

Exploring the role of Malaguzzi's 'Hundred Languages of Children' in early childhood education



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Background: In the history of early childhood education (ECE), language is viewed as key in teaching and learning. Children in the ECE are mostly confined to verbal communication which, to a certain extent, restricts their imagination and inventive ability. Loris Malaguzzi, the founder of the Reggio Emilia educational philosophy, initiated the Hundred Languages of Children (HLC) as a pedagogical approach to enable children to interact and communicate.

Aim: This study aims to explore the role of HLC through the experiences and views of the four ECE practitioners in the Gauteng province. Drawing on Gardner's theory of multiple intelligences, the author argues that ECE children possess different kinds of minds, and therefore they learn in different ways.

Setting: Two Early Childhood centres in the Gauteng Province of South Africa were selected for this study because they had adopted Malaguzzi's HLC approach to constructing concepts to help children structure knowledge and organise learning.

Methods: The author used one-on-one interviews to get ECE practitioners' experiences on using Malaguzzi's HLC. To corroborate the interviews' data, the author conducted classroom observations and document analysis.

Results: The participants viewed Malaguzzi's HLC as an enabler to meet the requirement of the two sets of curricula from the Department of Social Development (the National Curriculum Framework for children from 0 to 4 years) and from the Department of Basic Education (the Curriculum Assessment and Policy Statement for 5-year-old children).

Conclusion: The findings show a paradigm shift, as children become active constructors of their own knowledge.

Keywords: documentation; early childhood education; Hundred Languages of Children; multiple intelligences; Reggio Emilia Pedagogical Approach.

Introduction

Language is an important component of any education system, because it plays a key role in the implementation of teaching and learning activities. This statement is supported by the study conducted by Pinnock and Vijayakumar (2009) which explored the role played by school language in educational success or failure. There is some evidence to indicate that language has been the subject of many definitive studies in early childhood education (ECE) such as Conti-Ramsden and Durkin (2012) and Hoff (2009), who have shown that early literacy is closely linked to language development in preschool. Law (2015) also confirms the importance of language in ECE by pointing out that it affects a child's experiences both at home and at school. He further theorises that language introduces a child to the social world and to the formation of relationships, helping them to develop the capacity to interact with others and, of course, to learn.

The study reported in this article aims to explore and describe the role of Malaguzzi's HLC¹ as a pedagogical approach which enables children to interact and communicate with others and within their environment. To achieve this aim, the following objectives were set to explore the use of Malaguzzi's Hundred Languages of Children (HLC) to support curriculum implementation; to identify successes and challenges in the use of Malaguzzi's approach to support learning; and to reflect on the importance of Malaguzzi's approach in curriculum implementation.

The HLC, as a concept, was initiated by Malaguzzi as part of Reggio Emilia's pedagogical approach. According to Slipp (2017), the Reggio Emilia pedagogical approach puts the natural development

1. It should be noted that the word 'hundred' should not be taken literally because Malaguzzi, in a poem explaining the idea, actually states that there a 'hundred, hundred, hundred more' (Malaguzzi 2012) to show that the ways in which children communicate are endless.

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of children as well as the close relationships that they share with their environment at the centre of its philosophy. More importantly, Malaguzzi's HLC approach is viewed as a tool that encourages children to explore their environment and express themselves through multiple paths and all their languages including the expressive, communicative, symbolic, cognitive, ethical, metaphorical, logical, imaginative and relational (Edwards, Gandini & Forman 2012). For Edwards et al. (2012), Malaguzzi's HLC helps children to recognise the enrichment that comes from the negotiation of ideas and actions, to see the value of sharing and exchanging points of view and the growth in organisational abilities, knowledge and linguistic and communicative skills.

With that in mind, it can be concluded that Malaguzzi's HLC is a key principle of the Reggio Emilia approach. This article focuses on Malaguzzi's HLC approach. This is because the latter approach is viewed as a way in which children are able to express their ideas, thoughts, feelings, questions and emotions. These could be performed through drawing, painting, making, singing, dancing, acting and becoming; by using their bodies to touch, smell, taste, listen to, move, stroke, feel or envelop; by not being limited to words, and by using paintbrushes, pencils, chalk, paint, clay, mud, stones, mirrors, spades and strings (Smidt 2013).

A large and growing body of literature has investigated Malaguzzi's HLC approach, with some studies such as Thornton and Brunton (2015) and Gandini (2004) describing HLC as a theory linking language with developing thinking because it is believed that language determines thought. Supporting this statement, Olsson (2009) verifies that, when using different languages, our thoughts are put into a state of continual movement and evolution. Furthermore, research by Millikan (2003) has shown that Malaguzzi's HLC approach is dependent on three aspects: (1) resources and experiences, (2) opportunities to express different ways of thinking and (3) adults taking children seriously and listening to them respectfully. Similarly, a study by Hall (2013) confirms that Malaguzzi's HLC approach can be implemented by ECE practitioners who recognise the importance of children's ability to communicate and connect with others, and to conceptualise and impart their ideas, skills and understanding of the world in which they live, in many different ways. Malaguzzi (1994) argues that children are mostly confined to non-verbal communication which, to a certain extent, restricts their competence, resourcefulness, curiosity, imagination and inventive ability. He encourages children to portray their understanding through different symbolic languages that require new interpretations from adults.

Choo (2015) presented inspiring stories of children in Eton House International Education Group preschools in Singapore, China or Korea, Japan, Indonesia and India. What stood out from the children's experiences was that when they are painting, sculpting and writing, they express their thinking and understanding of the world around them. For Choo, using Malaguzzi's HLC promotes the myriad ways in which children interpret and represent their ideas, circumstances and the problems they face growing up.

Similarly, Gates of Discovery (2013) also documented the experiences of 2- and 3-year-old children from the Rose and George Teller preschool using Malaguzzi's HLC. From their experiences, they shared their beliefs as follows:

- Children are extremely capable and that they have deep, complex thoughts and ideas.
- Children have the right and the ability to express their thinking, theories, ideas, learning and emotions in many ways.

Theoretical foundation

The theoretical base through which this study was conceived is located in Howard Gardner's theory of multiple intelligences which stresses the existence and the importance of mental powers (Gardner 1988). Gardner proposed that there are eight intelligences, namely visual-spatial, linguistic-verbal, logical-mathematical, bodily-kinaesthetic, interpersonal, intrapersonal and naturalistic, and has suggested the possible addition of a ninth intelligence known as 'existentialist intelligence'. In this theory, Gardner argues that one form of intelligence is not better than another; they are equally valuable and viable. With that in mind, the link between his theoretical framework and this study is the fact that the theory of multiple intelligences as denoted by Austin (2017) recognises that many talents (if not intelligences) are neglected in teaching and learning situations. More than two decades ago, Diamond (1988) made a similar discovery and noted that caregivers and practitioners need to redirect their attention to three specific areas to enrich the children's intelligence: firstly, to the environmental conditions and messages they provide children; secondly, to the kind of support and relationships they develop between themselves and children; and thirdly, to the need to match what they know about the ways in which children are intelligent and learn with teaching strategies designed to maximise the full development of each individual child.

The HLC according to Edwards (1998) fosters children's intellectual development through a systematic focus on symbolic representation because children are encouraged to explore their environment and express themselves through all available expressive, communicative and cognitive languages. Drawing from Gardner's argument that the multiple intelligences are equally valuable and viable, it is safe to conclude that Malaguzzi's HLC also recognises these intelligences in any form of expression that children use to communicate. In addition, Kumbar (2016) highlights that Malaguzzi's HLC emphasises that children in the ECE phase possess different kinds of minds, and therefore, they learn, remember, perform and understand in different ways. The application of Gardner's theory of multiple intelligences in this study helped with the research design and the selection of the data collection tools because the interview questions and observed variables focused mainly on the three fundamental components of Gardner's theory of multiple intelligences as outlined by Smith (2008), namely:

- provision of opportunities to engage in experiences across a range of intelligence domains
- knowing strengths and interests of the children
- children's role in defining the curriculum.

Research design

In light of the theoretical framework explained above, constructivism is considered to be the appropriate paradigm for this study, because it is a concept that attempts to understand the world as others experience it. In this study, ECE practitioners interpreted the many languages that children used to understand what they were communicating to them. Drawing from Pitsoe's (2008) views on the foundation of constructivism, this article argues that constructivism accentuates discovery, experimentation and open-ended problems that have been successfully applied in teaching and learning. The social component of constructivism as described by Von Glasersfeld (1989) emphasises the child's construction of schemata in the learning process which takes place in the experiential environment to a much greater extent than other recurrent items of experience, such as playing which makes interaction unavoidable.

This study employed a phenomenological design to explore the experiences of ECE practitioners who used Malaguzzi's HLC approach in their teaching and learning activities. A phenomenological design was selected because, according to Smith (2018), it studies the structure of various types of experience ranging from perception, thought, memory, imagination, emotion, desire and volition to bodily awareness, embodied action and social activity, including linguistic activity. The relevance of phenomenological design in this study is found in the main aim which is to explore the role of HLC through the experiences and views of the ECE practitioners.

Research questions

The following research questions were formulated to determine the relevant methods of data collection for this study:

- How do ECE practitioners use Malaguzzi's HLC to support children's learning?
- What are the experiences of ECE practitioners in using Malaguzzi's HLC to support children's learning?

Study site and sample

The sample for this study was drawn from ECE centres that accommodate children from birth to 5 years, using the Reggio Emilia pedagogical approach. Some of the children enrolled in these centres come from informal settlements where there is an unemployment rate of about 40% and households with an average income of R4000.00 per month. Parents are mostly self-employed as hawkers and street vendors with a few employed by nearby companies.

The participants (ECE practitioners) were purposively sampled from the selected centres, which were chosen

because they had advised the Gauteng Department of Education (GDE) and Gauteng Department of Social Development that they employed the Reggio Emilia pedagogical approach, with the emphasis on Malaguzzi's HLC approach. Data needed to be collected from two ECE practitioners per centre to conduct one-on-one unstructured interviews. The letters requesting permission to conduct the research in the centres were sent to the principals, with a request to send the names of practitioners who were willing to participate in the study. From centre A, eight names were forwarded to me, and from centre B, seven names were forwarded. The names of the practitioners from centre A were cut out from a list and put in a container and the author randomly selected two names from the list. The process was repeated for centre B. The classrooms of the four ECE practitioners selected for the interviews were automatically selected for observations as well.

Data collection methods

Data were collected qualitatively through one-on-one unstructured interviews which were audio-recorded to explore the experiences of ECE practitioners in using Malaguzzi's HLC to support children's learning. As the interviews were used to collect the ECE practitioners' views and perceptions, the author observed a need to corroborate this data with reflections from classroom observations and data from document analysis. The observation schedule was designed in line with Gardner's theory as a theoretical framework to explore how Malaguzzi's HLC was used to support children's learning. The same ECE practitioners who were interviewed and observed were requested to furnish their observation sheets and progress reports for analysis.

Data analysis

As this study employed a phenomenological research design, it was safe to use phenomenological analysis to unpack the interview responses, reflections and experiences of the ECE practitioners. Firstly, the researcher performed a phenomenological reduction by refraining from making suppositions or *a priori* assumptions, as recommended by Moustakas (1994). A number of steps were followed to analyse the data: the data were prepared for analysis by transcribing the audio-data and using labels on the transcripts. The data were uploaded onto Atlas-Ti. The Atlas-Ti to explore the data by creating memos and a qualitative codebook were used. Codes were created and grouped into family codes (themes or categories). Because the data were not extensive, there was no need to break the themes down into sub-themes.

Ethical considerations

The author requested ethical clearance from the Gauteng Department of Education because the data for the article were collected before she worked for the University of South Africa (Ethical Clearance number: 8/4/4/1/2).

To adhere to ethical requirements, ethical clearance was obtained beforehand from the Education Research and Knowledge Management (ER& KM) a sub-directorate of the GDE. Before the interviews and observations took place, participants were given information sheets with informed consent forms attached, and they were requested to complete the informed consent forms after reading the information sheet. For the classroom observations including the children's progress reports and observation sheets, the author requested the ECE principals to give parents the information sheets as well as informed parental consent forms. The parents were also requested to give consent for the taking of pictures and viewing of the documentations and previously taken videos. The information sheet provided the background to the study, aims and objectives and the limitations. Furthermore, the author used member checking for trustworthiness, and triangulation to control bias and establish valid propositions. Triangulation was possible because of the fact that three qualitative data collection strategies were employed. To protect the anonymity of the participants, pseudonyms were provided as follows:

- Practitioner 1 from ECE centre A = P1CA28
- Practitioner 2 from ECE centre A = P2CA45
- Practitioner 3 from ECE centre B = P3CB36
- Practitioner 4 from ECE centre B = P4CB34

Results

In this section, it explains the ECE practitioners' self-reported views and perceptions of using HLC to support the children's learning, my reflection of what was observed in the classrooms and the data from the documents that were analysed.

The early childhood education practitioners' views and perceptions on the use of Malaguzzi's Hundred Languages of Children

From the responses of the four ECE practitioners on the question of the use of Malaguzzi's HLC, it could be established that they all applied it in the children's learning activities. Some of their reasons for using Malaguzzi's HLC related to the first fundamental component of Gardner's theory of multiple intelligences (i.e. provision of opportunities to engage in experiences across a range of intelligence domains) in that they wanted to use the most effective and efficient methods in their teaching to engage the children and most importantly to give them freedom to explore. The ECE practitioners attested that they saw the children as individuals and as a result, they provided an enabling environment for them to be able to communicate their unique abilities in different ways. During the classroom observations, the author noticed that there was a variety of natural resources in the classrooms such as stones, shells, wooden blocks, plants and flowers, and they mentioned that the integration of Malaguzzi's HLC in their teaching helped to make their curriculum implementation hands-on.

When interviewing ECE practitioners in the ECE centre A, one of them brought up the term *provocation*, meaning that

she designed the learning environment in such a way that learners were provoked to think, explore, ask questions and become creative. When the observations were conducted in her classroom, the practitioner showed what she called 'a provocation table'. The table was set up with wild and domestic animals which were made from wood. At one corner of the table, there was a box designed to represent a zoo and another corner had a box that represented a homestead. Some time was spent watching the children playing with the animals, talking to each other and also asking the ECE practitioner if they could put some of the animals in the zoo or the homestead boxes. The ECE practitioner responded with questions such as 'why do you want to put a sheep in the zoo box?' As the activity for that day was about animals, in another corner of the classroom, the ECE practitioner put the animals on the provocation table and let the children use clay to make animals of their choice (illustrated in Figure 1).

When looking into their observation sheets and progress reports, there was limited information recorded and the practitioners clarified that they mostly used documentation as part of their records. With documentation, they recorded children's activities mostly by taking pictures and videos and translated them as children's experiences, memories, thoughts and ideas. They showed their documentation which included samples of the children's work, pictures of children doing different activities, ECE practitioners' comments and transcriptions of the children's discussions and individual verbal responses. The practitioners wrote quite extensive explanations about the intentions and outcomes of the activities.

When answering the question which probed the relationship between Malaguzzi's HLC with curriculum implementation, the ECE practitioners compared it with music and dance. They opined that Malaguzzi's HLC became more visible when children were playing. They further indicated that, in the ECE, play is a fundamental requirement for children's development. In the classrooms, there were different resources in different corners and the ECE practitioners clarified that their role was to create a conducive environment for play because if the natural play was not supported by the environment to stimulate social skills, imagination and creativity, knowing the children's ability and their interests, the teacher needed to prepare the environment and the children then played in that environment. The ECE practitioners in centre B showed some of the recorded videos of learners learning through play inside and outside the classrooms. The videos were used for documentation of the activities.

Reflection on the successes and challenges in using Malaguzzi's Hundred Languages of Children to support children's learning

The four classrooms that were observed displayed only learners' work and the documentation found on the classroom walls. What was interesting in each centre's two classrooms



FIGURE 1 : Pictures taken in the classrooms during observations: (a) documentation early childhood education practitioners' translations from centre A, (b) provocation table set up with animals from centre A, (c) documentation without translations from centre B and (d) display on the wall of the creative corner of centre B.

was that there were similar activities displayed on the walls, and when asked why the activities were similar, they clarified that they planned activities collaboratively every week. The ECE practitioners revealed that they did not use any formal pre-specified lessons but they planned activities that were aligned with the National Curriculum Framework (NCF) (for children from birth to 4 years) and the Curriculum Assessment Policy Statement (CAPS) (for 5-year-old children) which can contribute to children's development. They also explained that prior planning allowed them to reflect on the work in progress and share successes and challenges so that they could come up with the suggestions that might work better going forward. From the progress reports, the author noticed that children's progress was recorded after every 2 weeks. The practitioners explained that using Malaguzzi's HLC requires the involvement of parents so that the learning spaces should be familiar to the child. As a result, the ECE practitioners updated the progress reports after every

2 weeks to allow the parents to have input into their children's work and to contribute to the documentation process.

During the interviews, the ECE practitioners' mentioned that they were experiencing a challenge with limited resources to capture the HLC and to compile documentation. When conducting the classroom observations, the author was able to corroborate their responses with what was observed because of witnessing the ECE practitioners using their cell phones to capture children's pictures and videos during learning activities because the centres did not have cameras or video cameras. There was only one printer and one photocopying machine at each centre which were used mainly for administrative work. The ECE practitioners highlighted that for them to do documentation with ease, they required a printer, camera and a video camera for every classroom and Atelierista. The author requested that the ECE practitioners should explain what an Atelierista is a teacher with which an

art background or qualification who conducts research and translates the children's work expressed by means of the 'hundred languages'. In concluding this section, Figure 1 shows four pictures that illustrate documentation, a provocation table and the learners' work displayed on the wall of the creative corner.

It can be seen from Figure 1a that there are some A4 sheets with notes underneath the children's work. The notes on the A4 pages are the teachers' translations of the children's expressions which were made during documentation. For record purposes, the children's work is scanned on the photocopying machine and the ECE practitioners' notes are typed. The children's work in Figure 1c and d was yet to be translated when the picture was taken.

Discussion of the main findings

This study set out to explore, describe and explain HLC as a pedagogical approach which enables children to interact and communicate with others and with their environment. The key findings of this study were summarised according to the themes that emerged during the data analysis. These themes were subsequently linked with the objectives to achieve the aim as indicated in the introduction. The links between the themes and study objectives are summarised in Table 1.

As is clear from Table 1, four themes emerged from the data analysis, and these themes were linked with the three set objectives. Throughout the discussion of the findings, the pseudonyms are used to ensure the anonymity of the participants as indicated in the previous section.

Theme 1: The use of Malaguzzi's Hundred Languages of Children to support learning

The findings from the one-on-one unstructured interviews, regarding the pedagogical approach informing the participants' curriculum implementation, allowed for several links to the existing literature reviewed as part of the study on which this article is based. The reasons provided by Hall (2013) in the introduction to this study link with the following participants' responses: 'I use Malaguzzi's Hundred Languages because I believe that [by] allowing them [the children] to express themselves whichever way they can I allow them to construct knowledge' (P1CA28) and 'I use Malaguzzi's Hundred Languages to provide an environment where children can take the lead' (P4CB34). These quotes are reflected in the

work of Gandini, Edwards and Forman (2014) in alluding to the role of the teacher when supporting learning through Malaguzzi's HLC, in that the teacher should support the children to present their ideas clearly without overriding those of their peers. Most importantly, the teacher should help the children not to be afraid of making mistakes, and to assure them that their ideas are legitimate.

The participants' responses, and the contribution from the literature, helped the researcher to engage with the purpose of Malaguzzi's approach in respect of curriculum implementation. These responses affirmed that the practitioners in the two ECE centres use Malaguzzi's HLC during teaching and learning activities. When doing observations in the classrooms, the purpose of using Malaguzzi's HLC became clear, because the researcher observed how children's verbal and non-verbal expressions were used to design teaching and learning activities. The author witnessed how the ECE practitioners designed the environment to enable the children to use their hundred languages. In the P2CA45's classroom, when observing learning activities on the provocation table, there were lots of actions performed by different learners; for example, one would put a sheep in the zoo box and another one would just remove it without saying a word and look at the ECE practitioner for approval or disapproval of his action.

Most of the teaching resources in the classrooms were natural resources such as shells, rocks, wooden blocks, clay, plants and flowers and they were used to engage the children's senses of touch and sight, smell and sound. Connecting this finding with the literature, it was evident from Goodwin College (2018) that in the classrooms where Malaguzzi's HLC was employed, children explored their hundred languages with movement, by creating animals with clay, in talking with one another and with adults, by smelling new scents and tasting new flavours, and listening to beautiful and surprising sounds. Reflecting on the relevance of Gardner's theory of multiple intelligences, two of the intelligences are catered for with the use of the natural resources mentioned above, that is, body kinaesthetic (movement and creating animals) and verbal linguistic (listening to sounds).

Against this background, this article argues that immersing the children in an environment that caters to each of these experiences can be a successful avenue to help grow a self-secure, empathetic, creative and mature child who is ready to tackle each new year of school with enthusiasm. Coming to the theoretical foundation of this study, in relation to the environment and Gardner's theory, Shpendi, Ahmetoğlu and Aksin Yavus (2018) argue that children's perceptions of the environment leave permanent impressions in their minds, influence their development and the development of their minds. Malaguzzi's HLC also represents the infinite amount of potential each child naturally has and each child's individual views and perceptions of their community. The most interesting finding was to note the level of parental involvement, which was evident in the documents

TABLE 1: The link between the emerging themes and the objectives.

Emerging themes	Objectives
The use of Malaguzzi's HLC to support learning	To explore the use of Malaguzzi's HLC to support curriculum implementation
Successes experienced in using Malaguzzi's approach to support learning	To identify successes and challenges in the use of Malaguzzi's approach to support learning
Challenges experienced in using Malaguzzi's approach to support learning	
Importance of Malaguzzi's approach in curriculum implementation	To reflect on the importance of Malaguzzi's approach in curriculum implementation

HLC, Hundred Languages of Children.

(progress reports), which reported that parents regularly participated in working with the ECE practitioners to provide more intensive interpretations of the children's expressions.

Theme 2: Successes experienced in using Malaguzzi's approach to support learning

When the participants were asked about the success of using Malaguzzi's approach to support learning, three of them wanted to give some background of their experiences before employing Malaguzzi's HLC:

'When I started working here eight years ago, our centre was not using [the] Reggio Emilia pedagogical approach. Children used to be suppressed, forced to sit still and wait for the teacher's instructions. Mostly children were allowed to talk when asked to do so, to avoid the noise in the classrooms. I can assure [you] that employing Malaguzzi's Hundred Languages approach opened my eyes and the children I teach are so free to express themselves. They ask questions, [and] display symbols for me to interpret.' (P2CA45)

Other participants emphasised the successes of Malaguzzi's HLC by pointing out that children learn a great deal in exchanges with their peers, especially when interacting in small groups. They reiterated that the approach offers possibilities for paying attention, listening to one another, developing curiosity and interest, asking questions and responding. P3CB36 added that 'learners get opportunities for negotiation and ongoing dynamic communication'.

The most striking result to emerge from the data, as mentioned in Theme 1, was the successful partnership formed between parents and ECE practitioners. P4CB indicated that parents helped by teaching both learners and ECE practitioners the indigenous games. Apart from helping with indigenous games, parents took part in the documentation process as presented in the 'Results' section. They also interpreted some of the children's actions and expressions for teachers to understand. During the document analysis, the author verified some of the parents' translations of the documentation and the parents' comments on the children's progress reports. The ECE practitioners in centre A mentioned that they called parents at the end of each term and conducted what they called a 'learning festival'. They explained that during the learning festival, parents visited their children's classrooms where the work for the whole term was displayed on the walls and some was hung from the ceiling (see Figure 1). Among the documents they submitted for analysis, there were also attendance registers of parents who came to the learning festivals.

It was discovered through the interviews that centres A and B differed in terms of parental involvement. In centre B, the ECE practitioners had established what they called parents' participation days where they allowed parents to visit the centre from 09:00 to 12:00. '... now we have our parent's participation days, where they come into the centre, we set up the environment, and they come and play with their children' (P3CB36). The author linked this statement with

P4CB's statement when she said parents help with indigenous games. From these two statements, it was concluded that the parents use much of the time given for parents' participation days to teach the indigenous games. The relevance of parental involvement in the HLC and Gardner's theory of multiple intelligences is expanded by Wilson (2018) in stating that a collaborative approach plays a role in making sure that dimensions of intelligences are combined to complement each other as the child develops a range of skills.

It has been theorised by researchers such as Kennedy and Barblett (2010) and Zosh et al. (2017) that using play as a tool to teach in the early childhood classroom brings a holistic approach to the content and helps with the holistic child development. During the observations, it was evident that children learn through play (mostly using indigenous games such as diketo, kgati and morabaraba), building puzzles, painting and drawing. The use of play in implementing the HLC relates well with Gardner's theory because according to Gardner (2011), human intelligence is multidimensional, as opposed to the one-dimensional understanding of intelligence represented by the intelligence quotient. Gardner further recognised eight different dimensions associated with this theory and speculated that everyone possesses every intelligence but to different degrees. Drawing from Freire et al. (2016), it is evident that play adapted to children's intelligences is likely to improve their learning experience, potentially resulting in an increase of attention and motivation which may ultimately result in increased learning outcomes.

Theme 3: Challenges experienced in using Malaguzzi's approach to support learning

The ECE practitioners highlighted that their main challenge was to strike a balance between the construction of learning through inquiry and expressive language, and CAPS (specifically for their 5-year-old children), which demands that children should be able to demonstrate that they are learning according to specific outcomes or defined standards. From the observations and the documents analysed, it appeared that assessment was not a priority in the two selected centres because they focused mainly on what the children could learn. Observing major documentation in all four classrooms was done, as every learner's verbal and non-verbal expressions needed to be interpreted and understood. Gandini (2011a) argues that documentation is very important, because it helps both ECE practitioners and children to reflect on their prior experience; to listen to each other's ideas, theories, insights and understandings; and to make decisions – together – about future learning paths.

The documentation process is posing a challenge to the two ECE centres in Gauteng because owing to financial constraints they are unable to employ or train their members to become Atelieristas. An Atelierista as explained in the results sections is a trained teacher (who has a knowledge of art) who professionally conducts documentation (Reggio Children 2018). The ECE practitioners (P1CA28 and P2CA45) explained

that the Ateliers' duties involve collection of children's work, work sheet and photographs that represent the hundred languages that children use to express their creativity and what they know about themselves and the world around them. Their explanation is in line with the definition of Norton-Taylor and Lightfoot (2017). After collection and exploration, the interpretations of others including the parents are sought to make sense of the HLC. P1CA28 expressed a concern with regard to the involvement of practitioners in the documentation process: '... it takes most of the contact time with the learners and at times practitioners have to put in extra time after work or during weekends to do documentation'.

In Reggio Emilia preschools, the Ateliers, according to Vecchi (1998), mostly work in studios and are equipped with a variety of tools such as tables, easels, computers, printers, cameras, microscopes, a tape recorder, slide projector, typewriter, video camera, computer and photocopier machine to enable them to read, reflect, describe, transcribe and represent the children's work. During the observations in the selected ECE centres, it was evident that there was a lot of improvisation because of a lack of these resources. The practitioners used their cell phone cameras and videos and there was only one computer, one photocopying machine and one printer in each of the administrative offices as presented in the results. The administrative assistants helped with the printing and uploading of the pictures onto the computer.

Vecchi (1998) stressed the role of the Ateliers as to assist the adults (mostly parents and practitioners) in understanding processes about how children learn. She further substantiated that Ateliers helped ECE practitioners to understand how children invent autonomous vehicles of expressive freedom, cognitive freedom, symbolic freedom and paths to communication. With this in mind, it can be argued that every ECE centre requires the services of an Atelier in order to be able to construct theories and hypotheses that are not illogical and artificially imposed on the children.

Theme 4: The importance of Malaguzzi's Hundred Languages of Children approach in curriculum implementation

The contribution from the literature reviewed stresses the importance of Malaguzzi's approach. Gandini (2011a) reported on children who were requested to measure a table: they ignored the tape measure available to them and tried instead to use their bodies and various objects, before settling for a while on a shoe. Gandini (2011b) points out that if the teacher had suggested right away that the children use the tape measure, they would have missed out on everything they learned when doing group research. Linking this contribution with what the participants said, and what the researcher observed in the classroom, it was evident that play and learning cannot be separated. P2CA45 said that 'when children arrive at school in the morning, they play with their friends using materials or games or toys'. Teaching in the ECE advocates the use of play to mediate learning, and

Malaguzzi's approach insists that learning and play are the basis of life for all children (Gandini 2011a).

When conducting classroom observations, the author witnessed that most of the activities they engaged in involved play. Some played with puzzles, soil on a table with a light underneath, toys, sand and stones. Play in the ECE is described as a scaffold for development, a vehicle for increasing neural structures and a means by which all children practice skills they will need in later life (Imenda 2012). With a similar view, Şule (2017) posits that play in ECE is crucial to enable the acquisition of knowledge, skills and habits that children need for their future education. Referring to the Declaration of the Rights of the Child, Şule (2017) further described play as a fundamental right and advised that children should be able to engage in play and recreational activities appropriate to their age.

P3CB illustrated the importance of Malaguzzi's HLC in relation to the South African National Curriculum Framework: for children from birth to 4 (Department of Basic Education [DBE] 2015). She narrated a scenario which displayed the link of Early Learning and Development Areas (ELDAs) and Malaguzzi's HLC through a child's drawing of a tree during the outdoor free play:

[... T]he interpretation of the drawing confirmed the link with the third the aim (children identify, search for and create solutions to challenges through visual art activities) within the ELDA Five (Creativity). Secondly the link with the first aim, (Children show awareness of and are responsive to number and counting) within ELDA Four (exploring Mathematics) was apparent because the child could count the fruits of the tree. Lastly the link with the second aim, (Children identify, search for and create solutions to challenges through play and make believe) within ELDA Five (Creativity) was also evident because the child used stones to display the fruits of the tree. (P3CB36)

From the participants' scenario, it could be concluded that through Malaguzzi's HLC, the ECE practitioners are able to meet the requirements of the NCF.

Implications and recommendations

It was evident from the empirical findings that when ECE practitioners employ Malaguzzi's HLC approach, they begin to view children as strong, competent, resourceful and able to make meaning of the world around them. Based on the discussions of themes 2 and 4, it can be concluded that Malaguzzi's HLC approach can add value to the curriculum implementation of early childhood centres in Gauteng. As the curriculum implementation and support in the early childhood centres in the Gauteng province is the responsibility of the GDE, the recommendation to the GDE is to include Malaguzzi's HLC approach as one of the principles to support curriculum implementation.

Conclusion

This study set out to explore the role of HLC through the experiences and views of ECE practitioners and it has been a

learning experience that highlighted the importance of acknowledging and accommodating the multiple intelligences of children when supporting curriculum implementation. From the findings, it was evident that the ECE practitioners in the two ECE centres use Malaguzzi's HLC for their daily learning activities in which they responded to the first fundamental component of Gardner's theory of multiple intelligences. The experiences of the ECE practitioners reveal both successes and challenges although the successes seemed to outweigh the challenges. Above all, parental involvement brought a shift in mindset between parents and ECE practitioners, and evidently indicates that young children are increasingly becoming active constructors of their own knowledge. Malaguzzi's approach contributes towards parents and ECE practitioners being able to understand the holistic development of the child and the fact that children are not empty vessels who are waiting to be filled with information. The collaboration between the parents and the ECE centres strengthened the ability of the parents and the ECE practitioners to know the strengths and interests of the children, which is the second component of Gardner's theory of multiple intelligences. Apart from the contribution towards parents and ECE practitioners, the findings endorsed the last fundamental component of Gardner's theory which is children's roles in defining the curriculum. Lastly, this article argues that the role of Malaguzzi's HLC in the ECE is to provide opportunities for children to engage in experiences across a range of multiple intelligences and to define the curriculum.

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Competing interests

This article was prepared by R.S.S.M. using her own views and not in any official position of any institution.

Authors' contributions

R.S.S.M. was the sole author for this article.

Data availability statement

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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