

## Learning from our students: Photovoice and classroom action research

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## **Abstract**

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### **Project Rationale**

In teacher education programs and professional development for in-service teachers, we hear the refrain, 'begin with the students' knowledge and experiences and connect what you want to teach to what your students already know' (Rose and Meyer, 2002). This is basis for constructivist learning theory, the guide to educational practices (National Research Council, 2002). But there remains an unanswered question, "How do we find out about our students?" The graduate student, a classroom teacher and new researcher, in this study systematically sets out to learn from and about his students in order to connect with them and to connect his teaching to the students. The action research study proposed here explores the idea of learning from our students so that we can connect our practices to their lives, experiences, and beliefs. The graduate student researcher is committed to action research in order to improve his practice and the desire to give his students a voice through photographic images.

### **Purpose of the Study**

The overall goal of this research is to explore the use of photovoice as a research and pedagogical tool for connecting teachers and students. Photovoice is a research tool that was developed in the participatory action research community as a way to give voice to oppressed women in rural communities. Caroline Wang and Mary Ann Burris (1994; 1997) developed photovoice working with Chinese women to identify health and labor issues that affected them so that policy makers could be informed about of the issues of greatest concern to the community. Wang and Burris (1996) modeled their work around Freire's concepts of education and empowerment and consciousness-raising through dialogue (Freire 2001, 1968), however they shifted the medium of expression from reading and literacy to the visual medium of photography. The photographs taken by the women allowed them to select and reflect on images of importance to them individually and collectively. The faculty member and graduate student researcher saw the potential for photovoice in classroom settings to develop a deeper understanding of the students in our classes and to enlighten us about our connection with them. The graduate student wanted to get to know his new students through their own lives and voices, rather than assuming he could know them just by their past science classes and school records.

### **Research questions and Method**

The student researcher was interested in learning two things from his photovoice action research, 1) what his ninth and tenth grade students thought about science outside of school, and 2) how he, as a teacher, could make use of what he learned about his students to guide his teaching. Once he collected his students' photographs and summaries, he monitored and document how he made use of their ideas in his planning and teaching.

The student researcher used a modified version of the photovoice action research described above. In order to learn about his students, he provided groups of students with

disposable cameras and had each student take five photographs of science outside of the school. As they took the pictures they were required to make notes about why they took each picture and what science they thought the pictures represented. The students were asked to take pictures in three specific locations; in and around the school environment, in their home, and out side their home. The last two pictures they could take of anything that made them think of science.

Once all the students had taken their pictures, they mounted three of them on paper and wrote three sentences explaining each picture and the science they saw in it. The graduate student researcher then analyzed these pictures and their descriptions to identify themes of what science meant to his students, how they saw science in their lives, and how they described their informal science experiences. The graduate student researcher then made use of those photo collage's to integrate the students' ideas of science into his teaching and made specific references back to their photographs when possible. The graduate student researcher also used his student's photovoice pieces as a means to explore themes in science and relate content standards to their prior knowledge. The photovoice pieces became a tool for the graduate student researcher to engage students into discussions on science topics and a means to extract student understanding.

## Discussion

*This research followed the scheduled outlined below. With the initial phase completed within the first 7 weeks and follow up lessons and inclusive activities listed following. Also, there were 7+ pieces of student work produced with photo voice as a catalyst.*

	Week 1		Week 2	Week 7 day 1	Week 7 day 2	Week 10	Week 25	
	initial Pictures	initial Pictures	initial Pictures Data Sheet with responses and sketches					
				collage production	collage production			
				reflection	reflection			
					concept maps			
						Final Reflection on photos (warm-up)		
							Chemistry (atoms/matter) Discussion on photos	
Number of Pictures	5			3			1 selected samples	

In the discussion the graduate researched will address the initial reasons for conducting photovoice: what information was too be gathered from his students in a relatively short period of time and what insights it would offer a new teacher. Primarily, the graduate researcher will focus on how he infused photovoice into his classroom with relative ease.

The graduate researcher will discuss how he used photovoice to elicit students' understanding using a process beginning with five gathered pictures which were reflected on, funneled to three that were mounted on posters and again examined, and finally to one picture that could be reflected on. He will also discuss how photovoice acted as a

catalyst for discussion and inquiry on science topics such as charge and atom composition while still relying on students' prior knowledge.

Also, the graduate researcher will discuss the application of photovoice as a means for students to help guide their own instruction and offer a constant stream of feedback to the teacher regarding instruction. Ultimately, that the researcher can present how photovoice becomes a center around which students can feel free to discuss and elaborate on their understandings within the classroom

## **Conclusion**

Photovoice serves as an extension of the classroom into student's lives. It enables them to participate in the development of their own instruction while allowing a teacher to establish a baseline of understanding with his/her students. The extensions of photovoice are limited only to their application and time constraints. Next year will offer another group of new, unfamiliar, science students that the young teacher will need to become familiar. Photovoice then will be an unobtrusive means to guide instruction and be applied to lessons throughout the year which students have had prior input. Thus, students will be given a voice in their own instruction and the teacher an insight into their beliefs and values regarding content.

## **References**

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