From Cooperative and Solidary Education to Thriving Rural Communities in Northeastern Brazil

*Abstract*

*Rural-urban exodus has been a problem for the rural areas in the northeast of Brazil since the 1800’s. Intermittent rain and arid soil, which makes it difficult to cultivate, are among the main reasons which forced rural youth to move aways from their land in the search for better livelihood opportunities. Even though public policy has addressed the issues by building dams and implementing water management technologies over the years, these efforts have mainly favored the rich farmer. Moreover, starting in the 1980s, industrialization have been more substantial in the southeast area of the country, in cities like Sao Paulo and Rio de Janeiro, where colonization and urbanization started much sooner than any other area in the country and where natural resources are more abundant. Hence, many rural residents take their chances and travel thousands of miles to pursue a better livelihood in these areas. With no money or skill, they have a hard time finding jobs and become squatters creating what is known as favelas, a community with no infrastructure, which, in turn, generate all sorts of social problems. Understanding and creating ways for rural residents to stay in their hometowns is essential for the well-being of both rural and urban areas.*

*I am studying the lives of alumni and current students from a cooperative and solidary education secondary school in the city of Pentecoste, a town in the northeast part of Brazil which 50% of the residents live from subsistence agricultural practices. I want to find out if cooperative and solidary education has been a catalyst to maintaining youth in the rural areas by creating alternative choices for a sustainable and happy life in their communities.*

*As co-researchers, this participatory action research will engage former and current students, teachers, and administrators from the cooperative and solidary education secondary school. The team will use mixed methods to better understand the current situation of the region . Quantitative data will be collected from government organizations to compare this community with others and with itself over the years. The qualitative inquiry will be done through the lenses of grounded theory. Data collection methods will encompass interviews, observations, photovoice, informal conversations and any other method that the teams decide to pursue.*

# Introduction

Rural to urban exodus has always been a problem in the northeast of Brazil. Among the approximately 250 million people living in Brazil, only about 13% live in rural areas and this proportion has been steadily decreasing since the 1960's when 53% of Brazilians lived in rural areas (The World Bank, 2018). I will first start with an overview of the causes of Brazil's rural-urban exodus; then, I will introduce the focus region of my study and my research questions. Finally, I will explain the design of this study.

Brazil is the fifth largest country in the world. It is 11% larger in size than the continental USA. Brazil is among the countries with the largest income disparities globally. According to Maia (2015) from Oxfam International, the top five percent of the wealthiest Brazilians earn as much as the remaining 95%. Public policies aimed at modernization, mechanization, and water accessibility have mostly privileged the well-off. Consequently, they have created a society where the poor are left to fend for themselves in rural and urban settings (Campos & Studart, 2011). For rural residents, exodus to urban areas is often considered the most viable way to survive.

Three main reasons account for this human displacement. First, public policies related to modernization and industrialization in urban centers in the south and southeastern regions of the country, enacted in the 1980s, made life in the large cities enticing to youth from the rural areas who perceived urban centers as having better opportunities (Alves & Souza, 2011). Today, even though these regions account for only 17.6% of the whole Brazilian territory, they encompass 56% of the population and are responsible for 70.8% of the Gross Domestic Product (GDP). In comparison, the country's northeast region covers 18.2% of the territory, encompasses 27% of the population, and accounts for only 14.2% of the GDP (IBGE - Instituto Brasileiro de Geografia e Estatistica, 2021).

Second, the northeast region of Brazil is semi-arid: an area of intermittent rain and arid soil. Discussions to on how to address these harsh agricultural conditions date back to 1725 with no real change for the small poor farmer (Campos & Studart, 2001). These discussions continue with, a more recent visit from The University of California-Davis Agricultural Water Management Specialists to Ceara to share new technology on how to manage this type of soil which is very similar to what they have in California (State of Ceara Government, 2022). The visit, which took place on April 2022, was financed by the World Bank and, similar to other projects, brings hope to rural farmers.

The third reason for the rural-urban exodus, however, may explain the cause for perpetual desperation. The public policies related to agricultural modernization and water management, enacted at the beginning of the 1990s, encouraged agroindustry among large landowners but left small rural family producers with no financing mechanisms or other incentives to stay in their land. Over the years, the government has created many institutions and laws to forecast and manage water supply. In Ceara, a state in the northeast of Brazil and where our study will take place, the first dam was built in 1900. Today, Ceara has 247 dams (State of Ceara Government, 2022). Although the government has built infrastructure and established laws that guarantee water access to small family farmers, the beneficiaries of these sizeable and expensive government projects were mainly the large landowners (Campos et Studart, 2001). The majority of the small landowners still pray and wait for the rains to come every year. Inequitable access to water reinforces migratory tendencies from rural to urban areas and from the Northeast region to Southern regions, inflating urban centers and causing many social-economic problems.

Rural-urban exodus exacerbates social and economic problems in the city. With no money and no job skills for urban settings, rural youth have difficulty finding an occupation. They usually become squatters in what are known as favelas (slums). In the capital of Ceara, Fortaleza, which has a population of about 2.5 million people, about 400,000 people live in favelas (Tosi, 2020). This number does not include low-income housing residents. Favelas consist of informal housing built with all sorts of materials, including cardboard, plastic, pieces of wood, and bricks on land owned by the government or next to a river, train tracks, or a sand dune. They are constantly susceptible to floods and destruction because they are built close to a water source and with very fragile materials. People may be sleeping in couches, hammocks, or on the floor. Bathrooms consist of toilets placed in the corner of the house next to the stove and may have a sheet as a curtain, for privacy. The feelings these conditions raise for me are ineffable. Understanding and creating ways for rural residents to stay in their hometowns and live a dignified life is essential for the sustainability of rural and urban areas. I seek to understand how cooperative and solidary education may help youth remain in the rural areas by creating ways for them to live sustainable and satisfying lives in their communities.

The study will take place in the state of Ceara, in the city of Pentecoste, which has 38 thousand people. Sixty percent live in the city's urban center, and 40% live in the rural areas, which is more than double the national average of 15.65% (IBGE, 2021). The focus of my study is a public high school, now known as APTHS, that uses a cooperative and solidary education methodology throughout the school. This methodology places the students at the center of their learning. The teachers are facilitators, and they all work together in building knowledge and solving school and community problems. Classes consist of a 20-minute lecture by the teacher and then students learn more deeply in groups of three. They explain the materials to each other and connect the learning to their place and time.

APTHS school is located in the city's urban area but is open to all students. It was founded in 2011 as a partnership between PRECE (Programa Educacional Coraçao de Estudante – Educational Program Heart of a Student), a non-formal popular educational movement initiated in 1994, and the state of Ceara public schools. It currently has 524 students, who are all low-income, and 29 teachers and staff. Seventy-three percent of current teachers are PRECE former students.

APTHS is an example of how education can change the lives of its students, staff, and the community. Its benefits are visible, not only on standard measurements, such as college acceptance (about 100 students are accepted to college every year)and high national test scores but, most importantly, on the desire of students to transform and improve their lives and the community through cooperation and solidarity movements.

I am studying the lives of current and former students from PRECE and APTHS to understand if there are relationships between cooperative and solidary education and the local rural-urban exodus in the region. This participatory action research will engage former and current students, teachers, and administrators as co-researchers. The team will use mixed methods to understand if the school’s methodology, which is based on cooperation and solidarity, has contributed to keep youth in their communities instead of moving to the large urban centers. I would like answers questions such as: What do youth consider a good life? Are students fostering sustainability in the rural areas? Is cooperative and solidary education creating a sense of community and empowering youth to continue to live in rural areas? How is this methodology helping to improve the lives of students after graduation? Is youth from this school leaving the rural areas to find better opportunities in large cities?

Quantitative data about population growth will be collected from government organizations to compare this community with others and with itself over the years. The qualitative inquiry will be use grounded theory and data collection methods will include interviews, observations, photovoice, informal conversations, and any other methods the team decides to pursue.

I believe that youth have the power to change their circumstances if they have the right tools and mentorship. According to research, Cooperative Learning has proved to be an innovative way to gain academic and social skills (Johnson et Johnson, 1999). Solidarity has been added as part of the methodology of this school, steering the attention to beyond the school into the community. I hope that this research will uncover some innovative and powerful ways to change an oppressive situation that has been imposed on the rural poor population over some time. It is time for liberation!

# Knowledge and Action

## I Am an Outsider

As I begin the route of Community Participatory Action Research and the creation of new local knowledge, I will pride myself in the deep participation of those most affected by the injustices that this research is trying to uncover and overcome. However, before I even begin to approach the community with my goal to understand their way of life and help improve it, I need to reflect on my positionality and how it will affect this study. Positionalities are multilayered and can shift during the project (Herr & Anderson, 2015). The most effective way to ensure my positionality will affect this study in positive epistemological, methodological, and ethical ways is to analyze it and make it transparent.

I consider myself an outsider in search of collaboration with insiders. Before any collaboration and creation of new knowledge occur, it is crucial to foster solid relationships and build trust. Thus, I initiated these relations two years ago when I was introduced to the founder of this institution by a common friend. Ever since, he has opened doors to me by introducing me to former students, putting me in contact with community leaders who are former students of the institution, and allowing me to talk to current students, the principal, and teachers at the school. I was welcomed in the PRECE founder’s home; I ate together with his family; we shared dreams and aspirations. I visited the numerous villages which were part of the program and talked to multigenerational people about their lives. I am impressed by how different I am from them. Even though we are from the same state in Brazil and speak Portuguese, they have very different lives from mine. They have a different vocabulary, and ways of dressing, walking, and eating. They live and work in nature, with nature, and for nature. Their intimacy with animals and plants is laudable and inspiring. I can see their love for their land and community, despite their oppressed and poor living conditions. People from the city where I come from have a distorted idea of the rural areas. For them, the rural is a deficient part of society. Unfortunately, in their eyes, the poor are deprived not only of material things but also of valuable knowledge.

I came from the same stem of knowledge, but from the first day with this community, I knew this was the place I would like to learn more about and spend my time as a researcher and as a friend. Since February 2020, I have visited this community three times and have grown increasingly enthusiastic about their knowledge and wisdom. Now, I am interested in uncovering the effects of cooperative and solidary learning in the community. During my two years as a Ph.D. student, I have kept in touch with the founder, the school's director, and former and current students. I have written multiple class papers, including one on the stressful effects of the Covid-19 pandemic and how cooperative learning could have helped overcome these effects. I have also mentored two students on their college applications to universities in the USA. I feel confident that trust has been built between us and that I am now ready to start building transformational knowledge together.

## Co-Creation of Knowledge

The knowledge I hope to co-create with the community pertains to these questions: (1) How do they describe and feel about their way of life? (2) What would be their perfect way of life? (3) In what ways has cooperative and solidary education helped them improve their way of life? Cooperative and Solidary Education has been in this region for more than 25 years. I am interested in understanding how this methodology has impacted the lives of the people in this community. I want to better understand how rural communities that have had exposure to cooperative and solidary education live, how they value life; how they see life improvements; and if participation in cooperative and solidary education has affected how they approach their lives and livelihoods.

I hope to recruit ten co-researchers through a list of former students from APTHS from different graduation years since its opening in 2011. The project will initially pay a stipend of two base Brazilian salaries to motivate participation. If other costs appear necessary, they will be addressed. The collective knowledge building should not be hindered by financial struggles. We plan to meet for at least 12 days (four weekends, Friday through Sunday); a total of 60 hours at the CIPO training facility. The four weeks of training will include: (1) building trust and community with the whole team, (2) learning how to do research, (3) brainstorming and creating a pilot survey and a pilot interview protocol, and (4) revising the survey and interview protocol and creating other data collection methods. The weekend setup is crucial because we can invite people who live in other localities: former students who might have moved away or are working during the week.

The pilot survey protocol will include open-ended narrative prompts, such as “How do you describe their way of life?”; and open-ended short qualitative prompts questions such as “What five words describe how you feel about your life?”. It will also include standardized items that focus on family income, parents’ education, age, and gender for statistical analyses. This first survey will be used in a pilot study and will be answered by five of the co-researchers' friends, who are also former students from APTHS. The team will also create a pilot interview protocol with five questions related to the methodology of the school and how it connects to their present and future lives. Five senior current students will be interviewed in the pilot study.

During the 4th week of training, the co-research team will revise the survey and the interview protocol. The final survey will be sent to the 5000 former students of APTHS via WhatsApp and through a website. Fifty current seniors will be interviewed using the final interview protocol by the co-researchers. All who participate in the survey and interview will participate in a raffle for a week-long trip to Washington DC. Focus groups with APTHS teachers and interviews with parents will be used to create a more diverse way to collect data to ensure interconnected analyses at all levels: individual, social, cultural, and institutional.

## The Value of this Knowledge

Knowing how rural communities live and how they consider improvements in their communities may be a way to empower them and keep the youth in their communities instead of trying to survive with no family or job skills in large cities. This knowledge is also essential because we hope to uncover oppressive relationships and everyday struggles in the community. Giving a voice to rural community members is valuable because they know how they feel and how they see their lives in the future. Moreover, if findings show links between cooperative and solidary education and significant improvements in the community, there could be a change in the way government considers implementing such education in other schools in the state, which, until now, has been limited. Cooperative and Solidary Education has sent thousands of rural low-income students who never thought of continuing their education beyond 4th grade, to college. However, what happens to them after post-secondary education and their relationship with their families and communities are still questions to be answered.

# The Learning and the Actions

I expect my co-researchers to learn from their disagreement, treasure new ways to see life and their communities, and create actions that demonstrate the results of their struggles, desires, and joys. Through well-done research, this CPAR can show ways out of poverty through education, cooperation, and solidarity. One action we might focus on is changing legislation to include cooperative and cooperative learning in other schools in the state. So, the team might want to ask to present their finding in the state legislative office. While there, they might want to invite the press to document the event and make sure the issues raised continue to resonate in the community.

The northeast of Brazil is an area of intense folklore; religious celebrations occur all year round. Thus, it might be interesting as an action for the co-researchers to participate in these celebrations with plays to tell stories of their ways of life, showing the reasons for struggles and the reasons to rejoice. Hopefully, these art expressions will give voice to the community and can expose some of the oppressions learned during our PAR project. I hope they will see that their reality is a construct, and they can change it and improve it.

# Challenges and Conclusion

In a PAR project, challenges are part of the process because I will be sharing every step with my co-researchers. Collaborative processes are more cumbersome, but at the same time, they are the most meaningful for all involved. Some of the challenges that I expect to face are (1) the presence of dominant culture ideologies, (2) co-researchers fear of speaking out and challenge authority, and (3) mindfulness of my own journey and biases.

The dominant culture ideologies, including the idea of poverty and its sense of deficit is prevalent in this community. I also expect that the goal of education in the community is still to compete for a job even though the school in this study is a cooperative and solidary school. Also, challenging authority and having a voice to speak freely about their struggles may be hard for my co-researchers. The founder of this project has tremendous authority over the community and despite his efforts to build community, he may hold beliefs that may contradict his discourse. The last challenge is fighting against by own biases. My culture and upbringing will be lenses to my thoughts, ideas, and discourse. I need to reflect and first ask questions, come places and time with culture humility and be open to show my questioning and never impose. There will be other challenges such as time, fear, and resources. I am ready to face them all in order to uncover the social-economic inequalities of this community.

# References

Alves, E. D. A., Souza, G. D. S., & Marra, R. (2011). Êxodo e sua contribuição à urbanização de 1950 a 2010. Área de Informação da Sede-Artigo em periódico indexado (ALICE).

Campos, J. N. B., & Studart, T. M. D. C. (2001). Secas no Nordeste do Brasil: origens, causas e soluções.

Herr, Kathryn & Gary L. Anderson. (2015). The action research dissertation. 2nd Edition. Thousand Oaks, CA: Sage. ISBN-10: 1483333108

IBGE (2021). Produto Interno Bruto - PIB | IBGE. Produto Interno Bruto - PIB. Retrieved February 23, 2022, from <https://www.ibge.gov.br/explica/pib.php>

Johnson, D. W., & Johnson, R. T. (1999). Making Cooperative Learning Work. *Theory Into Practice*, *38*(2), 67. <https://doi.org/10.1080/00405849909543834>

Maia, K. (2015). Brazil: Extreme inequality in numbers. Oxfam International. Retrieved February 23, 2022, from <https://www.oxfam.org/en/search?keys=inequalities+brazil>

State of Ceara Government. (2022). Atlas Eletrônico Dos Recursos Hídricos Do Ceará. Retrieved February 23, 2022, from <http://atlas.srh.ce.gov.br/infra-> estrutura/acudes/index.php?status=1

The World Bank. (2018). Rural Population - Brazil. Retrieved February 23, 2022, from <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=BR>

Tosi, M. (05/19/2020). Fortaleza é a quinta cidade brasileira com maior percentual de casas em favelas. O Povo Newspaper. https://www.opovo.com.br/noticias/fortaleza/2020/05/19/fortaleza-e-a-quinta-cidade- brasileira-com-maior-percentual-de-casas-em-favelas.html