Using Visual Charting to Explore Indigenous Community Resilience in Bario and Long Lamai, Sarawak, Malaysia

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Abstract  
Visual charting is a technique for improving communication between and among participants while improving the productivity of meetings. The process of drawing visual charts brings participants closer together by involving everyone in recording the proceedings of the meeting. The use of visual aids clarifies and simplifies communication and is therefore especially useful in meetings that involve multiple languages, varying language capabilities, and different backgrounds and levels of education. We describe the use of visual charting in several situations involving researchers, academics and students conducting community development related enquiries within remote and isolated indigenous communities in central Borneo. In contrast to individual note-taking, visual charting was observed to encourage participation among community members, especially women, as well as stimulating productive interactions, mutual inspiration and group reflection. Insofar as the encounters between outsiders and the residents were intended to achieve these outcomes, the technique made significant contributions to the overall purpose of the exercises within which they were embedded.

Introduction  
Visual charting is a communication tool for gathering information in a group discussion. It is done by collectively creating drawings and accompanying words on a large piece of paper that
everyone in the group can see. We utilized the method in this research for two purposes. First, we were using a community-based research process to explore indigenous community resilience and, as such, desired to use a participatory way of gathering information. Second, we were working in a region where the project team is not fluent in the local language, so drawing pictures was a way for us to reduce the challenges associated with the language barrier. We used the visual charting method as part of the Global Citizenship and Sustainability program, a community-based research and service-learning program operated by Cornell University and Universiti Malaysia Sarawak. Below we describe the literature on visual methods of communication and engagement as well as provide background on the Global Citizenship and Sustainability program's community-based research approach. The community-based research approach is based on mutual learning (community and students) for collective transformation (in students and community) (Allred and Somchunhmavong 2015). The visual charting was carried out in the communities of Bario and Long Lamaie in the state of Sarawak, Malaysia. We also describe the importance of visual methods of communication in the region in which we are working.

Visual methods of data collection, such as photo elicitation, have roots in anthropology and sociology (Harper 2002). Seminal studies in visual anthropology (Collier and Collier 1986) introduced the technique of photo elicitation, which has been adopted by visual sociologists and qualitative researchers (Harper 1986, 2000, 2002; Schwarz 1989). They are a useful method to understand how people perceive, relate to, and assign meanings, based on visual cues (Van Auken et al. 2010). Visual attributes of places are an important component of local environments and will expand our knowledge of how communities perceive of and relate to them. Additionally, when photo elicitation is undertaken in a group setting, this method serves as a way to generate dialogue, understand place and the relationships between people and place, and uncover common interests in a place. In Harper's (2002) overview of photo elicitation, he states "photo elicitation is based on the simple idea of inserting a photograph into a research interview" (p. 13) and subsequently extends this definition to include other visual media. This technique requires the incorporation of photographs taken by research participants into the interview process, so as to elicit responses from interviewees to both the photograph(s) and interview questions asked in relation to the photograph(s).

The use of drawings in social research is a well-established method for facilitating rich explorations of the reflections, perceptions and views of research participants on multiple topics and phenomena (Mitchell et al. 2011). As Ebersohn et al. (2010) states with regard to participatory reflection and action--visualization promotes participation. Visual anthropologists and visual sociologists often directly collaborate with their informants or subjects in the production of visual texts of various kinds. This may involve working together on a project that simultaneously provides information for the investigator while fulfilling a goal for the subjects. (Banks 1995).

Photo elicitation has been used to support community visioning and to engage stakeholders in dialogue on community identities and land-use planning (Stewart et al. 2004). It has also been used in health studies to understand how the physical setting of a hospital ward enhances or diminishes patient recovery (Radley and Taylor 2003). Adult educators have used photo eliciting to explore the teaching beliefs of adult educators, as the researchers maintained that photography facilitates the articulation of these beliefs (Taylor 2002). Ethnographic researchers