process, the government primary schools of District Gautam Buddh Nagar are also working in the same direction. However, some schools (10% to 15 %) are unable to achieve the desired outcomes even after implementing supportive supervision. Based on the performance of these schools, DIET GB Nagar has planned an action research project with the title "Effectiveness of One to One Mentoring and Monitoring Program by DIET faculty on Academic Performance of Government Primary Schools in GB Nagar." **Significance of the Study:** this study will be able to address the gap in educational research in the area of mentoring and monitoring by evaluating the effectiveness of teachers' mentoring and monitoring practices in schools in India and provide needful support to schools.

Method

Research design; Experimental research design was used. **Tools:** Students' academic performance was assessed by using such as 1)**NIPUN Lakshya assessment App** and 2) a self-developed semi-structured pro-forma for identifying School's NIPUN Status and Challenges in Making NIPUN School reported by Head Teacher. **Sample size;** Total 78 poor performing schools' nodal teachers of class 1, 2 and 3 along with Head teachers were selected in this experimental research. The data were collected through using above mention tools and procedures. **Procedure of data collection:** One to one mentoring is regularly going on in Utter Pradesh's Government Primary and Upper Primary Schools through ARPs, SRGs and Mentors. However, some of the schools were not performing as per desired outcomes and these schools are belonging to the area where mentoring and monitoring were not executed well.Data from 78 poor performing schools werecollected in three phases; Initial data were collected before the one to one mentoring and monitoring program initiated by DIET faculties. Second phase data were collected after one month of the need based special workshop. In this workshop DIET faculty members reviewed NIPUN status of the schools and discussed their challenges with the problem solving approach one to one.Third phase (Follow up) data were collected two time, First in the second month of after the need based special workshop and second time in the third month after the need based special workshop **Data Analysis:** Datawere analyzed by using spss 21.0. The descriptive statistics along with graphical representation were used for presentation of progress in NIPUN score over period of time.

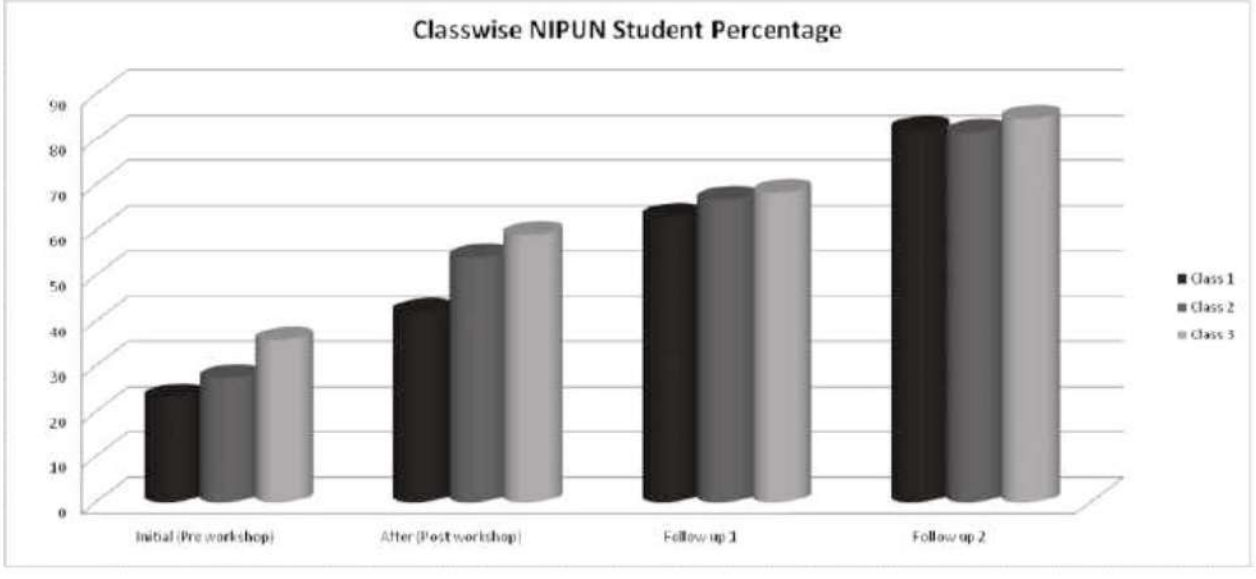
Result

The result of the study depicted (Table; 1.0 and Graph; 1.0) that the class wise percentage of the NIPUN student score were; Class 1- 23.15%, Class 2 – 27.3% and in Class 3-35.77% the September month before the workshop conducted. In the month of October the data of NIPUN students were increased highly as in Class 1- 42.05, Class 2 - 53.92 and Class 3 - 59.14 after the workshop conducted. Later on regular mentoring and monitoring the follow up data was also depicted in increasing order as on the first follow up Class 1- 63.11, Class 2 - 66.83 and Class 3 – 68.31 and second follow up Class 1- 82.38, Class 2 - 81.7 and Class 3 - 84.75.

Table; 1.0

Data Collection Procedure	Data Collection	Class wiseNIPUN Student Percentage		
Phases	Month	Class 1	Class 2	Class 3
Initial (Pre workshop)	Sep	23.15	27.3	35.77
After the workshop (Post)	Oct	42.05	53.92	59.14
Follow up 1	Nov	63.11	66.83	68.31
Follow up 2	Dec	82.38	81.7	84.75

Graph; 1.0



Discussion and Findings

One to one mentoring is regularly going on in Utter Pradesh's Government Primary and Upper Primary Schools through ARPs, SRGs and Mentors. However, some of the schools were not performing as per desired outcomes and these schools belonged to the area where mentoring and monitoring were not equated well. The findings of the study presented that regular quality based one to one mentoring and monitoring played an important role in enhancing teacher's teaching performance and improving students' academic achievements. Number of previous published researches also suggested the similar findings in their findings (Chetty et al., 2014; Goldhaber, 2007; Rivkin et al., 2005; Eide et al., 2004; Schacter & Thum, 2004).The findings were differ from the World Bank's report of "*strengthening teacher mentoring and monitoring systems: Evidence from India*" (World Bank 2021).

The study also highlighted that regular one to one quality mentoring along with monitoring by qualified, competent, confident and experienced mentors as in this study DIET faculty (Principal and

Lecturers of DIET) were involved along with ARPs and SRGs. DIET faculty members directly and indirectly mentored and monitored selected schools regularly.

Conclusion

On the basis of study findings it can be concluded that regular quality based one to one mentoring and monitoring is very important in enhancing teacher's teaching performance and improving students' academic achievements. Involvement of higher authorities like deputy director/principal DIET, BSA, BEOs DIET faculties is also very much needed in monitoring the quality of teaching learning processes and outcomes.

Recommendations

The mentor (ARPs and SRGs) selection process should be refined to ensure that only the most dedicated and committed, experienced, knowledgeable, trained and passionate individuals are chosen for the Mentoring. The Academic Development Unit (DIET) should also create a feedback form for both mentors and mentees to complete at the end of each term. This will enable the mentors to enhance the quality of mentoring. Additionally, those mentors are doing good mentorship without any complaints; they should be appreciated and promoted time to time. Based on the findings, we propose key policy recommendations: **Enhancing teacher mentoring** – More qualified and well-trained Mentors and Monitors should be recruited and assigned solely to mentoring teachers.

Educational Implications;

The study findings will be useful to design learning outcome based mentoring and monitoring programs by appointing competent resource persons.

Future Research Scope

This study was conducted on only 78 poor performing schools of a particular district. Effectiveness of Mentoring and Monitoring can be evaluated on larger number of schools acrossdistricts and states. In further studies mentoring and monitoring can be compared on different cadres by using inferential statistics.

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