

**Agriculture Extension in the Peruvian Andes:
Exploring the Relationship between *Campesinos* and *Técnicos***



Andean Alliance for Sustainable Development

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INTRODUCTION

The agrarian communities of the Peruvian Andes have long engaged in agricultural knowledge exchange, both formally and informally. In its modern form, this “agriculture extension,” although well-intentioned, has in most cases failed to make any real positive change

in the lives of the Andean farmers or to engage the younger generations. This is in large part due to the fact that agricultural workshops have been conducted in a top-down, western-centric model that emphasized the knowledge of the university-educated agricultural “expert” as well as the perceived “poverty” of the farmers¹. In this system, the community values and agricultural knowledge of *campesino* communities have not only been neglected, but have also been intentionally discouraged.

Through a series of semi-structured interviews with farmers, agriculture technicians, and community members, students from Middlebury College and Middlebury Institute of International Studies, working with the Andean Alliance for Sustainable Development, attempted to understand what went wrong with agriculture extension in Peru, in order to reimagine a new path for the future. We found that the top-down approach, instead of facilitating collaboration, has created a plethora of challenges that have hindered opportunities for successful extension efforts. Such challenges include technicians’ lack of interest in the lives of the farmers, one-size-fits-all and pre-designed approaches that fail to serve the unique needs of each respective community, and methods that fail to recognize and utilize the strengths of the *campesinos*. As a result, the *campesinos* lack *confianza*, or trust, in agricultural technicians.

Furthermore, as interviewee after interviewee emphasized, very little can be accomplished in the absence of trust. Such methods also preclude the possibility of mutual learning and authentic communication, which leads to missed opportunities and dependence on external aid. More than anything, our conversations with *campesinos* and technicians led us to conclude that better models of agricultural extension do not need to be created and imposed.

¹ Paulo Freire. *Extension or Communication*. Translated by Louise Bigwood and Margaret Marshal. (New York: The Seabury Press, 1973).

Instead, they should be learned and developed from the lived experiences and traditions of the farmers themselves.

By moving away from foreign and exploitative values of economic “development” and by instead utilizing practices of collaborative knowledge exchange, we can, in the words of Jesus, “make *campesinos* the authors of their own destiny.”² By choosing liberation over domestication and collaboration over non-cooperative promulgation³, the role of the agricultural technician can become that which it has always endeavored to be but has never fully achieved: a positive change-agent in impoverished agrarian communities.

METHODOLOGY

Separated into two groups, students from Middlebury College and the Middlebury Institute of International Studies reviewed articles from six sources that stretch over 20 years of literature on agriculture extension. With our own assumptions regarding systematic issues surrounding agriculture extension, we devised questions about education, the *taller* (workshop) process, and collaboration between farmers and technicians. We constructed semi-structured individual and focus-group style interviews with fifteen *campesinos* and four technicians from six different farms in the Sacred Valley. Using a Quechua-Spanish interpreter to communicate with the farmers and technicians who spoke only Quechua, we recorded the interviews and took photos and video footage after receiving consent. In order to gain the *confianza* of our interviewees, we engaged in several informal and conversational cultural practices. We entered the research aware of the limits of our cultural and contextual knowledge and biases. We were also aware of the fact that Jesus, who served as our interpreter, is a Peruvian AASD employee

² Interview with Jesus, January 13, 2018

³ Freire, “Extension or Communication”

who had positive pre-existing relationships with the majority of people we interviewed. We are cognisant of the limitations of using AASD as our main contact, maintaining a limited interview pool, and forming relationships with interviewees within limited time constraints. We are also aware of limitations that stem from our intermediate/advanced Spanish proficiency and our very minimal Quechua knowledge. Ultimately, we acknowledge that all qualitative data gathered serve as insights and experiences rather than hard facts and figures.

HISTORICAL CONTEXT / BACKGROUND

The current body of knowledge surrounding Peruvian agriculture and information can be traced back to the well-organized systems of knowledge by the indigenous peoples of the Inca Empire. The agricultural information exchange began informally with children, who received practical agricultural knowledge from their parents. Later, the Inca provided more formal knowledge through *amautuas*, general teachers, and *mitimae*, teachers in charge of training newly conquered populations⁴. Among other things, this system of knowledge allowed the Inca to develop sophisticated terracing, adapt agriculture to highlands, and understand the complexity involved in growing crops in different climates⁵.

Since the fall of the Inca Empire, however, Peruvian agricultural knowledge transfer has been myriad, inconsistent, and complex⁶. Using top-down, western-centric methods have ensured that it has been rife with injustice. Outsiders coming into the rural communities

⁴Bernabe Cobo, *Inca Religion and Customs*,” (Austin, Texas: University of Texas Press, 1990).

⁵ Oscar Ortiz, “Evolution of Agricultural Extension and Information Dissemination in Peru: An Historical Perspective Focusing on Potato-Related Pest Control,” *Agriculture and Human Values* 23, no. 4 (2006).

⁶ Ibid.

believing that they alone hold the keys to success for farmers has been the norm in agricultural extension in Peru.

In the past century, the men were the ones who worked the farms, but increased societal pressure to earn more money has led to marked changes in gender roles. Of course, men still work the farms and women still create textiles, but the communities are seeing an increase in the number of men who are leaving the farms to pursue more lucrative careers, typically in the tourism industry. The conflicting values of a modernizing society and the culture of the farmers has led to a breakdown in the generational model of agriculture extension, as more and more young people have left the farms to live, work, and study in larger cities instead of staying on to maintain the traditions of their forefathers. Even so, nearly all conversations with interviewees revealed that *campesinos* still believe that the best agricultural knowledge comes from physically working on the farm. Therefore, even if some community members do go off to study agriculture in the universities, *campesinos* generally do not view university-acquired knowledge as being as valuable as what could be gained through trial and error on one's own land.

The current body of research surrounding the definition of “extension” and the assumptions inherent in the term itself demonstrate the multitude of complexities and controversies surrounding the practice. Freire protests against the use of the term, arguing that the knowledge conferred through “extension,” that is, knowledge shoved upon individuals by those who think that they know, is not true knowledge at all and therefore cannot result in true learning⁷. As he states, “Knowing...is not the act by which a Subject transformed into an object docilely and passively accepts the contents others give or impose on him or her. Knowledge, on the contrary, necessitates the curious presence of the Subjects confronted with the world”⁸. Thus,

⁷ Freire, “Extension or Communication”

⁸ *Ibid.*, 99.

following Freire, knowledge can only be acquired through genuine dialogue and communication in which all parties are active participants⁹. Given the background and history of outsider knowledge perceived as being the “right way” and forced upon *campesinos* for centuries, we approached the topic of agriculture extension as students willing to learn. With curiosity, we were able to delve deeper into others’ ideas about how to revitalize traditional practices and sustain the knowledge of *campesinos*.

FINDINGS

Trust / *Confianza*

With Peru's history of agriculture extension in mind, it becomes clear that cultivating trust between *campesinos* and technicians is crucial to all agricultural initiatives in the region. Yolanda, a technician from Sacclio who has developed strong relationships with Andean *campesinos*, says this of the significance of fostering trust with them: “Having trust, for me, is the most important...because if you don’t win their trust...the project will be a failure.”¹⁰ The difficulties of cultivating this type of trust are exacerbated not only by past failures, but also by language barriers and socio-cultural gaps. This sort of trust-building takes time. For Yolanda, it often takes five months to gain the trust of the community. Yolanda understands that trust cannot be rushed nor forced. In our interviews with *campesinos* and technicians, various practices emerged that serve to either encourage or discourage trust between *campesinos* and technicians.

One of the primary factors that affects trust is interest, or authenticity, on the part of the technicians. Although there are technicians like Yolanda who acknowledge the importance of gaining trust with farmers and valuing their knowledge, not all technicians share this mindset.

⁹ Ibid.

¹⁰ Interview with Yolanda, January 15, 2018.

The *campesinos* know when the technicians care about them and when they do not. In fact, many of the farmers with whom we spoke noted that the majority of technicians are in it for the money and are uninterested in learning from them. The *campesinos* connected this lack of interest to reasons for the failures of various initiatives.

Technicians voiced similar concerns. George currently works for an NGO that he believes cares genuinely for small-scale Peruvian farmers, but in the past he has worked for public institutions shrouded in cultures of purely monetary goals. In the words of another technician, George, “projects come in, make some money, check the boxes, and leave.”¹¹ From a *campesino* perspective, Anthony from Calca expresses, “Sometimes they are paid and just give talks to do their jobs.”¹² These perceptions result in farmers believing that the intentions of technicians are not genuine, which leaves no foundation to build trust.

In addition to missing opportunities to gain trust, failing to value the knowledge of the *campesinos* oftentimes results in offering knowledge they already possess or knowledge that is not applicable to their situation. A *campesino* from a small community high up in the mountains told us that “There aren’t any institutions interested in coming and learning about our potato, corn, and bean production,” but that “they all come to teach, and nobody comes to learn.”¹³ Furthermore, many of the farmers, including Anthony, discussed how many of the projects are ineffective due to the fact that they “come already designed,¹⁴” rather than being built in collaboration with the *campesinos*.

¹¹Interview with George, January 15, 2018.

¹² Interview with Anthony, January 15, 2018

¹³ Interview with 3 farmers from Choquecancha, January 11, 2018

¹⁴ Interview with Anthony, January 15, 2018.

Extension Practices: *Taller* Process

While the majority of technician workshops take place in the classroom, the farmers with whom we spoke insisted that a combination of both practice and theory are necessary. When technicians fail to put their theory into practice, *campesinos* do not trust that they know what they are doing. As the farmers in Choquecancha expressed, they want a “technician with the technique.” While *campesinos* value theory and appreciate what is learned in the university, theory alone is not convincing enough to change generations of agricultural knowledge built on experience. Through his experience with *campesinos*, George has come to recognize the importance of agricultural experience and only teaches what he himself has tried out in the field. A combination of theory and practice not only cultivates trust but also leads to better understanding. As George says, “What you hear, you forget. But what you practice, that you don’t forget.”¹⁵ This is especially true when teaching *campesinos*, as education and language barriers make traditional classroom learning difficult.

Throughout our interviews, a common theme of language differences emerged as one of the primary barriers precluding successful *campesino*-technician collaboration. In many rural communities, the native language is Quechua. Farmers typically do not speak Spanish as well as they speak their native language, nor do all of them understand it. Nearly every individual—both technician and farmer—with whom we spoke mentioned the importance of Quechua in conferring knowledge, facilitating collaboration, and fostering trust. While it may seem obvious that speaking the same language is essential for effective communication, *campesinos* such as Alejandra and Diego discussed the frustration of attending workshops conducted in Spanish.

¹⁵ Interview with George, January 15, 2018

Furthermore, speaking Quechua with *campesinos* allows for connection on a deeper level and sets the foundation for authentic collaboration.

Sustainability & Self-sufficiency

Both technicians and *campesinos* often brought up the theme of sustainability, and how governments and institutions can facilitate continued success. Several technicians stressed the importance of independence for farmers. Freire's words concerning the tendency of extension to turn humans into subjects, dependent on those who think they know¹⁶, is something that many *campesinos* have experienced. For example, Jesus describes the way that extension has manifested itself in the form of low self-confidence in the lives of many of the farmers with whom he has worked. Many, he says, believe that they need the help of outsiders in order to farm well. He demonstrates what they need to do, and they ask "What if we do it wrong?" Jesus, because he believes that they will only realize their competence and abilities upon trying things out for themselves and adjusting accordingly, responds with the rhetorical question "What if?"¹⁷

George, a technician, also understands the extent of the negative impacts that top-down methods have had on agriculture extension. He noted that the goal should be subsistence, not money, as well as independence from external aid. For these reasons, when he goes into communities, he does not take anything with him. As he says:

"When I go to a family, with my backpack, I don't bring anything else -- not fertilizers, insecticides, nothing from the outside. I don't bring anything. I go, and my backpack goes, and nothing more. All is there. So, the farmer realizes that all is there already. If you want organic material, there you have it. If you want to better your house, there you have it...We want them to be farmers without dependence on external resources."¹⁸ - George

¹⁶ Freire, "Extension or Communication," 12.

¹⁷ Interview with Jesus, January 13, 2018

¹⁸ Interview with George, January 15, 2018

As George, Anthony, and Sean related, farmers have become accustomed to the easiest and fastest methods, which typically means using fertilizers and insecticides that keep them dependent on external resources. As a result, many of their traditional, ecological practices, which often require more effort, have been left behind.

During workshops it is common practice for technicians to provide seeds to campesinos. However, farmers and technicians alike do not see this as the most productive method of seed education and access. Anthony, a farmer from Sacclio, believes that in place of giving seeds, it would be better if the technicians instructed how to save their own. This is echoed by technicians like George, who believes "the [seed] selection begins from the chakra," because seeds from the same land will be most suited for future production.¹⁹ Normally, what *campesinos* buy are "hybrid" seeds, rather than more traditional "open-pollinated" varieties. These hybrid seeds limit the seed-saving ability of these farmers, increasing their dependency on an expensive and often unreliable conventional seed market.

Future Generations

The children of *campesinos* often envision their futures as very different than that of their parents. We found that the younger generations generally want to leave the farm, searching for professions in the city, such as mechanics, engineers, accountants or administrators. To further understand the complexity of urban migration, one technician, Georg, offered, "Tell me, if your dad was 60 years old, or 40, working his whole life as a farmer, and he was poor, would you

¹⁹ Interview with George, January 15, 2018

want to be a farmer? I don't believe so."²⁰ Conversely, one farmer said that her children are proud of being farmers, but her response was the exception and not the rule.

Furthermore, a farmer we interviewed from Yurco named Eduardo warned, "When you do not pass knowledge to your children, they lose the culture. Here too culture is lost, and is being lost. If we lose it, we do not have a reason to live in a community."²¹ The *campesinos* believe that children learn best from working in the field with parents, siblings, and the community, like past generations did, rather than from learning in the classroom. On this note, we found that there are few agriculture education opportunities for children. In primary and secondary school, children are not taught about working the land, contributing to the lack of interest in the younger generation. Cassandra suggests that "it would be great to bring technicians to work with the children. It would be great for children to have careers. But farming will always be beneficial because it is a complement to whatever career they choose."²² Further adding to the complexities surrounding adolescents' desires to carry on the agricultural tradition of their parents, many students are discriminated against for their indigenous heritage. For example, as Eduardo related, in communities near Lares, Quechua speaking students often fall behind in classes taught predominantly in Spanish.

While nobody can predict the future, many *campesinos* believe that their children will leave the farms to pursue other career paths. However, many also have faith that their children will return home to work in agriculture, perhaps bringing useful knowledge with them. One technician mentioned that she has met a couple of boys who left their communities to study in an urban area, and then, influenced by what they were learning in school, created elaborate blueprints for the farms and orchards they wished to cultivate in their home community. Whether

²⁰ Interview with George, January 15, 2018

²¹ Interview with Eduardo, January 15, 2018

²² Interview with Cassandra, January 18, 2018

the knowledge acquired is in the agricultural sector or elsewhere, this example resonates with how the expertise brought back from youth can serve as a catalyst for positive change and how rural communities can evolve for future generations.

RECOMMENDATIONS

Building Trust Between *Campesinos* and Technicians

Often *talleres* are conducted in Spanish, a language they do not speak or understand, which hinders communication and comprehension. Therefore, we recommend that technicians be proficient in Quechua and that workshops, both in the classroom and in the field, be taught in the indigenous language.

We recommend that technicians have a background related to the *campesino* community. A technician who grew up in a campesino community would be ideal. We believe that this background will make it more likely that technicians care about and take pride in the communities with whom they are working. However, if this background is not accessible, we recommend that technicians have practical experience farming in the Sacred Valley and/or greater Andean agrarian region. We believe that this will help technicians gain the trust of campesinos more naturally.

A time commitment of 4-6 months with the communities is recommended to build this trust, a period that was echoed by several *campesinos* and technicians interviewed. As part of this time commitment, we recommend that technicians live in the community for a few days or even a week to further develop the important technician-farmer bond.

Improving *Taller* Practices

From the data we collected, farmers and technicians alike prefer and respect hands-on experience more than they respect an agriculture degree from a university. Thus, we cannot stress enough how necessary it is for the workshops to take place in the field. Inspiration is garnered through showing, not telling. The farmers want to physically see the process, not just see words on a screen.

The continued superior attitude of technicians over farmers is very detrimental to the taller process. As mentioned previously, technicians must recognize the strengths of *campesinos*. Therefore, we recommend a collaborative approach to workshops and projects between technicians and farmers, with regard to both atmosphere and methodology. Institutes and technicians should not come into communities with predetermined and pre-designed practicums. One size does not fit all; for this reason, it is imperative that the communities' needs are met through their involvement in the design process. The *campesinos* should be involved in the workshop and implementation process: from start to finish and from classroom to field.

Promoting Sustainability and Self-Sufficiency

Given that one of the principle issues with the current extension model is that it fosters dependence on technicians, technicians should offer more education on sustainability and self-sufficiency. One way that this can be done is through seed education. While there are currently issues with access to organic seeds, technicians need to inform farmers on best practices for how to cultivate and save their own seeds. Technicians can provide this, in part, through hands-on workshops. Furthermore, education on how to save vegetable seeds in particular will improve production as it will diversify and expand produce options, both for consumption and income. In

addition, recognizing the strengths of the campesinos and working *with* them, will help foster confidence and independence.

As one of the common difficulties for farmers is finding access to reliable markets, technicians should address this issue. Helping farmers grow organic produce without connecting them to organic markets is not useful because, as Alejandra notes, markets are often hard to access due to financial and geographical restrictions. One way that technicians can approach this topic is by conducting workshops that teach business skills in order that campesinos might be more aware of how markets work and how to best take advantage of them. As consumer awareness continues to improve with respect to the importance of organic produces, we expect that more opportunities will be present themselves to farmers, but only if technicians help facilitate the connection.

However, facilitating the connection to markets will yield little success if another challenge is not addressed: maintaining fair prices in accessible markets. The government and other institutions must step in to provide support for the organic farming community. In agreement with George, we suggest that the government provide subsidies to match the cost of production.

Empowering a Future Generation

Finally, these recommendations would be futile without recognizing the challenges communities face in fostering an environment for the next generation of farmers. Undoubtedly, every child should possess autonomy in choosing their future career, but we believe that steps should be taken to ensure that the younger generations are aware of the opportunities they have in an agricultural society. Technicians should seek to create an environment that makes children

proud of their heritage, especially in light of discrimination against *campesinos*. One way that this can be accomplished is through workshops conducted specifically for children. Additionally, institutions and technicians should support those who choose to continue to work as farmers and those who return to help their communities, perhaps through guaranteed job placement or scholarships.

CONCLUSION

The Andean Alliance for Sustainable Development, in collaboration with students from Middlebury College and Middlebury Institute of International Studies, examined the top-down, western-centric model of agriculture extension in the extended Sacred Valley region of Cusco. Through semi-structured interviews with *campesinos*, technicians and community members on their interactions and relationships, we were able to identify challenges facing these *campesinos* communities with regards to the *taller* process.

Challenges include the *campesinos'* lack of trust in technicians because of difficulties connecting on a cultural and personal level during the *taller* experience, which are heightened when technicians aren't able to communicate in Quechua, the primary language of many rural communities. *Campesinos* also find issue with the manner in which the *taller* extension practices are taught, both in their structure and material presented. Furthermore, technicians and *campesinos* alike recognize the dependence many communities have on external aid. In addition, communities are facing challenges maintaining culture as a result of modernization, which jeopardizes the potential for future generations of *campesinos*.

After analyzing the interviews and pinpointing the challenges, we thought critically about the agriculture extension process in order to make recommendations for future agrarian practices

in the region. To address the lack of trust in *campesinos* and technicians' relationships, we suggest that technicians are proficient in Quechua; have a *campesino* background or at least practical, hands-on experience in the region; and are dedicated to the workshops and communities for a time period lasting at least 4-6 months. In terms of the structure and material presented during the *taller* process, we recommend that theory is put into practice through hands-on experiences in the field, demonstrating the process from start to finish. Additionally, *campesinos'* needs should be implemented into both the atmosphere and methodology of the workshops, making sure the design of the programs is a collaborative experience. With respect to the sustainability and self-sufficiency of *campesinos*, it is recommended that technicians provide more seed and markets education, while helping maintain prices and accessibility to such markets. Finally, technicians and communities are recommended to encourage future generations to be proud of their heritage and aware of farming opportunities available through children-specific workshops, job support and scholarships.

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Appendix A - Literature Review

LITERATURE REVIEW

The current body of knowledge surrounding Peruvian agriculture and information can be traced back to the well-organized systems of knowledge by the indigenous peoples of the Inca Empire. During this time period, an empire-wide agricultural policy required an agricultural knowledge and information exchange between the Incas and the local people in order to maintain local subsistence production through maize, potatoes, quinoa, and kidney beans²³. The agriculture information exchange began with children, who would receive practical information from their parents with respect to domestic farming and agricultural activities²⁴. After having received education from parents, individuals would be provided with more formal knowledge from *amautas* and *mitimae*.²⁵ *Amautas* were people in charge of teaching, while the *mitimae* were sent to train the populations of newly conquered territories^{26 27 28}. This system of knowledge transfer allowed the Incas to spread their language, norms, and technologies successfully, to, in turn, enable the Incas to develop sophisticated systems of terraces, adapt

²³ Oscar Ortiz, "Evolution of Agricultural Extension and Information Dissemination in Peru: An Historical Perspective Focusing on Potato-Related Pest Control," *Agriculture and Human Values* 23, no. 4 (2006)

²⁴ Bernabe Cobo, *Inca Religion and Customs*, (Austin, Texas: University of Texas Press, 1990)

²⁵ *Ibid.*,

²⁶ G. De La Vega, *Royal Commentaries of the Incas and General History of Peru [1609-1617]* (Austin, Texas: University of Texas Press, 1966)

²⁷ Bernabe Cobo, *Inca Religion and Customs* (Austin, Texas: University of Texas Press, 1979)

²⁸ R. Salaman, *The History and Social Influence of the Potato* (Cambridge, UK: Cambridge University Press, 1985).

agriculture to highlands, and understand the complexity involved with growing crops in different climates ²⁹.

Since the fall of the Inca Empire, the evolution of the Peruvian agriculture knowledge transfer has been myriad, inconsistent, and complex³⁰. The Colonial Era (1532-1821) reshaped the predominant processes of Andean agriculture from farming to mining which, in turn, eradicated traditional Andean technologies and crops to introduce new ones³¹. Thus, knowledge transfer during the Colonial Era was a product of the communication between the indigenous people working closely together in mines, and the colonist introducing new agricultural processes. The Republican Era (1821-1920), moreover, introduced a period of changing land systems, privatization of property and industry, and governments moving back and forth between providing subsidies to farmers³². Haciendas—large estates with a dwelling house—were exploitative services that, nonetheless, resulted in exchange of agriculture information³³. In the 1920's-1930's, government agriculture institutions originated, which paved the way for new crop varieties, new breeds, and new animals³⁴. Later, in between the 1940's and the 1960's the Government attributed pesticides, fertilizers, and machineries to increase efficiency of agriculture and enable self-sufficiency. In addition, the rise of cooperative farms increased food production³⁵. However, the Agrarian Reform of 1968 resulted in land redistribution and the

²⁹ Oscar Ortiz, “Evolution of Agricultural Extension”

³⁰ Oscar Ortiz, “Evolution of Agricultural Extension and Information Dissemination in Peru: An Historical Perspective Focusing on Potato-Related Pest Control,” *Agriculture and Human Values* 23, no. 4 (2006)

³¹ *Ibid.*,

³² *Ibid.*,

³³ *Ibid.*,

³⁴ *Ibid.*,

³⁵ *Ibid.*,

weakening of government³⁶. The Communist Insurrection of the Shining Path and the respective economic crisis resulted in an end of cooperative farms and most government involvement with Peruvian Agriculture. Now, in modern times, limited governmental intervention paves the way for the dissemination of agriculture information through non-governmental organization and private institutions in what is commonly referred to as agriculture extension³⁷.

The current body of research surrounding the fundamental assumptions of Agriculture extension introduces a multitude of complexities and controversies. Rivera, Seepersad and Pletsch define Agriculture Extension as, ‘extension education to improve agricultural production and to advance community and rural development based upon the needs of the clients³⁸. Boone 1989, moreover, defines extension as “a system of non-formal education. As such, it is a field of professional education practice aimed at; 1. teaching people, in their own context and life situations, how to identify and assess their own needs and problems; 2. helping them acquire the knowledge and skills required to cope effectively with those needs and problems; 3. inspiring them to action”³⁹. However, Freire challenges this interpretation of “extension”; instead, Freire argues that extension is an action which “manifests itself in some kind of reality—an agricultural reality which would not exist such if it were not for the existence of a human presence. His action, therefore, is that of the extension agent, who extends something towards someone⁴⁰.

³⁶ Ibid.,

³⁷ Oscar Ortiz, “Evolution of Agricultural Extension and Information Dissemination in Peru: An Historical Perspective Focusing on Potato-Related Pest Control,” *Agriculture and Human Values* 23, no. 4 (2006)

³⁸ W. Rivera, J. Seepersad, and D Pletsch. “Comparative agriculture extension systems.” *Foundations and Changing Practices in Extension*. (Canada: University of Guelph, 1989).

³⁹ E. Boone. “Philosophical foundations of extension,” *Foundations and Changing Practices in Extension*. (Canada: University of Guelph, 1989)

⁴⁰ Paulo Freire. *Extension or Communication*. Translated by Louise Bigwood and Margaret Marshal. (New York: The Seabury Press, 1973)

Freire continues to comment on the assumptions surrounding the act of “extension” by agricultural extensionist/technicians in saying that “knowing...is not the act by which a subject transformed into an object docilely and passively accepts the contents other give or impose on him or her⁴¹. Rather, Freire argues that “knowledge...necessitates the curious presence of subjects confronted with the world. It requires their transforming action on reality. It demands constant searching... In the learning process the only person who really learns is s/he who appropriates what is learned, who apprehends and thereby reinvents that learning; s/he who is able to apply the appropriate learning to concrete existential situation”⁴². Ultimately, Freire suggests that “Knowledge is not extended from those who suggest that they know what others do not know. Knowledge is built up in the relationship between human-beings and the world”⁴³.

Freire’s critical assumptions of “extension” offers recommendations to better understand the current collection of failed attempts, by agriculture technicians, to extend agricultural knowledge to farmers. Research by Mejia 1991, interviewed around 155 Agriculture Development Promoters in Peru--“Those individuals who work with institutions (i.e. the Ministry of Agriculture, agrarian universities, international development agencies, private research and extension organizations) which have the development of the Peruvian agricultural sector, either directly or indirectly, as a primary operational goal”.⁴⁴ First and foremost, this research demonstrates that there is an inverse relationship between the farms receiving agriculture extension services and the farms who should be receiving extension services—

⁴¹ Paulo Freire. *Extension or Communication*. Translated by Louise Bigwood and Margaret Marshal. (New York: The Seabury Press, 1973)

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Mejia, “Agriculture Extension Education”

corporate farms and large individually owned farms receive more agriculture extension services than cooperative farms, medium-sized farms, small-farms, and mini-fundistas⁴⁵. Thus, this finding suggests that the motives involved in determining which farms receive the services provided by agriculture technicians are rooted more so in the economics of the Peruvian agriculture industry rather than on the need of the Spanish agricultural workers—also known as campesinos. Moreover, provided that 91% of the technicians interviewed in Mejia’s research had university training in research, it is of interest to note that this research found that non-university technical training in agriculture to be more important than university training⁴⁶. Provided the respective finding, there is a clear correlation as why a lack of qualified managers/administrators and limited financial resources are some of the largest obstacles for agriculture extension institutions to meet the goals of their objectives⁴⁷. Agriculture Development Promoters, moreover, believed that the greatest limitations on campesinos to increase the yield of their production was a result of government agricultural policies, low agriculture product yield, available markets for agriculture, and access to agricultural inputs⁴⁸. Finally, it is important to note that Agriculture Development Promoters understand their role as being diverse; agriculture extension tackles the usage of agriculture technology, education of natural resource conservation, marketing advice, sources of agricultural credit, and proper use of agriculture chemicals⁴⁹. Agriculture Development Promoters suggests that the campesinos would better prefer the use of demonstration farms, visits to individual farms, non-formal education programs (workshops, seminars), and group meetings as a way for technicians to disseminate agricultural knowledge—

⁴⁵ Rebecca B. Mejia. “An Assessment and Analysis of Agriculture Extension Education Programs in Peru: Implications for Development” (ProQuest Dissertations Publishing, 1991)

⁴⁶ Ibid.,

⁴⁷ Ibid.,

⁴⁸ Ibid.,

⁴⁹ Ibid.,

specifically knowledge surrounding natural resources conservation, the proper use of agriculture technology, and marketing advice⁵⁰.

Although the research by Mejia offers some interesting insights, it cannot be ignored that this research only focuses on the perspective of the Agriculture Development Promoter. Thus, although this research offers assumptions on the perspectives of the campesinos, it fails to truly acknowledge and address them. Therefore, this study demonstrates the need to conduct research that addresses the plurality of assumptions surrounding the role of agriculture extension and knowledge from both the perspective of the campesino and the agricultural technician. Moreover, drawing on some of the main assumptions from Freire's research, it is evident that knowledge cannot be placed upon another individual without allowing him/her to challenge that knowledge and make it his/her own. Thus, the fact that Agriculture Development Promoters believed demonstration farms, workshops, and other forms of discussion-based, group-style learning to be the most effective way of disseminating information is not surprising. Knowledge transfer, therefore, must reject that of the diffusionist extensionist—those of whom have a “tendency to generalize the validity and usefulness of their own technical knowledge and to reject the value of farmers' local one, establishing a hierarchy between both⁵¹. Rather, extensionists must embrace more of the principles the constructivist—one who “acknowledges the limitations of their own knowledge and capacities, and value the farmers, thus considering the best fit practices and innovations are the result of a co-constructive process”⁵². These

⁵⁰ Ibid.

⁵¹ Laurens Klerk, Fernando Landini, and Horacio Santoyo-Cortés. “Agricultural extension in Latin America: current dynamics of pluralistic an advisory systems in a heterogeneous contexts,” *The Journal of Education and Extension Competence for Rural Innovation and Transformation* 22, no 4. (2016).

⁵² Laurens Klerk, Fernando Landini, and Horacio Santoyo-Cortés. “Agricultural extension in Latin America: current dynamics of pluralistic an advisory systems in a heterogeneous contexts,”

principles, moreover, emulate the fundamental farming values of the Inca Empire: sharing, exchange, and reciprocity⁵³.

Provided the respective gaps in research surrounding agriculture extension, it is essential to conduct research that emphasizes best practices to acquire more accurate information. First and foremost, research conducted by institutions in developed countries on individuals and their processes in developing countries must acknowledge the biases inevitable in their western world view. Ivan Illich, in his article “To the Hell with Good Intentions” reminds us that

“[We] come from a country which industrialized early and which succeeded in incorporating the great majority of its citizens into the middle classes. It is not social distinction in the U.S. to have graduated from the second year of college. A middle class in the [Western World] is a majority, In [Peru], it is a tiny elite.” Moreover, Illich continues to suggest that “at best, you can try to convince [campesinos] that they should [accept agriculture extension services those of which are] self-made, rich, [rooted in] consumerism, and as disrespectful of tradition as one of you. At worst, in your “community development” spirit, you might just create just enough problems to get someone shot after your vacation ends_and you rush back to your middle class neighborhoods where your friends make jokes about “spits” and “wetbacks”⁵⁴.

Thus, drawing on some of the assumptions of Ivan Illich on international development, it is essential to conduct research that critically reflects upon the researcher’s inevitable biases to better respect the communities and more accurately exchange knowledge with the communities we are conducting qualitative research in. Research by Morrison 2015 defines qualitative research as a “form of organized and systematic inquiry into aspects of the human experience.”⁵⁵

The Journal of Education and Extension Competence for Rural Innovation and Transformation 22, no 4. (2016).

⁵³ Oscar Ortiz, “Evolution of Agricultural Extension and Information Dissemination in Peru: An Historical Perspective Focusing on Potato-Related Pest Control,” *Agriculture and Human Values* 23, no. 4 (2006)

⁵⁴ Illich, Ivan. *To Hell with Good Intentions*, Conference on InterAmerican Student Projects (1968).

⁵⁵ Emily Morrison, “To Hell with Good Intentions,” *Michigan Journal of Community Service Learning*, (Fall 2015): 52-66

Morrison continue to describe qualitative research that investigates “community involvement, power, privilege, and researcher reflection” as “Global Service Learning (GSL)”.⁵⁶ GSL moreover, is a “community-driven service experience that employs structured, critically reflective practice to better understand common human dignity; self; culture; positionality; socio-economic, political, and environmental issues; power relations; and social responsibility, all in global contexts”.⁵⁷ Thus, Morrison suggests that qualitative research “typically consists of designing and implementing the study, analyzing the data, and representing the findings. However, this articulation of the research process fails to acknowledge a crucial factor—the researcher”⁵⁸. In line with the assumption of knowledge transfer and exchange from the Inca Empire, Freire, and Illich, Morrison suggests that “we continuously learn with each interaction constituting new meaning and modifying what we previously had experienced and “known”⁵⁹. Thus, relationships among and between stakeholders and researchers provide additional interpretations of knowledge.

In turn, research from Morrison describes the way qualitative research should be conducted in international settings as well as offer potential insight on how the knowledge transfer of agriculture information could be performed. Morrison invites the researcher to reconsider their experiences as a means to prevent them from “othering”, distancing themselves, and denying connections to, in turn, “guard against, or at least limit, our potential to harm the very people and communities for whom our research addresses...when we are aware of our own

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

and others' research stances, we are better equipped to evaluate the research and to understand its implications."⁶⁰

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⁶⁰ Morrison, "How I Shape the Eyes"

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