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Insights into the School Environment that Surveys Alone Might Miss: An Exploratory Pilot Study Using Photovoice

Key words: photovoice; school environment; social inclusion; place

Introduction

Students who perceive school positively and feel connected to school engage in fewer health risk behaviours and achieve better academic outcomes (Libbey, 2004; Resnick *et al*, 1997). Students who feel that they belong, and that teachers are supportive and treat them fairly, are less likely to engage in activities such as binge drinking and smoking cigarettes (Bond *et al*, 2001; Patton *et al*, 2000; Nutbeam *et al*, 1993). Whole school mental health promotion interventions therefore aim to create schools where students feel safe, connected and valued.

Most studies rely heavily on surveys, questionnaires, interviews and focus groups to gain insight into students' perceptions of the school environment (Kuperminc *et al*, 1997; Konu & Lintonen, 2005; McNeely *et al*, 2002; Waldrip & Fisher, 2000). Overall, it has been found that girls and boys perceive school differently (Kuperminc *et al*, 1997; Konu & Lintonen, 2005). Bigger schools are rated as less welcoming than smaller schools (McNeely *et al*, 2002). Urban/rural differences have had mixed results (McNeely *et al*, 2002; Waldrip &

ABSTRACT

The dynamics of how social connection is created or maintained through the physical structures of a school are not fully understood. An exploratory photovoice project was undertaken in a rural high school. Students took photos and spoke to what they felt the photos showed about the school's social environment. The findings showed that the school was segmented into clear territories, enshrining particular types of power, welcoming some students and alienating others. Being 'in' or 'out' was associated with cliques known to gather in particular places. Having a car maintained what the students called 'a divide'. A confronting reality about school life was surfaced that standard school connection and social network questionnaires miss. A display of the photos at the school confirmed the findings and led to actions to address the issues raised. Thus the strategy offers unique insights and an opportunity to create tailored, place-focused ways to make the schools more welcoming.

Fisher, 2000). What has been largely missing from this literature, however, is a strong spatial understanding of how the school fosters well-being – that is, how different parts of the school's physical environment might play a role in creating alienation or connection.

We explored the use of photovoice for examining students' perceptions of the school environment. Photovoice, as a research method, involves putting cameras in the hands of research participants to capture viewpoints that might not be obtained directly through discussion only. Photographs also help prompt action on issues of local importance (Wang & Burris, 2003; Dovey, 1999; Habraken, 1998; Schoggen, 1989). A recent review of photovoice as a method of community-based participatory research in public health has documented its use in understanding the experience of cancer survival, living in poverty, living with HIV/AIDS, disability, homelessness, stroke and being in a minority religious group or racial group (Catalani & Minkler, 2010). The review noted that some 60% of photovoice projects led to action on the issues raised by the process. Photographs have been used to elicit discussion when young people otherwise might be reluctant to engage (Punch, 2002), as an art form to represent the life experiences of young people (Dawes, 1998; Hubbard, 1994; Rich & Chalfen, 1999) and as a means to explore the experience of at-risk young people (Strack *et al*, 2004). Some of the most extensive work to date has been by Wilson and her colleagues (Wilson *et al*, 2007) in elementary schools as part of a 30–60 hour 'curriculum' for empowerment, where the method of sensitising students to their environment (using photos) has been coupled with broader training in group facilitation, project management and social action.

In a school context, we set out to understand whether photovoice might illuminate ideas for interventions to foster social inclusion and improve student health that might not have otherwise been identified had we relied on survey methods alone. The project was part of a broader commitment to engage the school in a community–university partnership to promote mental well-being by fostering stronger 'welcome' and connection to school using survey–feedback–action methods.

Method

Participants

The project was undertaken in a rural high school in Alberta, Canada. Ten young people representing a diverse cross-section of students were identified by teachers. Teachers were asked to nominate students who they felt reflected different ethnic backgrounds and different leanings towards the academic side of school. In qualitative research, heterogeneous sampling is recommended to tap themes common to diverse groups (Patton, 2003). The students were sent a letter and asked to participate in a student consultation and photovoice activity. The students were from grades 10, 11 and 12, with a wide range of backgrounds, interest areas, abilities and personalities. The group included four females and six males. There were students who were heavily involved in school activities, and those who usually kept to themselves. There were honour role students as well as students who were struggling academically. Unfortunately, part way through the study two students left the school (one female and one male). One of these students was an English as a second language (ESL) student and the other was a male in the most senior grade. As the project was already under way, further recruitment was not undertaken and the group remained at eight (three females, five males).

Procedure

The facilitator (CMD) introduced photovoice using information provided on the website www.photovoice.com. The students were also shown a sample booklet by an organisation that is the result of a photovoice project (Marie Stopes International & VACCHO, 2003). The students decided that they wanted to help teachers, school administrators, parents and anyone who might visit the school understand what it was like to be a student there. Ethical concerns related to the photovoice methodology are outlined in Wang and Redwood-Jones, 2001, and were reviewed with the students. Each student, and their parent or guardian, signed and returned the informed consent form before participating in the photovoice activity. An announcement was made at the school that this activity was taking place. The University of Calgary Conjoint Health Ethics Review Board approved this study on the basis of a commitment that discussion within the group would remain confidential and that if the facilitator deemed that any student was distressed a referral to the counsellor would be made.

The cameras were collected at the end of the two weeks. Students chose the pictures they wanted to share with the group, and these photos were made into slides and projected on the wall during the meeting. The

meeting was tape-recorded and the recording was transcribed. The students were given a series of guiding questions to help them talk about their photos.

- What is the picture about to you?
- What do you see?
- What is in this photo, and what is not in this photo?
- Would someone else look at this and see something different?
- Are there things in the environment that only certain people see/feel/perceive?
- What are others' reaction to the photo?

Each student took a turn discussing their photos. At the end of this session, they put together a photo exhibit for the front foyer of the school. A meeting was held to look over the transcript of the previous session and the students either wrote or selected text to go with the photos for the exhibit. Wider discussions and subsequent activities among community members, staff and students resulted.

Data analysis

Three primary data sources were used for this study: first, the transcript of the meeting where students showed and explained their photos, next the corresponding photos themselves and finally field notes taken by the group facilitator at each of the consultation meetings. Transcriptions, notes and corresponding photos (in electronic formats) were uploaded into Atlas.ti qualitative data analysis software. Atlas.ti allowed the researchers to link text and graphic files as well as to highlight and code text and create research memos. The analysis proceeded in two stages. First, each document was coded with first-order, or thematic, codes. Coding is assigning tags or labels that represent concepts, categories, themes or ideas to parts of the data (LeCompte & Shensul, 1999). As a first-order code list developed, lists of all the quotations or images for certain codes were brought together and new documents were created. These documents were recoded with higher, or second-order, codes that represent patterns and themes evident in the groups of quotations or images.

The rigour of the study methods was enhanced by such processes as triangulation of data sources, checking potential findings with research participants (member-checking) (Patton, 2003) and an independent audit of the data collection and analysis activities by the third author (PH).

Results

Physical features and cliques: establishing 'who you are and who you like'

Mark (a pseudonym) was a grade 12 student. He took a photo of his friends in a certain area of the building. When asked to explain the photo he said:

> Mark: *'Well what I did was take pictures of different parts of the school where there are people I know. OK that's the pole where a lot of people hang out, a big group of friends in the hallway in the school, a lot of friends'.*

The pole was in an area of the school where two hallways cross. In the middle of the intersection there was physically a pole and, over the years, the pole had become a place for certain students to hang out. This area was largely perceived as the spot for the most popular students. This group was called the 'poleys.'

When all the students in the group were asked what they saw when they looked at the picture, some responded.

> Josh: *'The pole is about the most popular… A group of people having fun and catching up on the recent news, what's going on, where all the parties are.'*

> Christina: *'There are friends hanging out together* [pause] *and having a good time.'*

> Josh: *'If you have a class down there it is really hard to get around… to get to your class you have to push your way right through and if you do that then usually they give you dirty looks so either way it is a lose-lose situation.'*

When the group was asked to imagine how students who might not be in the popular crowd might feel when they walked by the pole they responded:

> Mark: *'They would probably get kind of sad maybe like walking in between all these people'*

> Josh: *'I really don't have a group of friends and to me, it doesn't bother me as long as they don't stop right in the middle of the floor. Other than that, it's OK if they meet with their friends because that's what you do. You hang out with your friends and in doing so you establish kind*

of who you are and who you like'.

When the students were asked if there were any other physical places, like the pole, where students hang out, Mark answered:

> Mark: *'Yes it's a lot like that. You've got to have a place to kind of connect with kids cause you don't just walk around… you know, someone could be really nice kid… and you say oh I want to be friends with that guy. Say you know someone who knows him and he brings him out* [to the pole] *and you kind of hang out with him, that's kind of how you get connected to your friends'.*

Other physical areas related to the social environment of the school that were documented by students included the 'smoking pit', 'the guidance pit' (area outside the guidance counsellor's office), the library and the 'ethnic people's classroom'. The smoker's pit was an area outside the school that was physically cornered off (within a spray-painted box) to indicate where students are permitted to smoke.

Jeffrey took a photograph of a young male smoking. When asked to explain it the following conversation ensued.

> Jeffrey: *'I wanted to show that well, a lot of people smoke at this school… I don't really know why they do it.'*
>
> Josh: *'I think peer pressure is a pretty big deal in any school, you may not necessarily want to deal with everyone else pressuring you to but, if you want to be one of the cool kids you do it anyway.'*
>
> Jeffrey: *'For some kids it would be, not for everyone. I know people… if they started to pressure me to do something I don't want to, I just tell them I don't want to and if you don't like it too bad.'*
>
> Lydia: *'There are different kinds of smokers. There is a group of like chain smokers and then there is a group that just kind of smoke at parties.'*
>
> Mark: *'Yeah, like those who would smoke other places besides the pit.'*
>
> Lydia: *'Yea, like their cars in the parking lot.'*

Interestingly, not all the students who were considered

part of the smokers pit group actually smoked. This label was related more to the area of the school the student spent time in, and the other students they spent time with, than to their actual smoking behaviour. Natria, a grade 11 student and a member of the 'smokers' crowd, pointed out that:

> Natria: *'If you want to fit in at the smokers pit you just talk to people, you don't have to smoke… there are lots of people who come out to the pit who don't smoke… eventually they may become smokers, I have seen that a lot'.*

Language barriers and social distance

The students took photos of a classroom specifically set up for students new to the school who have English as a second language (ESL). They called this the 'ethnic people's classroom'. Some recent employment opportunities in the local region have attracted families from Somalia and neighbouring countries in Africa. Many do not speak English well when they arrive.

> Mark: *'The ethnic groups, well there is just a bunch of them in their own classroom.'*
>
> Jeffrey: *'I don't think many people know the number of them in our school, the ethnic people.'*
>
> Josh: *'I don't think anyone really communicates with them. I think that the only people they know is their own little group because no one else will walk up to them and see and have a conversation with them and get to know what this culture is like.'*
>
> Mark: *'Well I think it's just like you have your own group of friends.'*
>
> Jeffrey: *'Yeah.'*
>
> Mark: *'I didn't know this classroom existed until I took the picture… It's I guess their classroom, they do their language there.'*
>
> Josh: *'I know some, one's in my English class. They are actually nice people, they're always looking forward to making friends.'*
>
> Jeffrey: *'I think they kind of just threw them up there.'*

Josh: *'Most people just see them as if they are a disease.'*

Leaving your mark on the place

A set of benches was in the hallway near the pole. Students try to sign their names on them each year.

Mark: *'These* [benches] *get taken away* [by] *teachers… Cause people want to leave their mark to the school, leave names or whatever on the back… it's kind of funny… I mean it's not big vandalism but they* [teachers] *treat it* [like that].*'*

When asked why they thought students wanted to put their names of the bench the students said:

Mark: *'To be known kind of thing'*

Josh: *'So that they can come back to the school and see that they put their name on there and say oh yeah I remember when I sat on that bench'*

Mark: *'People have been doing that for actually years…'*

Jeffrey: *'There should be a place where you can actually leave your mark… When you leave your own mark and it's written, it's yours'*

Mark: *'Yeah, it kind of adds character to the school'*

Lydia: *'We could have a wall of boards from every year or something like that'.*

Mark: *'That would be kind of cool, this massive wall and everyone just make their mark on it…'*

Lydia: *'It could just be our place'.*

Having a car defines the social division in the school and maintains it

Lydia took a photograph from inside a car front seat, looking out through the windshield at the surroundings and said:

Lydia: *'In our school you really have to have a car to participate in sports. I mean you have to get to games and get home from practices and there is no bus. If you can't afford a car then you can't easily play sports'*

Trevor: *'Those kids with cars, some get them bought by their parents but some have to work for them. That really makes a difference, there is kind of a divide here based on that'.*

Students also documented activities happening in the gym (intramurals and groups of students playing basketball) as well as some students using the weight-room. The weight-room was felt to cater to a wide variety of students.

Mark: *'A lot of people go to the weight room, to work out… Kids who want to get into shape you know… it's for everyone, it's pretty good down there.'*

Josh: *'Maybe they want to be strong, they want to keep in shape…you have ones going at noon or after school or before school.'*

Jeffrey: *'It's relaxing too, calming down.'*

Mark: *'Often times you get a couple friends…'*

Jeffrey: *'You meet new people too.'*

Mark: *'Yea, it's both guys and I've seen some girls there too.'*

Social alienation starts early

The photovoice process helped bring out themes and views that might not otherwise have been easily expressed. Josh, for example, took a number of photos of his little brother in the playground at his elementary school and doing homework at his kitchen table at home. He spoke about how his brother's fellow students teased him because he had a learning disability, and how much stress this caused for him and the family. Through the use of these photos, Josh was able to bring issues forward (bullying, inequity, discrimination and student stress) without laying his own experience bare for others to see and judge him on. It is likely that Josh also experienced some of these concerns, as his other comments about the pole and lacking friends seemed to indicate, but he maintained his 'face' in the group setting by being able to choose, before the group, a way to bring forward a photograph that would raise the issue but remain socially safe.

Discussion

One of the most striking features of the students' photos

and discussions was the direct connection between the physical environment of the school and student cliques. The geographic lay-out, structural features and use patterns of the building created social spaces which played a large part in what the students described as their school's social environment. The built form enshrined power, or lack thereof (Dovey, 1999).

The 'poleys' were the most popular kids at school and the pole itself was in a prominent central location at the middle of a major crossroads in the building. It was the place to see and be seen. Conversely, the smoking pit was an area behind the school, hidden from view. The young people who used this area were kept separate and contained, as if deviant. Only a certain kind of smoker went there (and, as explained to us, a certain kind of student, regardless of whether they smoked or not). The stairs had been designed around the guidance office in a way that created a natural space for 'guidance pit' kids to linger between classes and in their free time. The use of the word 'pit', similar to that used with the smokers, had the connotation of lower social standing. The guidance pit kids were said to have few friends and wished instead to socialise with members of the guidance staff. The 'ethnic people's classroom' was tucked away in a far corner of the second floor. This room was on the margin of the school – much as this social group was marginalised in the general student body.

The physical structure of the building helped build a sense of belonging (Habraken, 1998). Students talked about how social groups meet in physical locations in the school and how they felt they owned those places. This sense of belonging and ownership was reflected in the need for students to leave their names and messages on school furniture. Places were 'theirs', and they wanted to let other students know. But, at the same time as creating a sense of belonging among some students, places also served to alienate others. Josh talked about his reaction to having to pass by the pole every day on his way to and from class. It made him reflect that 'he didn't really have a group of friends'.

The results of the students' work was put on display at the school and discussed with students and staff. As well as prompting action, this display functioned as an important means to challenge or verify the results (Patton, 2003). That is, the further verification process was necessary before we could be confident that this small and selected group of students had captured the phenomena of interest adequately.

A number of place-based actions have been taken to improve student experience of this school. Teachers report that they now consciously spend more time in the area of the pole, to reduce congestion and particularly to make sure that younger students can pass by without being harassed. A newly constructed photoboard has been placed prominently in the main corridor linking parts of the school. Its purpose is to increase recognition, particularly for less well-known faces and to feature the ever-changing activities of the school and the students (and staff) involved with them. Staff are collaborating with staff from an ethnically diverse school in the nearest city on how to meet the needs of ESL students and how to make the school more socially inclusive. There are now formal orientation days for new grade 10 students each year. The purpose is to welcome new students and help them navigate the school and its procedures more easily. Photovoice projects have now been become regular events in the school, led entirely by the students, as a means to maintain a student voice and make the school more welcoming for everyone. Replication of the method in more students' hands not only improves insight; it provides a participatory student-led means to redress student alienation.

Finally, the photovoice project helped create opportunity for discussion to evolve on issues that might have been unrecognised or unsaid. We compared our photovoice results on the experience of being a student at the school with the tools that have been compiled in this field by researchers using survey methods. Libbey (2004) has assembled a comprehensive comparison of quantitative assessments of positive orientation to school, school attachment, school bond, school climate, school connection, school context, school engagement, school involvement, school membership, student identification with school and student satisfaction with school – ranging from three to 20 items per measurement tool. None of these measures captures the observations that the students pointed to so eloquently here about cliques in schools and the particular places that maintain them.

So, even though our survey methods in the school were telling us whether students felt safe (or not) in various parts of the school, they did not reveal the importance of identity formation and affiliation connected with these places. Photovoice also revealed places we did not know about. Our project outlined how the student body is socially structured. Student experience and sense of belonging/not belonging are perhaps better understood by place (who hangs out where) than by simply relying on traditional investigations of student

demographics, school size and Likert-style ratings of student experiences.

We acknowledge that studies of student social networks provide a direct and precise quantitative way of assessing the social structure of schools, and that this field is extensive (Baerveldt et al, 2004). However the advantage of photovoice was that it was fast, inexpensive and more evocative of the student experience, and had the added advantage of linking the cliques with physical locations. The findings suggest that interventions to promote health by increasing social connection might be usefully tailored to sub-groups tied with places. The findings further suggest that systematic analysis of school activity settings might provide further understanding of how physical and social structures intersect (Schoggen, 1989).

Our conclusions are, however, limited by the modest, exploratory nature of our study. While photovoice projects with groups as small as four have been undertaken (Catalani & Minkler, 2010), we would be reluctant to say that we reached saturation on how places in this school influence attachment from multiple perspectives.

Conclusion

Photovoice projects with young people are popular and impressive in terms of social change, when one reviews the results of projects in the hands of young people and co-researchers (Strack et al, 2004; Wilson et al, 2007). In that sense our project is not unique. But our observation that photovoice illuminated precise actionable information about people and places in schools that standard school environment survey tools mask is important.

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