SCIENCE CONCEPTS FOR THE INTEGRATION OF THE GRADE 1 LIFE SKILLS CURRICULUM
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ABSTRACT – This paper describes the views of grade one teachers on the use of science content to integrate the teaching of the grade one Life Skills curriculum. The study was conducted at a private primary school in the northern suburbs of Johannesburg. Activities were developed using Drama-in-Education conventions and aligning them with science content to teach the Life Skills curriculum for grade one in the third term. Interviews were conducted with three grade one teachers prior to and following the activities. The teachers observed the activities and completed an observation protocol. The data generated from the observations and interviews were analysed using open coding and the findings show that the activities allowed learners to engage with the content in an active and exploratory manor whilst optimising the time spent teaching Life Skills content. The authors recommend that foundation phase teachers consider using science based activities along with Drama-in-Education conventions to integrate the teaching of the Life Skills content. The content taught in Life Skills is essential to the holistic development of learners. By using science content to integrate the teaching of Life Skills content teachers can evoke the learners’ interest in subject matter that improves the development of skills needed for 21st century learning. The question this research asks is “How can the integration of science content improve the teaching of Life Skills in the foundation phase?” The authors argue that by integrating the content of the Life Skills curriculum, teachers will address the need to teach in such a way as to improve the development of learners’ 21st century skills.

Keywords: Science Education in the Primary School, Integration of curriculum content, 21st century learning, Life Skills, Drama-in-Education.

1. INTRODUCTION

This paper investigates and analyses the interpretations of grade one teachers on the use of science content alongside Drama-in-Education conventions to integrate the teaching of the grade one Life Skills curriculum. School curricula during the foundational school years often focus on the practice of basic numeracy and literacy skills, necessary for procedures in later academic learning. In South Africa the Foundation Phase (FP), according to the Curriculum (Department of Basic Education 2011) focuses on three subjects namely: Language, Mathematics and Life Skills. Mathematics consists of all the study areas with regard to numerical knowledge whilst Languages include the study areas of Home Language and First Additional Language. All the remaining disciplines including Beginning Knowledge and Personal and Social well-being are included under Life Skills. The Life Skills content includes a wide variety of very important diverse skills and concepts that contribute widely to the development of a Foundation Phase learner. Despite having this condensed subject that seems crucial to many areas of the learner’s development, there is immense pressure on teachers to focus more on teaching literacy and mathematics as they are seen as crucial subjects (Sheldon; 2015). Life Skills is often seen as less important and results in haphazard teaching of this content. The availability of time in the Foundation Phase classroom thus seems to be the main culprit in diverting attention away from teaching Life Skills. Initial informal conversations with Foundation Phase teachers has brought to our attention that teachers are asking for methods to teach Life Skills in such a manner that it takes up less time, but still reaches the vast variety of outcomes as set out by the curriculum. This brings to mind Koen and Ebrahim’s (2013) deduction that an optimal teaching methodology requires a holistic strategy that includes mental, physical and social collaboration amongst learners, between learners and teachers, as well as within learners introspectively.
We argue that by integrating science with the content of the Life Skills curriculum teachers will address the need to teach in such a way as to improve the development of 21st century skills, utilize time more effectively and evoke an interest in science. Using Drama-in-Education conventions, activities will encourage active participation and exploratory questioning which will engage learners and develop their Life Skills needed to function in the 21st century. The authors defined 21st century skills as a series of higher-order skills, abilities, and learning dispositions that have been identified as being required for success in 21st century society by educators, business leaders, academics, and governmental agencies. This is part of a growing international movement focusing on the skills required for learners to master in preparation for success in a rapidly changing, digital society (Stedman 2015). Cassel (2014) agrees that many of these skills are also associated with deeper learning, which are based on mastering skills such as analytic reasoning, complex problem solving, and teamwork. We attempted to incorporate these skills in the outcomes of each activity by including Drama-In-Education conventions (Heathcote, 1991). The question this paper thus asks is “How can the integration of science content improve the teaching of Life Skills in the foundation phase?”

2. Combining Science and Drama when teaching Life Skills

3rd generation CHAT is used as a conceptual framework to support the study. Engestom (1999) develop conceptual tools to understand dialogue, multiple perspectives and networks of interacting activity systems. Third generation CHAT is the implementation of Activity system analyses. The participant who implements third generation CHAT takes a participatory and interventionist role in the participants activity’s and changes their experience. In this paper, activities were devised and tested on participants to change the perspective and way Life Skills is taught to grade one learners. The third generation CHAT was used as a conceptual framework in this paper. The lived experiences of the teachers in and around the activities was analysed. CHAT is appropriate for this paper as it views the teachers and holistically, taking into account their history and cultural background.

2.1 Using Science to teach Life Skills

The focus of this paper is on the importance of adequate teaching and learning of Life Skills. Life Skills according to the national curriculum (Department of Basic Education, 2011: 8) is crucial to the holistic development of learners, as it is concerned with the social, personal, intellectual, emotional and physical growth of learners as well as the integration of all these life skills. In order to understand the importance of life skills it is important to formulate a descriptive definition of what it entails. The Malawian Ministry of Education (as cited in Chirwa, 2009: 16) defines life skills as “an interactive process of teaching and learning that develops attitudes and skills which enable learners to cope with the challenges of life”. Ebersohn and Eloff (2004: 43) however writes about the much more complex concept of ‘life skills’ as opposed to the subject Life Skills, and define ‘life skills’ as follows: “The concept “life skills” is the general term for all the skills and capacities that an individual needs to be able to enrich his or her life in a meaningful way.” These definitions give a holistic explanation of the purpose of Life Skills. The Life Skills subject is aimed at guiding and preparing learners for life and its possibilities, including equipping learners for living a meaningful and successful life in a rapidly changing and transforming society. “Through Life Skills learners are exposed to a range of knowledge, skills and values that strengthen their physical, social, personal, emotional and cognitive development.” (Department of Basic Education, 2011: 8).

According to Naude (2015) the foundation phase curriculum does not address science teaching in Life Skills as optimally as it should to prepare learners for learning natural science in the intermediate phase. Thus leaving learners unequipped with basic science knowledge. Some concepts from biology are taught in the foundation phase however, the information is seen as generic with little real world application. This is also evident in the study by Saçkes (2014: 171), who argues that: “although science
content standards provide clear expectations for teachers to teach science concepts, no studies have been conducted to examine how often standard-based science concepts are being taught in Foundation Phase classrooms and the factors that influence the frequency of science instruction.” Sackes (2014) also says that: “(r)ecent literature suggest that early childhood teachers feel pressured to devote most of their instructional time to the teaching of language and literacy.” The problem of haphazard teaching of, not only Life Skills as a whole, but also science content within Life Skills is addressed in this paper, by utilizing science alongside Drama-in-Education as a means of integrating the subject as a whole.

2.2 Using Drama-in-education conventions to teach Life Skills

According to Heathcote (1991) Drama-in-Education is the use of drama techniques to support learning in the classroom. Heathcote searched for a teaching method that emphasised self-expression, training in spoken English and literature appreciation. The term Drama-In-Education is often used interchangeably with development drama, educational drama, informal drama, process drama, and framed expertise. We decided to use the term Drama-in-Education because it resembles the use of drama conventions in an educational setting. Thus conventions that can be used in the classroom to educate learners. Drama-in-Education differs from theatre that is performed as scripted dialogue on a set in front of an audience. The outcome of Drama-in-Education is focused on the process that the learners go through rather than a final stage play as an entertainment unit. Bolton (2003: 52) argues that the most distinctive characteristic of Drama-in-Education is the lack of a script. As part of Drama-in-Education, the entire class often plays improvised roles within an imagined context. As a result, there is no sharp distinction between actor and audience, the learner is both participant and observer. Their empathy and engagement with the character is the outcome of the learning process. Heathcote (1991: 87) emphasises that Drama-in-Education seeks process over product. Bolton (1995: 90) agrees that while in a stage theatre production the focus is more on rehearsal as a means to an end or the ultimate performance. In Drama-in-Education, the process is the end in itself. Children learn as a result of the choices and decisions they make during the development or improvisation (Heathcote, 1993: 15). The classroom teacher facilitates the drama by building on the actions and reactions of children and changing the imagined context so as to create an episodic sequence of dramatic action. The actions of the learners are guided by the teacher however the choices the learners make and the actions they take after making these divisions is the driving force to what they will learn. The teachers clearly advocated that the attitude and skills of the teachers plays a big role in the outcomes of Drama-in-Education activities.

2.3 The integrated teaching of Life Skills

An integrated curriculum is described as a curriculum that connects different areas of study by cutting across subject lines and emphasising concepts by unifying them (Fraser, 2002). Integration focuses on making connections for children, allowing them to engage in relevant, meaningful activities that could connected to real life. An optimal functioning integrated curriculum will thus eliminate the boundaries between subjects in order for teachers to rather teach a curriculum as a holistic entity that can be used to function in “real life” as it emulates real world challenges. However the structure of current curricula in subjects with specific disciplinary foci it is unrealistic to immediately incorporate formal integration of all subjects all together. The first step in integrating the curriculum is then to find the links and coherences within the subjects. Fraser (2002) says that one of the guiding principles of the curriculum integration is coherence, whereby children are offered “a broad education that makes links within and across learning areas” (Ministry of Education of New Zealand, 2007, p. 9). As Drake (1998) argues: “The world we are living in is changing, and education must change with it. If we live in an interconnected and interdependent world, it only makes sense that knowledge be presented as
interconnected and interdependent. (p. 24) Curriculum integration is a design that supports the need for learners to be actively involved in their learning, through being part of the decision-making process (Dowden, 2006; Drake, 1998; Etim, 2005; Fraser, 2000; Charteris, 1998; and Strang, 1998). We posit that 21st century learning relates to the outcomes of integrated teaching. Both these extended terms aim to prepare the learners for the encounters of the current ‘real world’ and the changes that go along with it. This paper aimed to see how adequately the programme, that was developed by the authors, could be used to teach Life Skills. The programme utilised Drama-in Education conventions and aligned them with science content to teach the Life Skills curriculum for grade one in the third term. By using science content to integrate the teaching of Life Skills content, teachers can evoke the learner’s interest in subject matter that improves the skills needed for 21st century learning.

3. METHODS

Qualitative research elements including interviews and observations were used. The study was conducted at a private primary school in the northern suburbs of Johannesburg. Three grade one classes were selected to participate in the activities. Convenience sampling was used as the researchers have established a good working relationship with the principal and staff at the school during previous research activities. Interviews were conducted with three grade one teachers prior to and following the activities. The teachers observed the activities while the programme was presented in the classroom and they completed a generic observation protocol during the conveyance of the activities. The participating classes consisted of one Afrikaans class and two English classes with 18 learners in each class. The programme itself consisted of eight activities with a duration of an hour for each activity. The activities were presented over a period of four weeks. The programme was conducted during the third term of the school year. The pre-interview consisted of questions asked to each teacher individually. The post-interview was conducted in a focus group with all three teachers in attendance. Open coding was used to analyse the data in the paper. Open coding aims at developing substantial codes classifying categories under related themes that could be used to sort findings (Strauss & Corbin, 1999). The themes generated from the data were deduced from the responses of the teachers during the interviews. The themes which precipitated from the coding will be discussed in the following of this paper. Consent was obtained prior to the conveyance of the activities through a consent form explaining what the study aims to do and all the necessary technical aspects that the children would be exposed to was signed by the parents or guardians of the participants. All personal details were kept anonymous and only used for research purposes. Ethical clearance was obtained for this study, and teachers voluntarily participated in the study. Teachers were informed that they could withdraw from the research at any stage.

4. RESULTS AND DISCUSSION

The findings show that the activities engaged learners in an active and exploratory manner whilst optimising the time spent teaching the Life Skills content. Other findings indicate that the grade one learners enjoyed the activities and could utilize prior knowledge gained in previous activities from the programme. Below is a table showing the themes that precipitated during the coding of the interviews and observations of the teachers.

<table>
<thead>
<tr>
<th>Themes from the pre-interview</th>
<th>Themes from the post interview</th>
<th>Themes from the observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic limitations of the grade one Life Skills curriculum.</td>
<td>Programme addresses multiple needs in teaching Life Skills</td>
<td>Teachers noticed the benefits when children participate in the activities.</td>
</tr>
</tbody>
</table>

315
Teaching does not accommodate multiple learning styles

Characteristics and skills needed to present the programme

Characteristics and skills needed to present the programme

Teaching should emulate real life

Willingness of the learner to participate in the activities

Alignment of program resources to curriculum specifications is needed

Themes of the pre interview

**Theme 1: Systemic limitations of the grade one Life Skills curriculum for teachers:** Teachers explained that their tertiary education had a great effect on their teaching methods and the way in which they approach their teaching of Life Skills in the foundation phase. One of the teachers commented that (teacher 1) “I actually can’t remember having to do any life skills stuff.” The comments from the teachers give the impression that the focus of tertiary education was very little on the content of Life Skills. This can be a result of tertiary institutions trying to adhere to the characteristics of 21st century learning. Loveless (2007) explains that part of “ways of thinking” which is a characteristic of 21st century learning is the focus on learning to learn. There is thus a clear shift from content driven education to rather teaching how to learn new information. Lederman and Zeidler (1987) mentions that the nature of science changes every day and that science education needs to be updated and adapted according to new discoveries. The question here is should Bed students then only focus on the ‘how’ and forget about the what?

The participating teachers have all been teachers for more than 10 years and highlighted the difference between teaching in a private and public schools. Challenges that ascend in public schools are often because of the large numbers of learners in one class. This results in teachers having to spend the majority of their time teaching the group as a whole. There is thus very little time for individual attention from the teacher. (teacher 3) “.....government school where the classes are bigger and the teachers are rushed and not all the children speak the language that they are educated in. I find they fall behind and they never quite catch up in the intermediate phase...” The authors realised that “hap hazard” teaching of Life Skills has a much greater effect on the future of a child’s education. It was found that the problem cultivated because of the strict time allocations set out by the curriculum. There is seldom enough time to teach adequately. As the teachers explained (teacher 3) “..... they want us to move a little fast.” This results in teachers not having enough time to

focus on getting children to truly comprehend the concepts but rather tries to teach all of the content as prescribed by the curriculum on time. The interviewed teachers were adamant that the foundation phase should focus mainly on the learning of “basic” skills. (teacher 2) “Basics I would say are the most important. Because if your foundation is not strong the rest will crumble.” . According to the Curriculum application police statement (2011) 10 hours is allocated to the teaching of Home language and 7 hours is allocated to the teaching of Mathematics. The remaining 6 hours is allocated to all the remaining subject areas which are left under the umbrella term Life skills. Life Skills has the least amount of time allocated to the subject in the Foundation Phase, thus using the little time available has serious effects on the adequacy of teaching the subject. The overall message that was attained from the pre interview showed that there are numerous challenges with the current teaching system. It was said that the system has not developed much over the years. (teacher 2) “…foundation phase system is something like an old system....” This study doesn’t not necessarily
argue with the content and time allocations in the Caps document but rather the current workings of the school system itself. The paper aims to deliver a trial run of a 21st century integrated model that will help learners direct their own learning whilst attaining the needed 21st century skills.

**Theme 2: Teaching does not accommodate multiple learning styles:** The school system is currently very focused on auditor, linguistic, mathematical and intrapersonal learning styles. Väyrynen (2014) agrees by saying kinesthetic, spatial and interpersonal learning styles are often neglected or not attended to at all. (teacher 3) “...education system is set up in a way that advantages curtain learners in the school.” South Africa is a multi-cultural country and this is reflected in the demography of the participating school. There is great diversity in each classroom which requires the teachers to design teaching events that can cater for various learning styles. However the child’s (teacher 3) “...background influence[s] the way in which they learn”. It is apparent that if teachers don’t accommodate a wide variety of learning styles then they won’t serve the needs of a multi-cultural South Africa. 21st century learning according to Jenkins (2006) and Schulz et al (2010) under “Living in the world” mentions that learners need to seek national and international citizenship as well as adhere to “Personal and social responsibility”. This means functioning in society. Schulz et al (2010) argues that having national or international citizenship does not only mean applying to the rules and laws of the country or the world. It means respecting and accommodating different needs (social and cultural) in order to function harmoniously. Jenkins (2006:66) says that “a person without culture is no person at all.” Cultural diversity needs to be embraced so that we can share our heritage with one another and learn to respect difference. Often different ways of learning is a result of cultural background or upbringing and by neglecting to address curtain learning styles the teacher is neglecting to accommodate cultural diversity.

**Theme 3: Teaching should emulate real life:** It was evident from the interviews that there was an overarching focus on the use of real life learning. This real life learning is the type of learning that prepares the learner to function in the everyday life. (teacher 1) “...we try to always relate what they learn to the real life setting.” We discovered that the teachers wanted to know how they could teach LS using active learning methods. (teacher 3) “Children like to learn when they are active” Teachers explained that Life Skills is the best platform to incorporate active learning. Active learning according to Scott, Grabinger & Dunlap (1995) is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to engage in meaningful learning activities and analyse what they are doing. This emphasized the importance of teaching the Life Skills content because it is the subject were learners learn about real life (21st century).

Active learning is also a physical learning experience. Morgan and Saxton (1987) explain that when so called “real live learning” takes place it intern takes place in the fictional world. These two DIE practitioners formulated a concept called Metaxis that makes a connection between the learning that takes place between the fictional and real world. The programme, in this paper, manly takes place in the mataxic world were learners create a fictional scenario in order to gain skills to apply in the real world.

Themes from the observation sheets

**Theme1: Teachers noticed the benefits when children participate in the activities of the programme:** The teachers noted in their observations that the learners were willing and eager to participate in all the prescribed activities of the programme. The learners had a positive attitude towards activities. (teacher 3) “The children participated eager[ly] and enjoyed the activity.” A bar graph set up by the
writers’ indicates that 97% of the answers given by teacher 1 suggest that she strongly agreed that the children enjoyed the activities and 100% of teacher 2 and 3 suggest this as well. Goodwin (2000) elucidates in his theory of embodies learning that when a learner finds relativity and meaning to what he or she is learning then he/she enjoys the activity more. Every activity in the programme was designed to imply a real life setting. The aim was to create a learning environment that is both fun and educational. Slade (1987:68) states in the Pedagogy of play that “when learning is fun learning is learning.” With this he implies that learning trough playing is more effective than just learning to remember.

The teachers were impressed to see the skills used by the children in the activities. These skills include problem solving, analyses of what they did, use of imagination, utilization of prior knowledge and creativity. (teacher1) “They all used their imagination. They could do it, because they had pre-knowledge of these sea animals.” The authors noted on the bar graph that 90% of teacher 2 and 3’s answers show that they strongly agree that the use of prior knowledge is evident in the activities. 93% of teacher ones answers dictates the same. According to Shaver (1991) Prior knowledge is also referred to as schema, which is relevant background knowledge. The activities relied on the use of prior knowledge. Each subsequent activity built on the knowledge gained in the previous activity much like a scaffolding structure. This is a result of the integrating teaching method used in the program. The program was set to interconnect content learnt rather than separate the knowledge gained. (teacher 3) “They were required to use their own knowledge of different reptiles to both act out and guess what they were.” Prior knowledge is important because it uses experience to make connections to content. Schmidt (2005) says that learning through curiosity is a Self-directed learning characteristic that all teachers should implement in the 21st century classroom. Curiosity sparks a willingness to want to know more about the things that a learner already knows. Thus using prior knowledge as a tool to seek more information. Every activity in the programme relies on the knowledge and skills gained in the previous activity. Constant connections need to be made between what was learnt and what needs to be learned (Castells 1996).

**Theme 2: Characteristics and skills needed to present the programme:** The teachers frequently commented on the skills needed to facilitate the programme. (teacher 1) “[The instructor] had to encourage and motivate [the children] to feel they could do it.” Motivation and engagement is one of the key roles of the teachers in the activities. Bolton (1984) starts his Book Classroom dramas with the following sentence “a good teacher never sits down”. This programme is designed to help good teachers. Children are very curious to learn new things say Lederman and Zeidler (1987) intern old things don’t interest them. The teacher needs to be existing and engaged in every bit of the activity to ensure that the children never lose focus. The use of DIE conventions help to guide teachers in the engagement process. Because the learning environment is so enjoyable for the learners it is easy for them to forget that they must be learning something. DIE conventions seek to find the balance between learning and playing. As 87% of teacher ones, 93% of teacher 2 and 87% of teacher threes answers showed that they strongly agrees that DIE is the best method to teach the content, it is clear that it is a preferred method of teaching. Teacher one and 3 100% strongly agree that they will use DIE in their own classroom and 90% strongly agreed answer for teacher two shows that teachers do feel like it can be utilised in reality.

The activities gave the children the opportunity to utilize different learning environments. These learning environments include playing outside and exploring different parts of the classroom other than their desks (carpet ext.). (teacher3) “I also really liked that we took the children out of the classroom. It’s so nice for them to be learning in a different environment.” However when the activities were done inside the classroom, there was optimal use of classroom space. (teacher 2) “The whole space in the class was used as if the whole class became the ocean.” This enabled the teachers
to see how a classroom can be used as a teaching tool/aid. Cliff (2002) comments on the use of change in the 21st century classroom. This relates to the above statement that interesting new things excite learners. It is a new take on the traditional classroom setting and it sparks new interests in the learners.

Theme 3: Alignment of programme resources to curriculum specifications is needed: 90% of teacher one, 93% of teacher 2 and 97% of teacher 3’s answer showed that they strongly agree that the activities fully reached the outcomes set out by the Caps document. This programme was designed in accordance to the outcomes and objectives set out by the Caps document. This was done to ensure that the model could work and be implemented in any government school across the country. It was mentioned that the outcomes were often met in very strange and creative ways. The outcomes often emerged out of the activities without it being forced or sometimes even planned out. Loveless (2007) and Anderson (2009) states that creativity is one of the 21st century “ways of thinking”. Creativity challenges you as a teacher to think outside the box and think of new and innovative ways of doing things. Embodied learning is an effective way to learn in a physical manner. Goodwin (2000) says that muscle memory is the strongest and longest lasting memory in the human body. Embodies learning helps you fully understand what you are learning because you are experiencing it first-hand. (teacher2) “......helped them fully understand the process and they all grasped it so quickly. “These comments from the teachers show that the outcomes were not forced into the lesson but rather left to be discovered by the children. The outcomes were never met by instructional methods but rather exploratory and analytical methods done by the children. Thus critical thinking and problem-solving skills are developed and utilised which prepares the learner for life in the 21st century.

1.1.1. Themes from the Post interview

Theme 1: Programme addresses multiple needs in teaching LS: The teachers spoke highly of the perceived benefits that they identified in the programme. (teacher 3) “They couldn’t stop talking about it after you left and they would keep asking when you are coming back.” The benefits ranged from the content being taught efficiently to the excitement and appreciation of the children. There was a great appreciation for the use of prior knowledge to reach objectives. (teacher1) “In the classes after you left the children even used what they learnt in the games to answer questions in other lessons.”

Cook (1992) states that curriculum integration does not refer to a curriculum where all the subjects are one. Curriculum integration refers to making a connection between the content learnt in one subject with another. This thus means finding the relativity of the content within a real life setting. Jenkins (2006) discusses this integration within a 21st century context. “children must not relate content to a subject but rather to real life setting.” In doing this learning will become interconnected because of its relevance.

The programme managed to reach all the objectives in Life Skills curriculum as evidenced by the response of teacher 1 “I actually think that they learnt more than those limited aims.” Because the programme is child cantered the outcomes are also child cantered. Although the set outcomes are used as a guideline for the teacher the learners detrain to what extent those outcomes are met. Knowls (2009) says that individual must take initiative in self-directed learning. Learners are able to motivate and challenge their own prior knowledge and intern motive each other to do so as well. These teachers mentioned that they were surprised about how much information the children got in such a small time span. Curriculum integration allows learners to explore more than one subject area.
at a time (Drake 1998). The knowledge is thus integrated which means that more content is covered in a smaller space of time, because connections are made between the content that has already been learnt. The children gained knowledge that was not even set out by the caps document in Life Skills. However it might be mentioned in another subject area.

**Theme 2: Characteristics and skills needed to present the program:** The teachers emphasized that there are specific skills needed by the teacher to ensure that the program runs smoothly. (Teacher

- “I guess your motivation and personality played a big role in how they were motivated to play along.” There are definite qualities that a teacher needs to optimally utilize this program. Dewey (2011) states that any Drama-in-Education, related programme, relies heavily on the attitude and involvement of the teacher. Planning and organisation skills are very important when it comes to the success of the program. It often happens that children get distracted or bored with an hour long lesson however if the teacher keeps the learners motivated and involved the programme shows great success. The teacher needs to be actively involved in the learning process at all times. Heathcote (1984) dictates that any Drama-in-Education convention is an active process. Neither the learning or the teaching is ever static. It’s always evolving and changing as the process goes along.

No one class can be the same as the other (Heathcote 1984). This is because the input of the learners play such an important role. Every learners background and experience differs and so the outcomes differ.

**Theme 3: Willingness of the learners to participate in the activities:** It was evident that the teachers perceived the program to be Child centred. (teacher2) “......children could make up or

rather explore what they already know and build on that.” As mentioned before the programme relies on scaffolding of knowledge. Each activities is built on the knowledge gained in the previous one. (teacher3) “Myself and my children loved the activities. It was surprising for me to see how all the children participated so eagerly in all the activities.” The emphasis on surprise showed that not all the children were extroverts and always participate in activities. However during the programme none of the learners completely drew away from the activity. It often took a little motivation to get everyone involved but with a little inspiration or motivation everyone participated. (teacher 2) "I agree the activities taught the children so much in such a small space of time. My children really liked all the activities.” The whole programme was very enjoyable to both the children and the teachers and time was utilized very effectively.

5. **CONCLUSION**

From the findings it is evident that the integration of science concepts in the Life Skills curriculum by using Drama-In-Education conventions holds many benefits for learning. We recommend that the teachers in the foundation phase consider using science and Drama-in Education conventions to integrate the teaching of the Life Skills content. This will enable teachers to use their time effectively whilst incorporating active learning strategies. The programme is an effective way to teach Life skills and meet the requirements of the curriculum whilst possibly increasing engagement and interest in science. The content taught in Life Skills is essential to the holistic development of learners. By using science content to integrate the teaching of Life Skills content teachers can evoke the learners interest in subject matter that improves the skills needed for 21st century learning.
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321