

# An Application of Hierarchical Data Structure to Participant-Generated Imagery: Identification of Community Assets and Liabilities by Youth

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“Creating knowledge through introspection and narrative sharing they now “see areas of Waco with [a] bad reputation differently, not necessarily their fault, but [a] cycle of events” that make and unmake their identities.”

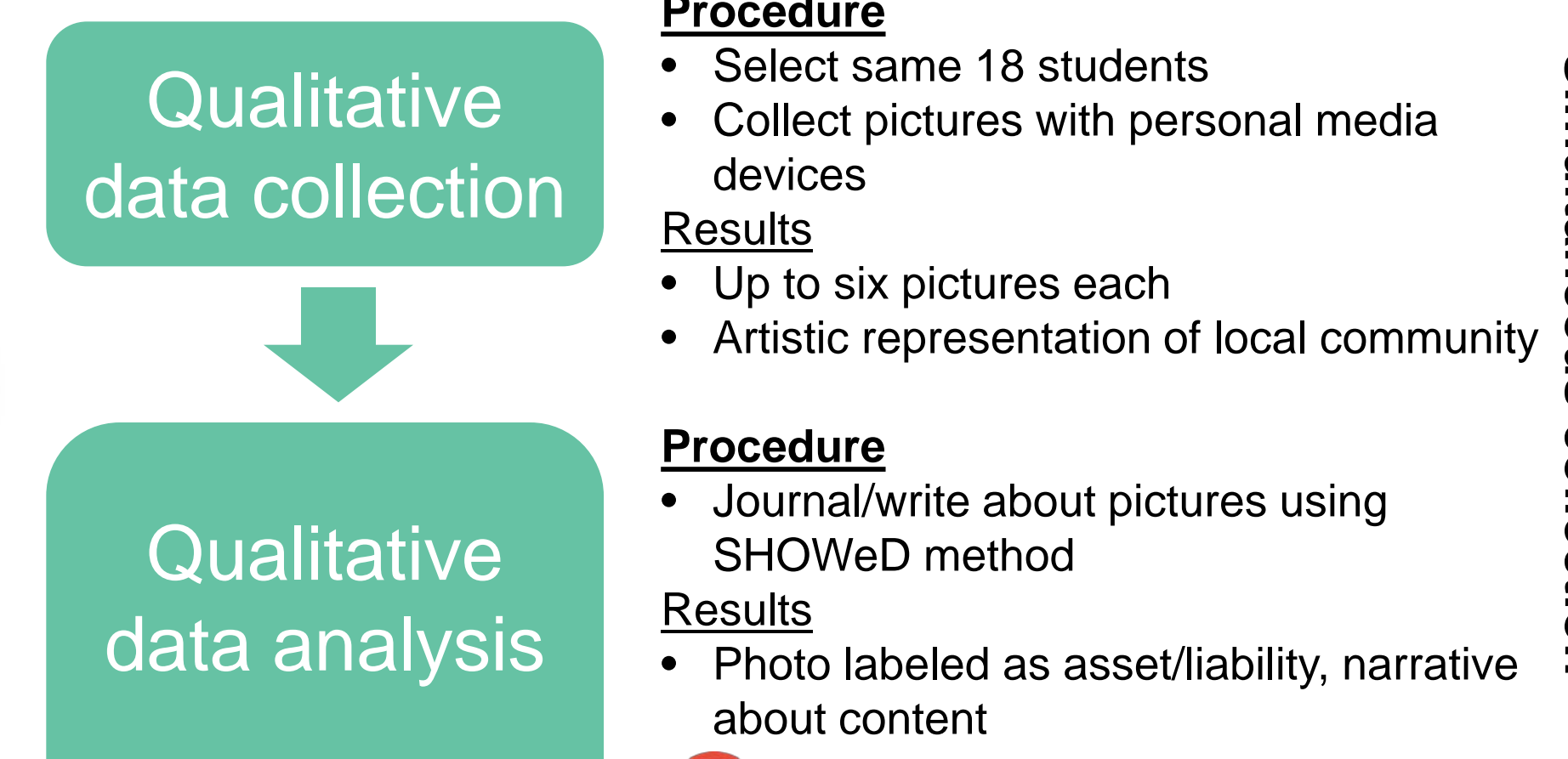
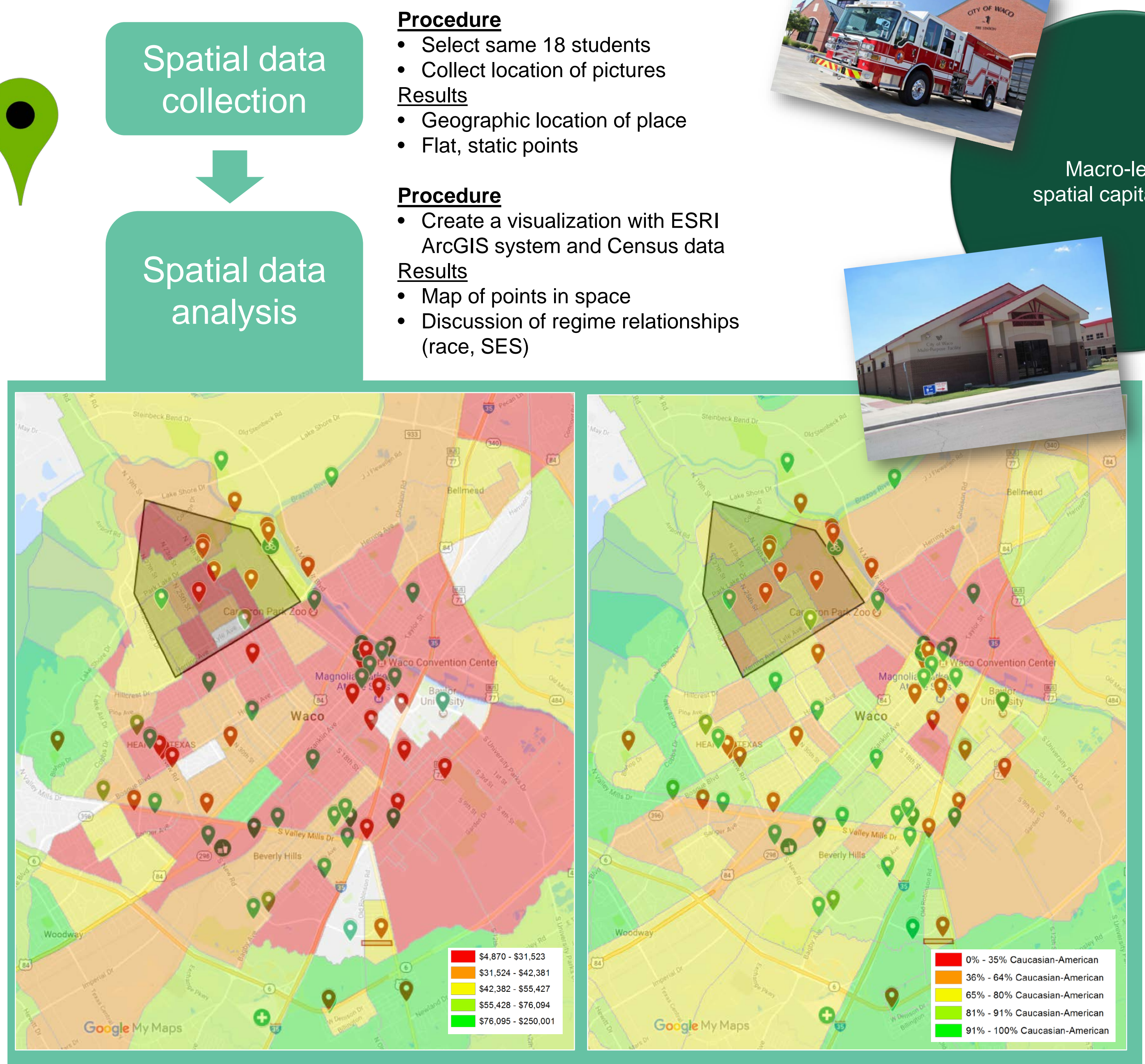
We propose the synthesis of participant-generated imagery (PGI) and geographic information systems (GIS) to create a more spatially-integrated method of participatory research. While wider research has utilized similar one-level mixed designs (Santo, Ferguson, & Trippel 2010; Knigge & Cope, 2006), and narrower research targeted community strengths and issues (Wang, et al., 2004), none have considered building crosswalks between macro-level demographic data and micro-level narratives to better ascertain a negotiation of representations and capital comprising civic agency. We reveal, through convergent mixed methods design, a hierarchical nature to the modalities of geographic space, stratification of capitals permitting civic engagement, and diversity of ‘lived’ youth experiences across regimes.

**Literature Review**  
**Procedure**  
 • Review literature on youth civic engagement  
**Results**  
 • Battery of pre/post screen questions

**Focus Group**  
**Procedure**  
 • Select 18 students who self-register  
 • Execute focus group measures of involvement, responsibility for civic engagement  
**Results**  
 • Focus group notes

**Data Analysis**  
**Procedure**  
 • Evaluate pre/post data for change in expression  
**Results**  
 • Evaluation data to apply to new methodology

**Evaluation of Methodology**  
**Procedure**  
 • Interpret integration/divergence between SPGI and evaluation data from focus groups  
**Results**  
 • Answer to research question, experimental methodology



**Asset - Jubilee Food Market**  
 “A small grocery store in the middle of a food desert. Gives people a closer source of food products, where before the closest grocery store was almost 2 miles away from this location. I now occasionally shop here when we just need a couple of things. It was built so the communities nearby wouldn’t have such a long travel just to purchase food. [I can make a difference by] informing communities that they no longer need to go to big chain grocery stores such as H-E-B.”

**Asset - St. Francis on the Brazos Catholic Church**  
 “St. Francis on the Brazos imposes a positive characteristic in the city of Waco. The parish not only brings members of the community as well. From gathering in prayer to immense efforts to benefit those in our community, St. Francis of the Brazos allows the city of Waco to flourish while also meeting the spiritual needs of everyone.”

**Liability - Code Enforcement**  
 “In this picture an infested home is portrayed. The inside of the house completely inhabitable and there has been multiple reports of sighting possums and raccoons among an abundance of stray cats. Although neighbors have given multiple reports to the Cities Code Enforcement, the city can not set foot on the house because the owner sleeps in his car (gray truck portrayed in left corner of picture) which technically means he lives in his home. This a negative influence in Waco because the house gives the neighborhood a bad reputation of unsanitary space.”

**Liability - Road Maintenance**  
 “The street shown here is a commonality in the edge of South Waco. The poor construction and maintenance of streets like this one are not only driving people away from the neighborhood but implies an impression that the city of Waco does not care for the streets that don’t bring profit to the city. Neighbors have attempted to fix the street themselves but their solution often don’t last long. I, a person who lives in this area have often felt ashamed of my street and people who have to go through it even though I have very little control of the situation.”



We believe that participants demonstrated a better awareness of their place in the Waco community through an increased critical, civic consciousness informed by hierarchically structured qualitative and quantitative data. As the participants were engaged in the democratized process of image, map, and contextual narrative creation, they felt more critically aware of capacities and assets in the Waco community. They were able to bring their narratives together, question the produced visualizations along with their individual patterns of behavior and feelings of belonging, and overall mature with an increased critical, civic consciousness. We saw their opinion of the community change, as illustrated in the literature (see Haney 2007, Kretzmann & McKnight 1993), and assume that they will be more likely to question both theirs and other patterns of behavior and feeling of belonging. One participant concluded that possible “consequences of individual actions”, such as visiting a chain superstore, has repercussions for family-owned businesses in the Waco community. Their actions as an individual “impact[...] not just me, but [the] entire city” based on where they “shop, play, [and] go to school.” This expanded capacity for civic thought and understanding of capital stratification would likely pay dividends for these participants in future activities.

Overall, they felt more positively about the overall progress of the Waco community [and felt that they could be a part of it, which was a concern raised in the initial focus-group]. Participants indicated that they felt “more aware of what’s going on in [the community],” can do “more things to help [the] community,” and “know[...] [that] there is a problem, and that we can be a solution. This experimental research methodology, we believe, provided participants with an opportunity to reconsider their personal behaviors and process of identity negotiation. They emphasized that they were “proud to be a part of Waco,” and were interested in the creation of opportunities or pathways for involvement. Youth who are civically informed are more likely that youth who are not civically informed to take ownership of social issues in their community and feel motivated to make a difference (Hart 1992), as such was found.



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Simultaneous collection

Intra-method analysis

Inter-method analysis