

Experiences of left-handed learners in selected primary schools in Masvingo urban, Zimbabwe: Competencies and shortfalls

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Abstract

Young left-handed children in primary school struggle to overcome the annoyance and frustration of living in a right-handed world. World over, resources and ideas specifically give best procedures to right-handed learners across the school curriculum, thereby marginalising left-handers. The study sought to explore the experiences of left-handed learners in selected Zimbabwean primary schools, strategies used to teach left-handers, teacher-learner interactions and their effect on the learners. A phenomenological study was conducted with twenty-six (26) participants purposively selected through data saturation from three (3) primary schools in Masvingo urban (teachers =6; learners = 20). Data were collected through focus group discussions, individual interviews and observations. Triangulation of data collection methods strengthened the methodology. An interpretative phenomenological analysis (IPA), was used to analyse the data. Findings showed that left-handed learners had varied experiences ranging from sad emotions due to perceptions of marginalisation and negative labels up to happy emotions of success and positive self-efficacy. Overall, teacher-learner interactions negatively and positively affected left-handed children's learning and development. The study recommends that teachers, learners and parents should collaborate in order to alleviate challenges experienced by left-handers in Zimbabwe's primary schools for positive development.

Keywords: *Left-handedness; Learners; Emotions; Strategies; Teachers*

Introduction

Left-handedness is a tendency to use the left-hand more proficiently than the right hand. A person can be considered to be a left-hander when he/she attains better results with the left hand, as well as when he/she gives preference to the left hand in activities which need strength, good co-ordination and accuracy (Masud & Ajmal, 2012). Left-handedness has never been considered a special learning need in the Zimbabwean context. Left-handedness dominance is usually perceived as a minority condition affecting about 10% of the world's population (Luff, 2014; Alhassan, 2018). There are also a variety of even rarer conditions on the handedness spectrum, including mixed-handedness, and ambidextrousness. Left-handed people are in the minority. But because they exist, it implies that there are certain advantages to variations in handedness across a population (Alhassan, 2018). The evidence for the determination of left-handedness has been attributed to physiological, genetic and environmental factors.

The Oxford English Dictionary (2019) defines 'left-handed' as meaning cropped, defective, awkward, clumsy, inept, and characterised by underhanded dealings, ambiguousness, doubtfulness and questionableness. Some non-verbal communication cues suggest a negative view of left-handedness. In some cultures, a left-handed compliment, for instance is considered an insult. According to Alhassan (2018) a left-handed marriage is not a marriage but an adulterous sexual liaison, as in a left-handed honeymoon with someone else's husband. A left-handed wife is actually a mistress. The current study however seeks to establish the experiences of left-handed learners and how left-handedness is perceived in primary schools.

Left-handedness is an interesting, and sometimes disconcerting phenomenon. Researchers such as Brookman (n.d) argue that left-handed learners, due to their affiliations, have poor motor skills and are clumsy. Experience shows that, usually, young children clearly show writing hand dominance around five years of age when they are in Grade one (Alhassan, 2018). At a younger age during the formative years in early childhood development - ECD A and B within the primary school-, a child may write using both hands (Vazi, Ruiters, van den Borne, Martin, Dumont & Reddy, 2013). Adults should not try to force a child to write with the right hand during the child's tender age at ECD A and B. Literature shows that if a child has a tendency to be left-handed, forcing him or her to use the right hand could be harmful (Luff, 2014; Alhassan, 2018). However, left-handed children, if not properly trained in the primary school, tend to develop bad writing habits and experience challenges. Such children may struggle to form letters and may write slowly. Such challenges put the left-handers at a disadvantage when writing timed exercises and tests.

In England, Luff (2014) revealed that well supported left-handers may become famous in life. Famous left-handed personalities include Sir Isaac Newton, Mahatma Gandhi, Henry Ford and Barack Obama (Luff, 2014). Unless a person is part of the group, it is difficult to understand the differences between writing left-handed and writing right-handed and especially the challenges of being left-handed (OECD, 2012; Mugweni, Chinyoka, & Ganga, 2018). Teaching a child to write with his or her left hand is *not* just the opposite of teaching how to write right-handed. A right-handed learner writes away from his or her body and pulls the pencil, while a left-handed learner must write toward her body, in the process pushing the

pen. By not giving left-handed children the right support, schools risk eroding the self-esteem of left-handed learners (Luff, 2014). These issues motivated the researcher to undertake the study on experiences of left-handed learners in right-handed-dominated classes at primary school level in Zimbabwe.

Most past researches on left-handedness (Masud & Ajmal, 2012; Luff, 2014; Alhassan, 2018) have been conducted in countries other than Zimbabwe. In Kenya, Malusi (2014) undertook a study on the challenges faced by left-handed students in science laboratories in Kenyan girls' secondary schools. Participants were left-handed science students and their respective subject teachers. Qualitative data were collected through classroom observation, individual and group discussions. The study revealed that left-handed students experienced challenges in school and during practical work. Challenges raised resulted mainly from pushing the pen from the left forward instead of pulling it like what the right handers do, unfavourable sitting posture in inappropriate desks, as well as handling and manipulating equipment such as pencil sharpeners and rulers during practical work. The left-handed students also had challenges in finishing timed tasks. It was also found that the schools had nothing in place to support the left-handed students. In that study, it was concluded that there was need for pre-service and in-service teacher education to include a module on left-handedness for teachers to develop skills on how to assist left-handed learners.

In Pakistan, Masud and Ajmal (2012) conducted a study on left-handed people in a right-handed world. The aim of the study was to explore the experiences of left-handed adults. Two males and two females formed the sample. The study found out that left-handers had particular physical and psychological health challenges, had agonised life and struggled to maintain identity and transform attitude. They also experienced attitudinal barriers to equality and acceptance. This means that, generally, left-handed people might need the support they are currently not receiving, hence, the necessity of this current study.

In Zimbabwean primary schools, generally, the tools used every day, ranging from simple objects to hi-tech machinery, are largely designed for use by the right-handed learner. This presents challenges for the left-handers in how to handle the tools and use them, particularly in the learning situation. It is against this background that this study sought to:

- explore the experiences of left-handed learners in Zimbabwean primary schools
- find out the strategies used to teach the left-handed learners
- establish the teacher-learner interactions and their effect on left-handed children.

Theoretical Framework

This study was conceptualised within the Person-Environment Fit (PEF) Theory articulated by Frank Parsons. The theory focuses our attention on the learner's biological and psychological needs, abilities and personality (Boon & Hartog, 2011). The theory's environmental characteristics comprise intrinsic and extrinsic rewards, and the demands of the task and collectives in the learner's environment (Edwards, 2008). PEF explains how learners simultaneously desire both to fit in terms of being similar to others and to be distinctive from others (Kristo-Brown & Guay, 2011). It was necessary to use the theory because of the incidences of task-related stress resulting from the marginalisation of left-handers.

Writing with the left hand in a majority right-handed class was conceptualised as the bi-product of an imbalance between task-related environmental demands (Vazi et al., 2013) and interactional relations. It should be noted that the main premise of the PEF theory suggests that marginalisation does not arise from a person or their environment separately, but rather from the interactional relationship between a person and their environment (Vazi et al., 2013). The researcher, therefore, assumed that marginalisation stress would be mostly reduced when there is a fit between the individual and a particular environment. The PEF theory has influenced research in humanities and social sciences for many years. Hence, the theory was found to be appropriate in investigating the study on experiences of learners writing with the left hand in right hand dominant primary school classrooms.

Methodology

An interpretative paradigm informed the study. The approach was qualitative. A phenomenological research design was used in order to explore experiences of left-handed learners, strategies used to teach them, teacher-learner interactions and effects of the interaction on left-handers. The phenomenological design was used to highlight the specifics of the research phenomenon in Masvingo urban primary schools. The design had the advantage that it allowed the researcher to gain an understanding of the social phenomena

from participants' perspectives in their primary school environment where the majority of learners are right-handed (De Vos, Strydom, Fouche & Delport, 2011). Use of the design also helped the researcher to describe and give meaning to experiences of left-handed learners (De Vos et al., 2011).

Sampling

The population of this study included all learners and teachers in Masvingo Urban Primary Schools. Purposive sampling was used to select twenty-six (26) participants comprising twenty (20) primary school learners and six (6) teachers from three primary schools.

Research Instruments

Data were collected using three methods. These were observations, focus group discussions and semi-structured individual interviews. Direct observations were used to assess learners' writing hand preference and hand dominance (Hancock & Algozzine, 2006; Creswell, 2010). Post observation focus group discussions were held after the observations in order to gain some insight on the perceptions of the left-handed learners' experiences; the strategies of teaching left-handers; and how teacher-learner interactions affected left-handed children's learning and development. Face-to-face individual interviews were conducted with the teachers in order to gain more insight about the phenomenon (Hancock & Algozzine, 2006). Triangulation of data sources generated detailed and credible data (Nieuwenhuis, 2016). The process assisted the researcher to understand left-handed learners as persons first (Marshall & Rossman, 2011). The triangulation of data sources and data collection methods employed in this study also strengthened the transferability and credibility of the research findings (Nieuwenhuis, 2016).

Data Collection Procedure

The research process involved seeking permission to conduct the study from Masvingo Provincial Education Office, Ministry of Primary and Secondary Education, as well as from the selected school heads. Further permission was sought from the parents and guardians of the selected learner participants as recommended by Creswell (2010). The consent of the respondents was sought before interviews were conducted. Focus group discussions with learners were done in classrooms during lunch break. The environment was very conducive and the learners were quite relaxed. Focus group discussions were less threatening, so the

learner participants volunteered information freely (Hancock & Algozzine, 2006). The method was also less time-consuming, shared and created new ideas (Nieuwenhuis, 2016). For want of space, the researcher translated the learners' verbatim responses into the English language. Teachers were interviewed in their respective offices after work. The interviews were audio-taped and the researcher made observations and copious notes during interviews. This strategy helped to eliminate the problem of inaccuracy or incompleteness of the data (Maxwell, 2006). Four (4) classroom observations involving two per school were undertaken. Ethical considerations were met through employing principles of anonymity, participants' informed consent, confidentiality and absence from harm. In this study, keeping the identity of individuals confidential offered privacy to participants. The ethical consideration principle of absence from harm was upheld and observed throughout the research process. A research diary was used to capture running field notes and writing reflective comments.

Trustworthiness and credibility

The research instruments were validated by research experts and a pilot study was conducted hence trustworthiness of data was ascertained. Strategies were applied to counteract credibility threats. Information was obtained from individuals in their respective interviews, and cross-checking and verification of sources of information was done (Creswell, 2013). In this study, credibility was achieved through triangulation, member checks and thick description of the phenomenon under scrutiny.

Data analysis

The data from observations, focus group discussions and semi-structured interviews were analysed using Interpretative Phenomenological Analysis (IPA) in an idiographic and systematic manner. A code T (teacher) for teacher participants and pseudonyms for left-handed learners were used to clearly identify the participants (Creswell, 2010). This approach was preferred with the intention of developing thick descriptions that helped the researcher to closely examine and illuminate the experiences of left-handed learners in primary schools. IPA is also a systemic process of examining, selecting, categorising, comparing, synthesising and interpreting data in answering the research questions of the study (Matsopia, 2017). Transcripts of interviews were re-read in order to become familiar with the accounts. The researcher then documented the emerging themes in each transcript.

Ethical considerations

Permission to conduct the study was secured from Masvingo Provincial Education Office. The selected teachers and left-handed learners who participated in interviews completed consent and assent forms to show their willingness to participate in the research. The participants were informed that their involvement in the study was voluntary and that they were free to withdraw at any stage of the study if they felt uncomfortable. Parents gave assent for their children to participate in the study. Participants were assured of anonymity in the research. Confidentiality and privacy were also maintained.

Findings and discussion

Findings of this study provided some insights into the life experiences of both male and female left-handed learners in primary schools in Masvingo. The findings were presented under three major themes, namely: experiences of left-handed learners; teaching strategies used to teach left-handers; and teacher-learner interactions and their effect on left-handed children.

Experiences of left-handed learners

The findings of the study on children writing with the left hand in a class where the majority of learners are right-handed show both positive and negative learner experiences with findings more inclined to the negative. Five (5) of the twenty learners viewed writing with the left hand as being unique and 'cool'. The sentiment was explicit in the following articulated statements by a left-handed learner participant, Chipo:

Our teacher treats me the same as right-handers, but I think I need more help and special attention. Eee I think being left-handed has made me stronger, since I have to cope with right-handed friends. I am always thankful to my Grade one teacher who taught me how to hold a pencil.

As someone who writes with the left hand, I think that I have something additional. I have the willpower to adapt myself to a situation. I can learn things faster than my right-handed friends. Some people tell me that it's 'cool' to be left-handed. Now I am used to it and it has become normal to me.

Consistent with the tenets of the Person-Environment Fit (PEF) theory that marginalisation does not arise from a person (Vazi et al., 2013), the captions above show that being left-handed did not always create disequilibrium within some of the learners. Emphasising the uniqueness of being a left-hander, one of the learners, Makanaka, stated:

I am surprised by some people who think that left-handers were taught something “wrong” in their formative years and first-time observers who say, ‘Ah, you are left-handed.’ Anyway, I am used to such comments. In class I always do my best to make right-handed peers feel like they are missing something.

The above excerpt shows that the left hander was confident and thought that she could do great things just like everybody. Literature shows that left handers have also succeeded in science and art. Famous left-handed personalities include Leonardo Da Vinci, Michelangelo, Sir Isaac Newton, Mahatma Gandhi, Henry Ford and Barack Obama (Luff, 2014). However, in some schools some left-handed children are made to feel incomplete or less creative than their right-handed peers, especially on using classroom objects designed for right-handers. Not every learner professed positive involvement and emotions in their experiences as left-handers. Some of the learners expressed the concern that sitting on inappropriately designed desks while writing with the left hand is both an uncomfortable and painful experience. Holder (2003) and Malusi (2014) argue that while many school systems claim to have antidiscrimination policies, failure to provide for academic equity for both handed students in terms of student desks is indeed discrimination and against social justice (Huffstetler, 2017). The following statements from three participants; Rudo, Zuva and Chido, reveal the situation:

I try my best to present clean work, but I find that my work would be smudged by my little finger on my left hand. If I use my left hand to write on the chalkboard, my writing becomes hard to read. I am learning to adapt to this right-handed world but still experience difficulties (Zuva).

I see classrooms set up in a right-handed sense which makes it difficult for us the left-handed people (Chido).

In sport I am always chosen last where handedness counts, for example, in tennis, volleyball, netball and tunnel-ball. Left-handers are assumed to be clumsy, less coordinated and not as good as right-handers. I think if teachers see us kids as the same and we will not be mocked 'maboshwe' lefties (Rudo).

The experiences coming out of the learners' voices measured against the Person-Environment Fit theory which explains how learners wish to fit in terms of being similar to others as well as being distinctive from others (Kristo-Brown & Guay, 2011).

These learners' expressions are a cry for positive recognition and equal treatment in schools. These results are consistent with what Masud and Ajmal (2012) found in Pakistan that learners were worried about maintaining their self-identity.

Left-handed participants of this study felt that they were being marginalised. This is evident in Chipo, Munya and Zuva's comments below:

It is assumed that if you are left-handed, you are naturally clumsy. It seems that right-handed adults are annoyed that left-handed children need assistance. There are no left-handed products in our class. I learned to adapt (Chipo).

No help is given to left-handers. In fact, some people make left-handers use their right one. I am lucky our teacher allows me to use my left hand. We are happy people like you help us along. Thank You (Munya).

In school, there is no support for left-handed children. When I began to write, with my natural left-handed slant, most of my teachers insisted that I write with a right-handed slant. So, I tucked my elbow into my ribs and turned my paper. This made a person see my test answers (Zuva).

The sentiments above suggest that being left-handed in a class where the majority is right-handed disadvantages the left-hander. It shows that in some situations, the classroom becomes an unfair environment for left-handed learners.

Results indicate that teachers have to refresh their teaching theory in order to understand working with all children in inclusive classrooms. This is indicated in the statement below:

It is thought as unnatural and strange to write with the left hand. It seems that right-handed adults are annoyed that left-handed children need assistance. There are no left-handed desks/chairs in our class (Kuda).

It has been noted that using a teaching theory, interrelated constructs, definitions and propositions on left-handed learners present a systematic view of teaching. This is in a context where diversity is the in-thing in the 21st century classrooms (Mugweni et al., 2016).

Teaching strategies used to teach left-handers

The study results showed a number of strategies that teachers employed in their classrooms to work with left-handed learners. Mostly, the strategies teachers reported as useful included the following: letting learners explore with both hands, hand dominance verbalisation, use of 'tripod' grasp, writing paper and model placement, right hand as 'helper hand' and use of ICT technologies.

Exploration with both hands

It should be noted that hand dominance fully develops between ages five and six. Toddlers and pre-scholars who exhibit a left-handed preference at this age may still change to become fully right-handed at infant school level. Results show that children should not be forced or coerced into writing with the right hand. It was observed that children were supposed to be allowed to explore using both hands. This will enable the child to develop a hand preference. Commenting on the matter, a teacher participant said:

Children need time to establish hand dominance. Here and there we guide them but not pushing, you see. It's understood, they need to be guided like which hand to greet people with, to eat with and so on you see. This is the case with writing; we need to guide our left-handed learners in mastering left-hand dominance (T3).

This statement shows that some teachers in the schools supported left-handed learners by scaffolding and facilitating them during writing. The teacher's sentiments go against right-

handed dominance that is a result of cultural practices. The findings are consistent with Huffstetler (2017)'s concern that left-handers should be supported with their challenges.

Tripod grasp

Findings show that some of the teachers encouraged learners to pinch a pencil or pen with the index finger and thumb, resting the writing instrument on the middle finger – tripod grasp. This is the technique right-handed learners also apply. The grasp helps develop dynamic finger movements and proper wrist position. However, the current study results show that children in contemporary classes are often not taught how to hold their pens and pencils correctly. Even without proper teaching, right-handed learners find it easy to figure out a writing position but for the left-handed, positioning is different. Hence, left-handed learners may develop poor habits, leading to bad writing behaviours as they get older with increasing writing demands. This was emphasised by a teacher who indicated that:

The thing is that a left-handed child is only allowed to write with the left hand but he or she is not taught how to write. Such a child may develop an unnecessarily painful, unproductive, slow and messy way of writing. This will in turn result in a lifelong hardship to the learner. It is important for teachers and parents to also know how to teach left-handed children to write more comfortably (T5).

During observation it became evident that left-handed learners needed more teacher support. For instance, left-handed learners need to be taught how to move their fingers up the pencil a little higher. This would allow the learner to see what she/he is writing and it would be less likely that the pencil would hook his/her wrist when he/she wants to see properly. Observations also revealed that left-handers struggled to have correct grip of their pencils which caused them to smudge their writing. This confirms studies by Mugweniet al. (2018) and OCDA (2012) who note that unless a person is part of the population, it is difficult to understand the differences between writing left-handed and writing right-handed as well as the challenges presented by being left-handed.

Writing paper and model placement

Findings from observations showed that right-handed learners tended to angle the right corner of their paper up when writing. However, left-handed learners had problems with adopting the same with the left side. Left-handed learners were struggling to place their paper to the left of their body so that they could see what they were writing. These challenges compromised the handwriting of the left-handers. Handwriting could be improved if left-handed learners were taught to write by angling the paper properly, relaxing their arms and positioning themselves on the right side of the desk. Participants' comments confirm Holder's (2003) finding that writing posture allows the learner to move more naturally as s/he keeps her/his wrist straight (rather than hooked), and thus reducing smudging .

Remarking on the issue of paper positioning, teachers also noted the following:

I think left-handed children should be taught the position of the writing paper, arm, wrist, and the grip on the writing instrument. Yes, they need such training in our classrooms (T1).

By supporting both left-handed and right-handed learners enhance inclusivity in regular classroom environments(T6).

Hooked style of writing

According to teacher participants some of the challenges are a result of poor teaching. Teacher T2 professed that, *both right-handed and left-handed learners need to be taught to steady their paper with the other hand that is not dominant (T2)*. Without having been taught how to position a paper properly, left-handed learners tend to develop a hooked style of writing. It therefore means that teachers should always teach both right-handed and left-handed learners to steady their paper with their non-dominant hand. The more consistently the learner stabilises her/his paper, the less likely it is to move around causing less frustration while writing.

Teacher-learner interactions and effect on left-handed children

Learner voices

Regarding teacher-learner interactions and effect on left-handed learners, the study found that there were generally positive interactions between teachers and learners. Commenting on teacher-learner interaction and its effect, learner participants stated:

After my teacher stopped discouraging me from using my left hand to write, I am now going through my school years under non-threatening conditions (Zuva).

My teacher always tells me that my work is too messy and smudgy! The right-handed desk-chairs are a huge problem! This kind of furniture affects my marks (Ruva).

Though there is interaction between learners and teachers the statement by Ruva reveals that there are some teachers who are still not very clear on the challenges the left-handed learners face.

Relating on previous experiences and effects at a former school, Kuda, a learner who is left-handed narrated:

At my first primary school I was not given specific help by my teacher, but at my new school I felt encouraged by the new teacher who allowed me to keep writing with my left hand (Kuda).

Some of my friends who are attending a different primary school from mine used to be left-handed, but now tell me that their teachers forced them to change hands. Also, at my primary school, one of the teachers selected me along-side other left-handers whom he called the 'special' class, but not in a nice way. He was more patronising than helpful, accusing us of being 'handicapped' in a way. Saying it was alright if our hand writing was messy and untidy, because we are left-handed (Kuda).

Some of the learners' narrated experiences above show that if left-handed children got assistance from teachers some of their challenges would be alleviated. The observation is consistent with what Luff (2014) observes, that well-supported left-handers may achieve writing skills and become famous in life. However, other comments show that some teachers are biased against the left-handed and are not helpful to the needy learners.

Teacher voices

Some of the teachers who interacted with left-handed learners also had experiences to share. Two teachers who were left-handed said:

As a left-handed teacher, I always check to see who is left-handed in my class the first day. I give them extra support as needed. I show them how to do some things the 'lefty' way (T1).

Being a left-handed teacher myself, I make it my business to try to help left-handers generally and I tell them that left-handedness is not a handicap. I am the one who writes all the names on certificates for prizes. Learners can see that good writing is not just the preserve of the right-handed. I am thinking of starting a left-handed writing club for Grades 6 and 7 next year to boost the learner's confidence (T6).

The above narratives by the two teachers imply that teachers need to talk with their learners so that learners appreciate that being left-handed was normal and need not affect their overall performance.

Conclusion

Informed by the findings, it can be concluded that the lack of understanding portrayed in teaching left-handers writing skills left the learners at the risk of developing low self-esteem, poor writing posture, slow writing speed and illegible handwriting. More than half of the teachers often faced problems on how to effectively teach left-handed learners to write. In the three (3) classes observed, the teachers were found to be teaching writing to both right-handed and left-handed learners in the same manner, which might have disadvantaged the left-handed. It was also concluded that although some teachers proffered teaching strategies for left-handers, not all the said strategies were being used. Overall, the problem for left-handed learners lay in the teachers' current lack of understanding of how to handle the needs of left-handed learners in a class where the majority is right-handed, without causing the former to lose self-esteem and self-worth. Other problems encountered by the left-handed learner in both the classroom and the sports field included difficulties in realising their full creative potential, smudging their work and general constraints related to the writing posture.

Recommendations

The study recommends that teachers be trained in how to effectively help left-handed learners in their classes. This could enhance the left-handed learners' self-efficacy and self-esteem.

There is also need to use the Left-Right Writing Guide to remind left-handers of the right writing position. Specifically, there is need for primary school teachers to develop skills that would enable them to assist left-handed learners to realise their full potential. Primary school teachers are also urged to develop strategies to handle inclusive classes and to provide resources for left-handed learners.

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