

THE POSITIVE EFFECTS OF INCLUDING GRADE 3 BOYS' VOICES IN CLASSROOM DESIGN

Trudy Trehearn

St Stithians Boys' Preparatory School, Johannesburg, South Africa

Abstract

The purpose of this action research study was to encourage Grade 3 boys to use their voices to make choices about their learning environment. I was curious to see how giving them agency affected their engagement in learning and wondered if it could help minimize behavioural issues and distractions. I involved the boys in researching the classroom layout, empowering them to think critically about how they learn. They also collaborated with each other when making decisions regarding their work space. During the course of the project, we continuously revisited the action research question together and the boys ultimately got to experience the fruits of their ideas. Throughout this process, the boys were extremely eager to use their voices and were enthusiastic about the classroom transformations. I was pleased to discover that engaging them in the decision-making process led to a positive classroom environment.

Introduction

I teach Grade 3 and spend the majority of the day with my students in our classroom space. The 2019 school year had been particularly challenging, because the 28 boys in my class were generally disengaged and distracted from their work and the happenings in the classroom. I wondered if rearranging the classroom might make a difference to their learning habits and calm the ethos of the learning environment, possibly minimizing behavioural issues and distractions. The IBSC research topic, *Developing Agency: Boy Voice and Choice*, afforded me the opportunity to find ways to encourage boys to communicate their ideas through collaborative engagement with me and each other.

In an attempt to encourage the use of boys' voices so that they could actively participate in the change of their learning environment, I developed the following research question: *How can being involved in designing their classroom help Grade 3 boys feel empowered in their learning environment?* I invited the boys to observe and evaluate their learning space and voice their opinions. After I shared ideas on how they could change their space in order to improve the flow of movement, colour, and choice of posters on the walls, they were in the position to offer their own suggestions.

Action research was a useful methodology for this investigation because I was able to directly involve the boys in the process. Stringer (2014) states, "action research is a systematic approach in investigation that enables people to find effective solutions to problems they confront in their everyday lives" (p. 1). The

research process allowed me to continuously revisit my question so that I had a thorough understanding of my topic and qualitative data collection methods allowed the boys voices to shine through.

Literature Review

There are many articles that speak to the value of incorporating student voice into pedagogy. Ranson (2000) mentions the institutional benefits associated with encouraging young people to participate. The benefits of including voice and choice in schools include the capacity building for present and future democratic participation in society and also help develop critical thinking skills (Mitra, 2009). Voice and choice promote the development of confident, self-aware young citizens (Ranson, 2009) who are able to build and maintain strong relationships that are based on trust and openness (Mitra, 2009).

An effective way of investigating the effects of the learning environment in schools is to ask those who learn in them (Flutter & Rudduck, 2004). In a 2018 education review, Finnish upper school students participated in decisions related to changes made to their learning environment (Flutter, 2006). When asked, students cited noise and distracting behavior as the most frequently mentioned problems, and they were empowered when these issues were taken seriously (Flutter, 2006).

When investigating seating arrangements in classrooms, researchers found that making changes to the student environment could be a strategy to increase student engagement (Simmons et al., 2015). According to Black (2007), seating organization should be something that is constantly changing as the teacher's lessons evolve. Kallio (2018) introduces the concept of repurposing classroom spaces into meaningful learning spaces. This repurposing of classroom spaces is best conducted through participatory design and promotes learner engagement (Kallio, 2018).

There are numerous approaches to transforming learning spaces. Gonzalez (2018) suggests that upgrading classroom design requires flexibility and provides practical ideas, such as utilization of hallways and outside areas. Maynard (2006) also reminds educators that outdoor areas should not be forgotten in the student's choice of learning spaces. Pre-existing and non-changeable factors, such as the shape of the classroom, desk shape, and positioning of the smart board should also be taken into account.

Color is also an important component to a learning space. A stressful learning environment will result from excessive use of colors. (Gaines & Curry, 2011). Psychological responses to color include changes in mood and attention (Engelbrecht, 2003). For example, exposure to red causes the heart to beat faster, an increase in blood pressure, and a heightened sense of smell. In contrast, blue causes a slower pulse rate, lower body temperature, and reduced appetite (Engelbrecht, 2003). Discovering a child's color preferences and using those colors may be beneficial but may not be practical in a classroom where there are numerous color preferences.

The size of the learning space related to the number of pupils in the class can lead to unique challenges. One of the tough challenges for the researcher in this domain is to find solutions to the utilization of smaller spaces, with larger numbers of pupils in a class. On the other hand, there is the challenge of larger class sizes, with the teacher being the primary educator, at times with no assistant. Therefore, the concept of flexible classrooms, where the classroom is changed around according to the type of lesson, is something that could be explained to the students. Another factor to include here, is that the students will need a framework and parameters in which to work, in order for them to make informed choices (Barret, 2015).

Collaborative learning can be used to effectively solve problems. Learners flourish in a collaborative environment when they are challenged socially and emotionally to listen to different perspectives, a process that Smith and MacGregor (1992) refer to as “intellectual gymnastics”. When my students were given a problem to solve, in this case, how they might create space and a feeling of calm in their learning environment through the creative arrangement of the classroom, the opportunity to work together should have helped them achieve their goals.

Research Context

St Stithians College is a proudly South African school, embracing diversity and offering a distinctive educational experience. Founded in 1953 as a Methodist Church School, our Christian spirituality is central to our identity. Our College consists of primary and secondary boys’ and girls’ schools, together with a co-educational junior primary school. We are an independent, non-profit institution located on an expansive green campus in Sandton, Johannesburg. In addition, St Stithians incorporates Kamoka Bush School near Modimolle, and the Thandulwazi Maths & Science Academy on our campus. The participants in my research were my class of 28 Grade 3 boys from the Boys’ Preparatory school, which has about 420 boys. I selected this group of boys because I was their teacher and they spent the majority of their time with me during their school day. I gained permission from the boys’ parents by asking them to sign a parent consent form, agreeing that their boys be allowed to participate in my research. I explained my research to the boys and parents to ensure an understanding of what my research entailed. I assured the participants that their identities would not be revealed and that the information they provided would be confidential by asking them to sign the consent form sent by the IBSC. All the participants and their parents signed the form.

The Action

I conducted the research over a period of six weeks. The intervention strategy I used based the changing of the classroom environment on the preferences that the boys expressed during our classroom sessions. The boys first completed a collaborative baseline questionnaire where they were placed in groups to answer questions about their learning environment. I then gave the boys a blueprint of their classroom and encouraged them to draw their ideal classroom. The purpose of this activity was mainly to allow the boys to condense what they had written, as well as allow those boys with limited writing ability to express themselves. After sharing some research about classroom environments, the boys responded to a journal prompt entitled “My Dream Classroom,” and they also contributed to a class journal in conjunction with individual journals. I took the advice of Johnson (2008) and passed a blank notebook around the classroom on a periodic basis. The reason for this action was to get a sense of what the boys would like in their environment and to find common threads in their collective voice. I also provided multiple opportunities for students to share their thoughts through classroom discussions and exit slips.

Armed with my data of preferences from the boys, as well as my research into the creation of effective learning spaces, I set aside one weekend during our August break and used a limited budget to begin making changes. The boys felt that the first step of the transformation should involve reducing my teacher footprint in order to create more space for them. I made several other changes based on the boys’ recommendations. The corner of the classroom could now be used for standing, as well as processing drawings and writing. I painted the storeroom door with chalk paint so the boys could use chalk to write their reflections on topics and themes. I thought that the boys’ suggestion to move the block shelving off the floor and mount them in the carpeted meeting area was a great idea; known as the “pit,” this space was where we would now store the games and books. When the boys returned on the following Monday morning, we all decided as a group which posters to keep the walls and which could be rested for the moment, as well as which boards we would use for theme work and their weekly work.

Data Collection

My action research project was primarily qualitative in nature. The boys’ voices and choices were the crucial element to data collection as they were the agents of change to their classroom environment. A baseline questionnaire was designed and distributed on paper, with the wording relevant to 8 to 9 year-olds. The aim of the survey was to establish how the boys perceived their environment and to allow them an opportunity to honestly voice their authentic opinions prior to any changes to their learning environment. The boys’ classroom blueprints and journals sharing their ideal classroom ideas also provided rich data. I gathered exit ticket data on a regular basis by writing a simple question relating to the classroom environment on the smart board. The boys gave “yes” or “no” answers or were asked to draw faces that related to the question; in some instances, I gave them multiple choice options.

During the course of my action, I continuously observed the boys and kept a teacher journal. My observations were mostly semi-structured, which allowed me the flexibility to attend to other events and activities occurring simultaneously in the classroom (Hubbard & Power, 2003).

I conducted individual video interviews before the action took place, for the sake of consistency. After the action, I conducted semi-structured video interviews with more open-ended questions, where I could observe the boys conversing in a collaborative setting. My interviews were brief, clear, and stated in simple language (Johnson, 2008; Schwalbach, 2003).

For a final data collection opportunity, I put the boys into small groups and conducted FlipGrid video interviews, repeating questions from the initial baseline questionnaire. These interviews provided an opportunity for the boys to actualize the action and internalize new knowledge, which hopefully led to an environment which motivated learning.

Data Analysis

I analysed the collected data using a thematic analysis approach. I followed the steps outlined in Stringer's (2007) work: categorise and code; identify themes; organise a category system; and develop a report framework. Whilst this type of analysis can be difficult because of the many scotomas of the researcher, it is a source of rich textual feedback which values the voices of the participants and their lived perceptions and experiences (L. Lalla, personal communication, 2018).

Discussion of Results

After analyzing the data, three themes emerged:

- The boys were eager to use their voices;
- The boys were enthusiastic over the classroom transformation;
- Empowering boys to make classroom decisions led to a positive classroom environment

Boys Were Eager to Use Their Voices

After analysing baseline data, a student self-assessment survey, and initial exit tickets, I learned 21 of the 28 boys felt that they had autonomy in their learning space. This feedback provided good grounding for an action research project, as the boys felt they were able to communicate freely in their space. We then had a classroom discussion about what it means to be agents of change and the boys began to realize its potential. They understood that autonomy is the ability to self-govern and that it provides an opportunity to have a say in your environment. This awareness was exemplified by one boy's statement, "Sometimes you have to change stuff to make it better."

On one exit ticket I asked whether the boys were satisfied with the general level of noise in the classroom and I discovered that 26 of the 28 boys were frustrated with the noise. They felt disengaged with their work due to loud noise and frequent talking. They also felt that the arrangements of the desks in the space contributed to the noise levels, because they are grouped tables, which encourage talking.

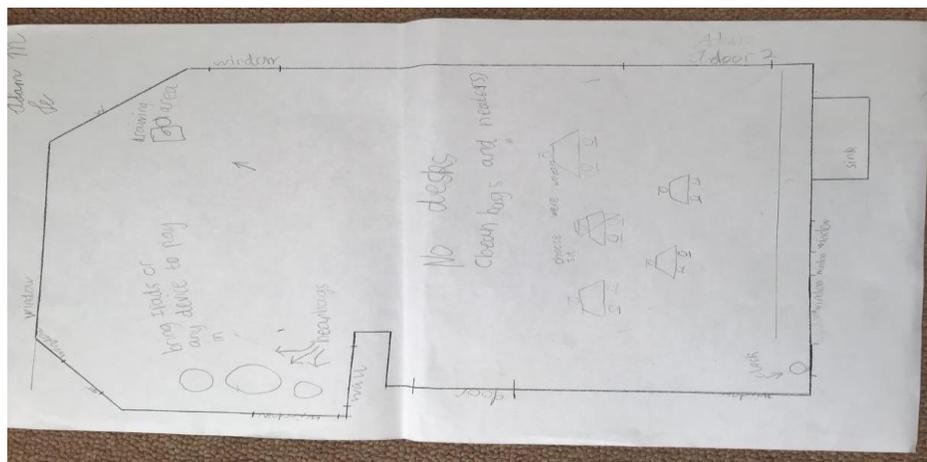
I also asked the boys their opinions about the arrangement of the desks in the classroom. Many boys (17 out of 28) indicated that they thought the desks could be arranged differently from the current group arrangement (rows), because as one boy said, “it is very crowded and squished.” Another shared that, “It’s way too squished, I can barely get out of my chair.” In fact, the majority of boys felt that they would like to work differently than at desks. They shared opinions such as, “I need more space” and, “It is uncomfortable.” Alternative learning suggestions included, “I’d like to stand up and work” and having students “work in pairs or 1’s [sic] so we can’t talk.”

The boys were also vocal about the visual noise in the classroom, a term that was discussed and understood as “clutter that makes us irritated.” When I asked the boys about the posters on the walls and which ones they would take down, almost half of the boys wanted to change the posters. They shared comments such as, “Some of them don’t make sense,” “I would take them all down so that the walls can be clean,” “I don’t like the posters on the string because I can’t see past them” and, “They are clutter.” However, close to half of the boys said they did like the posters on the walls, as evidenced by statements such as, “It’s a simple place to remember” and, “We can see how well we work.”

The boys also completed a floor plan diagram of the classroom from a “bird’s eye view” (See Figures 1 and 2). This floor plan allowed the boys to arrange the classroom how they would like to see it. They used their imaginations, which resulted in proof of “thinking out the box.” Most of the boys arranged the desks in a way that allowed for more space. One boy took all the desks out and suggested working standing up and lying down. The majority of the boys drew a research area and chilling area, indicating that the boys like time to think and process.

Figure 1

Student

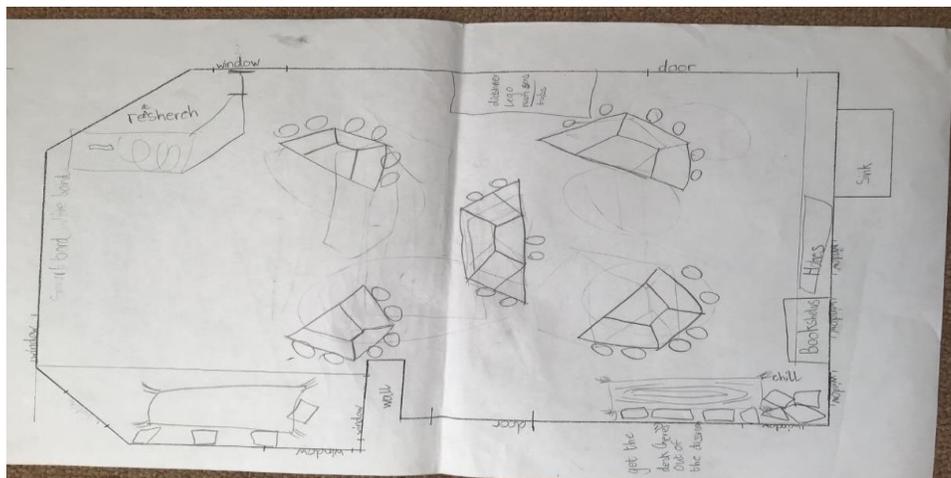


A's Ideal

Classroom Blueprint

Figure 2

Student B's Ideal Classroom Blueprint



When conducting an open-ended, informal interview about the colours in the classroom, 17 out of the 28 boys indicated that they would like rainbow colours and bright, primary colours. Interestingly, this desire contradicts suggested research which recommends neutral colours in classrooms because bright primary colours can overstimulate students.

Throughout the intervention, I conducted many enlightening classroom discussions on other design elements in the classroom. Boys talked about where we should put the different items of furniture in the classroom. Once more space was created, they had ideas about where to put the reading corner and a standing work area. In an exit ticket survey, I learned that 15 of the 28 boys wanted the blazer hooks to be

moved elsewhere since they felt that they took up too much space at the front of the classroom. The boys were always eager to share their opinions.

Enthusiasm Over Classroom Transformation

The boys were invited to pop in and be part of the classroom transformation, and they shared their anticipation. One boy said, “I don’t know how you’re going to get this done in two days,” and another commented on how “everything is a big mess.” The boys were amazed and excited to see that I listened to their suggestion of moving the blazer hooks from the front of the classroom. Now the hooks were in the back of the room which created a space for a row of desks in the front, thus allowing for a new flow of movement through the classroom. There was also more floor space to work and the boys had an option to work with the kneelers and cushions on the floor. I heard statements like, “Wow, I love this! Look at where everything is neatly put away and painted” and, “I love the colours, they make me feel calm.” The boys were thrilled, and I captured their joy in teacher journal notes that I kept throughout the process. One boy said, “The best things are the colours and the organisation and neatness,” and another boy shared, “I love the standing area and the space where we can work with kneelers.”

The boys’ overall enthusiasm and excitement regarding the change was incredibly positive and added to their sense of calm and wanting to engage in their work. Their voices and choices had resulted in an environment that suited their learning and they responded very positively.

Empowering Boys to Make Classroom Decisions Led to a Positive Classroom Environment

This intervention was a resounding success. The boys were very keen to use their voices and, as they reflected in Flipgrid videos, they made comments like, “We are agents of change.” I noticed a palpable calm amongst the boys as they had more space to move. They took such care in their environment and in their work output. The boys were empowered to cut down on distraction and noise, which were issues they had mentioned. A teacher who entered the classroom on the Monday after the transformation said, “wow this class is so quiet and engaged in their work.” A boy replied “we changed our classroom so that we could learn better.”

Conclusions

When embarking on this research journey, I was sure of the essence of my question straight away. The boys in my class were very noisy and I had a definite sense that it was due to aspects of their learning space not being ideal. I wondered how I could change their space, effectively using their voices and opinions. After researching environmental aspects that are conducive to effective learning, I realised that our space was indeed lacking in some fundamental basics of space, colour, movement, and grouping. When I introduced the topic to the boys and discussed the question, they were immediately interested in participating in our research. They completed every data collection exercise enthusiastically and they

really embraced the journey through eager, constructive collaboration with me and each other. I observed a relaxed environment, lots of laughter, debate, and a different learning experience through this project. When introduced to the exit tickets, the boys wanted to do exit tickets on everything from how they felt that day, to check-ins and quizzes on different subjects like Maths, English and General Knowledge, bringing a positive buzz to the classroom environment. This in turn, had a calming effect on the general mood in the classroom.

Reviewing the data helped me understand that boys had different viewpoints and individual ways of expressing them. As educators, we should recognise the value of listening to student voices. The ways in which they collaborate with one another can also provide rich information. This research has motivated me to conduct similar research with future groups of boys.

I am inspired to share my findings with colleagues and encourage them to ask boys for their opinions and listen to their voices in other areas of the curriculum. The boys love to know that they are being heard and giving them choices regarding their learning. We as teachers are often telling the boys they are responsible for their learning, so it would make perfect sense to ask their opinion on how their learning environment would best suit them.

Reflection Statement

Conducting this professional development has been an exciting experience for me. I was asked by my Head of Academics in 2019 whether I would be interested in doing an action research project. I immediately knew this would be an enriching journey for me personally and for my teaching career, one that I could not turn down. Through action research I would be able to drive my own teaching and learning. The key element was to stay ahead of the assignments as well as keep up with my day to day teaching load. I found certain times very stressful, such as when written reports were due at the same time as a research assignment. I found that I was working through weekends and some of the holidays. This was all worth it, and I am amazed at my ability to fit in all the work.

I found that this action research amounted to making this group of Grade 3 boys very special to me and I enjoyed working with them. Their collective energy and enthusiasm made this project what it is; an incredible achievement for all of us.

Meeting and working with Team Laura was an absolute pleasure. It was an unbelievable experience travelling all the way to Montreal and am deeply appreciative to Laura for all her gentle guidance, expertise, and motivation.

With the outbreak of the Covid-19 virus, schools and airports closing, and the devastation on the economy facing the world as a whole, I am encouraged in the knowledge that action research, teaching,

and learning will go ahead due to online learning and communication. Even though we will not meet in Barcelona in 2020, there are possibilities of online presentations and meetings.

I would like to thank Lester Lalla and Joanne Thompson for encouraging me throughout this process and my head Jakes Fredericks for the opportunity.

References

- Barrett, P. S., Zhang, Y., Davies, F., & Barrett, L. C. (2015). *Clever classrooms: Summary report of the HEAD project*. University of Salford.
- Black, S. (2007). Achievement by design. *American School Board Journal*, 194(10), 39-41.
- Engelbrecht, K. (2003). *The Impact of color on learning*. Perkins & Will.
- Flutter, J. (2006). 'This place can help you learn': Student participation in creating better school environments. *Educational Review*, 58(2), 183-193.
- Flutter, J., & Rudduck, J. (2004). *Consulting pupils: What's in it for schools?* Routledge Falmer.
- Gaines, K. S. & Curry, Z.D. (2011). The inclusive classroom: The effects of color on learning and behavior. *Journal of Family & Consumer Sciences Education*, 29(1), 46-57.
- Gonzalez, J. (2018, March 18). *12 Ways to upgrade your classroom design*. Cult of Pedagogy. <https://www.cultofpedagogy.com/upgrade-classroom-design/>
- Hubbard, R.S., & Power, B.M (2003). *The art of classroom inquiry: A handbook for teacher-researchers* (2nd ed.) Heinemann.
- Johnson, A. P. (2008). *A short guide to action research* (3rd ed.). Allyn & Bacon.
- Kallio, J. M. (2018). Participatory design of classrooms: Infrastructuring education reform in K-12 personalized learning programs. *Journal of Learning Spaces*, 7(2), 35–49.
- Maynard, T., & Waters, J. (2007). Learning in the outdoor environment: A missed opportunity? *Early Years*, 27(3), 255-265.
- Mitra, D. (2004). The significance of students: Can increasing “student voice” in schools lead to gain in youth development? *Teachers College Record*, 106(4), 651-688.
- Ranson, S. (2000). Recognizing the pedagogy of voice in a learning community. *Educational Management and Administration*, 28(3), 263-279.

- Simmons, K., Carpenter, L., Crenshaw, S., & Hinton, V. M. (2015). Exploration of classroom seating arrangement and student behavior in a second grade classroom. *Georgia Educational Researcher*, 12(1), 51–68.
- Smith, B.L. & MacGregor, J.T. (1992). What is collaborative learning? In A. Goodsell, M. Maher and V. Tinto (Eds.), *Collaborative learning: A sourcebook for higher education* (pp. 1-8). National Centre of Postsecondary Teaching, Learning, & Assessment, Syracuse University.
- Schwalbach, E. M. (2003) *Value and validity in action research: A guidebook for reflective practitioners*. Scarecrow Press.
- Stringer, E.T (2007). *Action research* (3rd ed.). Sage.