REPUBLIC OF KENYA

CEMASTEA

IMPACT OF SMASE INSET PROGRAMME IN TEACHING AND LEARNING: A TRACER STUDY OF PRIMARY AND SECONDARY SCHOOLS IN KENYA

What is the issue?

The policy brief has been developed for the '***'Impact of SMASE INSET Programme in Teaching and Learning: A Tracer Study of Primary and Secondary Schools in Kenya".*** The focus of the study was to address the following research questions: How has SMASE INSET programmes affected learner achievement; to what extent are teachers who have attended SMASE INSET training using learner centred pedagogies and what are the principals' perceptions on the influence of SMASE INSET programmes on their classroom practice.

The objective of this policy brief is to position the research work and findings within the broader policy context, including policy strategies and decision-making processes that it will inform.

Background information

CEMASTEA is a State Corporation under the Ministry of Education with the mandate of Training and Research. The centre continuously improves teachers' proficiency in Pedagogical Content Knowledge (PCK) through In-Service Education and Training (INSET). Over time the centre, has trained teachers on using learner-centred strategies such as Inquiry-Based Learning (IBL), Problem-Based Learning (PBL), Lesson study and ICT integration in teaching and learning. The trained teachers are expected to implement what they learn during SMASE programmes in their classrooms. CEMASTEA not only conduct research to inform the training (need-based) but also monitors their implementation.

SCALE OF PROBLEM

- **Do teachers who undergo SMASE training activities transfer the skills and knowledge to their classroom practices?**
- **It would be therefore essential to carry out a retrospective investigation on the impact of the trained teachers in their schools.**

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The importance of Teacher Professional Development (TPD) in enhancing quality of teaching and students achievement cannot be over emphasized. SMASE programme is aimed to help teachers embrace the culture of learner centered teaching and learning approaches. During training, teachers share experiences of good practices and challenges in teaching and learning the subjects. The teachers are expected to transfer skills and knowledge learnt into their classrooms, thus improving students' attitudes and achievement in mathematics and science.

Key Findings from the Research

(A) Positive Impact

- SMASE INSET programmes have contributed positively to the learning of science and mathematics (89.1% of the Head of Institutions were in agreement).
- Enhanced teachers' pedagogical skills and lesson planning (74% teachers had written lesson plans while 26% did not).
- Significant positive effects on learner achievement and interest in science related activities such as science talks, KSEF, talents and innovation shows.
- Teachers are provided with the necessary support they require by the school administrators to implement SMASE related activities.

(B) Areas that need improvement

- **Self - Reflection**. In-depth understanding of self-reflection. The ability to reflect on implemented lessons is a critical pedagogical practice and integral part of the SMASE training, the 'I' in PDSI standing for improvement.
- **ICT infrastructure**. Insufficient ICT infrastructure hamper actualizing of ICT integrated lessons.

Policy Implications and Recommendations from the study

- Teachers who lack a thorough understanding of self-reflection may find it difficult to improve the way they conduct lessons. Without engaging in self-reflection, they risk performing the same thing year after year without improvement which lowers student engagement and success levels.

- Lack of adequate ICT infrastructure could have a detrimental impact on actualizing ICT integrated lessons without which, teachers may struggle to design and implement effective instructional strategies aligned with the curriculum objectives.

Based on the policy implications, this paper proposes six recommendations to the Ministry of Education (MoE), Teacher Service Commission (TSC) and Kenya Institute of Curriculum Development (KICD).

1. Strengthen capacity development programs for teachers. TPD should be institutionalized and regularized for all teachers.
2. Implement classroom-based mentorship programs to provide ongoing support and guidance to teachers. Explore school-based lesson study as a TPD module.

3. Provide both physical and human resources to schools required to implement integration of ICT in lessons.
4. Policy interventions on ICT resources at teachers' disposal *[mobile phones, tablets]*.

Conclusions

Capacity building and strengthening teachers are crucial in successfully implementing STEM subjects in schools. The Ministry of Education, CEMASTEA and the Teachers Service Commission need to continuously support teachers in these subject areas. By providing support and resources, these efforts can help teachers overcome obstacles and achieve better results in implementation STEM.