

Researching an Immersive Poverty Experience: The Efficacy of the MCAN Poverty Simulation

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Abstract

As part of a UNC System Undergraduate Research Award Program (URAP) grant, Western Carolina University and Elizabeth City State University partnered together to purchase the Missouri Community Action Network (MCAN) Poverty Simulation. The Poverty Simulation is a 3-hour simulation where 50-88 participants experience the real struggles of navigating life in poverty. It is run by a team of trained facilitators (undergraduate students and faculty) and 20 oriented volunteers. WCU and ECSU are recipients of NC Promise (making college more affordable for students); therefore, it is important to acknowledge the poverty level and diversity present in both regions served by the university. Jackson County (WCU) has a 17% poverty rate and Elizabeth City (ECSU) has a 18.1% poverty rate. The average percentage of people living in poverty in the US is 12.3%. So, WCU and ECSU serve regions with high poverty rates. The purpose of this research was to identify the efficacy of the simulation for increasing empathy in undergraduate participants. The main research questions this research proposed were, “how might the simulation experience alter one’s perspective on those living in poverty?” “Does the simulation increase empathy in participants?”, and “How were stereotypes about poverty challenged?” The simulation was implemented three times at WCU for over 150 students. Researchers gathered data on lessons learned by participants (specifically centered around increases in empathy and efficacy for challenging stereotypes) through a mix-methods retrospective pre-post survey and guided focus group interviews during the simulation debrief sessions. Researchers transcribed audio-recorded focus group data and analyzed the data using qualitative coding to reveal themes indicating commonalities between participant feelings and understandings that related to the simulation experience. In this paper, the authors will provide a discussion of these themes as well as an overview of the quantitative results.

Keywords: Experiential education, Western North Carolina, empathy, student perspectives, poverty attitudes

1. Introduction

How do we bridge the divide between didactic and experiential teaching to promote positive learning and social impact on poverty in the United States? According to the United States Census Bureau¹ over 12.3% of the United States falls below the poverty threshold. However, in North Carolina counties including Jackson and Pasquotank, this statistic is 17%² and 18%³ respectfully. In order to provide awareness to the realities of poverty, educators are seeking meaningful ways to engage and transform the perspectives of their students outside the classroom. One proposed method is through the Missouri Community Action Network Poverty Simulation.

Western Carolina University, a rural and medium sized mountain college, is situated in the heart of Jackson County, North Carolina; Elizabeth City State University, a small coastal university, is found in Pasquotank County along the North Carolina-Virginia border. Both schools are a part of the NC Promise Tuition Plan which dramatically increases the affordability of education at three select public universities across the state. The universities are also regionally

focused. As part of Western Carolina University's goals, students are encouraged to participate in local community outreach and they host a variety of social justice and service-learning courses, as well as community volunteer connections⁴. At Elizabeth City State University, first year students participate in a regional service-learning project⁵. In the summer of 2018, Western Carolina University Parks and Recreation Management and Health and Physical Education Departments received the University of North Carolina Undergraduate Research Award to fund the Missouri Community Action Network (MCAN) Poverty Simulation on both campuses. Over the course of two semesters, the departments hosted three events at Western Carolina and one at Elizabeth City.

By facilitating these events, researchers aimed to identify the efficacy of the simulation in altering perceptions of poverty in undergraduate participants. Specifically, the purpose of this research was to identify the change in empathy levels. The authors asked "How might the simulation experience alter one's perspective on those living in poverty?" "Does the simulation increase empathy in participants?" "How were stereotypes about poverty challenged?" Their hypothesis was that as a result of participating in the simulation, students would report an increased understanding of day to day life in poverty and leave the simulation with higher levels of empathy.

In this paper, the authors will provide a background on the MCAN Poverty Simulation, previous research utilizing this simulation, their mixed method studies, and overall themes found based on their quantitative and qualitative analysis of data from simulations hosted at Western Carolina University.

2. Literature Review

Since its development in the 1990's, the MCAN Poverty Simulation has provided a personalized experience into the day to day lives of families in situational poverty. Each participant is given the identity of a low-income individual: perhaps a young mother of two, a thirteen-year-old child, or an elderly disabled gentleman. They are also assigned a family situation: maybe a young orphan with an older sister, an unemployed and single father of four, or a senior adult living alone on welfare. They have four weeks, divided into fifteen-minute sessions, in which they live out life - whether it is attending school, a job, obtaining food stamps, groceries, visiting the doctor, and keeping up the mortgage on their house. To fulfil these responsibilities, they will utilize transportation passes (which represent the cost and/or time of a car, bike, public transit, etc.) to reach community resources, which are set up as booths around the "room" and include the school, social services department, pawn shop, grocery store, religious center, courthouse, and hospital. As with life, in their interactions with these resources (led by volunteers), individuals may face long lines, the loss of a job, crime, difficult paperwork, or unexpected expenses at school which may hurt their situation. The goal of this event is to personalize poverty for participants and provide insight into the complexities of the system.

Research on the simulation is not new to this field. Past studies have analyzed the process of the Missouri Community Action Network Poverty Simulation through the lens of Kolb's (1984) experiential learning model. After all, as the age old saying goes, "You cannot understand someone until you have walked a mile in their shoes." Vandsburger, Duncan, Daston, Akerson, and Dillon⁶, refers to it as the "power of personal experience." Kolb's ⁷ model follows the cycle of learning in which one begins with a concrete experience that leads to reflective observation, abstract conceptualization, active experimentation, and then to a new concrete experience. In these studies, we see participation in the simulation serving as the concrete experience and reflective observation. Then, incorporated journaling and class discussion prompt abstract conceptualization and gauge the potential for active experimentation through further service learning or voiced "motivation toward social change."⁸ In these studies, researchers analyzed the effectiveness of the simulation on perceptions of people in poverty.

Previous results have shown positive effects of the simulation on students. Nickols and Nielson⁹ found students "fostered more understanding of conditions contributing to poverty. Browne and Roll¹⁰ saw results that support an open mind, awareness of personal surroundings, and allow one to step in someone else's shoes. In Vandsburger's, et al.¹¹ simulations, students "changed their perspectives about the difficulties of the daily lives of the poor," "gained awareness of how frustrating basic survival can be to those living in poverty," and found the event to facilitate a "transfer of knowledge," "skills development," and the "application of both knowledge and skills."

There is a need for further analysis of the simulation. Limitations remain in the long-term stimulation of "participants towards social action,"¹² whether the power of facilitators can "perpetuate inequality because of bias or reliability," and whether the noticeable perceptual impact "effects last over time."¹³ Constraints also exist within the scope or performance of the simulation itself. Before every simulation, a moderator primes the audience with this statement: "I want to be clear though that we are not, we cannot simulate every aspect of poverty. Three hours . . . could never capture the full reality of these family scenarios. We can't simulate hunger. We can't simulate the compounding effects of toxic stress."¹⁴ This simulation also cannot fully illustrate the power of human spirit, hospitality, resilience, hope, strengths exhibited by low income families.¹⁵ At times the use of role play, cards, play money, and the drive to complete tasks in an allotted-time frame can feel like a game. The moderator states "I want

to reinforce the fact that this is a simulation, not a game. The situations you will be enacting are lived experiences, based on the stories of Community Action clients.” The MCAN suggests that booth volunteers (who represent the community resources) are individuals who have or are currently living in poverty. For the simulations hosted at Western Carolina University, students and faculty within the Parks and Recreation and Health and Physical Education departments and many past simulation participants, volunteered at each booth. However, the implementation of volunteers currently facing the realities of poverty may impact the effectiveness of the simulation. Lastly, some individuals who participate in the simulation have current or previous experience in poverty. The group debrief process at the end of the simulation serves as a dialogue to step back and discuss simulated experiences and how they may not fully represent their own reality.

3. Methods

In our collaborative study design, we utilized a mixed methods approach to gather both quantitative and qualitative data on the perceptions of empathy among participants. Over the course of three separate simulations (hosted at Western Carolina University), undergraduate students completed a retrospective pre-post survey and participated in an audio recorded debrief session. Data were composite scored and coded to reveal significance and recurring themes.

Using Blair, Brown, Schoepflin, and Taylor’s¹⁶ Undergraduate Perceptions of Poverty Tracking Survey (UPPTS), thirty-nine statements which represent six empathetic themes were presented with the Likert scale. These themes are a perception of those who use welfare, poor as different, society as needing to do more to help the poor, poor as having an equal opportunity, poor as having fundamental rights, and lack of resources. At the conclusion of the simulation, participants received the survey and rated their view of each statement (before and after event) using the Likert scale. A composite score of responses was gathered for each theme using Field’s¹⁷ SPSS output methods for changes before and after the simulation and on the after-simulation empathy and factor composite scores. Sample results are measured using (N). We chose to retrospectively survey participants to avoid what we phrase as “you don’t know what you don’t know until you know it.” In essence, this method allowed participants the opportunity to reflect on their experience and self-analyze how their perception had changed. Then using Field’s (2013) SPSS output methods for change demographic data was also collected on gender, school year, race, religion, political affiliation, and financial security. Surveys collected were analyzed by each simulation and also combined together. In total, we collected ninety-two completed surveys from approximately one hundred and fifty participants.

Facilitators divided participants into two groups based on seating and led focus groups at the end of each simulation. Guided questions such as “What are some of the challenges that you faced during the simulation?” and “What is one take-away for you?” were utilized to spark discussion. Each audio-recorded debrief was transcribed and reviewed through etic coding using Saldana’s¹⁸ *The Coding Manual for Qualitative Researchers*. Recurring phrases and concepts were common themes across the simulations.

The researchers received full WCU Institutional Review Board approval for this study. With the permission of the Missouri Community Action Network, the departments also collaborated to include an additional community recreation booth to students participating in the simulation. While attending to daily tasks within the program like obtaining groceries, attending school/work, or receiving healthcare, participants were given the option to visit the community recreation center which hosted a free all day camp for youth during the school’s week of spring break and facilities membership for a small fee. The addition of this booth along with specific focus group questions including “Why did you choose to attend or not attend the recreation center?” allowed us to also qualitatively analyze the factors of recreation accessibility to low income populations.

This is a regional specific study as participants were undergraduate students at Western Carolina University. Students participating in this study were predominantly female (63%). Although Western Carolina University contains over 115 majors, only 22.6% attended the simulation. Then, 46.8% of those majors in attendance represented Health and Physical Education, Parks and Recreation Management, or Recreation Therapy. Many of the students were junior level (45.7%). The majority of participants (58.7%) identified their financial status as secure or very secure. Over 52% identified themselves from a rural hometown. Lastly, our participant base was 83.7% white.

4. . Quantitative Results

In total, 92 of the 140 Western Carolina University participants fully completed the UPPTS retrospective pre-post survey. For the purpose of this study, we only analyzed the Western Carolina University study data. Data were analyzed using Field's¹⁹ SPSS output methods for change before and after the simulation and on the after-simulation empathy and factor composite scores. Table 1 identifies the difference in beginning and ending attitudes for each category. The graph in Figure 1 illustrates this same difference.

- 1) Welfare attitudes (WelAtt_bef; WelAtt_aft)
Composite scores: minimal score possible: 12, maximum score possible 60
- 2) Poor as different (PoorDiff_bef; PoorDiff_aft)
Composite scores: minimal score possible: 8, maximum score possible 40
- 3) Do more (DoMore_bef; DoMore_aft)
Composite scores: minimal score possible: 6, maximum score possible 30
- 4) Equal opportunity (EqualOpp_bef; EqualOpp_aft)
Composite scores: minimal score possible: 6, maximum score possible 30
- 5) Fundamental rights (FundRt_bef; FundRt_aft)
Composite scores: minimal score possible: 6, maximum score possible 30
- 6) Lack of resources (LackRes_bef; LackRes_aft)
Composite scores: minimal score possible: 4, maximum score possible 20

Table 1. Attitudes towards poverty before and after simulation

Descriptive Statistics			
	Mean	Std. Deviation	N
WelAtt_bef	33.1522	7.25809	92
WelAtt_aft	29.4674	6.11151	92
PoorDiff_bef	19.3261	5.46740	92
PoorDiff_aft	17.6196	5.43663	92
DoMore_bef	12.5000	3.95441	92
DoMore_aft	11.1739	4.01811	92
EqualOpp_bef	15.9783	4.53552	92
EqualOpp_aft	14.1739	4.31101	92
FundRt_bef	5.6087	2.46718	92
FundRt_aft	5.0543	2.06682	92
LackRes_bef	7.9674	3.07936	92
LackRes_aft	6.7174	2.69034	92

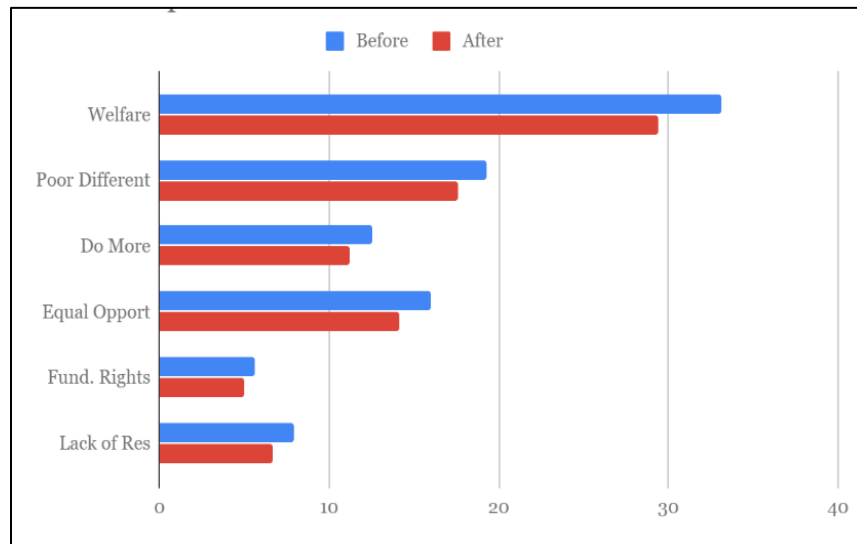


Figure 1. Attitudes towards poverty before and after simulation

From the inferential analysis, we see a decrease in the beginning and ending mean attitudes in all six categories. This decrease in our mean scores represent an overall increase in empathy levels among participants from the beginning of the simulation to the end. These results are statistically significant at an alpha value of less than .05.

5. Qualitative Results

From our etic coding analysis, we found themes in participants' view of time, priorities, and emotions during the simulation. Participants frequently voiced how there was "no time" and they were "busy." This led to a shift in priorities during the simulation. For example, several participants noted how they "kinda forgot about food" and "I didn't see my kids (un)til the end of the week and trying to sell everything I own to get a little money." There were also statements like "We didn't have a home and I realized I only bought groceries for the first week (be)cause I was so distracted." We noticed a trend in many participants avoiding groceries or leaving their children alone for extended amounts of time and later finding them involved in crime. One of the concluding questions asked, "Think of one word that describes how you felt during the Poverty Simulation." Responses included emotions such as "frustrated," "annoyed," "stressful," "fearful," "scary," "helpless," "overwhelmed," and "desperate."

In addition to this, we found a correlation in a focus on transportation and childcare. Participants noted transportation passes and childcare or lack thereof as a major limitation in their day to day lives. Transportation passes were sold for \$1 and represented one's use of a car, bike, or public bus. Each individual needed a pass in order to access the community resources (with the exception of the school). This is an especially relevant note as neither Jackson nor Pasquotank counties have public transportation readily available. The concept of childcare was also mentioned - especially in relation to the week of simulated spring break that students experienced. Often students chose to leave their children at home unattended or in juvenile detention centers. "Children" who spent the majority of the simulation in juvenile detention centers or alone without the ability to bring an income for their family voiced their feelings of helplessness in the debrief.

There were also comments demonstrating a shift in perspective outside the simulation. Participants reflected, "This made it a bit easier to not prejudge." "It just put me in a different place. I was so focused on how am I going to get a job and feed my kids . ." "I can't imagine. This was just a simulation so I can't imagine this in real life." Listening to repeated comments about participants focus on their characters: time, priorities, emotions, transportation, and childcare adds words to the measured change in the retrospective pre/post surveys.

6. Discussion

How can we utilize these results? Perhaps, the answer comes from our participants. The majority of participants in the simulation were undergraduate students representing at least twenty-two different disciplines. In every post discussion, students talked about how they would take this experience into their future field. For recreation and health majors, this appeared in understanding, for example, recreation accessibility. In education majors, a participant discussed the underlying factors behind a youth's behavior in school. In the field of criminal justice, participants mentioned how present circumstances might lead to an individual's involvement in crime. Application - that's the goal, right? The aim for hosting campus experiential events such as the Community Action Poverty Simulation is that by spending a few hours in someone else's shoes, students will better understand the realities of poverty and take actions to end it.

Knowing that case studies such as this one have shown an increase in empathy from pre- to post simulation, there are now further steps to take. There is a need for research to be completed on the long-term effects of the simulation on empathy levels and whether there is a correlation between participating in a simulation and taking steps to social action. Browne and Roll²⁰ sought research on the longitudinal results of attending one simulation by measuring student's perceptions over the course of a semester and found that few students fostered increased awareness, empathy, and civic engagement months after attending the simulation. They suggested that educators critically examine how they utilize simulation as an experiential tool to teach about poverty and provide lasting knowledge for participants.²¹ Mann²² also found immediate statistically significant increases in emphatic attitudes of participants but proposed additional research on other approaches to poverty education as their effect size was small and could not be examined in the long term. Location may also factor into attitudes, empathy, and experiences among students. Western Carolina University is located in a rural area. Blair et al.,²³ whose data are from a "small, suburban university" and participants with limited impoverished history, commented that hosting the simulation in an urban and largely populated college may also produce different results. Vandsburger et al.,²⁴ found 41.6% of their participants were not prepared at the end of the simulation to commit to student-led social action. There is room to seek out ways in which the poverty simulation can be utilized in conjunction with service learning or student-led action to affect the communities surrounding host universities. Comparative research can be completed to examine the connections between data from Western Carolina University and from Elizabeth City State University's simulations.

7. Conclusion

This research project, made possible by the Undergraduate Research Award Program Grant and Missouri Community Action Network, allowed the researchers to measure varying levels of empathy towards poverty over the course of three hosted simulations on Western Carolina University's campus and once at Elizabeth State University. Results were gathered through a pre-post retrospective Likert scale to measure quantitative responses to the simulation and audio recorded debrief sessions to measure descriptive, personal responses and feelings the simulation evoked in participants. The quantitative data collected through the UPPTS instrument showed a positive increase in view of empathy, welfare, poor as different, do more, equal opportunity, fundamental rights, and lack of resources. Qualitative data presenting themes of prioritizing, limited time, & emotions were gathered through etic coding methods. The combined results conclude that the MCAN simulation kit is effective in producing short-term empathetic takeaways in participants.

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