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STRATEGIES FOR DEEP LEARNING: ECONOMIC MANAGEMENT SCIENCES TEACHERS' VIEWS AND PRACTICES IN JOHANNESBURG

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Abstract: This study explores Economic and Management Sciences (EMS) teachers' perspectives on deep learning and how EMS classrooms create constructivist, student-centered learning opportunities. Grounded in cognitive and constructivist theoretical frameworks, the study examines how teachers' experiences, beliefs, and attitudes shape their instructional practices in fostering deep learning, emphasising content mastery, critical thinking, and real-world application. While cognitive theory explains how teachers' prior knowledge influences their teaching strategies, constructivist theory highlights how learners construct knowledge through engagement and problem-solving. A qualitative research approach was employed, utilising semi-structured telephone interviews with six purposively sampled EMS teachers from four public schools in Gauteng, South Africa. Purposive sampling ensured participants had at least five years of EMS teaching experience, providing rich insights into deep learning practices. Interview questions focused on teachers' understanding of deep learning, instructional strategies, and challenges in EMS classrooms. Narrative data analysis identified themes through coding and clustering of recurring insights, centring teachers' voices and lived experiences. Findings reveal that teachers perceive deep learning as fostering content mastery beyond memorisation, enabling learners to apply knowledge across contexts. However, limited resources, time constraints, and lack of EMS teacher training hinder its effectiveness. Strategies supporting deep learning include problem-based learning, critical thinking, collaboration, ICT integration, and mini-enterprise activities, aligning with constructivist principles. Despite a small sample size limiting generalizability, the in-depth narratives offer valuable insights. Telephone interviews addressed geographical constraints and teacher availability, ensuring data depth and accessibility. This study contributes to commerce education research by highlighting how a blended cognitive-constructivist approach can enhance EMS curriculum design, equipping learners for the dynamic business environment.

Keywords: deep learning, EMS pedagogy, cognitive theory, constructivist learning, teacher education, entrepreneurship education

1. Introduction

The article aims to explore the views of Economic and Management Sciences (EMS) teachers about deep learning and how EMS teaching creates opportunities for deep learning in EMS classrooms. EMS is a compulsory subject taught from grade 7 to grade 9 in South African schools (Msimanga, 2017). It is uniquely designed to help learners develop entrepreneurship dispositions and understand the wealth creation process (Maistry & David, 2017). Deep learning is the ability of learners to transfer information

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taught in class to real-life issues (Fullan, Hill, & Rincón-Gallardo, 2017). Literature based on South African studies revealed that most of the teachers who are teaching EMS are not trained to teach the subject, there is little training in the form of in-service training or workshops and inadequate resources, and teachers lack in-depth knowledge in all the disciplines in EMS as it is an integrated subject (Phakathi, 2018). These factors might hinder the development of deep learning in the subject; thus, this article explores how South African EMS teachers who face these factors create opportunities for deep learning. The article is guided by two research questions: How do EMS teachers view deep learning in the subject? How can EMS teachers create opportunities for learners to develop deep learning? A literature review is presented to give perspective to the article by discussing the nature of EMS, reasons for ineffective teaching in EMS, challenges in EMS teaching which affect effective teaching, understanding deep learning, the significance of deep learning in the curriculum, creating opportunities for deep learning, and the theoretical framework.

1.1 The nature of EMS

According to the DBE (2011), EMS is a practical subject that equips learners with real-life skills that are meaningful to their personal and community development. It also deals with using resources effectively and efficiently to satisfy people's needs and wants to maximise profits. Msimanga (2017) and Modise (2016) define EMS as a compulsory school subject in the South African context, which is coined by integrating the content of Economics, Business Studies, and Accounting. EMS's main topics and content are the economy, financial literacy, and entrepreneurship (Siyaya, 2019). These topics are based on the content of Economics, Business Studies, and Accounting, and integrating these three subjects' content makes EMS an integrated subject. Although EMS is an integrated subject, Assan (2016) cautions that teachers should not teach it in integrated ways. Teaching an integrated subject impacts effective teaching and creates opportunities for deep learning. The following section discusses the reasons for ineffective teaching in EMS.

1.2 Reasons for ineffective teaching in EMS

Several studies conducted in South Africa reveal that EMS teaching is ineffective for various reasons (Modise, 2016; Msimanga, 2017; Phakathi, 2018; Williams, 2019). As EMS is an integrated subject comprising different disciplines, EMS teachers should have an in-depth understanding and knowledge of all the disciplines, which is difficult because most teachers are not trained to teach all the disciplines (Modise, 2016; Phakathi, 2018). However, a study by Msimanga (2017) found that EMS teachers were trained in all subject disciplines. Still, the training was insufficient as it was in the form of workshops provided by subject advisors. On the other hand, Phakathi (2018) states that when EMS was introduced as a subject, few teachers were trained to teach the subject. As a solution, teachers trained to teach

Business, Commerce and Management Studies (BCM) subjects were expected to teach EMS, yet most were not trained to teach all three subjects. Lack of training ensures that EMS teachers are ill-equipped to teach EMS concepts effectively (Williams, 2019). A study by Maboko (2012) found that most EMS departmental heads have little knowledge of EMS, making it difficult for schools to meet their expected standards in the subject, as people who should give directives to teachers lack in-depth understanding of the subject. Phakathi (2018) postulates that there is a strong bond between teacher training and teaching because if teachers are not trained in all the disciplines, they tend to sacrifice certain disciplines over others, especially if they are uncomfortable with the content to be covered due to low or lack of content knowledge of the subject. Siyaya (2019) adds that EMS teachers are not motivated to transmit knowledge confidently and in totality, as the subject content integrates different disciplines. The discussion mentioned above indicates that EMS is a specialised subject due to its integrated nature, and lack of training in all subject disciplines leads to ineffective teaching of the subject, which might affect the accomplishment of deep learning. Thus, EMS teachers need to be knowledgeable in all subject disciplines because they cannot teach the subject effectively without the necessary knowledge. The following section discusses the existing challenges in the subject which affect effective teaching.

1.3 Challenges in EMS teaching which affect effective teaching

Literature based on studies conducted in South Africa revealed that teachers face many challenges when teaching EMS. These challenges include the following: the nature of EMS as an integrated subject, teacher training, and the context of teaching (Phakathi, 2018). According to Siyaya (2019), EMS teachers are not ready to meet the demands of the new EMS curriculum, as there is a gap between EMS policy and practice, time, policy interpretation, teachers understanding, and assessment practice (Williams, 2019). Msimanga (2017) found a gap between policy and practice regarding allocating two hours per week to teach three disciplines. In support, Siyaya (2019) argues that the time allocated for EMS is insufficient to meet the lesson objectives since learners are diverse and some struggle to grasp the content. Insufficient time allocation is a challenge when creating learning opportunities for learners. According to Maboko (2012) and Williams (2019), EMS teaching is more difficult because of insufficient resources. Insufficient resources such as school infrastructure, poor libraries, inadequate textbooks, and lack of teaching aids impact how EMS is delivered (Siyaya, 2019).

Furthermore, classrooms are overcrowded, making it difficult for teachers to achieve their lesson objectives as they cannot give individual learners attention as learners have different abilities. Insufficient resources call for EMS teachers to find innovative ways to improve their teaching, such as borrowing from neighbouring schools (Williams, 2019). From the above discussions, it is evident that most EMS teachers are not trained to teach the subject; therefore, they need to be lifelong learners and

be able to make friends with other EMS teachers to get assistance. The challenges discussed in this section might be prevalent in countries where integrated subjects are taught. Notwithstanding these challenges, EMS teachers are expected to create opportunities for deep learning in their classrooms.

1.4 Understanding deep learning

According to Fullan et al. (2017), deep learning is the ability of learners to transfer what was learned in class and apply it to real-life situations in different contexts. Furthermore, it equips learners with skills to deal with any changes and challenges that might come their way in the constantly changing real-life environment. In support, Bitter and Loney (2015) state that deep learning ensures that learners master the content and can apply knowledge learnt in class to answer questions and solve problems in real-life situations. Additionally, The William and Flora Hewlett Foundation (2013) defines deep learning as an umbrella concept which comprises all the skills and knowledge needed by learners to succeed in 21st-century jobs and includes a set of competencies that are necessary to strive in this volatile world, such as mastery of core academic content, ability to think critically and solve complex problems, work collaboratively as a team, and communicate effectively. In the context of this article, deep learning is the ability to master the content in-depth and apply it to real-life issues in different contexts.

1.5 Significance of deep learning in curriculum

The William and Flora Hewlett Foundation (2013) contends that deep learning is significant in the curriculum because it equips learners with the skills necessary to survive in this changing environment. Furthermore, deep learning prepares learners to master core academic content, think critically, and have the ability to solve complex problems, communicate effectively, and work collaboratively. Deep learning produces learners who can work effectively with others towards achieving goals; this means that teachers are expected to create a learning environment where learners actively reflect on new concepts introduced in class and integrate the information with their existing knowledge of the concepts (Scott, 2015). According to Giri (2016), engaging learners actively with real-life situations during the teaching and learning process helps learners to learn well.

Lapek (2018) asserts that today's industries and economy have drastically changed and require well-prepared learners to overcome any obstacles; this means that schools should prepare learners with the necessary skills to adapt and survive in this constantly changing environment. Scott (2015) adds that to achieve authentic learning demanded in the 21st-century curriculum, learners should be engaged in learning and be equipped with collaboration skills, critical thinking skills, and problem-solving skills – these skills will prepare them for the world of work. Moreover, Bitter and Loney (2015) contend that

teachers need guidance, support, and training to effectively implement deep learning in their classrooms. Teachers need to understand how they can create opportunities for deep learning for learners to benefit from it.

1.6 Creating opportunities for deep learning

According to Bogard, Consalvo, and Worthy (2018), deep learning takes place when a person is capable of transferring what was learnt in one situation to another new situation; once an individual has mastered this deeply, then they will know when, how, and why to apply their knowledge and skills. Moreover, Bogard et al. (2018) argue that for learners to learn deeply, it does not mean that they need rigorous use of their cognitive abilities; it means interacting, talking, and relating intertwined with situated knowledge. Furthermore, creating opportunities for deep learning in class means guiding learners in utilising disciplinary literacy within a content area. Yew, Dawood, Narayansany, Manickam, Jen, and Hoay (2016) highlight that using different pedagogical methods increases opportunities for learners to engage in a deep learning approach during teaching and learning. This means that learners must be able to interact with others, think critically about what was learnt in class, and have the ability to make connections or meaning to apply it to their daily lives and future. The William and Flora Hewlett Foundation (2013) emphasises that teachers need to be creative and use innovative ways that allow learners to take what was learnt in class and apply it to their daily problems in the classroom and the world of work. Borredon, Deffayet, Baker, and Kolb (2011) support using team learning to generate deep learning; this type of learning will create opportunities for learners to engage in reflective conversations to explore various experiences with their peers and share different views to improve performance.

Yew et al. (2016) recommend using active learning in class to ensure that the learning environment is conducive and that learners are encouraged to learn by doing and interacting with others. Bogard et al. (2018) contend that to create opportunities for deep learning, informative feedback, guidance, and encouragement are the keys to contributing to learner development of cognitive competencies. Therefore, it is essential to give learners formative feedback to modify their thinking or behaviour towards improving learning. According to The William and Flora Hewlett Foundation (2013), schools that promote deep learning ensure that all learners, regardless of their background, are honoured and

highly supported in developing their collaboration skills, critical thinking skills, and communication skills, and learners are encouraged to work together as teams to achieve desired goals.

1.7 Theoretical framework

The study adopted the constructivist theory, which refers to the idea that people construct and generate knowledge individually or socially as they learn through interactions. Learners are expected to actively participate in learning (Hein, 2007). Mogashoa (2014) adds that learning is characterised by active engagement, inquiry, problem-solving, and collaboration in constructivist theory. Spiro (2006) asserts that in constructivist classrooms, learners are provided with opportunities to develop mental models of the content so that it can be applied elsewhere.

Matthews, Lieven, Theakston, and Tomasello (2007) state that in constructivist classrooms, learners should be allowed to use their own experiences, prior knowledge, and perceptions; moreover, constructivist classrooms should be designed to lead learners to a deep understanding of the concepts under study. In addition, Fernando and Marikar (2017) state that constructivist learners should be active in their learning while teachers facilitate the learning and construction of knowledge by the learner, which is socially and culturally rooted. Constructivist theory is valuable in this study because it gives insights into how different teachers from different schools view deep learning in EMS and how they enhance deep learning in their EMS classrooms. Teachers developed mental models of the content through different strategies used in EMS classrooms to improve deep learning, such as problem-based learning, critical thinking, and problem-solving, and learners were allowed to research a particular concept without the help of a teacher. Constructivist theory is relevant to this study as its features, such as collaboration, active participation, problem-solving, applying knowledge in different contexts, and deep understanding, apply to deep learning.

2. Methodology

The study adopted a qualitative research approach, which is a type of research where data is in the form of words rather than in numbers (Kennedy & Montgomery, 2018) and is a research that helps us to understand things in their natural setting and understand why things in the world appear the way they are (Mohajan, 2018). Qualitative research was valuable in the study as it helped us understand different

strategies that can be used in EMS lessons to create opportunities for deep learning during teaching and learning processes.

2.1 Research paradigm and research design

The study used the interpretive research paradigm, which understands and interprets a specific phenomenon through the eyes of the participants rather than the researcher (Kivunja & Kuyini, 2017). According to Thanh and Thanh (2015), in an interpretive paradigm, reality is socially constructed through participants' views based on their beliefs, background, and experiences. An interpretive research paradigm helped us to understand how EMS teachers support learners to create opportunities for deep learning. The study also adopted the phenomenological research design, where the researcher puts aside their personal experiences and judgement and collects data based on how individuals make sense of the world (Cresswell, 2008). During the interviews, all personal experiences in teaching were put aside. Still, the participants' views were considered on how they view deep learning and create opportunities for deep learning in their EMS classrooms.

2.2 Participants

According to Mohsin (2016), a sample is a group of individuals from different contexts chosen for investigation. The study used purposive sampling, where the researcher selects participants who can provide in-depth information on the researched topic (Etikan, 2016). In this article, six EMS teachers from four different primary schools with more than five years of teaching experience in EMS were purposively selected to participate because of their information richness. Participants are named as teachers A to F: TA, TB, TC, TD, TE and TF. These teachers were from the Gauteng province, South Africa, in the Johannesburg Central district. Participants' willingness to participate and their availability was vital. As the study collected data through telephone interviews, it was crucial to know when it was convenient to call the participants.

2.3 Data collection instrument

Data was collected through telephone interviews. Telephone interviews are one of the methods used to collect data, where the interviewer communicates with the participant on the telephone to ask prepared questions (Block & Erskine, 2012). Telephone interviews allow for interpersonal communication without a face-to-face meeting (Muhammad, 2015), and they are beneficial because the researcher can access participants who are geographically distant or located in dangerous places (Block & Erskine, 2012). Dates and times were arranged and agreed upon with individual participants based on their

availability to be interviewed. Interviews were recorded, and notes were taken during the interview process. The participants were asked: What is your view of deep learning concerning EMS teaching? How do you create opportunities for deep learning in EMS classrooms? Which strategies can be used to enhance deep learning in EMS classrooms? Follow-up questions were asked to get more information. The study only used one method of collecting data due to the Coronavirus (COVID-19) pandemic. Reaching out to the participants at the agreed time was challenging since they complained about their workload from work, house chores, and other personal commitments.

2.4 Data analysis

According to Bogdan and Biklen (1998), data analysis is systematically searching and arranging data or information to meet the research objectives successfully. The study adopted narrative analysis where participants shared their experiences – in this article, EMS teachers shared their experiences in teaching EMS and ways to create opportunities for deep learning. Participants' responses were transcribed and summarised in their own words. Similar responses were grouped with sub-titles. Participants' views were summarised and discussed, relating them to the literature reviewed and research questions.

2.5 Ethical considerations

Arifin (2018) emphasises the importance of protecting participants' rights through following appropriate protocols. Firstly, ethical clearance was sought from the University of Johannesburg before data collection. The Gauteng Department of Education and participating school principals permitted a study. Consent forms were issued to participants, and a short briefing was given on what the study intended to achieve and the purpose of the study. Participants were assured of confidentiality, anonymity, privacy, and empowerment. Participants were free to withdraw at any stage without any consequences and not to answer any question that made them uncomfortable.

3. Results and Discussion

Participants viewed deep learning as the ability to transfer what was learnt in one situation or class with real-life challenges, which also meant mastering content without memorising. Learners are encouraged to engage in their learning and actively seek answers independently. More practical examples are used in class so that learners can relate what they learn in class to their everyday life issues. Teachers use different strategies to enhance deep learning in EMS classrooms: problem-solving, critical thinking, creative thinking, collaboration, communication, and mini enterprise. However, it is difficult for

teachers to implement deep learning in their EMS classrooms due to time constraints, as teachers must complete the syllabus in time.

3.1 Understanding of deep learning

Participants viewed deep learning as a type of learning where learners are taught to master the content without memorising to apply it in different contexts, and it means mastering the content in-depth without the teacher's help. Deep learning is lifelong learning and the ability to apply what you have learned even in the future. It is learning through picturing the content taught to understand it clearly. Learners can master the essential academic content, think critically, work in groups, and communicate effectively. Deep learning also means learning without supervision and learning the whole topic. Moreover, deep learning is artificial intelligence that stimulates the human brain and strives for autonomy without human intervention. The participants stated the following about deep learning:

> Deep learning is a type of learning that is lifelong learning, so you are not just learning to memorise facts and forget. Deep learning involves learning and being able to apply what you have learnt even in future and also being able to apply it in different contexts. (TA)
>
> Deep learning is learning and picturing what you are learning about and clearly understanding what is being taught. (TB)
>
> Deep learning is where learners are taught to master content to apply their knowledge in different aspects. Learners can learn without supervision, meaning research on their own or semi-supervised, which is given guidelines. (TC)
>
> Deep learning is when learners master essential academic content, think critically, work in groups, communicate effectively, and be empowered through directive self-learning. (TD)
>
> Deep learning is not learning from its surface; it is more than what is on the surface. Actually looking for something in-depth. I think deep learning is understanding the whole topic. (TE)
>
> Deep learning, in my understanding, is the type of technology for the future, artificial intelligence, which will try to stimulate the human brain and strive for autonomy without human intervention. (TF)

This finding presented what deep learning entails based on the views of EMS teachers. Deep learning, amongst others, includes mastering the content in-depth and applying what was learnt in the classroom to different situations. One participant understood deep learning differently from others by defining it

as a type of technology for the future. This artificial intelligence stimulates the human brain and strives for autonomy without human intervention.

3.2 Deep learning concerning EMS teaching

Deep learning about EMS teaching means that teachers equip learners with skills to master the content and link information or knowledge taught in class with other subjects and everyday challenges. EMS is a lifelong subject; we live it every day and use whatever was learnt in class in real life. Learners should be given more practical activities at home to gain more knowledge. However, deep learning is not nurtured in EMS classrooms because teachers primarily focus on delivering the content and preparing learners for assessment; this is due to time constraints of covering the annual teaching plan (ATP). Participants made the following statements:

> Honestly, mainly in EMS, we do not teach our learners deep learning; we primarily focus on delivering the content, preparing learners for assessment and ensuring that we keep up to the standard of increasing pass rate percentage. Hence, most of the time, as teachers, we hardly have time; remember, we are monitored to finish the ATP, and we are all about covering the syllabus, so deep learning takes time. At the same time, we need to ensure learners are prepared for the exams; basically, this is what we do: we teach for assessment. (TA)
> EMS is a lifelong subject that does not only end in grade 9, but we live it in everyday life, so one needs to learn to put in mind and use whatever was learnt in class to life even after 10 years of finishing EMS. (TB)
>
> My view of deep learning in relation to EMS is that more practical activities should be given and more activities they can engage in at home to gain more knowledge. (TC)
>
> EMS should be taught to allow learners to apply what is learnt in class to their everyday lives. (TD)
>
> I think it is learner-centred; if learners use deep learning, they will be given enough time to learn the topic in depth. (TE)
>
> Deep learning about EMS means that teachers should impart knowledge to learners in the sense that they master the content and can link it with other subjects and what is happening in the world. (TF)

This finding highlighted the importance of developing deep learning in EMS classrooms. It also highlighted some hindrances in EMS teaching that affect deep learning development in EMS classrooms.

3.3 Creating opportunities for deep learning in EMS classrooms

Opportunities for deep learning are created by bringing real-life situations into class, making them more practical, and allowing learners to find solutions to problems independently and implement digital learning. Problem-based learning is one of the most critical aspects of creating opportunities for deep

learning, where learners are expected to seek information independently. More practical examples are used in EMS classrooms, and learners are encouraged and motivated to actively engage in their learning through different incentives to achieve outstanding performances. Inclusive education is implemented in EMS classrooms as learners are diverse and have different intelligences; therefore, learners with learning barriers are supported. However, it is challenging to implement deep learning in EMS classrooms due to time constraints, as teachers are expected to complete the syllabus on time. The participants explained the above in the following comments:

> Most of the time, it's not easy to prepare for deep learning in EMS classrooms; I say that because of time constraints. Mostly, we are expected to finish the syllabus on time, so for me, as the teacher, to use teaching methods that would allow learners to acquire this deep learning sometimes is not easy; however, I believe that the type of teaching methods I use they are constructive, so whenever you give learners problem-based learning activity, at the same time it also enhances deep learning within them, but to keep track it not easy because even when we plan our lesson we hardly prepare for deep learning, just like I said due to the reason I already mentioned. (TA)

> One needs to create these opportunities by ensuring that whatever they teach is understandable and easy for learners to digest. One must also support the slower learners by explaining if they are unclear after the lessons. This means that your class should include every learner with different types of intelligence and ways of learning. (TB)

> I bring real-life situations, being more practical and allowing learners to find solutions independently. (TC)

> I encourage my learners to seek ideas and give their ideas and opinions. I encourage them to seek more online information and consistently observe and note information on their

> environment. I always encourage arguments and debates on specific topics and give incentives where a group's outstanding performance is done. (TD)
>
> You allow them to do research topic on the topic you have given them and do research, gather information, combine everything from whatever the learner has and emphasise the essential part or aspect of that topic. (TE)
>
> We need to implement digital learning across the Department of Basic Education to prepare learners for future jobs that are predicted to be digital. (TF)

This section presented how EMS teachers can use to develop deep learning in EMS classrooms.

3.4 Strategies to enhance deep learning in EMS classrooms

Teachers used different strategies to improve deep learning in EMS classrooms: mini-enterprise, visual support, usage of ICT, critical thinking, collaboration, communication, problem-solving, and creative thinking. This section presented the strategies EMS teachers can use to develop deep learning in their classrooms.

> You see, the best strategy that EMS teachers can use is the mini-enterprise teaching method, which can and has a high possibility of enhancing deep learning within EMS learners; remember that strategies suggest that learners on their own, with just a little direction from the teacher, who stands as a facilitator, they get to experience how to run a business on their own without the teacher interference, so using that teaching strategy can enhance deep learning in EMS classrooms. (TA)
>
> Using visuals to support what has been taught and even direct learning, such as giving learners opportunities to learn practically about what was taught in class. The usage of ICT will be beneficial as well. (TB)
>
> I use critical thinking as it will allow learners to think clearly and analyse facts before solving a problem. This skill is needed when tough decisions must be made so learners can use it at the workplace or while running their businesses. In the business world, one will need critical thinking skills to survive. I also collaborate, especially during group activities. This allows learners to work together during a given project. They will always use this skill in any aspect, for example, at work with colleagues or business partners, to grow the business. Learners are expected to be able to communicate professionally at work or should they own a business, so communication is another important skill I use. It assists me in shaping and training learners

> how to write, for example, a business plan or a CV that needs to be submitted while job hunting. (TC)
>
> By monitoring learners to practice teamwork, do their own research on given topics, improve their confidence and communication skills, and develop their leadership skills by providing feedback to the class and presenting and debating topics. (TD)
>
> Allow learners to do their own research; from classroom discussions from the research you come back to class and discuss it instead of giving out answers. (TE)
>
> I use problem-solving, creative thinking and critical thinking, which are the ethos of deep learning. (TF)

Participants viewed deep learning as the ability to master the content in-depth and apply what was learnt in class to different contexts. Participants' responses are consistent with Fullan et al. (2017) and Naidoo and Mabaso (2020), who define deep learning as the ability to transfer information learnt in class to different situations. Bitter and Loney (2015) also state that deep learning is mastery of content and the ability to apply what was learnt in class to real-life issues. Moreover, participants noted that deep learning in relation to EMS means that teachers equip learners with skills to master the content and can link information or knowledge taught in class with other subjects and everyday challenges. This is consistent with Bogard et al. (2018), who found from their study that deep learning is when an individual is capable of transferring what was learnt in one situation to another new situation.

Participants contended that opportunities for deep learning can be created by encouraging and motivating learners to be actively engaged in their learning. Scott (2015) supports participants' responses, which reveal the importance of engaging learners in learning and equipping them with skills to reflect and link information learnt in class with existing knowledge of concepts. Giri (2016) also emphasises the importance of engaging learners during teaching and learning so that learners can learn well.

Teachers' responses revealed the use of different strategies to enhance deep learning in EMS classrooms, namely mini-enterprise, visual support, usage of ICT, critical thinking, collaboration, communication, problem-solving, and creative thinking. The William and Flora Hewlett Foundation (2013) found that deep learning comprises critical thinking, problem-solving, collaboration, and communication skills. Participants' responses are corroborated by Scott (2015), who reveals that learners should be equipped with critical thinking, collaboration, and problem-solving skills. Moreover,

Borredon et al. (2011) discovered the importance of collaborative learning in generating deep learning; this allows learners to share their experiences and ideas with their peers to improve their performance.

4. Conclusion

The study explored how EMS teachers create opportunities for deep learning in their EMS classrooms during teaching and learning. Literature revealed that many challenges hinder the effectiveness of teaching and learning of the subject: insufficient resources, unqualified teachers to teach the subject, little training offered to teachers, and limited time allocated to EMS per week. The study adopted constructivist theory, which states that learners should be engaged in their learning and develop mental models of the content so that it can be applied in different contexts. Research findings revealed different strategies teachers use in their EMS classrooms to support deep learning: problem-based learning, critical thinking, collaboration, communication, visual support, usage of ICT, and mini-enterprise. The study made a literature contribution regarding EMS teaching and made findings which can be used to develop deep learning in EMS classrooms.

The article recommends that creating a new integrated subject should only be done when teachers are trained to teach such a subject. Teachers should create opportunities for deep learning in their classrooms to enable learners to apply what they have learnt in different situations. EMS teachers can create opportunities for deep learning by asking learners to solve real-life problems which are related to the subject, by using questions which provoke critical thinking and not memorisation questions, by creating opportunities for EMS learners to work with fellow learners in mini-enterprises which will develop their entrepreneurship, collaboration and communication skills; and integrating available ICT and visuals in the lessons to make the subject content meaningful to learners.

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Declaration of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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