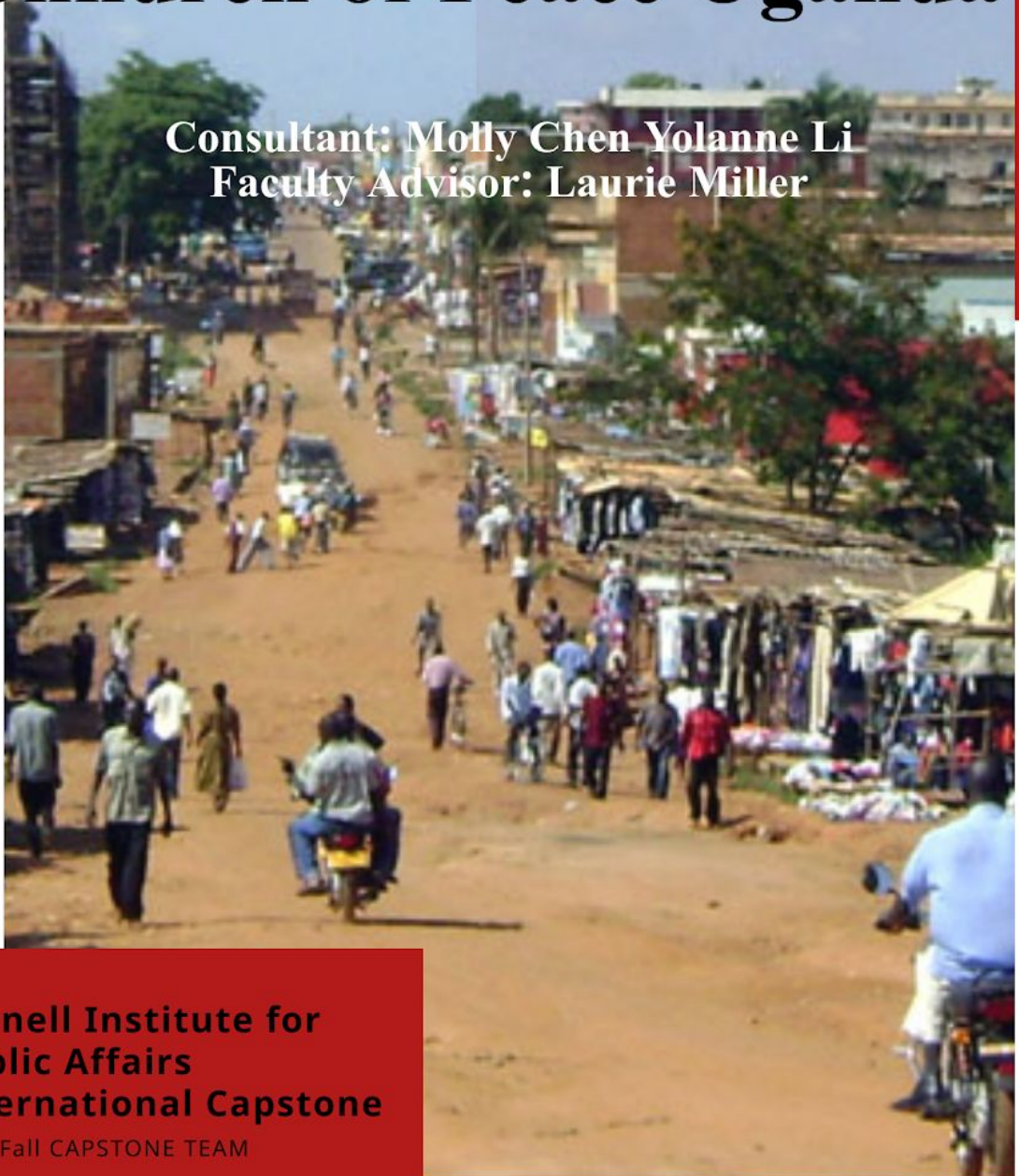Cornell University

Consulting Project for

Global Livingston Institute & Children of Peace Uganda

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Cornell Institute for Public Affairs International Capstone

2020 Fall CAPSTONE TEAM

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Global Livingston Institute (GLI) and Children of Peace Uganda (CPU) worked with the Cornell Institute for Public Affairs (CIPA) 2020 Fall Capstone team to identify the psychological and social challenges faced by the former child soldiers in Uganda, to assess the current needs of former child soldiers and their offspring, including the challenges faced by children born in captivity, and make recommendations to foster a better community re-integration. Due to the continuous effect of the world pandemic during the time of authorship (Fall 2020), also considering the restrictions of budget, the project changed focus from remote focus groups and interviews with teachers and parents to data analysis of previous surveys completed in the CPU/GLI farmer training program. To identify the challenges faced by former child soldiers (FCS) and the gaps between FCS's needs and what is currently offered, the CIPA Capstone team analyzed qualitative and quantitative data collected by these surveys as well as reports developed by previous capstone teams. This report summarizes the team's analysis, findings, and conclusions based on the following research question:

"What are the psychological and social challenges faced by children of FCS, born in captivity?"

The CIPA Capstone team originally planned to answer the research question by gathering and analyzing data through in-depth interviews, focus groups, and online surveys before the change of format. The literature review examined the possibility and effectiveness of remote focus groups and provided various tools, which could be adopted for use by the CPU and future CIPA Capstone teams. The literature review includes our team's findings that: remote qualitative research can be beneficial in terms of budget-saving and gathering information from more voices, as well as avoiding ethical limitations and fostering a more sophisticated research method. Through the review of tools to facilitate remote data gathering, the team found that video conference tools like Zoom and Skype have pros and cons for people to choose from, and the possibility of mobile data collection is discussed due to the unique social-economic background of Uganda. The last section mentions barriers to internet adoption in Uganda that need to be taken into account for future research design.

Due to the current barriers to conducting interviews and focus groups with teachers and parents in Lira remotely, the team decided with CPU and GLI to conduct an analysis of CPU and GLI's survey of FCS and non-FCS participants in the CPU/GLI agricultural training program. The survey analysis aims at providing a better understanding of the demographics, economic, social, and family circumstances, resources, strengths, and needs of the FCS and Non-FCS participants This information will provide a background for developing and preparing researchers for future research with parents, and teachers, and possibly children through interviews and focus groups.

The CIPA Capstone team found similarities as well as important differences among the FCS and non-FCS respondents. The most striking findings are that food shortage is very obvious in the

FCS group' they often worry about the food shortage in their households and have to eat a limited variety of foods. Given the lower income of the FCS respondents, the FCS group reported spending more money on food and less money on agriculture. Most of the FCS respondents believed that the community is supportive in providing living material and emotional support. Most of them reported needing financial support to generate income in the future or to start a small business.

Based on our survey analysis and review of remote research methods, the CIPA Capstone team provides the following recommendations for GLI and CPU to fill in the gaps existing in the FCS's needs and what is currently offered, to foster a better community re-integration. We suggest that GLI and CPU continue improving the lives and socioeconomics of FCS by developing possible fundraising schemes for FCS to start small businesses. We also recommend providing additional psychological support.

For future research, we recommend including more FCS respondents in future surveys, interviews, and focus groups to exclude sample biases. For the next phase of the project, which will more closely examine the challenges faced by children born in captivity, the teachers' survey (see Appendix), should include more questions regarding the differences between FCS and Non-FCS families and children as a possible way to better understand the two groups' situations. The CIPA Capstone team also provides the survey tool for teachers groups that are designed in an online survey format, which we hope will be conducted by a future Capstone team.

1. INTRODUCTION

The 2020 Fall Capstone team partnered with the Global Livingston Institute (GLI) and Children of Peace Uganda (CPU) to plan for research, including refining and conducting surveys of parents and teachers in Lira, Uganda to understand the psychological, social, and other challenges faced by former child soldiers, and their children. Global Living Institute is a non-profit organization that aims at educating students and community leaders on innovative approaches to international development and empowering awareness, collaboration, conservation, and personal growth (Global Livingston Institute, n.d.). Children of Peace Uganda is a non-profit organization in Lira Uganda that is dedicated to the well-being and empowerment of former child soldiers, children born in captivity, and children orphaned by the two-armed conflicts in northern Uganda (Children of Peace Uganda, n.d.).

The 2020 Fall Capstone team's project involved building on the work of the previous team's surveys and interviews protocols to gather information from different stakeholders to answer this research question:

"What are the psychological and social challenges faced by children of FCS, born in captivity?"

The focus of this fall's Capstone project was to additionally explore how participation in the GLI/CPU programs in Lira contributes to successful FCS community reintegration. The team also wanted to know more about the gaps between the needs of the children of FCS and the availability of the programs that are offered to support their development in school and the community.

2. LITERATURE REVIEW

Due to the spread of COVID-19 along with travel and isolation policies, there were restrictions on research, especially those with in-person human interactions or public observations. The 2020 Capstone team planned to move the research plan forward by transforming the in-person interviews with parents and teachers into a virtual engagement of human subjects. To inform the data collection to be implemented with the Global Livingston Institute (GLI) and Children of Peace Uganda (CPU), a literature review of relevant successful research practices using remote engagement and methods was conducted to give accurate information about the current background for using the virtual approach. This literature review focuses on assessing the effectiveness of remote interviews, possible remote interview tools, and potential social barriers. These themes were chosen to reinforce and expand upon the research questions with consideration of the influence of the pandemic.

2.1 General Assessment of Remote Qualitative Research

With the impact of the global pandemic and the restrictions on travel and gathering, researchers are encouraged to use this time as an opportunity to find a different approach to engage human subjects and field research, which involves the transition of in-person research activities to a virtual approach with the assistance of technology (UXalliance, 2020). The use of remote field research approaches was quite popular before the start of COVID-19. It is common for researchers to use online survey tools, conduct interviews through phone or video conferencing, and conduct research analysis by using existing online interactions (University of Michigan, 2020).

Researchers have been exploring the use of virtual interviews with the help of computer-mediated communication since the end of the 20th century. Off-line methods can be adapted for online users with a different set of guidelines for the interview and how interventions should take place (Murray, 1997). The biggest potential advantage is that no transcription of content was needed for the text-based computer-mediated communication, as the discussion and interactions were recorded and saved already (Murray, 1995).

Within qualitative research, focus groups are commonly seen as a strong option for gathering in-depth opinions (University of Michigan, 2020). Over the past 20 years, various reports have focused on the benefits and drawbacks of the virtual approaches of focus groups with different results, mostly due to the different stages of technology development (K. L. Galloway, 2011). According to White and Thomson (1995) who conducted focus groups through teleconferencing, anonymous focus groups are more likely to promote discussions around sensitive topics as participants in the anonymous groups tend to perceive them as less threatening. A similar result

was seen in Campbell et al's. (2001) research on the comparison between in-person focus groups and virtual ones: participants in the face-to-face focus groups tended to hold back their opinions more. However, one drawback of online focus groups also was that typing in the online group led to shortened or omitted comments from participants. Still, it didn't hurt the online focus groups' ability to generate similar information as the in-person focus groups.

Many researchers have proved the benefits of online field research, especially virtual focus groups. In Rupert et al. (2017)'s practical experiment of the comparison between virtual focus groups and in-person focus groups, they found that the hypothetical benefits of online focus groups pertain to practice. Virtual focus groups provide faster data as travel time is eliminated and people from different geographic locations can be gathered in one single day, which can also promote the participants' diversity. In their research, they also discovered that virtual focus groups provide more possibilities to capture hard-to-reach populations and reduce participants' burden. Because of the lack of visual stimuli and status cues, individuals were less likely to dominate electronic groups for various comments to be heard (Barbour, 2007). Also, those participants who are shy were more active in making their voices heard online (Scott, 2004).

 A common conception of the benefit of the online focus groups is that they are cheaper than traditional focus groups mostly because of the ability to cut out the costs of room reservation and moderator's traveling expenses (Murgado-Armenteros et al., 2012). However, the actual cost difference between traditional focus groups and online ones is minimal. Though the virtual groups can eliminate the costs for travel and other management costs, the recruitment incentives for virtual groups are typically higher than for face-to-face groups (Rupert et al., 2017). This could largely be due to the higher number of cancellations and no-show rate among virtual group participants. Under the lighter burden and social pressure, the cancellation rate may increase, causing additional costs for the researchers to enroll extra participants to offset those who do not show up.

With this above limitation mentioned, there are other concerns over virtual interviews and focus groups. Online written response platforms and teleconference lead to a situation where nobody's language and facial expressions are presented, which could result in misunderstanding, the missing of essential information, and potential ethical problems (Gratton & O'Donnell, 2011). Also, a common scenario is that multiple people speak at the same time, causing the loss of data. With a more diverse participation group, misunderstandings could happen due to the accent, and the participants could miss information due to unstable internet or the pace of conversation (K. L. Galloway, 2011). To deal with these issues, a more sophisticated design of the focus group structure and a smarter method of the moderator's intervention is needed. Data security can be one of those big concerns that come to mind when considering the limitations. The rise of new technologies and platforms that will be discussed in the next section could guarantee the security of data and confidentiality of personal information (K. Galloway, 2011).

2.2 Remote Interview Tools

2.2.1 Video Conferencing Tools Under COVID-19

With the ongoing pandemic of COVID-19, more people are working online than ever, using remote video conferencing as the primary tool for business operations and social connection. In March 2020, at the beginning of the pandemic, video conferencing apps, including Google Hangout, Microsoft Teams, and Zoom saw a record of 62 million downloads (Business Wire, 2020b). It is estimated that 78% of corporate companies use video calling software, 86% of companies conduct employee interviews over video calls, and 88% of education professionals say video conferencing tools will help more students earn advanced degrees (Stone, 2020). According to a Valuates report, web conferencing has an estimated worth of $12.5 billion and is expected to hit $19 billion by 2025 (Kalmykov, 2020).

COVID-19 increases the need for video dramatically. TrustRadius estimates that the web and video conferencing category for business technology saw a 500% increase in buyer activity since the COVID-19 outbreak began (Scott, 2020). Several factors influence the positive growth of the video conferencing industry, including the increasing focus of companies towards the expansion of their businesses in the global market, the management of the workforce in various subsidiaries, and undoubtedly the outbreak of the coronavirus (Business Wire, 2020a). According to the video conferencing market report, the end-users of video conferencing are mainly divided into government and commercial sectors, which connect employees, clients, doctors, etc. (Business Wire, 2020a).

During the pandemic, all cloud conferencing providers have seen an increase in customers, while Microsoft and Zoom have captured the majority of the growth (Cox, 2020). Kalmykov (2020) believes that to achieve widespread success as a web conferencing platform, software should have an intuitive and simple UI, a standout free version, comprehensive security measure, and be easy to access (Kalmykov, 2020).

Considering the geographical distance between Uganda and the United States, with the traveling ban government implemented as a measure of responding to the COVID-19 pandemic, the Capstone team decided to plan to conduct remote interviews this year with the help of GLI/CPU.

2.2.2 Video Conferencing Tools Comparison

To find the best tool, the team compared several basic video conferencing tools and lists the pros and cons of each tool for reference, below:

- Google Hangout

Google Hangout is an integrated communication app that lets users make calls, do messaging, and carry out video conferences (CompareCamp, 2018). Anyone with a Google account can log into the software. Google Hangout is free and easy to use, with both phone applications and web versions. As a product of Google Suite, the Google Hangout integrates with other Google applications for users.

However, Google Hangout only has basic settings without detailed customization such as a virtual background in Zoom (CompareCamp, 2018). The call quality of Google Hangout is basic, with possible fuzziness (CompareCamp, 2018). Although Google is commonly used around the world, Google Hangout users must have a Google account, thus increasing the complexity for those who do not have an account.

- Skype

Skype is a communication service platform that is used for free video calls globally. It includes a "Whiteboard" function which most of the video conferencing tools lack. Belonging to Microsoft, Skype integrates Microsoft Suite applications for users, which is convenient.

Unstable connection during meetings is one of the main disadvantages Skype has (Chappell, 2020). Besides, background noises are easily collected during Skype meetings (Chappell, 2020).

- Zoom

Zoom is a video conferencing platform for use on desktops, laptops, Android, or iOS devices. Zoom is estimated to have over 300 million meeting participants per day in 2020 (Stone, 2020). It includes multifunctional screen sharing and connects with different calendar applications. Zoom has various customized settings, for example, a virtual background.

Since Zoom users can join meetings without registration, its security and privacy issues are also concerning. Zoom limits its free video to 40 minutes, thus paid service is what most customers chose. However, there are some complaints about Zoom's poor customer service (Chappell, 2020).

- Microsoft Teams

Microsoft Teams is a cloud-based group messaging platform for Office 365 users, which has 75 million active daily users in 2020 (Stone, 2020). Users can join a conference directly without requiring a download. It also supports browsers such as Firefox, Chrome, Edge, and Safari, with

easy file-sharing functions.

Similar to Google Hangout, Microsoft Teams requires a Microsoft account to use. Other main disadvantages are that Microsoft Teams has poor integration with third-party applications and limited notification functions (Chappell, 2020).

2.2.3 Mobile Data Collection

In recent years, the explosive growth in smartphones has changed social life drastically. In 2008 it was predicted that there would be more smartphone subscribers in developing countries than in the developed world (Bhavnani et al., 2008). As basic tools in people's lives, smartphones are becoming one of the effective for collecting large-scale data in many sectors. Mobile data collection is the method of gathering any type of information using a mobile device, such as a smartphone or tablet (QuickTapSurvey, 2014). The primary goal of mobile data collection is to gather in-the-moment or close-to-the-moment active data and passive data from people's daily life (Seifert et al., 2018). Mobile data collection is extremely efficient when collecting quantitative data. Compared to traditional data collection methods, for example, by paper, mobile data collection can reduce cost, increase speed, decrease environmental impact, improve data quality, provide automated feedback and easy to scale up methods, and offer simple storage and backup (Mobile Data Collection, 2020).

Challenges exist for smartphone data collection, especially in remote areas. Previous research on mobile data collection in rural areas of developing countries showed the main challenge was mobile network stability (Ganesan et al., 2011). Text messages, electronic forms, and social media applications were sometimes delayed, thus increasing the difficulties of data collection (Ganesan et al., 2011). Lack of skills in operating mobile phones for people in rural areas is another challenge (Onoka, 2017). Researchers have found slow and inaccurate data submission during the data collecting process (Onoka, 2017).

2.3 Barriers to Internet Adoption in Uganda

The COVID-19 pandemic has changed everyone's lives, as we are forced to face an unprecedented situation where social distancing has to be applied to keep people safe. Due to the global pandemic, people everywhere have been asked to move to the remote model no matter in daily life or the workplace (Wheeler, 2020). The Internet is becoming more than essential to many non-profit organizations in Uganda, with a significant change in the operation within the organizations at every level. GLI and CPU are not exceptional to embrace the online method for the meeting, regular management, and also the field research with the CIPA Capstone program. This shift assumes that people in organizations have the Internet and can afford the cost of data

(*Unwanted Witness*, 2020). However, this is not the case in a reality where many barriers exist that prevent people from accessing the Internet in Uganda.

Africa in general suffers from weak Internet adoption rates. The internet adoption rate via mobile is 25% of the African population. Low network coverage also contributes to the low mobile internet connectivity rate, as only 50% population was covered with 3G compared to a global average of 78% in 2016 (GSM Association, 2016). By the end of 2019, Uganda's internet penetration reached 42% with up to 19 million Ugandans (Michael Kanaabi, 2020), but the number is still below the world average level of 53.6%. With the implementation of taxes on the Over The Top Services (OTTS), the barriers to the Internet have increased. Internet users in Uganda immediately decreased between March and September 2018 by nearly 30% due to the new taxes (Kamau, 2019). Uganda's Communication Commission also set the cost of acquiring 1 Gigabyte (GB) at $2.67 (UGX 10,041) compared to Kenya's $2.41 (UGX 8,925) (Unwanted Witness, 2020). The price of the subscription, the taxes on OTTS, low internet speeds, and other factors are restricting people in Uganda from internet adoption.

3. METHODOLOGY

As part of the research to better understand the living conditions and mental health of children of former child soldiers, this project aims to provide GLI and CPU with qualitative and quantitative data through focus group interviews of parents and teachers living in the Lira area of Northern Uganda. The 2020 COVID-19 pandemic outbreak limited the Fall 2020 Capstone team's ability to conduct research on-site, thus the team focused on using remote intervention to participate in the study. Considering the time GLI and CPU need to conduct the interviews of parents and teachers onsite and to help GLI and CPU prepare for the interviews, the team additionally provided second-hand data analysis based on a previous survey of the former child soldier and other participants in the GLI/CPU farmer training program. The overall goal of this project is to better understand the children of FCS and their families' challenges and provide potential educational and social support.

3.1. Research Questions

The 2020 Fall Capstone project is follow-up research from the previous project, which aimed at increasing understanding of FCS children's and their families' lives in northern Uganda. The 2019 Fall Capstone team conducted preliminary research and developed survey tools and interviews. Phase II of this study, with a focus on implementing research remotely due to the COVID-19 pandemic, continues to address the research question - "What are the psychological and social challenges faced by children of FCS, born in captivity".

3.2. Respondent Selection

Following the 2019 Fall Capstone team report guidelines, three focus groups were designed to collect information - parents, teachers, and children. Considering the special circumstances under the pandemic and to ensure the quality of the data collected, the team focuses on the parent groups and teacher groups, leaving the children groups to be considered for future onsite interviews by CPU.

3.2.1 Focus Groups with FCS Parents and Non-FCS Parents

For FCS parent groups, three focus group discussions are established, and each focus group is to have a total of eight respondents. For Non-FCS parents, two focus group discussions are established and each focus group also has a total of eight respondents. The selection of respondents will be done by GLI and CPU, who will employ targeted selection using participant data from previous programs.

3.2.2 Online Survey and Focus Group with Teacher Groups

For the teacher groups, the team devised a plan for 40 teachers to come to the CPU's office, or for CPU staff to travel to the school to conduct an online survey with the teachers. The second option would eliminate costs associated with travel and meals for the 40 participants. The goal is for this to be completed in one to two days. Then the Cornell capstone team could conduct a follow-up focus group with approximately 10 participants, based on the results of the online survey. The team would review the teachers' answers to the open-ended questions on the survey and select those with interesting key concepts or thoughts that need to be further explored and develop focus group questions based on these.

3.3 Survey and Interview Methodology

The team proposes Zoom as the primary conferencing tool and Cornell Qualtrics as the primary online survey tool to conduct the initial survey research. The detailed survey plans are discussed below.

- **Focus Groups for Parents**

Five focus groups are designed in the parent group study, with eight people per focus group, 40 participants in total. The parent study contains both FCS (3 groups) and Non-FCS (2 groups) parents. The interview length is approximately two hours per focus group. The team proposed that GLI/CPU provide a place and technical support during the interviews and the Capstone team asks questions remotely.

The interview questions are based on the previous Capstone team questionnaires, with necessary adjustments to fit the remote situation. For parent groups, the interview questions are designed according to their status - FCS or Non-FCS. Questions are divided into three categories, relationship with their children, relationship with the community, and relationship with families of FCS/Non-FCS. 18 questions are prepared for Non-FCS parent groups and 15 questions are prepared for FCS parent groups, with possible follow up questions. All information provided in the parent focus groups will be de-identified and anonymized.

- **Survey and Focus Groups for Teachers:**

Considering the higher education level of teachers, the team divided the survey for the teacher groups into two parts: an online survey and follow-up focus groups. Ideally, 40 teachers in total will participate in the study. To ensure the effectiveness of both groups, the participant number in the teacher groups is equal to that in the parent groups. All of the selected teachers first need

to fill in an online survey on Qualtrics. After collecting all the online survey data, the team proposes choosing 10 of the most representative teachers s to participate in the follow-up focus groups, which are expected to be approximately two hours per focus group.

The online survey consists of three demographic questions and eight detailed questions, using the Likert scale, quantitative, and open-ended question formats. All information provided in the teacher interviews will be de-identified and anonymized. Questions for the focus groups will be categorized into 3 parts: relationship with students, academic performance and setting, and communication and mental health. 14 questions are prepared for the focus group section, with possible follow up questions.

The complete lists of survey and focus group questions are attached in Appendix I – Appendix IV.

3.4 Survey and Interview Data Analysis

Standard qualitative data analysis methods will be applied for data collected through focus groups. The qualitative data analysis is based on the grounded theory that data collected is coded and categorized according to key themes and analyzed. Notes that are taken during the focus group discussions are used to complete the analysis by coding data based on different themes and recordings are reviewed for accuracy.

For the parent focus groups, responses are analyzed by themes and specific themes will be provided after the data was collected. The analysis depends on the comparison between data from the FCS group and the Non-FCS group so that the team can see if differences exist with the context to explain the root.

For the teacher online surveys, the Capstone team will review the qualitative responses collected from eight online survey questions and write a summary analysis of each question. The team will code these qualitative and quantitative answers by identifying themes for each question and themes will be provided after the data was collected. The analysis also pays attention to document specific quotations teachers provided.

The teacher's online survey has been finalized (attached in the appendix) and CPU will be collecting the data in December 2020. The further data analysis of the teacher's online survey will be conducted by a future Capstone team. If conditions allow, it is recommended to conduct the focus group onsite in Uganda with parent groups, teacher groups, and children groups.

3.5 Second-hand Data Analysis

Due to the continuous influence of the global pandemic, time constraints, and budget limitations, the CIPA Capstone team changed the format from remote qualitative and quantitative research to second-hand data analysis to identify the psychological and social needs of the FCS group, thus help GLI and CPU gather information to foster a better method in community re-integration.

The second-hand data was derived from the GLI Lira Agricultural Training Impact Follow Up Survey that was conducted in November 2019. The survey consisted of 50 questions and 43 of them were designed to be answered by both FCS and Non-FCS to make a comparison. Seven questions were designed for female respondents only to measure women empowerment in the Lira Agricultural program.

Answers to the survey were coded by outcomes of agricultural proficiency, better food security, economic advancement, social capital, self-perception, and women empowerment. Different indicators for each outcome like crop diversification, adoption of agricultural practices, spending on food, food security, income, savings, productive assets, membership in social groups, community involvement, personal networks, sociability, self-perspective, and personal autonomy were analyzed.

4. FINDINGS – Using the 2019 GLI Lira Agricultural Training Impact Follow Up Survey to Inform the Current Study

4.1 Survey Analysis Overview

The Fall 2020 capstone team's analysis of the 2019 GLI Lira Agricultural Training Impact Follow-Up Study aims to describe differences between the FCS and Non-FCS participants in GLI and CPU's agricultural training programs, using data from a post-training survey conducted to evaluate the impact of the program. This analysis can help develop and inform questions to be asked during the parents, teachers, and children interviews to be conducted in spring 2021. The data in the post-training survey is filtered by respondents' FCS status. There are 62 respondents in total in the follow-up survey, with 16 FCS respondents, 38 Non-FCS respondents, and 8 respondents who left the FCS status question blank.

## 4.2 Findings Based on Indicators

The analysis is structured by the indicators included in the evaluation plan developed by previous CIPA Capstone teams in 2017 and 2018. The indicators, described in more detail in Appendix V, are related to six outcomes of agricultural proficiency, better food security, economic advancement, social capital, self-perception, and women empowerment. The 25 indicators include the post-training status of crop diversification, adoption of agricultural practices, spending on food, food security, income, and savings. The study also includes demographic indicators as part of the background analysis.

4.2.1 Demographics

The average age of the 62 respondents is 42 years old, with 37 years old on average for FCS participants and 48 years old on average for Non-FCS respondents. 66.1% of respondents are female, among which 81.3% are in the FCS group and 71% are in the Non-FCS group are female.

4.2.2 Agricultural Proficiency

Overall, the crop types for generating cash are relatively diverse across the whole sample. Survey respondents grew 15 types of crops. Soybean, maize, and cotton are the three most common types that participants grow for generating cash. Sorghum, sunflower, simsim, potatoes, peas, rice, cassava, millet, groundnuts, and cabbage are other crop types. There is no big difference between FCS and Non-FCS participants in the type of crops grown to generate income.
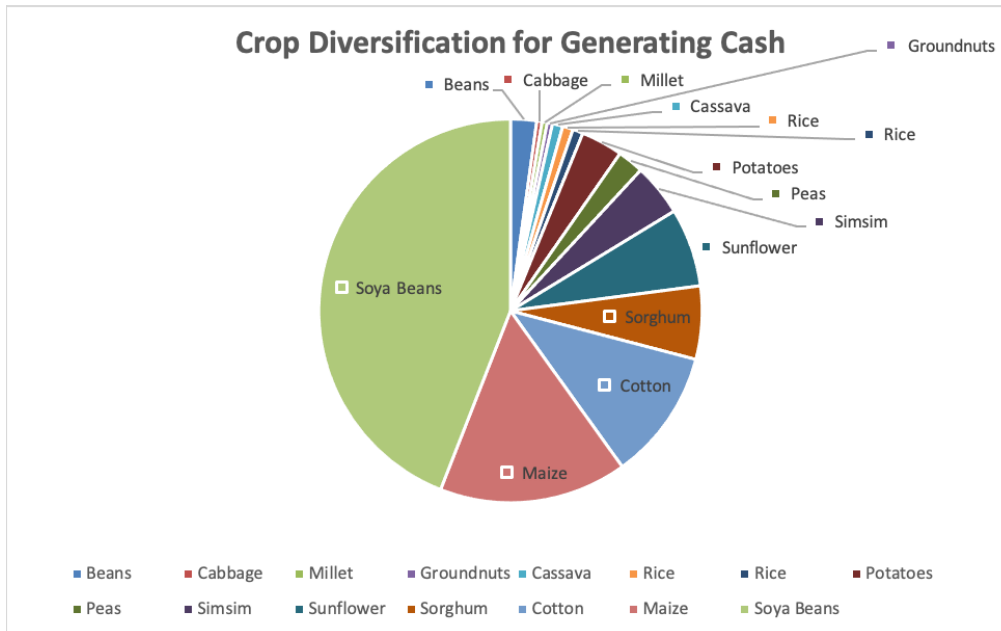
Figure 4.1 Crop Diversification for Generating Cash

Beans, cassava, and peas are the three most frequently grown types of crops for household living. Some crop types do not appear to generate cash, for example, cowpeas, vegetables, and sweet potatoes.
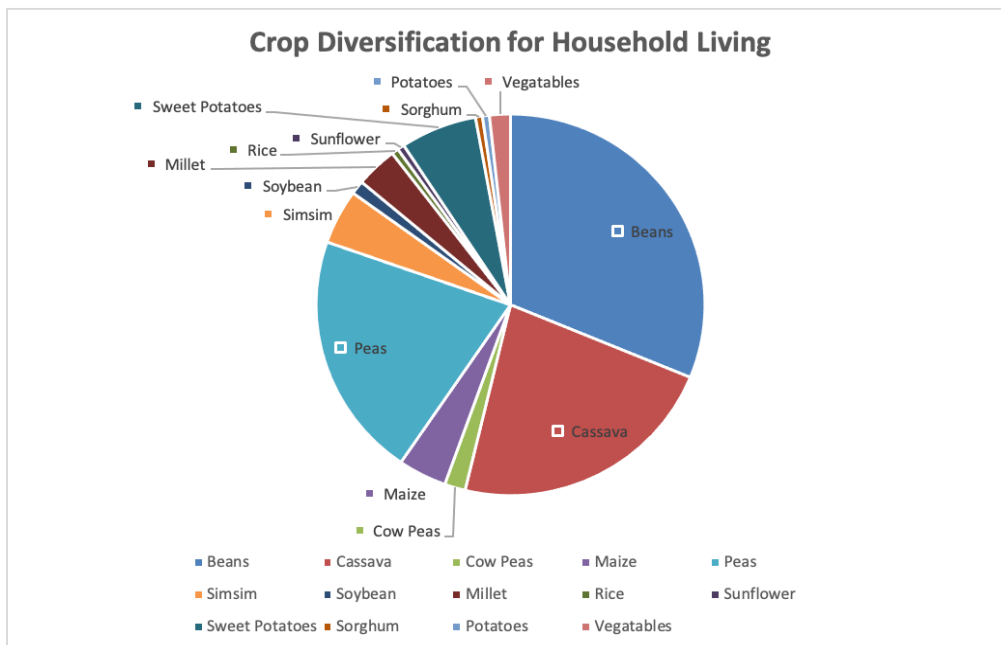
Figure 4.2 Crop Diversification for Household Living

4.2.3 Better Food Security

Food shortage is very obvious in the FCS group. 62.5% of FCS respondents reported that they worry about the food shortage in their households and have to eat a limited variety of foods, while only 24.3% of respondents in the Non-FCS group reported worrying about food shortage and 43.2% reported food limitations. Almost half of the respondents, both in FCS and Non-FCS groups, could not eat the food they prefer due to lack of resources. More than 60% of FCS respondents and about 50% of Non-FCS respondents reported have to eat fewer meals in a day because of not enough food.

Most of the food shortage situations happen rarely or sometimes (less than 10 times in the past four weeks). Respondents s mostly experience fewer meals due to food shortages among all situations.

4.2.4 Economic Advancement

The average income in the four weeks before the survey was conducted is 275,087 UGX, (omitting all the blank responses in the income question). Specifically, for FCS respondents, their average income in the 4 weeks before answering the survey was 225,800 UGX, which is approximately 22% below the average amount. The Non-FCS average income was 319,500 UGX per month, much higher than for the FCS participants. The highest reported income for FCS was 900,000 UGX, while for Non-FCS it was 2,300,000 UGX, almost 2.5 times of the FCS participants.

The distribution of household expenses is quite different among participants in the agricultural training program. Overall, respondents reported spending more money on education, followed by agriculture, housing, healthcare, food, and church. FCS respondents s spend more money on food and housing, and less money on expenses related to agriculture and education than Non-FCS respondents. This is an important finding that can inform upcoming research projects on the educational experience of children of former child soldiers compared to other children in the community.
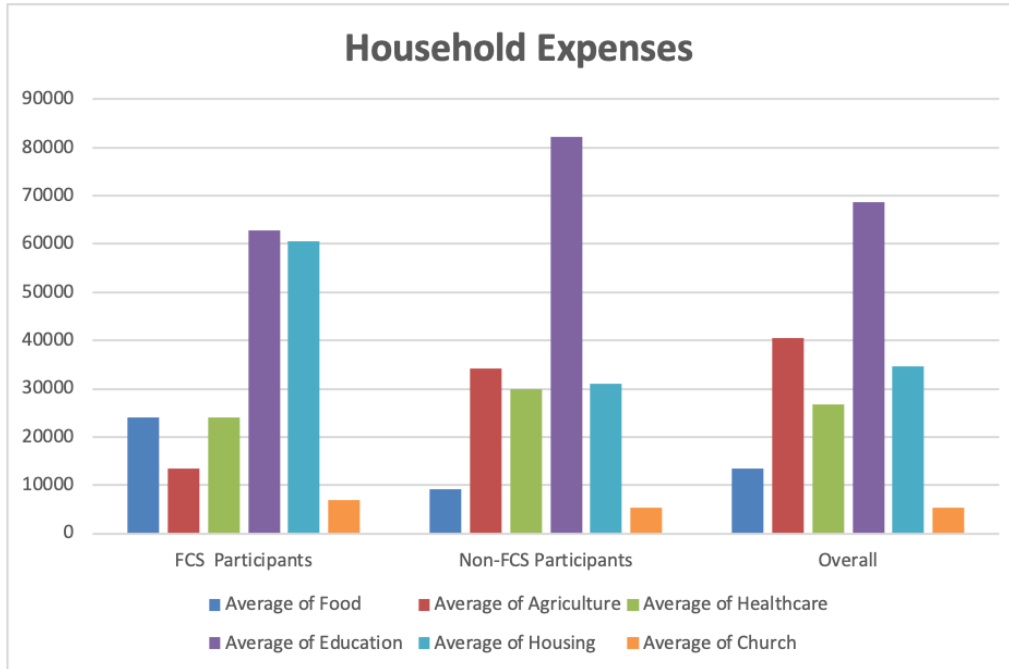
Figure 4.3 Distribution of Household Expenses

77% of the survey respondents reported a preference to inject their savings into a small business enterprise, with the most common reason being to generate profits. Those who prefer not to inject their savings into a small business enterprise would rather inject savings into emergency use and paying for tuition. There was no significant difference between the preferences of the FCS and Non-FCS groups.

The productivity assets owned by the farmers in the survey is relatively low, especially for FCS farmers. The most common tools farmers have been hoes and mosquito nets. No respondents owned a car. Besides, no FCS farmers owned sewing machines, TV, or motorcycles.
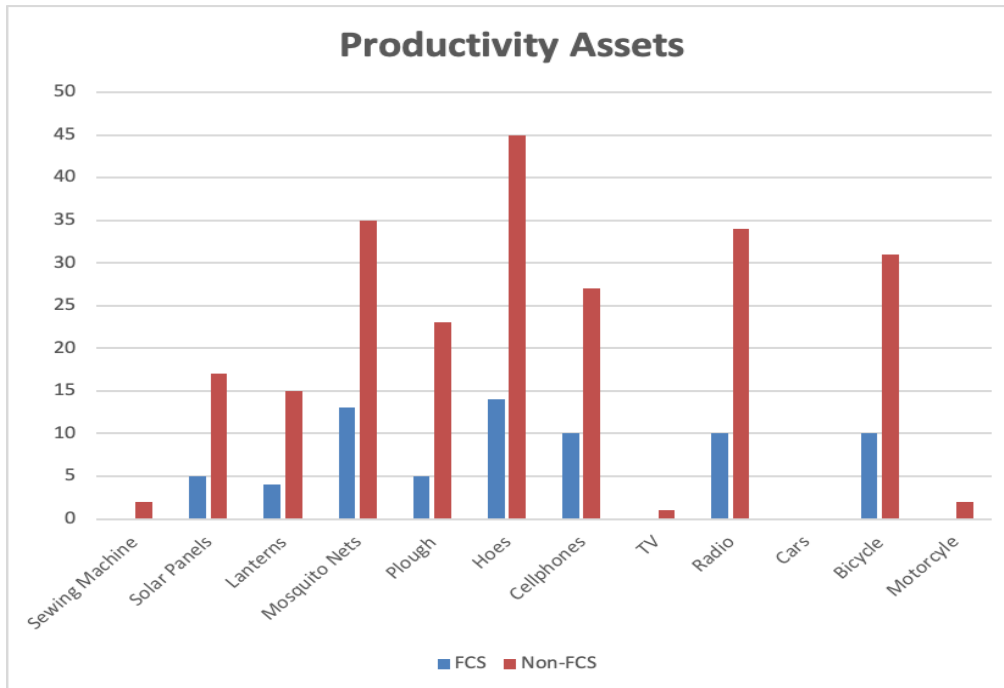
Figure 4.4 Productivity Assets

Almost half of the assets shown in Figure 4.4 are owned by individuals, and half are owned jointly.

Livestock

For the livestock, most families have chicken and ducks, with an average of 10 chicken and ducks per household. Goats and cows are less commonly owned among farmers, with 3 goats and 2 cows on average per household. Only four respondents own sheep. There is no significant difference between FCS farmers and Non-FCS farmers in type or number of livestock owned.

Housing

More than 54% of respondents own the house they live in themselves and about 41% of respondents own the house jointly with spouse/partner. Most of the houses have one, two, or three rooms for sleeping. The largest number of rooms is eight. Generally, FCS participants tend to have fewer rooms than Non-FCS participants, but not significantly.
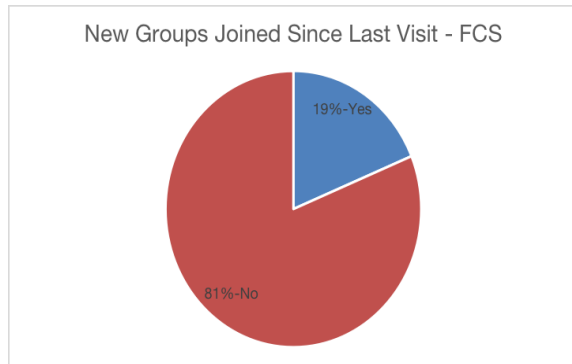
4.2.5 Social Capital

Membership in Social Groups

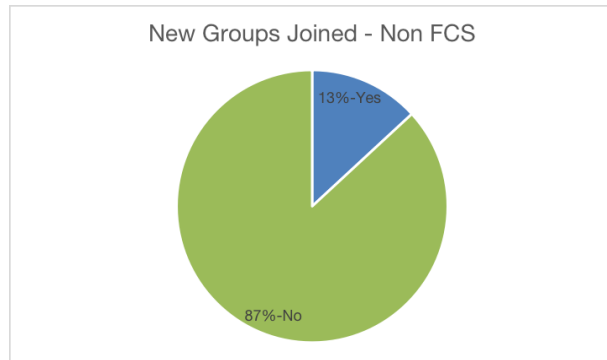**Figure 4.4 New Groups Joined Since the Last Visit for FCS**   **Figure 4.5 New Groups Joined Since the Last Visit for Non-FCS**

Between August and November 2019, a total of eight participants (3 from the FCS group and 5 from the Non-FCS group) joined new groups indicating a 16% increase in membership in social groups. Organizations like Walela North Women's group and CPU group were mentioned. 3 of them are from the FCS group and five are from the Non-FCS group. There was no significant difference between the FCS group and the Non-FCS groups. For the 8 people who joined new organizations, they reported joining mostly due to improving the household's livelihood and to prepare for the time of emergency.

Community Involvement

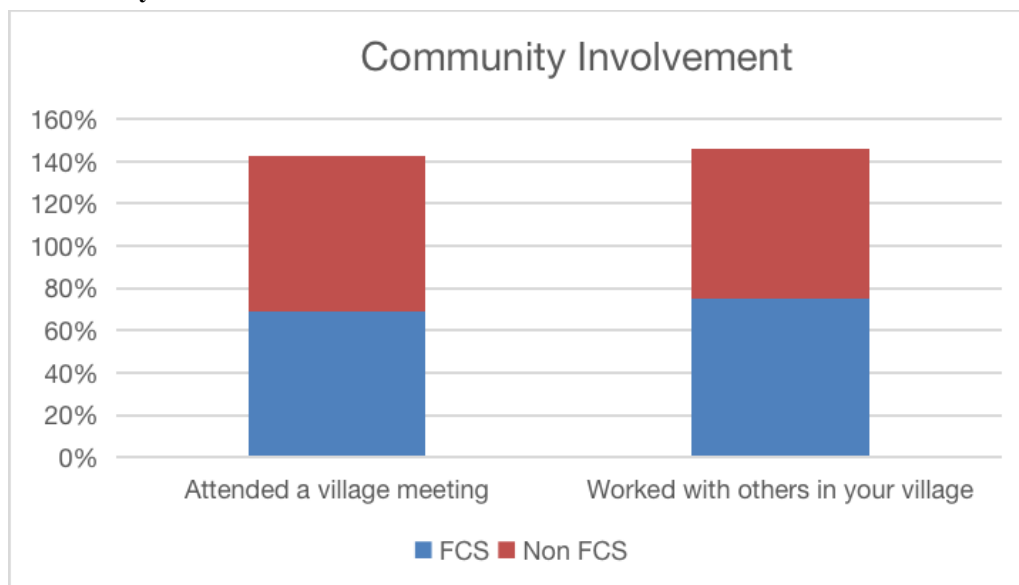**Figure 4.6 Community Involvement**

Though there are more cases for people from the Non-FCS attending village/neighborhood council meetings and working with others in the village to do something to help the community in the last months than cases for the FCS group, these two groups tend to have a similar community involvement experience when taking into account the fact that these two groups have

different sample size in the survey research. There are 68% of FCS respondents attended a village meeting and 75% worked with others in the village, while 73% of Non-FCS participants attended a village meeting and 71% worked with others. FCS and Non-FCS groups reported having a similar community engagement experience.

Most respondents believe that they are community supported and embraced by mostly giving emotional support, counseling, and basic accommodations like food, cloth, and land to build. One respondent mentioned that she was welcomed by the community and many people visited her. The church has played an important role in counseling people. Community is also taking care of them with even nuanced things as "they killed for me the goat". Rumor and gossiping can still be one barrier for FCS to fully embrace by the community as one said that she believes the community supported her "by not bad mouthing".

When respondents were asked about the best way to support them to be more productive, most of them mentioned financial support to generate income in the future or to start a small business. Also, some of them still struggle for the basic accommodation: "(I) need to be helped with sewing machines to make clothes" and "I needs help in paying school fees since I have 15 children and some are not studying and some children are for my daughter who was once married and the son in law's where abouts is not known".

The wound caused by the child soldier experience is not easily healed, as some mentioned more counseling and psychological support are needed. Also, most importantly, they are hoping "the government to maintain the prevailing peace that we are experiencing".
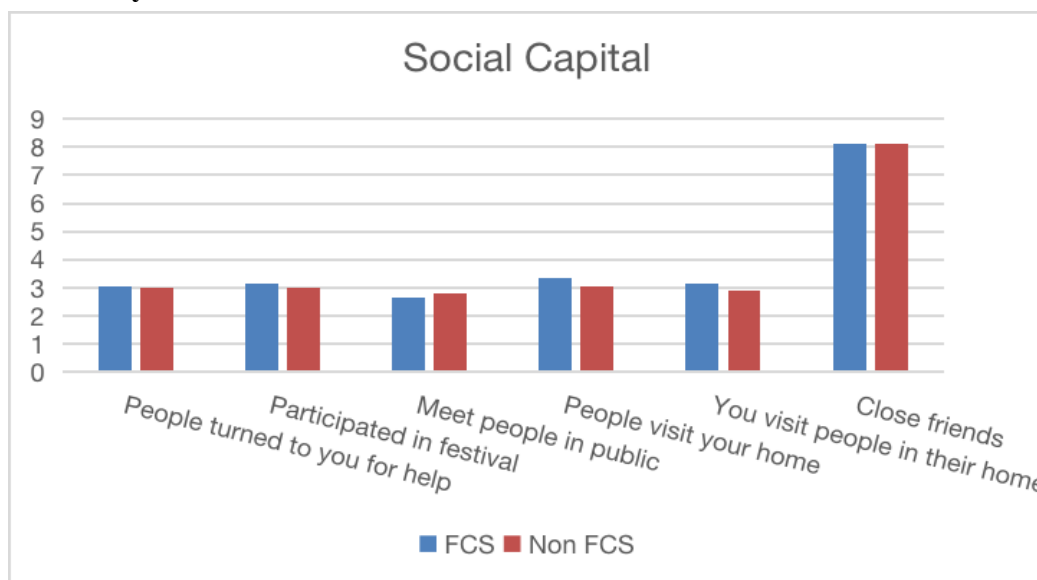
Sociability

Figure 4.7 Social Capital

The Non-FCS and FCS tend to at the same position of sociability for having similar average numbers of following indicators: number of close friends they have, number of times people visited their house, number of times they visited people in their homes, number of people with a personal problem turned to them for assistance, number of times they participated in a festival or ceremony, number of times they met with people in a public place either to talk or to have food or drinks. This indicates that in terms of networks and sociability at a personal level, there is no gap between the two groups.

4.2.6 Self-Perception
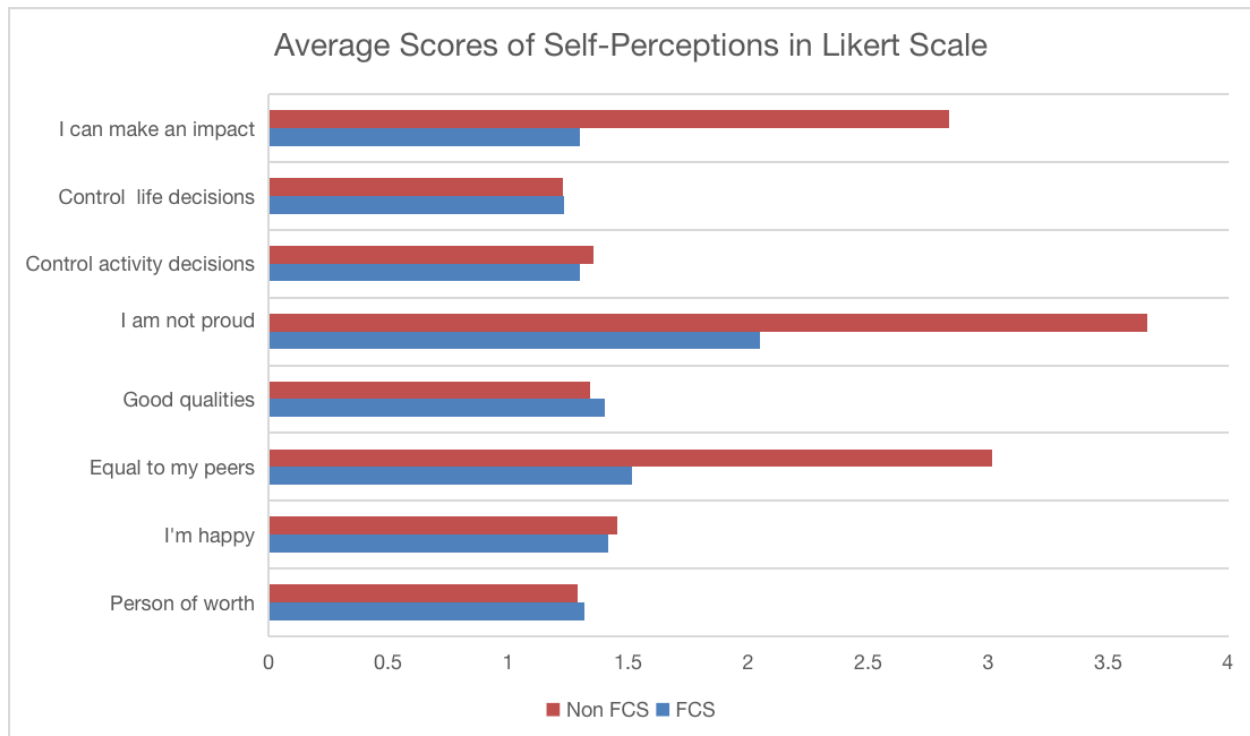
Figure 4.8 Average Scores of Self-Perception in Likert Scale

In the Likert scale ranging from 1 to 4, where 1 stands for "strongly agree" and 4 stands for "strongly disagree", the FCS group and Non-FCS group show similar scores that gathered around "strongly agree" for the questions of "I feel like I am a person of worth", "I consider myself to be happy", "I feel like I have a number of good qualities", "I have control over decisions that affect my everyday activities", and "I have control over other important decisions that affect my life", which indicate a good position for both groups on self-esteem, confidence, and control over decision making. In contrast to the similar scores on the above questions, their feelings differ regarding the other three questions. Respondents from the FCS group tend to agree that "I feel like I do not have much to be proud of", but they also agree that they are "equal to my peers" and they believe "I can make an impact on my community and make it a better

place". Respondents from the Non-FCS group mostly disagree that they don't have much to be proud of and that they can make impacts in the community, which indicates their self-confidence but doubts towards their ability to change the community. They also consent to the existence of social gaps. It might be helpful to explore these more and know if they see themselves better off or worse than the FCS group.

4.2.7 Women's Empowerment

Figure 4.9 Who's the decision-maker across assets for FCS

Figure 4.10 Who's the decision-maker across assets for Non-FCS

In general, female respondents reported that she and her husband jointly made most decisions for the use of money from crops, the plan for crop consumption, the use of money from women's contribution to the household, and the consumption plan for food. Respondents reported they would consult another household member about a small loan and money investment plan that

25

requires professional knowledge, It is noticeable that husbands still play an essential role in control over household assets. For the FCS group, the figure above indicates that female respondents are more likely to involve themselves in household decision making and have control over certain household assets. This might due to the different family composition of two groups:
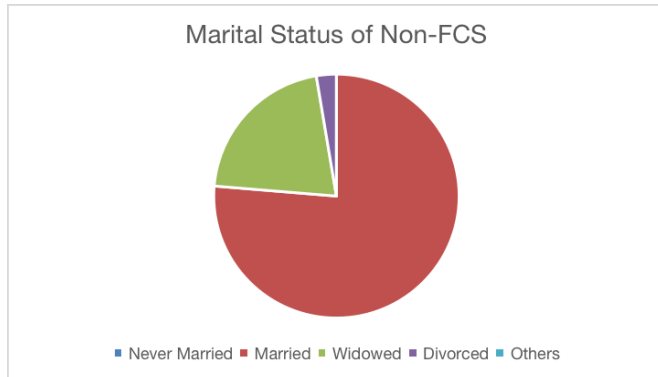
Figure 4.11 Marital Status of Non-FCS
Figure 4.12 Marital Status of FCS
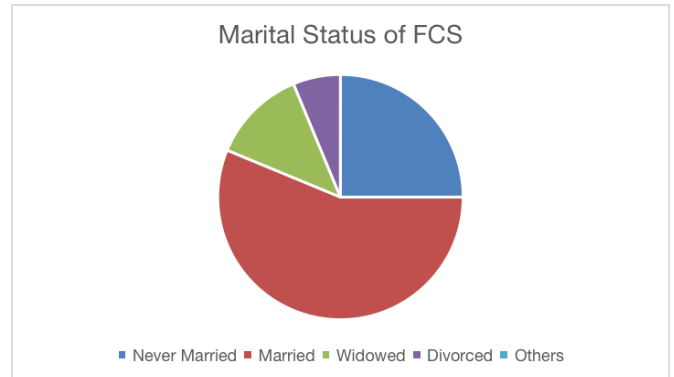
Due to the number of females in the FCS group who never married or have been widowed or divorced, it is reasonable for the FCS to have more cases of female control over household decision making.

5. CONCLUSION AND NEXT STEPS

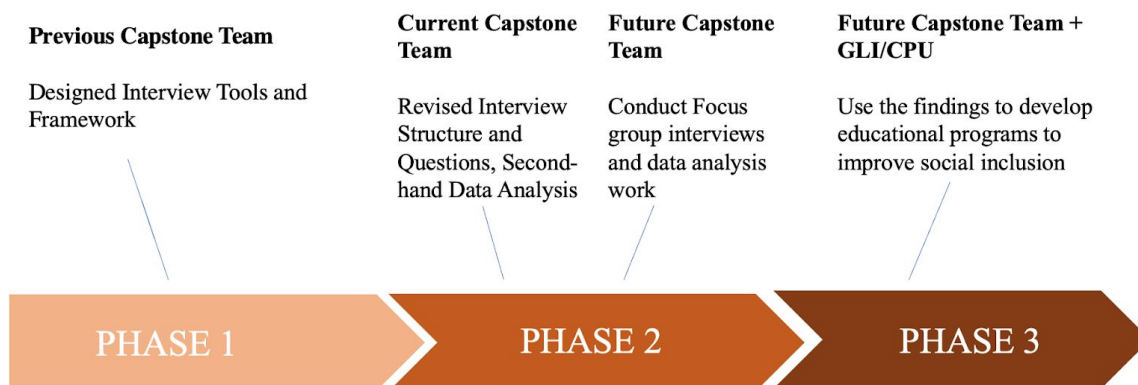The CIPA Capstone team collaboratively conducted the data analysis to ensure more objectivity and to ensure that interpretation did not rely on a single person. The previous group conducted the survey, thus it shouldn't reflect the current CIPA Capstone team's own biases. However, the result of the survey may still reflect some biases because of the many blank answers and small sample size of the FCS group when compared to the Non-FCS group. The study might have been strengthened by obtaining feedback from more FCS respondents with more open-ended questions. Current results mostly consist of quantitative data that indicate the insufficient economic status of the FCS group. Responses to the open-ended questions also indicate the financial needs of the FCS group. We would recommend that GLI and CPU:

1. Continue improving the lives and socioeconomics of FCS by developing possible fundraising schemes for FCS to start small businesses and providing additional psychological support.
2. Include more FCS respondents in future surveys, interviews, and focus groups to exclude sample biases.
3. For the online teacher survey (see Appendix I), include more questions regarding the differences between FCS and Non-FCS.

Previous Capstone Team

Designed Interview Tools and Framework

Current Capstone Team

Revised Interview Structure and Questions, Second-hand Data Analysis

Future Capstone Team

Conduct Focus group interviews and data analysis work

Future Capstone Team + GLI/CPU

Use the findings to develop educational programs to improve social inclusion

PHASE 1 → PHASE 2 → PHASE 3

Continuing the work of the previous Capstone team, the 2020 Fall Capstone team worked on Phase 2 of a long-term project. For the future Capstone team working on this project, our suggestions include the following:

1. Analyze the data collected from the teachers' online survey.
2. Conduct the focus groups with FCS parents, Non-FCS parents, and teacher groups.
3. Analyze the data collected from focus groups

For the future Phase 3 team, it is recommended that the team could work with GLI/CPU to develop educational and social programs to improve social inclusion based on the findings.

APPENDIX I - ONLINE SURVEY FOR TEACHERS

Demographics

1. Gender
2. Age
3. Education Level

Questions

1. How long have you been working at this school?
   a) 0-1 year
   b) 1-5
   c) 5-10
   d) 10 years and more
2. Have the needs of children of FCS been noticed?
   a) YES
   b) No
3. Describe the ways the academic system(s) and structures have been altered to best fit the needs of children of FCS?
4. For your students who are children of FCS, please talk about the existing resources that are available to deal with the psychological/mental health needs? Are there any resources and programs you think can be improved?
5. Describe some of the learning challenges you've observed when teaching children of FCS?
6. Describe some of the unidentified social, cultural, and economic barriers faced by children of FCS related to school attendance and student performance?
7. Describe some behavioral challenges you have encountered with children of FCS in the classroom. Please describe the observed differences between boys and girls?
8. What kind of extracurricular activities or community programs are conducive to the educational success of children of FCS?
9. Is there any additional support you think that FCS students need?

APPENDIX II - FOCUS GROUP QUESTIONS FOR PARENTS (NON-FCS)

Warm-up Question: How would you describe your relationship with your children?

A. Relationship with their children

1. How many children do you have?
2. Do you feel responsible for your child's physical and mental growth?
3. How does your child share feelings with you? How do you usually react and how did you help?
4. How often do they speak to you about their experiences in school or with friends? How satisfied are your children?
5. Describe a situation where your child talked about any form of abuse they experienced with their friends if any? (mental or physical)
6. How likely do you think your children have any mental health issues? If so, please talk about it.
   - experiences with the difference in behavior
   - worried about their behavior
7. What's your hope for your children's future in your community? Do you believe they would have a prosperous future here?
8. What do you think your child's future would like in this community in reality?
   -Do you think your children will be safe here?
   -Do you believe they would have equal job opportunities in this community?
   -Would you like your children to build a family in this community?
   (use sub-questions if time allowed to open up conversations)
9. What kind of support do you think your children need from other people? At school? At home?

Warm-up Question: How do you feel in this community?

B. Relationship with community

1. How many people within the community can you trust?
2. How respected do you feel in this community?
3. Do you feel excluded from other community members? Tell us about a time when you experienced hardships or community exclusion due to your past? (physical violence, verbal violence, discrimination of your child and your family).

   -Tell us about a time when you felt like you didn't want to live in this community, why did you feel that?

Warm-up Question: How would you describe your relationship with families of FCS?

C. Relationship with families of FCS

1. What do you feel about FCS and their families? Do you believe that there is a difference between community members that have been child soldiers and those that have not?
2. How would you describe your relationship with the families of FCS?
3. Have you talked to your children about the past experiences of FCS? Do your children have friends whose parents were FCS? And what have you told your children about FCS and their families?
4. Have there been instances when your children have mentioned how children of FCS were treated at school?
5. Do you think FCS and their families are more unstable when compared to other families?
6. Do you feel that the community should change their behavior towards families of FCS? How do you envision the future of your community to have a different approach towards families of FCS?

APPENDIX III - FOCUS GROUP QUESTIONS FOR PARENTS (NON-FCS)

Warm-up Question: How would you describe your relationship with your children?

A. Relationship with their children

1. How many children do you have?
2. Do you feel responsible for your child's physical and mental growth?
3. How does your child share feelings with you? How do you usually react and how did you help?
4. How often do they speak to you about their experiences in school or with friends? How satisfied are your children?
5. What have you told your children about your past experiences as a Former Child Soldier? What do you think they know? Any changes after you told them?
6. Do you think there are any mental health issues with your children? If so, please talk about it.
   -physical or mental abuse
   - experiences with the difference in behavior
   - worried about their behavior
7. What's your hope for your children's future in your community? Do you believe they would have a prosperous future here?
8. What do you think your child's future would like in this community in reality?
   -Do you think your children will be safe here?
   -Do you believe they would have equal job opportunities in this community?
   -Would you like your children to build a family in this community?
   (use sub-questions if time allowed to open up a conversation)
9. What kind of support do you think your children need from other people? At school? At home?

Warm-up Question: How do you feel in this community?

B. Relationship with community
1. How many people within the community can you trust?
2. How respected do you feel in this community?
3. Do you feel excluded from other community members? Tell us about a time when you experienced hardships or community exclusion due to your past? (physical violence, verbal violence, discrimination of your child and your family).
   -Tell us about a time when you felt like you didn't want to live in this community, why did you feel that?

Warm-up Question: How would you describe your relationship with families of FCS?

C. Relationship with families of Non-FCS

1. What do you feel about civilian families? Do you believe that there is a difference between community members that have been child soldiers and those that have not?

2. Tell us about your interaction with civilian families. How do you believe civilian families view yours and what do they speak/teach their children about your family?
3. Do you feel that the community should change their behavior towards families of FCS? How do you envision the future of your community to have a different approach towards families of FCS?

APPENDIX IV - FOCUS GROUP QUESTIONS FOR TEACHERS

A. Relationship with students

1. Do you have any children born in captivity in your class? Describe your experience with them.
2. What do you feel about FCS's students and their families? How would you describe your relationship with the families of FCS?

B. Academic Performance and Setting

1. Please tell me about the school curriculum and describe how it addresses sensitive topics such as war, demobilization, and FCS reintegration.
2. Tell me about the academic performance of children born in captivity. Is there any significant difference in comparison with Non-FCS children?
3. Describe the educational goals and aspirations of your students who are children of FCS? Are there any differences between boys and girls?
4. Tell me about the attendance of children of FCS? Please talk about the frequency compared with non-children of FCS.
5. Describe some of the unidentified social, cultural, and economic barriers faced by children of FCS related to school attendance?
6. Describe the retention and dropout rates for primary and secondary education among children of FCS? Are there any differences between boys and girls?

C. Communication and Mental Health

1. Describe the way how children of FCS communicate with classmates? Are there any communication problems?
2. Have you mentioned any mental problems among children born in captivity?
3. Tell me about the behavioral challenges you have encountered with children of FCS in the classroom. Please describe the observed differences between boys and girls?
4. Have you noticed/experienced any incidents when children of FCS faced violence or abuse by peers at school or other members of the community? Do you think this is from their parents or amongst the children?
5. Do you feel that the community should change their behavior towards families of FCS? What kind of support do teachers need to change the current situation?

APPENDIX V - CIPA INDICATORS

Agricultural Proficiency	Crop diversification Adoption of sustainable agricultural practices
Better Food Security	Spending on food The self-assessed measure of food security Meal frequency
Economic Advancement	Increased annual income Increased monthly income Increased disposable income Increased savings Increased ownership of productive assets Household improvements
Increased Social Capital	Increased membership in social groups Increased community involvement Increased participation in collective action and communal projects Expansion of personal networks Increased sociability Increased trust Increased heterogeneity in personal networks
Empowerment/ Improved Self-Perception	Shifts in self-perspective
Women's Empowerment	Self-esteem/confidence Shifts in opinions about women's economic role Personal autonomy Group participation

	Control over household assets Involvement in household decision making

REFERENCE

Barbour, R. (2007). *Doing Focus Groups*. SAGE Publications Ltd.
https://doi.org/10.4135/9781849208956

Bhavnani, A., Janakiram, S., Chiu, R. W.-W., & Silarszky, P. (2008). *The Role of Mobile Phones in Sustainable Rural Poverty Reduction* (No. 25). ICT Policy Division, Global Information and Communications Department. http://documents1.worldbank.org/curated/en/644271468315541419/pdf/446780WP0Box 321bile1Phones01PUBLIC1.pdf

Business Wire. (2020, April 16). *Impact of COVID-19 on the Video Conferencing Market, 2020—ResearchAndMarkets.com*. https://www.businesswire.com/news/home/20200416005739/en/Impact-of-COVID-19 on-the-Video-Conferencing-Market-2020---ResearchAndMarkets.com

Business Wire. (2020, May 7). *COVID-19 Outbreak: Video Conferencing Demand Rises due to Social-Distancing - ResearchAndMarkets.com*. https://www.businesswire.com/news/home/20200507005631/en/COVID-19-Outbreak-Vi deo-Conferencing-Demand-Rises-due-to-Social-Distancing---ResearchAndMarkets.com

Chappell, E. (2020, June 29). *The Top 7 Zoom Alternatives (Features, Pricing, Reviews)*. ClickUp Blog. https://clickup.com/blog/zoom-alternatives/

Campbell, Marci Kramish, Meier, Andrea, Carr, Carol, Enga, Zoe, James, Aimee S., Reedy, Jill Zheng, Bo. (2001). *Health Behavior Changes after Colon Cancer: A Comparison of Findings from Face-to-Face and On-Line Focus Groups*. *24*(3), 88–103.

Children of Peace Uganda. (n.d.). Retrieved December 1, 2020, from https://childrenofpeaceuganda.wordpress.com/

CompareCamp. (2018, December 13). Google Hangouts Review: Pricing, Pros, Cons & Features. *CompareCamp.Com*. https://comparecamp.com/google-hangouts-review-pricing-pros-cons-features/

Cox, A. (2020, May 10). *COVID-19 and the New Era of Online Video Conferencing – rAVe [PUBS]*. https://www.ravepubs.com/covid-19-and-the-new-era-of-online-video-conferencing/

Galloway, K. (2011). *Focus groups in the virtual world: Implications for the future of evaluation—Galloway—2011—New Directions for Evaluation—Wiley Online Library*. https://onlinelibrary.wiley.com/doi/abs/10.1002/ev.377

Galloway, K. L. (2011). Focus groups in the virtual world: Implications for the future of evaluation. *New Directions for Evaluation*, *2011*(131), 47–51. https://doi.org/10.1002/ev.377

Ganesan, M., Prashant, S., & Jhunjhunwala, A. (2011). *A Review on Challenges in Implementing Mobile Phone Based Data Collection in Developing Countries*. 10.

Gratton, M.-F., & O'Donnell, S. (2011). Communication technologies for focus groups with remote communities: A case study of research with First Nations in Canada. Qualitative Research, 11(2), 159–175. https://doi.org/10.1177/1468794110394068

Global Livingston Institute. (n.d.). GLI. Retrieved December 1, 2020, from
      https://www.globallivingston.org

GSM Association. (2016). *Consumer-Barriers-to-mobile-internet-adoption-in-Africa.pdf*.
      https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/07/Consumer-B
      arriers-to-mobile-internet-adoption-in-Africa.pdf

Herring, S. (1996). *Linguistic and Critical Analysis of Computer-Mediated Communication:*
      Some Ethical and Scholarly Considerations: The Information Society: Vol 12, No 2.
      https://www.tandfonline.com/doi/abs/10.1080/911232343

Kalmykov, M. (2020, July 22). *Using mobile phones in data collection: Opportunities, issues*
      and challenges.
      https://blogs.worldbank.org/edutech/using-mobile-phones-data-collection-opportunities-
      issues-and-challenges

Kamau, W. (2019, November 30). Regulatory and Tax Obstacles Take Up Barriers On Internet
      Access in Africa. *Talk Africa*.
      https://www.talkafrica.co.ke/regulatory-and-tax-treatment-of-over-the-top-services-in-afr
      ica-creates-barriers-for-internet-access/

Michael Kanaabi. (2020, March 30). *42% of Uganda's population now connected to internet*.
      New Vision.
      https://www.newvision.co.ug/news/1517233/-uganda-population-connected-internet

Mobile Data Collection: How Big Data Is Collected. (2020). Magpi.
      https://www.magpi.com/what-is-mobile-data-collection

Murgado-Armenteros, E. M., Torres-Ruiz, F. J., & Vega-Zamora, M. (2012). Differences
      between Online and Face to Face Focus Groups, Viewed through Two Approaches.
      Journal of Theoretical and Applied Electronic Commerce Research, *7*(2), 73–86.
      https://doi.org/10.4067/S0718-18762012000200008

Murray, P. J. (1997). Using Virtual Focus Groups in Qualitative Research. *Qualitative Health*
      Research, *7*(4), 542–549. https://doi.org/10.1177/104973239700700408

QuickTapSurvey. (2014, January 28). What is Mobile Data Collection? QuickTapSurvey works
      on all devices. *Survey Blog Online | QuickTapSurvey*.
      https://www.quicktapsurvey.com/blog/what-is-mobile-data-collection/

Rupert, D. J., Poehlman, J. A., Hayes, J. J., Ray, S. E., & Moultrie, R. R. (2017). Virtual Versus
      In-Person Focus Groups: Comparison of Costs, Recruitment, and Participant Logistics.
      Journal of Medical Internet Research, *19*(3).
      https://doi.org/10.2196/jmir.6980

Scott, R. (2020, July 27). *Must Have Video Conferencing Statistics 2020*. UC Today.
      https://www.uctoday.com/collaboration/video-conferencing/video-conferencing-statistics
       /

Scott, S. (2004). Researching shyness: A contradiction in terms? *Qualitative Research*, *4*(1), 91–
      105. https://doi.org/10.1177/1468794104041109

Seifert, A., Hofer, M., & Allemand, M. (2018). Mobile Data Collection: Smart, but Not (Yet)

Smart Enough. *Frontiers in Neuroscience*, *12*. https://doi.org/10.3389/fnins.2018.00971

Stone, K. (2020, July 7). *The State of Video Conferencing in 2020 [50 Statistics] | GetVoIP*. https://getvoip.com/blog/2020/07/07/video-conferencing-stats/

University of Michigan. (2020, May 8). *"Starter Tool-Kit" Human Subjects Research & Fieldwork in the Times of COVID-19: Moving from In-Person to Remote Approaches*. https://research-compliance.umich.edu/sites/default/files/resource-download/umor_starter _tool-kit_for_remote_human_subjects_research.pdf

Unwanted Witness. (2020, April 20). Internet Barriers constrain the work of Uganda HRDs amidst COVID-19 Pandemic. *Unwanted Witness*. https://www.unwantedwitness.org/internet-barriers-constrain-the-work-of-uganda-hrds-a midst-covid-19-pandemic/

UXalliance. (2020, June 11). *Conducting remote online focus groups in times of COVID-19*. Medium. https://medium.com/@UXalliance/conducting-remote-online-focus-groups-in-times-of-c ovid-19-ee1c66644fdb

Wheeler, T. (2020, April 29). COVID-19 has taught us the internet is critical and needs public interest oversight. *The Brookings Institution*. https://www.brookings.edu/blog/techtank/2020/04/29/covid-19-has-taught-us-the-internet -is-critical-and-needs-public-interest-oversight/

White, G. E., & Thomson, A. N. (1995). Anonymized Focus Groups as a Research Tool for Health Professionals. *Qualitative Health Research*, *5*(2), 256–261. https://doi.org/10.1177/104973239500500209