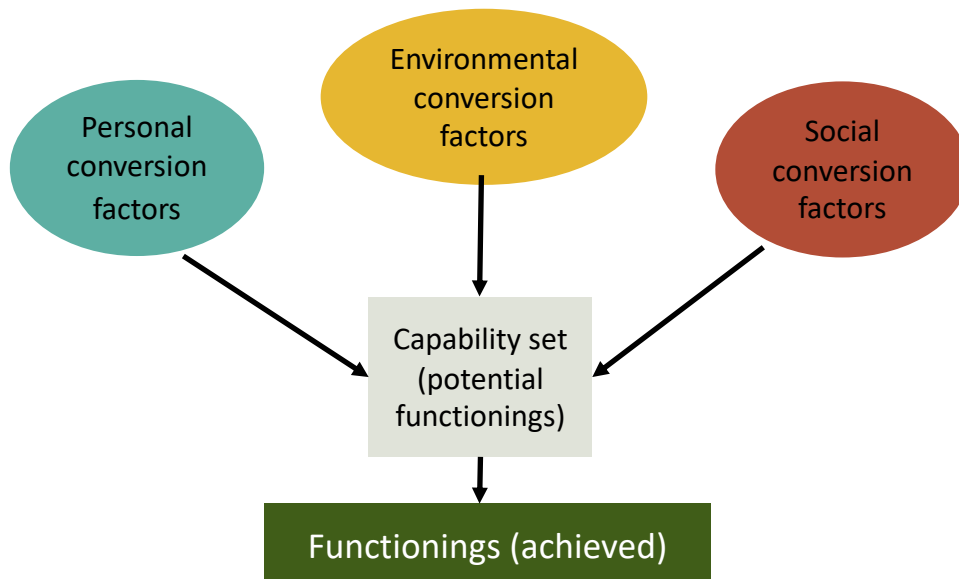


DEVELOPING TEACHER CAPABILITIES AND VALUED FUNCTIONINGS IN PROFESSIONAL LEARNING COMMUNITIES: FOCUS ON ENVIRONMENTAL CONTENT KNOWLEDGE IN NATURAL SCIENCES

Kgomotso Thomas explored how professional learning communities (PLC) can contribute to the development of teachers' capabilities and achievement of valued functionings related to teaching environmental topics in Grade 8 Natural Sciences. The study focus was on how environmental topics are taught in Natural Sciences classrooms, and finding out what teachers valued doing and being in teaching those topics and in belonging to a professional learning community. Of importance was hearing from the teachers themselves and gaining understanding of factors that either enabled or constrained them in teaching environmental topics in Natural Sciences. The study looked at how a professional learning community (PLC) supported teachers in teaching environmental topics, and how a PLC could be structured to meet teachers' professional development needs.

This was a case study of a Natural Sciences professional support forum in North West. Data was generated through questionnaires, classroom observations, PLC observations, and interviews to explore teachers' valued functionings and the conversion factors related to them. PLC activities were observed where 13 teachers participated. Two of the 13 teachers were observed in their classrooms teaching environmental topics under the Life and Living strand. Two lessons were observed for each teacher, and both of them were teaching the topics of Balance in the ecosystem and conservation of the ecosystem.

For this study the Capability Approach (Sen, 1987 and Robeyns, 2005) was used as a theoretical and conceptual framework. Through the capability approach theory, teachers' valued functionings in teaching environmental topics, and in belonging to a PLC were explored. According to Sen (1987), a functioning is the various things a person may value doing or being. The study also took into account the various conversion factors that either enabled or constrained teachers' valued functionings and capabilities. Drawing from Robeyns (2005), these conversion factors are grouped into three: personal, environmental, and social. Personal conversion factors involve aspects such as intelligence, physical condition, and skill sets. Environmental factors include geographical location, infrastructure, and logistics; and the social factors include public policies, social norms, gender relations, roles and identities.



The research findings revealed that teachers have different valued functionings related to belonging to the professional support forum (PSF) in relation to: sharing responsibilities among themselves and the subject advisor, shared values and vision to guide the discussions, collaboration, and discussion of subject content. The conversion factors related to these functionings were found to be learning space (where the PSF was hosted), time and duration of the professional support forum, activities in the PSF, lack of provision of teaching and learning resources, teaching experience of participants, and facilitation of PSF activities.

Findings also revealed that teachers' qualifications, teaching experience, passion for environmental topics, confidence, teaching and learning resources, learners' interest and participation, available support, and classroom and schools' environment were among conversion factors that either enabled or constrained teachers' valued functionings in teaching environmental topics.

VALUED FUNCTIONINGS: sharing responsibilities among teachers and the subject advisor, shared values and vision to guide the discussions, collaboration, and discussion of subject content

CONVERSION FACTORS INFLUENCING THE TEACHING OF ENVIRONMENTAL TOPICS

PERSONAL	ENVIRONMENTAL	SOCIAL
Teachers' qualifications and experience, passion and interest in environmental topics, self-development, acquisition of knowledge and skills in teaching environmental topics. learners' interest and participation.	Learning space: this includes classrooms, the schools' environment, and the physical space where the PSF is held.	Language barriers, availability of teaching and learning resources, NS CAPS policy document, support, teachers' roles and participation in the PSF, duration and types of the PSF activities.

Recommendations from this study are that teachers' professional development programmes within professional learning communities should promote subject content discussions; group and individual learning. They should also provide teachers with resources, and share different pedagogical approaches that will expand teachers' capabilities in teaching environmental topics as well as give them opportunities to facilitate activities to share and demonstrate best practices.

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