

Susanne van Niekerk
ORCID:0009-0007-7970-8245
Roehampton University
susanne@montessorisa.co.za

<https://doi.org/10.26881/pwe.2024.58.06>

An investigation into the extent of, and reason for, the theory-to-practice disparity in Montessori early childhood settings in South Africa

Summary

This mixed methods study investigates the factors that affect the implementation of what is perceived to be “authentic” Montessori practice in South African Montessori preschools through the lived experience of eight teachers trained by Montessori Centre South Africa (MCSA). Previous Montessori research in Europe and North America has addressed the results of, but not the reasons for, modification to Montessori best practice. No research of this kind has to date been conducted in South Africa, which has a substantial Montessori following. This phenomenological study was conducted over a two-month period with eight purposefully selected MCSA graduates from diverse Montessori preschools in Cape Town, Durban, Johannesburg, and Pretoria to explore their lived experiences and to probe for constraints that affect implementation fidelity. Participants completed an online questionnaire which was followed up by extensive individual interviews. Data analysis showed that the majority of the participants experienced situational constraints from school management, parent pressure, and statutory requirements, while some instances of personal bias and reservation towards the Montessori method were also noted. The study’s conclusions highlight the necessity for Montessori teacher training colleges in South Africa to collaborate with the South African Montessori Association and the Montessori preschool owners to uphold the fundamental principles of Montessori best practice to preserve the educational ethos of the Montessori method for the ultimate benefit of the child.

Keywords: implementation fidelity, theory-to-practice disparity, Montessori best practice, lived experience

Słowa kluczowe: wierność implementacji, rozbieżność teoria-praktyka, zasady najlepszych praktyk Montessori, doświadczenie życiowe

Introduction

Decades of research into school and educational reform have agreed that the indication of a nation’s schools is entirely dependent on the efficacy of the nation’s teachers who determine their students’ learning outcomes (Feiman-Nemser 2001; Gravett 2012). The process of learning to teach however, is an intricate and multi-faceted process that is shaped by

numerous factors including teachers' personal beliefs about teaching and learning, contemporary educational theory and the implementation thereof presented in teacher training colleges, and situational factors that are faced by teachers in their first years of teaching (Feiman-Nemser 2001; Anderson, Freebody 2012). What the novice teacher does in the classroom is further influenced by relational elements such as pedagogy, curriculum, context, and the children's response to the teaching (Korthagen 2011). The first years of teaching are an intense and formative time. Filling the gaps between teacher education and the reality of the teaching experience is an ongoing challenge for teacher training programmes. It is therefore of great importance that the educational theory and pedagogy presented in teacher training programmes relates sufficiently and meaningfully to the applied knowledge and work required of today's teachers (OECD 2008; Anderson, Freebody 2012).

Montessori Centre South Africa (MCSA), one of South Africa's largest private Montessori teacher training colleges, offers an accredited National Diploma in Early Childhood Development specializing in the Montessori Method. Since its inception in 2011, MCSA has graduated over 1000 qualified Montessori practitioners into the South African early childhood teaching sector.

The author's role as an MCSA director and senior faculty member at the MCSA Cape Town campus allowed a first-hand opportunity of involvement with both the pre- and in-service teachers within the organization. MCSA students are required to complete a 420-hour professional placement as part of their qualification requirement. Finding appropriate placements and mentors for training student-teachers for mainstream schools is a widespread challenge for teacher-training colleges across South Africa (Gravett 2012). This dilemma is aggravated for training Montessori teachers when the criteria for selection as a placement also requires that the school adheres to Montessori best practice standards. It has become increasingly apparent that the pedagogy that is being practiced by MCSA's graduates (who are often the mentors of the new students) is significantly different from the content that they have been taught.

The term "authentic" itself, however, begs scrutiny with regard to Montessori practice. When applied to Montessori practice, "authentic" implies that the method is being applied in the "original" way as taught by Montessori (Lillard, McHugh 2019). There appears, however, to be a divide between the formal principles as enshrined by Montessori education bodies such as the Association Montessori Internationale, the American Montessori Society, Montessori Australia Foundation and the South African Montessori Association, and the actual day-to-day practice within classrooms. The concept of authenticity also becomes problematic when applied to educational practice, which is inherently dynamic and responsive to individual learner needs, teacher interpretations, and socio-cultural influences. From an academic standpoint, this paper grapples with the premise that an "authentic Montessori" experience exists as a quantifiable entity. Can we really measure the authenticity of Montessori practice, or are we confining our inquiry to the tangible aspects that can be empirically investigated and documented, possibly overlooking the intangible qualities that give life to Montessori's philosophy? In exploring what constitutes authenticity, this study

therefore acknowledges the fluid nature of educational practice, recognizing that while an environment may be “prepared” according to Montessori standards, it may not necessarily be conducive to the foundational Montessori ethos, which would have a definite effect on the children it serves.

The aim of this study was to explore the lived experience of eight practising MCSA graduates working in Montessori preschools across South Africa by means of a phenomenological study. The objective was to allow the collection of rich and textured data to provide insight into participants’ understandings, accounts, perceptions, and interpretations of their practice in order to formulate and construct an improved teacher training strategy that would support the upliftment of “authentic” Montessori practice in South Africa.

This objective guided and framed the initial primary research question: **How do South African Montessori preschool educators perceive and interpret the factors influencing the implementation of authentic Montessori practice?** Against this backdrop, this study critically investigated and explored the factors that are perceived by each participant as supporting or hindering their implementation fidelity to Montessori practice. These factors play a pivotal role in shaping the actualization of the Montessori philosophy and, thus, merit thorough examination.

Methods

This investigation adopted a pragmatic interpretivist framework, which prioritized an in-depth exploration of specific issues over the formulation of broad generalizations (Maree (ed.) 2016; Mukherji, Albon 2018). Interpretivism’s ontological stance was applied here through the lens of phenomenology, examining the diverse realities and experiences of Montessori preschool teachers across South Africa by acknowledging the importance of the participants’ lifeworld (context) and the interpretive role of the researcher during the process.

Study design

The prevalence of mixed methods research has grown as scholars recognize that singular quantitative or qualitative approaches may not comprehensively address research questions or specifically fulfil the objectives of social studies (McMillan, Schumacher 2010; Maree (ed.) 2016; Schoonenboom, Burke Johnson 2017). The use of multiple methods in this study allowed for the development of depth of understanding of the multi-faceted and complex character of the participants’ lived experience which is not always possible with a single method approach (Denscombe 2010).

This study was designed as an exploratory sequential investigation in which detailed qualitative data were used to illustrate and explore the initial quantitative findings (Denscombe 2010; Maree (ed.) 2016). Quantitative data were gathered by using unbiased standardized procedures through structured, closed-ended questions intended to yield reliable and valid

scores (Maree (ed.) 2016). These data were treated as the introductory phase to the research, providing an overview of the research phenomenon. The ensuing exploratory qualitative research yielded deeper detail of how the participants perceive and make sense of themselves within their social constructs through the use of open-ended questions that allowed for a rich description of their lived experiences (McMillan, Schumacher 2010; Maree (ed.) 2016).

The research process concluded with an integration phase, where insights from the qualitative analysis were combined with the initial quantitative findings, to create a cohesive understanding.

Population and Sampling Strategy

While the true sample population for this study would have been all Montessori preschool teachers in the country, practical considerations and time limitations constrained and prohibited such a wide-scale study. As the subject matter of this research is not objective data, but rather the personal accounts of the participants' lived experience, a smaller exploratory population sample of ten practising Montessori Centre South Africa (MCSA) graduates was purposively selected from the MCSA graduate pool of approximately 800 students in the hope that a diverse selection of participants would allow differing experiences as a result of their unique contextual situations. Written permission to contact the participants was granted by Heidi van Staden, MCSA Director, after the study was approved by the Roehampton University Ethics Committee. Eight invitees elected to participate in the study.

Description of Research Methods

Quantitative data were sourced through online surveys administered via Google Forms. The survey integrated dichotomous and rating scale questions to respectively gather nominal and ordinal data, facilitating comparison of various metrics and participant opinions (Cohen et al. 2007). While questionnaires are user-friendly and produce standardized responses, they may lack nuanced data and limit the researcher's ability to verify the authenticity of the responses (Denscombe 2010; O'Leary 2017). To complement this, semi-structured interviews were conducted to elicit detailed, unrestricted responses, allowing a deeper dive into the motivations and perspectives of participants, thereby generating a wealth of qualitative data (Kvale 1996).

Data collection instruments and procedures

The questions on both the data collection tools were based on the six principles of Montessori best practice as upheld by the South African Montessori Association (SAMA 2018) (Table 1).

Table 1. South African Montessori Association (SAMA) Montessori Fundamental Principles

Principle	Description
1	Classes in Montessori Schools are mixed-age and non-graded
2	Montessori schools accommodate an extended period of uninterrupted self-chosen activity – a period during which children can choose their own activity and work undisturbed for a minimum of three hours
3	Rewards and punishments are not used in a Montessori environment
4	A prepared environment is a critical component of Montessori pedagogy
5	The adults in the prepared environment exhibit and apply the principles of Montessori pedagogy
6	Montessori schools implement the SAMA Montessori curriculum for ages 0–12 years

Source: SAMA (2018).

All data was collected between 23 November and 2 December 2019. Participants initially completed the 20-minute Google Form online questionnaire and subsequently participated in a 60-minute online semi-structured interview that was conducted in a private Zoom chat room and audio-recorded for transcription.

Outline of analysis method

The analytical process of this investigation was inductive, building from specific instances to broader generalizations; and it was shaped by the researcher's own epistemological perspective, acknowledging the influence of personal beliefs on the interpretation of complex, phenomenological data (Denscombe 2010; Quotshi 2018).

Quantitative Data Analysis

A questionnaire was used to obtain the nominal biographical data of both the participant and the school to determine the situational context of the sample group (Denscombe 2010; Maree (ed.) 2016). Montessori Best Practice principles and the participants' perception of challenges thereto were recorded on Likert scales to produce ordinal data that was used to inform individual interview questions to further explore and analyse these findings (Cohen et al. 2007; Maree (ed.) 2016). Frequency distributions were entered and calculated manually on an Excel spreadsheet.

Qualitative Data Analysis

Qualitative data analysis recognizes the varying interpretations that people attribute to different situations and phenomena (Mukherji, Albon 2018). All interviews were transcribed verbatim by the researcher to allow maximum familiarity of data. This resulted in 123 pages of transcribed data. The data were first colour-coded to identify the six SAMA Best Practice Principles (coded BP1–BP6). Sub-codes were allocated to specific explanatory criteria aligned with BP4 and BP5 (Table 2).

Table 2. Montessori Best Practice Coding Key

Code and Sub-code	Description
BP1	SAMA Principle 1: Classes are mixed-age and non-graded (3–6 years)
BP2	SAMA Principle 2: Offer an uninterrupted 3-hour work cycle
BP3	SAMA Principle 3: No rewards or punishments
BP4	SAMA Principle 4: Offers a fully prepared environment
4.1	Serves the developmental and pedagogical needs of the child
4.2	Supports the freedom of movement, speech and association
4.3	Supports free choice of activity
4.4	Facilitates normalisation
4.5	Has a full complement of Montessori materials
BP5	SAMA Principle 5: Adults exhibit and apply Montessori principles
5.1	Display respect and patience
5.2	Balance non-intervention with non-abandonment
5.3	Show trust in Montessori principles
5.4	Understand role as an observer and interpreter rather than teacher
5.5	Guide the child to normalisation
BP6	SAMA Principle 6: Implementation of the SAMA 3-6 Curriculum

SAMA– South African Montessori Association

Source: own research.

The first transcript was read again to identify perceived challenges to best practice. These challenges (sub-themes) were grouped to develop overall themes (Table 3). As each additional transcript was read, new sub-themes were added and the previously read transcripts were read again to determine whether they contained any relevant data which were coded accordingly. Kvale (1996) suggests that coding in this manner allows the data from qualitative studies to come together in a conceptualized “web of meaning”.

Table 3. Perceived Challenge Coding Key

Theme and Sub-theme	Description
C1	Perception of Impact of School Management
1.1	No school training or focus on MBP
1.2	Onus on individual teacher to uphold her/his understanding of MBP
1.3	Management not Montessori-trained, therefore lack understanding of MBP
1.4	No Montessori-based continued professional development offered by school
1.5	Management does not seem to value the teachers' Montessori expertise
1.6	Teachers need to compromise MBP to accommodate management decisions
1.7	Non-Montessori-trained staff not upholding MBP
1.8	Space restricts MBP
1.9	Pressure to get children to a certain "level"
1.10	School policies negatively impact MBP
1.11	Adults' roles in environment not clearly defined
1.12	Limited cohesion between adults in the environment
1.13	Extra-murals planned during work cycle
1.14	Limited funding for resources affects MBP
1.15	Number of children in the class affects MBP
1.16	Lack of communication from management

MBP – Montessori Best Practice

Source: own research.

An inductive reasoning approach was used to interpret the data against the research question (Maree (ed.) 2016; Mukherji, Albon 2018)(Table 4).

Table 4. Example of Coding and Annotation

Transcript Snippet	Annotation	Challenge Coding Sub-theme
<p>Interviewee: <u>OK, it's been a bit tricky to be very honest with you. I do find that in today's time there's very little discipline. I don't know if that's worldwide, or just in South Africa, but I did find that the children are so much harder to communicate with, and just as we were taught to go down to the child's level, be calm and speak with kind and positive words, I feel like the children just have very little respect for the adults, which this term specifically has been extremely challenging for myself and my co-worker.</u></p>	Finds general disciple 'tricky'.	3.2
	Children hard to communicate with.	3.12
	Children have little respect for adults and environment.	3.4

Source: own research.

A strength of mixed methods research is the methodological triangulation which gives the research validity by checking the standardized questionnaire responses with the detail from the interviews. This enabled the researcher to engage with differing perspectives and thus enhanced the completeness of the findings whilst simultaneously reducing the chances of inappropriate generalizations (Denscombe 2010). This was particularly useful when integrating the participants' responses from the questionnaire and the interview where both correlations and discrepancies were noted.

Constraints and limitations of the Data Collection Process

This research, while limited in size, has attempted to understand the teachers' lived experiences and their implementation fidelity of Montessori best practice. The methodologists identify the implicit limitation in the results of such a small-scale study not being generalizable except where other parties see value in their application (Maree (ed.) 2016). Alase (2017) however posits that data do not necessarily need to be statistically generalizable for inferences to be drawn that are unique to a particular phenomenon. This is supported by Kvale (1994) who suggested that exploring the lived experience rather requires a shift from generalization to contextualization. Despite the small sample size, it was evident that the themes that emerged from the data collected were sufficient for this exploratory investigation as similar information was being received. Full saturation may not yet have been reached, and it is likely that a larger sample may have identified further key themes.

Despite its limitations, this research is compelling as it aims not to prescribe or judge, but to understand and reflect upon the lived experiences of those at the forefront of Montessori education in South Africa. In doing so, it illuminates the ways in which Montessori educators navigate the intricacies of authenticity, fidelity, and adaptation in their daily professional lives.

Results and Discussion

There is increasing interest in Montessori education as an alternative to the mainstream. A key tenet of Montessori education is that as children are motivated to self-construct by innate and intrinsic developmental forces, all learning must be child- and not adult-driven (Culclasure et al. 2019; Lillard 2019). To accommodate this development, the Montessori method is centred on the goal of creating a context for deep and uninterrupted concentration that Montessori calls normalization; "the most important single result of our whole work" (Montessori 2012: 153). These insights about motivation and concentration are consistent with similar contemporary perspectives, most specifically the theoretical and practical implications of optimal experience or flow theory (Rathunde, Csikszentmihalyi 2005). Csikszentmihalyi (2000) himself stated that "the whole notion of normalization is almost eerily similar to the flow experience."

The central challenge to both Csikszentmihalyi and Montessori's concentration-based vision of education is the creation and maintenance of a learning environment that facilitates deep concentration and flow by supporting and extending the child's interest with an appropriate balance between existing skills and challenges without interfering with their choices (Rathunde 2001, 2015; Rathunde, Csikszentmihalyi 2005; Lillard 2019).

An investigation of the fundamental Montessori best practice principles of AMI/USA (2009), AMS (2019), SAMA (2018), Montessori Australia Foundation (MAF n.d.) and Culclasure et al.'s (2019) Logic Model shows an overlap with some modification in three main principles: multi-age/mixed-age groupings, uninterrupted work periods, and the provision of a full set of Montessori materials. Each of these principles has a direct effect on the development of concentration, normalization and flow:

Multi-age grouping

There is agreement that authentic Montessori preschool classrooms must consist of a mixed three-year age group of children of 2.5 to 6 years for peer-learning.

Uninterrupted work periods

AMI, AMS, SAMA, and the Logic Model require Montessori schools to provide an uninterrupted prolonged work cycle of no less than three hours daily, five days a week. No enrichment programmes, group snacks, or whole group lessons may be scheduled during this period. MAF, whilst also advocating a three-hour work cycle, allows the integration of speciality programmes as long as these are consistent with Montessori key principles.

Montessori materials

AMI is the most prescriptive body, requiring a complete set of Montessori materials purchased from an AMI-approved manufacturer. MAF requires a full complement of developmentally appropriate Montessori materials, resources, and activities without a purchasing specification. Both AMS and SAMA require their member schools to be equipped with fundamental Montessori materials, but allow the incorporation of curriculum support (i.e. supplementary) materials provided that these do not replace the primary use of the Montessori materials. The Logic Model does not provide a description for the "full set of Montessori materials."

The central theme of this discussion is the underpinning foundation of the three previously highlighted principles of Montessori best practice, with a view to identifying if and how South African Montessori teachers show fidelity to their implementation. A fourth principle of the role of the adult (as included in SAMA's Fundamental Principles) has also been included.

Research Question 1: How do South African Montessori preschool educators perceive and interpret the factors influencing the implementation of authentic Montessori practice?

This question sought to understand the daily lived experience of the teacher, taking into account the teacher's own commitment to, and perceptions of, Montessori implementation fidelity.

Individual Commitment to Montessori Best Practice

Individual SAMA membership is a pertinent consideration as members commit to the Code of Conduct in upholding authentic Montessori practice (SAMA 2020). Of the eight participants, only three are individual SAMA members employed in a SAMA-member school. Two are non-members working in a SAMA-member school, and three are neither individual nor school members. This lack of commitment indicates that the participants did not seem to perceive value in SAMA membership, which could also affect their commitment to upholding the best practice principles.

School Management Support for Montessori Best Practice Principles

Despite only five of the participants being employed in SAMA-member schools, all participants acknowledged awareness of the SAMA Fundamental Principles. Five teachers indicated that their school has regular training meetings to revisit and discuss Montessori principles and their application. Deeper questioning during the interviews however revealed the participants' concern that most of these meetings were general staff meetings aimed at discussing planning and children, rather than focusing on revisiting and supporting the teachers in implementing best practice.

We should be running that throughout the whole school. There should be a certain level that we should all be meeting up to. So, I personally think that is something that really bothers me a little bit because each teacher or each class runs their classes as individuals.

We don't really have these meetings. We have our staff meeting where we discuss everything, but we haven't really ever discussed anything like that across-the-board.

Lillard (2019) posits that implementation fidelity problems are likely to occur when school management have no Montessori training. This is evident in the following comment:

If we don't do anything then Montessori doesn't get really spoken about even though we are a Montessori school. I've had to advocate a lot for Montessori because none of the people above me are Montessori trained at all. So, they actually don't know what we're supposed to be doing.

Individual Agreement with Montessori Best Practice Principles

Daoust's (2004) research on the examination of implementation practices in Montessori early education suggests five areas of inconsistent application of Montessori practice in American Montessori preschools. These are the three-hour uninterrupted work cycle, multi-age classrooms, presenting materials to children individually rather than collectively, providing opportunities for children's choice, and fidelity to Montessori materials (Fig. 1). A five-point Likert Scale was used in the South African study to determine the teachers' degree of agreement with these principles on a scale of 1 (total disagreement) to 5 (total agreement) to obtain a baseline assessment of individual perceptions.

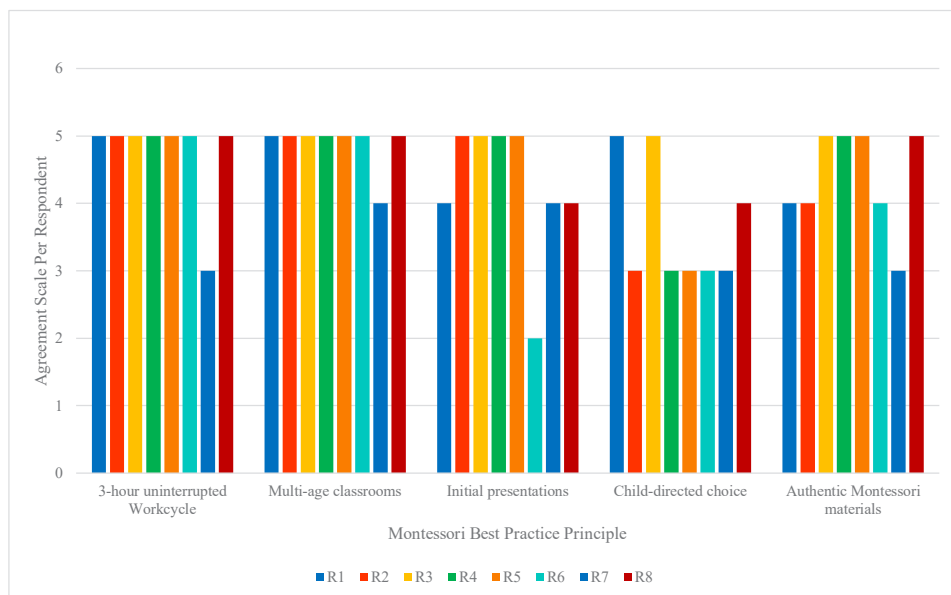


Figure 1. Level of Agreement with Montessori Best Practice Principles per principle

Source: own research.

The participants mostly agreed with the principles of the multi-age groupings and the three-hour uninterrupted work cycle. Child-directed choice, Montessori materials, and initial presentations, which are all core tenets of the philosophy which lead children to a state of normalization or flow, were not as highly regarded. These findings indicate that the teachers' individual conceptual frameworks differ in various degrees from the Montessori ideal, which could further compromise the implementation fidelity of their delivery.

Classes in Montessori schools are mixed-age and non-graded

Authentic Montessori classrooms encourage three-year age groupings per class: 3–6, 6–9, 9–12, 12–15 and 15–18 years. Children should ideally remain in each classroom for a full three-year cycle in order to complete the full complement of materials relevant to that phase, and to fully benefit from the exposure to both peer-learning and peer-teaching (Lillard 2007). Montessori spoke about the “vertical categorizations” of the mixed-age classrooms in many of her writings.

The main thing is that the groups should contain different ages, because that has a great influence on the cultural development of the child. ... You cannot imagine how well a young child learns from an older child; how patient the older child is with the difficulties of the younger. It almost seems as if the younger child is material for the older child to work upon (Montessori 2008: 68).

Montessori’s views are corroborated by research conducted by Bailey et al. (1993) and Gray (2011) who measured the overall development of children in mixed-age classrooms. These children were found to show quadratic improvement in all developmental areas whereas children in single-age classrooms only showed linear gains.

The split of the South African early childhood curricula into Birth to 4 years followed by single-year outcomes from Grades R to 12 (DBE 2011, 2015) makes the provision of this principle of Montessori best practice challenging for South African Montessori schools. SAMA’s (2018) Best Practice Guidelines state that Montessori schools may not offer a separate Grade R class. This investigation however revealed that two of the eight schools (one of whom is a SAMA member school) do offer a separate Grade R class. One participant stated that this is “just to keep the parents happy” and another that it “was a decision that we took, I think largely because that’s what parents were looking for.” This indicates a lack of understanding from the parents and the school management about the benefits of the keeping the children in a multi-aged environment.

Montessori schools accommodate an uninterrupted three-hour work cycle

High-fidelity Montessori environments are designed to facilitate the development of concentration through self-chosen, individual, and purposeful engagement with specially-designed, developmentally appropriate learning materials within an uninterrupted three-hour work cycle (Lillard 2007; Lillard, McHugh 2019). This is in direct opposition to the South African Grade R Curriculum Assessment Policy Statements (CAPS) programme (DBE 2015) that details a macro-level of daily schedules in prescribed blocks of time for small and large group activities. The uninterrupted three-hour work period during which the children are free to work without interruption or group snack, circle (ring) time, or any specialist enrichment activities (SAMA 2018) is an essential principle as it facilitates the development of normalization (or flow) (Rathunde 2001, 2015; Montessori 2012). It is

proposed that every adult-imposed scheduled event or interruption during the work cycle is may/will diminish the children's concentration by producing 'certain inner conditions in the mind of the child which deprive him of self-confidence and neutralize his ability to finish what he has started' (Montessori 2007: 53). This would result in the child becoming deviated from the path of natural development and displaying characteristics that are no longer conducive to optimal learning.

It was evident in the research that not all participants were clear on what an **uninterrupted** work cycle should be. Whilst six of the participants reported a full three-hour uninterrupted work cycle on the questionnaire, it emerged that four scheduled enrichment activities occurred during the work cycle, four interrupted the work cycle for a group snack, and four required a compulsory circle time. This suggests that only two of the participants support this principle correctly.

Commentary on this topic alluded to the consequences of this modification which indicate that concentration and flow are definitely being affected by the interruptions.

So, three times a week we do have a 3-hour work cycle but it's not true Montessori uninterrupted because of that half an hour where we are actually doing improvised work with either music or PE.

We had to now have a snack time so that's sort of interrupted them because if a child is busy working and they hear 'ooh snack' they immediately leave their work and they go to the snack.

When [the extra-mural teacher] arrives, it's like chaos even for the ones that are in the classroom. They have to pack away quietly and we still reinforce that, but because they are working, they get interrupted. This is disruptive for the ones who are not going because the others get so excited.

Yes, so we have our morning work cycle and then we'll break at about 9h 45 and have a circle time and have like a theme.

One participant's comment in particular sums up the effect of the **interrupted** work cycle: "It's typically not a day where a lot of productive stuff happens".

The prepared environment as a critical component of Montessori Pedagogy

Montessori emphasized the preparation of a favourable environment which serves the developmental and psychological needs of the children. She suggested that the "purpose of education must be to elevate the individual" (Montessori 2012: 10) and that it is our duty to "give the child a *help to life*, to develop and to adapt to the environment in which he must live" (Montessori 2012: 186). Montessori observed that three to six-year-old children need movement, most specifically movement of the hand, in order to develop the mind in adapting to their environment, calling the hand "the instrument of the intelligence" (Montessori 2012: 16). The materials that provide the organizing structures for each area of the curriculum (Lillard 2007) were designed as "keys to the universe" (Standing 1998: 242)

which serve to deeply engage the child's hands and mind in a spiral curriculum of learning through manipulation, repetition, and the application of the knowledge gained into the outside world. Montessori suggested that the adult should be the custodian of the environment who individually sets up points of contact between the child and carefully selected manipulative materials that feed the child's interest at that given time (Montessori 2016, 2017). These materials incorporate what Montessori (2016) termed a "control of error" – a didactic quality that provides feedback to the child if an error is made, that the child can work on correcting without the assistance or interference of the adult (Montessori 2008).

During this study only two of the participants reported that they are true to the Montessori materials, five reported a 10% supplementation and one a 30% supplementation. The reasons for the supplementation were explained as follows:

So for me to put something on the shelf ... it would be something where either the children would need more practice with the same concept but are bored of the materials.

So, we do use 'Letterland'. We switched to Letterland because of when they get to Grade 1 or Grade R in a mainstream school.

We would like to have plenty of Montessori materials and we would like the children to work predominantly with Montessori materials, but we feel that they are not drawn to those Montessori materials and that they are naturally inclined or more drawn to the supplementary materials.

Similarly, two participants stated that they did not use worksheets at all in their daily practice, whereas five stated only some use, and one reported that worksheets were fully part of the programme. The manner in which worksheets are used seemed to depend on the teachers' individual degree of agreement with, and understanding of, the Montessori approach relevant to this developmental plane as is evidenced in the comments below.

For my older children I get in bound workbooks, which is not really Montessori, but the lady who makes them makes only Montessori material. [...] I just feel like it prepares them a little bit better for the 6–9 environment because they are then a little bit more used to working in a book.

If children are struggling with the "b" and "d" then I also go to "Teachers pay Teachers" and see what other teachers do or what worksheets I can do to help them with the b and d and not confuse them. [...] It's to supplement, because with Montessori we don't have a lot of worksheets.

The adults in Montessori environments trust in the Montessori principles, methodology, and pedagogical aims

Huxel (2013) posits that whilst the elements of Montessori best practice as detailed above are essential, the pivotal piece of preparedness remains with the Montessori teacher whose spiritual and reflective nature will determine how the method unfolds for the children; either rendering it authentic or inauthentic Montessori. Malm (2004) further suggests that this

requires a commitment not only to being a teacher, but to being a “Montessori teacher”, characterized by deep identification, awareness, and adherence to the Montessori educational principles. Critical self-reflection and detailed observations of children are necessary to assist teachers in identifying children’s unique developmental needs so as to better serve the child (Christensen 2016).

Research Question 2: How do South African Montessori educators perceive and interpret the impact of external factors such as government rulings, parent expectations, and school leadership on Montessori Best Practice?

The second research question sought to explore how external factors such as government rulings, parent expectations, and school leadership directly affect the teachers’ ability to implement authentic practice. The questionnaire included seven 5-point Likert Scale questions (1 = little impact, 5 = great impact) to determine the perceived impact of limited funding, children with behavioural or special needs, school policies and procedures, parental concerns and demands, time constraints, government policies and requirements, and other adults in the environment on their implementation fidelity (Fig. 2). Calculations of the mode provided an overall situational impact overview that indicated impact severity from parent pressure at 5 (greatest impact), lack of funding (multiple modes – 2, 3, 5), children with behavioural or special needs account (4), government policies (3), to school management at 1 (least impact).

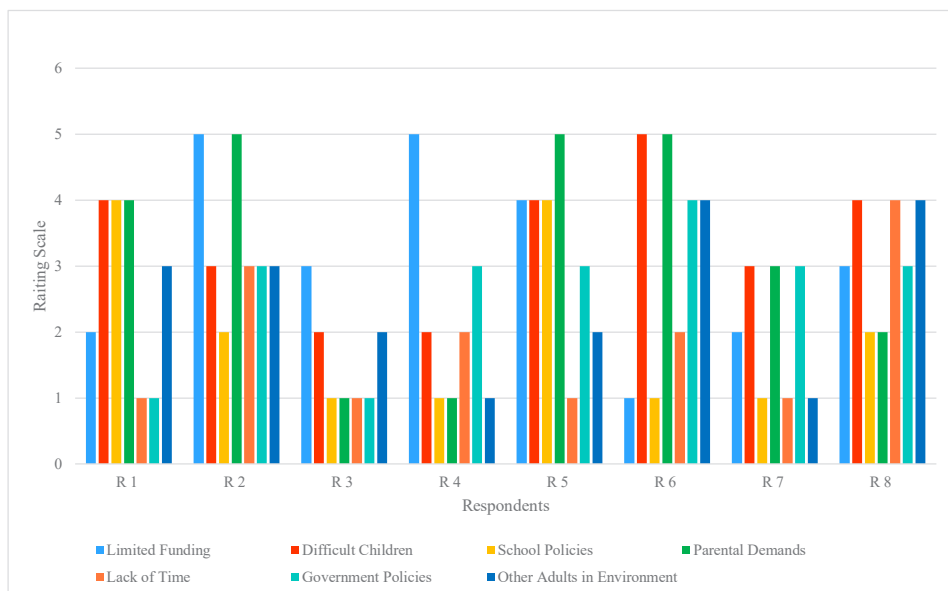


Figure 2. Perceived Situational Constraints on Montessori Best Practice

Source: own research.

Whilst these five criteria were expressly questioned further in the interview, scrutiny of the interview transcript highlighted comments made by the participants that indicated additional situational constraints. These were initially annotated as sub-themes and later clustered into the five overall emerging themes. Interestingly, these themes mostly replicated the themes on the questionnaire with one new emergent theme of “Self Perception” (Fig. 3).

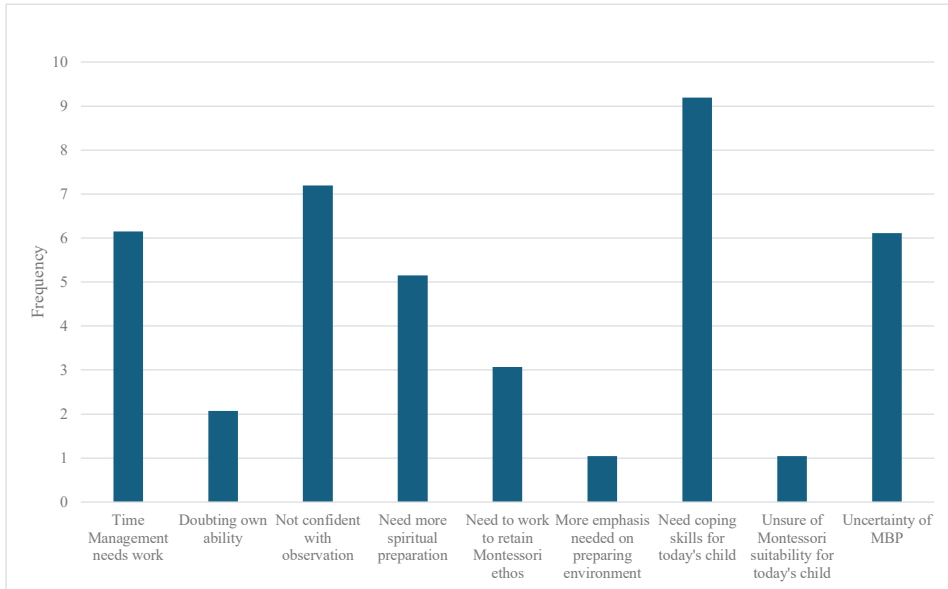


Figure 3. Self-Perception: Frequency of Perceived Factors Impacting Montessori Best Practice (MBP)

Source: own research.

Theme 1: School Management

Seventeen sub-themes were identified in the interview data that pertain to the impact of School Management on the teachers’ ability to implement authentic practice. The main constraints hinged on the teachers’ perceptions that school management does not actively support authentic Montessori practice and that the onus thus falls onto the teachers as individuals to uphold the practice as best as they can under the school circumstances and according to their own understanding.

I’ve been told by management that I’m there to make sure that they stick to proper Montessori principles and I’ve had to advocate a lot for Montessori because none of the people above me are Montessori trained at all. So, they actually don’t know what we’re supposed to be doing.

Examples of school management ‘interference’ with authentic practice happens through management not upholding the three-year moved-age groupings, nor the three-hour uninterrupted work cycle, nor maintaining Montessori material fidelity (Table 5).

Participants also expressed dissatisfaction with the class numbers (“I feel like once I have a certain amount of children in my class, they do not get my individual time”), and on how their Montessori opinions were valued by school management:

I find it very challenging that when there is a problem, we aren’t really able to give some feedback as a teacher on how we see things. It’s never really taken positively at all. It’s generally taken as complaining and more often than not, brushed off.

Table 5. Perception of Impact of School Management Challenge Coding Key

Theme and Sub-theme	Description
C1	Perception of Impact of School Management
1.1	No school training or focus on MBP
1.2	Onus on individual teacher to uphold her/his understanding of MBP
1.3	Management not Montessori-trained, therefore lack understanding of MBP
1.4	No Montessori-based continued professional development by school
1.5	Management does not seem to value the teachers’ Montessori expertise
1.6	Teachers need to compromise MBP to accommodate management decisions
1.7	Non-Montessori-trained staff not upholding MBP
1.8	Space restricts MBP
1.9	Pressure to get children to a certain “level”
1.10	School policies negatively impact MBP
1.11	Adults’ roles in environment not clearly defined
1.12	Limited cohesion between adults in the environment
1.13	Extra-murals planned during the work cycle
1.14	Limited funding for resources affected MBP
1.15	Number of children in class affects MBP
1.16	Lack of communication from management
1.17	Lack of management support in respect of parent demands

MBP – Montessori Best Practice

Source: own research.

Theme 2: Children with Behavioural Problems or Special Needs

This theme is a cluster of fifteen sub-themes. The main perceptions of difficulty were the children's seeming lack of engagement with the materials, their dependency on the adults, little ability to self-regulate, and presenting with behavioural challenges (Table 6). With regard to the children's connection to the materials, participants felt that "they are just not connecting to the materials," and "I've had to change the way that I teach with the Montessori materials to actually get their children more intrigued and interested in what I'm trying to teach them." These statements indicate that the sustained concentration and purposeful engagement with the materials is not occurring, resulting in behavioural traits such as "lack(ing) concentration" and "los(ing) interest so quickly in activities." These behavioural traits are described by Montessori as "deviated behaviour" displayed by children who are not developing according to the laws of nature (Montessori 2017). This is further supported by the comments made around concentration: "the children are tricky at the moment [...] they can't like organize themselves [...] it makes working with them really hard," and "the past two years have been quite tricky with regards to concentration. They lack initiative [...] I find that it's very difficult to keep them engaged," which also indicate an absence of flow.

Table 6. Perception of Impact of Children Challenge Coding Key

Theme and Sub-theme	Description
C3	Perception of Impact of Children
3.1	Children seem to be bored of the materials
3.2	Children exhibit behavioural challenges
3.3	Children require instant gratification
3.4	Children show little or no respect for the materials
3.5	No connection to or purposeful engagement with the materials
3.6	Aggression towards others
3.7	Children need more opportunity for imaginative exploration
3.8	Children dependent on the adults
3.9	Children requiring therapy
3.10	Children presenting with sensory sensitivity
3.11	Children showing an inability to self-regulate
3.12	Difficulty in communicating effectively with children
3.13	Children not taking adults seriously
3.14	Children displaying a lower skill set compared to previous years
3.15	Children coming in mid 3-year cycle from other schools

Source: own research.

It could be assumed that the modifications to the core principles of Montessori practice evident in the schools as previously discussed could potentially be adding to these challenges. This would warrant further research.

Interestingly, one participant (who follows most Montessori best practice principles) stated: “what I found is that it is not the child, but more the adult’s ability to cope with the child in their environment.”

Theme 3: Parent Pressure

The main challenges perceived by the participants appeared to emanate from the parents’ lack of understanding of the core Montessori principles. Parents need to understand the reasons for the principles and why these need to be upheld so that the pressure on the schools can change from being disruptive (i.e. insisting on enrichment activities during the work cycle, academic pressure) to being more constructive and supportive (Rathunde 2015) (Table 7). Common areas of difficulty include the parents’ pressure on the children: “Some parents just expect so much out of the four-year-old child; that child is completely pressured into doing multiplication where they just learnt their numbers,” and “Parents are just hectic. Every year they get worse and this year has been my worst year; they are so competitive. They’re making their poor children do all of these extra Math and Literacy things after school.” This pressure often results in school management negating Montessori principles, and puts pressure on the teachers to also defer to the parents’ wishes:

So, I find it actually extremely difficult with regards to being spoken to every morning or chased in my classroom by parents with asking “why is my child not doing this yet, why is my child not doing that yet”?

Table 7. Perception of Impact of Parents Challenge Coding Key

Theme and Sub-theme	Description
C2	Perception of Impact of Parents
2.1	Lack of parental support in terms of discipline
2.2	Parent pressure to be too involved with children (affects independence)
2.3	Parental pressure for academics affects MBP
2.4	Parents comparing their children puts pressure on MBP
2.5	Parents questioning the Montessori method and standards affects MBP
2.6	Parent demands impacting MBP
2.7	Parent demands for extra-murals impacting MBP

MBP – Montessori Best Practice

Source: own research.

Theme 4: External and Statutory Regulations

The greatest impact being experienced with regards external and statutory regulations seemed to be the perceived pressure from the parents on the school to implement the Continuous Assessment Policy Statement (CAPS) curriculum to Grade R-aged children. Many Montessori pre-school children feed into mainstream schools for formal schooling owing to the shortage of Montessori primary schools in South Africa, and in most of the cases where Montessori materials are being supplemented and worksheets used, the reasons given by the teachers were CAPS and primary-school readiness related. The participants whose schools offer a separate Grade R class substantiated this as follows: “This is where we introduce the CAPS themes into the system to make sure that each week, we keep up with that because in Grade R we need to have those things,” and “Obviously we’ve got CAPS with regards to government, because most of our children go back into government schools around the area.” Only one participant acknowledged that parent education could positively impact this constraint to Montessori implementation fidelity: “I find more pressure from my community that doesn’t understand Montessori, than the government itself.”

Theme 5: Self-Perception

This theme emerged from the data spontaneously, as it was not the study’s intention to focus on the individual’s internal factors. Nine sub-themes came to light that showed evidence of self-reflection, or what Montessori (2012, 2017) calls, “spiritual preparation.” The challenge points identified by the participants point to underpinning facets of Montessori practice. Participants expressed doubt in their observation abilities (“My only challenge, and something I still don’t feel very confident about, is observations”), time management (“the day runs out too quickly! I don’t find like there’s enough time in the day to get everything done”) and in the application of the Montessori method (“keeping with the true Montessori ethos has also been difficult”). This opens the door for further research to be conducted on the need for continued professional development. A further need was identified as “skills to cope with today’s child,” which could also be linked back to the preparation of a favourable, authentic Montessori environment that allows the child to adapt to her/his time, place, and culture in a developmentally appropriate manner as advocated by Montessori (2012) and Csikszentmihalyi (cf. Rathunde 2001). A profoundly reflective statement by one Montessorian sums this up perfectly: “The biggest challenge I found in my school with implementation of Montessori practices is very much myself.”

Concluding Remarks

The adoption of a Montessori educational pre-school curriculum requires more than just a trained teacher and a core complement of Montessori materials. This study has indicated that there are some considerable gaps in the application of the Montessori core philosophy

by the participants as a result of both individual and school management perceptions and misunderstandings of the method, driven by external pressures from the parent body and statutory requirements.

If the normalization is indeed “the most important single result of our whole work” (Montessori 2012: 153), then it is imperative that Montessori teachers prepare an environment that works with the child’s innate capacities to facilitate the required depth of concentration and flow (Rathunde 2001). It is evident from the research conducted within this study that some of the teachers’ underpinning understanding of, or subscription to, the fundamental principles of Montessori Best Practice is compromised. Further research on the reasons for this disparity would be of benefit to the South African Montessori community.

References

- Alase A. (2017), *The Interpretative Phenomenological Analysis (IPA): A Guide to a Good Qualitative Research Approach*. “International Journal of Education & Literacy Studies”, 5(2).
- AMI/USA (2009), *Standards for an AMI Montessori Classroom*. <https://amiusa.org/wp-content/uploads/2012/03/ami-school-standards-7092.pdf>, 20.01.2024.
- AMS (2019), *AMS School Accreditation Standards & Criteria*. American Montessori Society. <https://amshq.org/Educators/Montessori-Schools/AMS-Accreditation/Accreditation-Standards>, 20.01.2024.
- Anderson M.J., Freebody K. (2012), *Developing communities of praxis: Bridging the theory-practice divide in teacher education*. “McGill Journal of Education”, 47(3).
- Bailey D.B., Burchinal M.R., McWilliam R.A. (1993), *Age of peers and early childhood Development*. “Child Development”, 64.
- Christensen O. (2016), *Proving Montessori: Identity and Dilemmas in a Montessori Teacher’s Lived Experience*. “Journal of Montessori Research”, 2(2).
- Cohen L., Manion L., Morrison K. (2007), *Research Methods in Education*. 6 ed. New York, Routledge.
- Csikszentmihalyi M. (2000), *Positive Psychology: The Emerging Paradigm*. “The NAMTA Journal”, 25(2).
- Culclasure B.T., Daoust C.J., Cote S.M., Zoll S. (2019), *Designing a Logic Model to Inform Montessori Research*. “Journal of Montessori Research”, 5(1).
- Daoust C.J. (2004), *An Examination of Implementation Practices in Montessori Early Childhood Education*. Dissertation – Doctor of Philosophy in Education, University of California. <https://amshq.org/-/media/Files/AMSHQ/Research/Dissertations/An-Examination-of-Implementation-Practices-in-Montessori-Early-Childhood-Education.ashx>, 11.01.2024.
- DBE (2011), *Curriculum and Policy Assessment Statement Grades R to 3*. Department of Basic Education. <https://www.education.gov.za/Portals/0/CD/National%20Curriculum%20Statements%20and%20Vocational/CAPS%20English%20HL%20GRADES%20R-3%20FS.pdf?ver=2015-01-27-154201-167,1.03.2024>.
- Denscombe M. (2010), *The Good Research Guide*. 4 ed. Maidenhead, Open University Press.
- Department of Basic Education (DBE) (2015), *The South African National Curriculum Framework for children from Birth to Four*. <https://www.education.gov.za/Portals/0/Documents/curriculum%20docs/NCF%202018/NCF%20English%202018%20web.pdf?ver=2018-05-14-124718-317,1.03.2024>.
- Feiman-Nemser S. (2001), *From Preparation to Practice: Designing a Continuum to Strengthen and Sustain Teaching*. “Teachers College Report”, 103(6).

- Gravett S. (2012), *Crossing the "Theory-practice Divide": Learning to Be(come) a Teacher*. "South African Journal of Childhood Education", 2(2).
- Gray P. (2011), *The Special Value of Children's Age-Mixed Play*. "American Journal of Play", 4(3).
- Huxel A. (2013), *Authentic Montessori: The Teacher Makes the Difference*. "Montessori Life", Summer 2013.
- Korthagen F. (2011), *Making Teacher Education Relevant For Practice: The Pedagogy Of Realistic Teacher Education*. "Orbis Scholae", 5(2).
- Kvale S. (1994), *Ten Standard Objections to Qualitative Research Interviews*. "Journal of Phenomenological Psychology", 25(2).
- Kvale S. (1996), *Interview Views: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA, Sage Publications.
- Lillard A. (2007), *The Science Behind the Genius*. New York, Oxford University Press.
- Lillard A. (2019), *Shunned and Admired: Montessori, Self-Determination and a Case for Radical School Reform*. "Educational Psychology Review", 31.
- Lillard A., McHugh V. (2019), *Authentic Montessori: The Dottoressa's View at the End of Her Life*. Part 1: *The Environment*. "Journal of Montessori Research", 5(1).
- MAF (n.d.), *Montessori Quality Assurance Programme Charter*. Montessori Australia Foundation. https://montessori.org.au/sites/default/files/downloads/pages/MQAPCharter_0.pdf, 20.01.2024.
- Malm B. (2004), *Constructing Professional Identities: Montessori teachers' voices and visions*. "Scandinavian Journal of Educational Research", 48(4).
- Maree K. (ed.) (2016), *First Steps in Research*. 2 ed. Pretoria, van Schaik Publishers.
- McMillan J., Schumacher S. (2010), *Research in Education. Evidence-Based Inquiry*. New Jersey, Pearson Education Inc.
- Montessori M. (2007), *What You Should Know About Your Child*. Amsterdam, Montessori-Pierson Publishing Company.
- Montessori M. (2008), *The Child, Society and the World*. Amsterdam, Montessori-Pierson Publishing Company.
- Montessori M. (2012), *The 1946 London Lectures*. Amsterdam, Montessori-Pierson Publishing Company.
- Montessori M. (2016), *The Advanced Montessori Method*. Vol. 1. Amsterdam, Montessori-Pierson Publishing Company.
- Montessori M. (2017), *The Secret of Childhood*. Amsterdam, Montessori-Pierson Publishing Company.
- Mukherji P., Albon D. (2018), *Research Methods in Early Childhood. An Introductory Guide*. 3 ed. London, Sage Publications.
- O'Leary Z. (2017), *The Essential Guide to Doing Your Research Project*. London, Sage Publications.
- OECD (Organisation for Economic Cooperation and Development) (2008), *Reviews of National Policies for Education*. South Africa, OECD Publications.
- Quotshi S. (2018), *Phenomenology: A Philosophy and Method of Inquiry*. "Journal of Education and Educational Development", 5(1).
- Rathunde K. (2001), *Montessori Education and Optimal Experience: A Framework for New Research*. "The NAMTA Journal", 26(1).
- Rathunde K. (2015), *Creating a Context for Flow: The Importance of Personal Insight and Experience*. "The NAMTA Journal", 40(3).
- Rathunde K., Csikszentmihalyi M. (2005), *Middle School Students' Motivation and Quality of Experience: A Comparison of Montessori and Traditional School Environments*. "American Journal of Education", 111.

-
- SAMA (2018), *SAMA Fundamental Principles*. South African Montessori Association. <https://samontessori.org.za/sama-fundamental-principles/>, 10.03.2024.
- SAMA (2020), *Code of Conduct for SAMA Members*. South African Montessori Association. <https://samontessori.org.za/code-of-conduct-for-sama-members/>, 10.01.2024.
- Schoonenboom J., Burke Johnson R. (2017), *How to Construct a Mixed Methods Research Design*. "KZfSS Koelner Zeitschrift für Soziologie und Sozial Psychologie", 69(7).
- Standing E.R. (1998), *Maria Montessori: Her Life and Work*. New York, Penguin.