MEASURING EFFECTIVE TEACHER OBSERVATION DATA TO SUPPORT HONDURAN RURAL SCHOOLS: INSTRUMENT DESIGN THROUGH GOOGLE DRIVE COLLABORATION

Maxie GLUCKMAN, MEd
Doctoral Student
University of California, San Diego, USA

Jace HARGIS, PhD
Professor
Director, Center for Teaching & Learning
NYU Shanghai
Shanghai, China

ABSTRACT

Honduras faces pervasive challenges to access for marginalized populations, school dropout, and differential quality of schooling experiences across the K-12 spectrum (Adelman & Székely, 2017). One area of concern is the disparate school capacity and limited opportunities for professional development for rural school teachers. This study focuses on ten teachers’ experiences with a teaching observation protocol (Hargis, 2014) adapted to understand teachers’ beliefs and experiences with professional development in rural K-12 schools in Honduras. Through outlining the iterative design process, involving extensive online Google Drive collaboration, we provide insight as to how a post-secondary protocol can be re-employed in international research by focusing on culturally relevant language and practices. In addition, pilot data illustrated emerging themes with respect to teachers’ beliefs regarding observation and professional development including a heightened focus on areas of growth over positive feedback, both active and passive approaches to modifying praxis, and a shift in their view on what observation means towards a more positive relationship. Future research will explore how measuring teacher observation data reflects shifts in teachers’ beliefs and praxis over time as they engage with a two-year professional development program.

Keywords: Effective Teaching, Teaching Observation, Teacher Development, International Education, Rural schools; Google Drive

INTRODUCTION

In March, 1999 the Honduran government, in a community based program financed by the World Bank, began el Programa Hondureño de Educación Comunitaria (PROHECO) with the objective of enhancing access to education and community participation in school-related decision making (World Bank, 2006c). This was in response to studies conducted by the Ministry of Education in 1997 that showed that more than 14 percent of school-age children were not enrolled in school, 85 percent of which lived in rural areas (Pavon, 2008; Di Gropello, 2006)--equating to 3000 villages that historically had not been able to provide institutional education programs to their people. To meet this need, the Honduran government decentralized the management of PROHECO schools to the community organization Asociación de Padres de Familia (AHECO) following trends in Latin American education system reform that favor deconcentration and delegation to serve rural

Community school programs are seen to play a key role in school-based management reforms by promoting parental participation as well as local knowledge and capacity (Di Gropello & Marshall, 2011; Patrinos, 2006). In addition, they are seen to be more efficient forms of economic investment—a belief that is critical in the face of widespread evidence that student achievement is far below desired levels (Di Gropello & Marshall, 2011; Tiongson, 2005). Community school programs have demonstrated positive effects on academic achievement and reducing school closures—a considerable issue in the region with upwards of 20 days of school lost due to “unofficial” closings in Honduras cited in 2002 (Bedi & Marshall, 2002; Di Gropello & Marshall, 2011). However, despite evidence of successes among these decentralized programs in addressing access issues for marginalized populations, school dropout and differential quality of schooling experiences, are still areas of major concern.

The educational background of the teachers assigned to PROHECO schools varied widely, from those with no formal post-secondary degree experience, to those with minimal professional development. Lower levels of school capacity—with teachers averaging two years versus twelve years’ experience in nationwide public schools—has contributed to and academic achievement disadvantage of 0.11–0.16 standard deviations for PROHECO students (Di Gropello & Marshall, 2011; UMCE, 2003). Issues of disparate educational quality and learning advancements in fundamental academic areas have also been shown to influence student interest in remaining in school, further exacerbating the national school dropout epidemic which disproportionately affects rural and lower-socioeconomic status students (Honeyman, 2010; Bassi, Busso, & Muñoz, 2013). In a 2006 Comparative Analysis of School-based Management in Central America, Di Gropello argues that teacher performance depends largely on opportunities for ongoing professional development; however, the guidance on how to provide these resources effectively to decentralized schools is less clear—particularly when these schools also face concurrent challenges with respect to pedagogical resources and infrastructure limitations.

Professional Development Program Background

In 2006, siblings Shin and Cosmo Fujiyama started the non-profit (501C3) organization Students Helping Honduras (SHH), with a mission of breaking the cycle of poverty through providing access to quality education for the most at risk students in Honduras. The organization prioritized tackling the structural challenges facing schools, setting an auspicious goal of working with communities to establish durable and safe spaces for learning in 1000 villages across the country—the majority of which are served by PROHECO community based programs. In 2016, SHH completed construction on 40 school structures. However, there were many outstanding questions on the next steps for these schools to be successful.

At the time, the primary author had lived and worked at three privately owned and run schools in the El Progreso, Yoro area providing research-based professional development. She began to question the level of access that the teachers in the schools SHH had built had to these type of growth opportunities. In a review of 1,300 studies addressing the effect of professional development (PD) on student achievement, findings showed that elementary school teachers who receive substantial PD—an average of 49 hours in the nine studies—can boost their students’ achievement by about 21 percentile points (Yoon et. al, 2007). In April 2016, the primary author conducted a needs survey meeting with principals and teachers from six of SHH’s school to ask their interest in receiving professional development and if so, specifically what kind, and in what areas. The responses across field notes demonstrated an overwhelming positive reception as teachers expressed a feeling of “forgotten by the government,” “unsupported,” with their work being “under-resourced” and “undervalued”. They expressed their needs in enthusiastic narratives about the opportunity to receive professional development support, which through iterative conversations, ultimately took shape and was formalized as the “Train for Change (TfC)” project in April of 2016.
TfC is a project hosted under SHH that provides professional development opportunities to teachers in rural schools. TfC primary six program outcomes, co-created with local Honduran educators are

1. Improving student attendance
2. Enhancing the clarity of purpose of instruction
3. Increasing student engagement and participation
4. Increasing critical thinking,
5. Improving academic performance, and
6. Increasing self-driven leadership on the part of the teachers and students.

To scale this program to support all 1000 schools that SHH had planned, as well as ensure local context specificity and sustainability, the primary author, with the support of and in collaboration with educators from across Honduras and the United States (US), designed a train-the-trainer model that would empower local leaders from each school to offer monthly professional development with their peers. While teacher professional development literature has presented mixed views on the train-the-trainer model’s efficacy and replicability, this model was selected weighing key factors such as the cost-effectiveness and feasibility of providing teacher developers at each geographically dispersed school site (Harmon et al., 2007; LaVigna, Christian, & Willis, 2005), alongside the goal of developing local sustainable capacity (Suhreinrich, 2011).

Each school that agreed to participate in the program would do so for two years, producing “Teacher Developers”. Once the developers graduated, they would have the opportunity to be hired as local developers as the program grows to reach 1000 schools across Honduras. The goal is to build local capacity serving students in rural areas, and avenues for learning communities to form among geographically dispersed schools. Essential to the model, teacher developers would receive a small monthly stipend for their travel, time, and support. The project was mainly supported by private donations raised by the primary author for the first year, and then securing a three-year Rotary International grant in April of 2017 to fund the sustainable development model. The aspirational vision was to transfer local ownership to the program after three years, reducing, if not eliminating the role of external support from teachers from the US. During the two-year implementation project, schools in the program would receive two 20-hour weeks of training, one in July and the other in January of each year. The weekly programs would include different configuration of groups and development topics based upon the initial needs surveys and focus group conversations conducted in each school. In addition, each month they would receive further development led by a local part time staff and educator, financially supported by the Rotary Grant. These sessions were crafted to assist in a higher order in-depth application of the concepts and skills—a challenge raised by train-the-trainer model critics (Pancucci, 2007)—as well as to provide a guided planning for how the teacher developers would lead the training sessions at their school sites.

Train for Change was officially launched with an inaugural cohort of six schools (4 elementary, 1 K-8, and 1 alternative high school) in July 2016 with 30 teachers invited as representatives from these schools. They each received one week of in depth development (four hours/day, for a total of 20 hours) into the topics they had requested. A full visual mapping of the two-year professional development trajectory and topics updated January, 2018 can be found in Appendix A. The development adopted the Gradual Release of Responsibility Framework as is illustrated in Figure 1.1 which focuses on shifting the cognitive load from teacher-as-model, to joint responsibility of teacher and learner, to independent practice and application by the learner (Fisher & Frey, 2014; Pearson & Gallagher, 1983). This framework, originally designed for reading instruction, brings in several theories from Piaget’s (1952) work on cognitive structures and schemata, Vygotsky’s (1962, 1978) work on zones of proximal development, Bandura’s (1965) work on attention, retention, reproduction, and motivation, and Wood, Bruner, and Ross’ (1976) work on scaffolding instruction. This model was selected to support the development of competent, independent learners through a progression that shifts the responsibility from teacher to students through interactions with others (Graves & Fitzgerald, 2004).
The development program was led by three experienced teachers of varying backgrounds from the US including the primary author, and one local educational trainer. All US educators were bilingual Spanish-English with two originally from Puerto Rico, and had experience as teacher educators both locally and abroad. One was an assistant-superintendent from a large urban school district in the US. All three teachers were volunteers receiving no monetary compensation for their involvement, and covering their own travel and housing. Train for Change was able to cover cost of food and in-country transportation for these teachers.

From the initial group of 30 Honduran teachers who participated in the July, 2016 development, one representative from each school was selected and invited to be a “Teacher Developer.” This denotation meant they would return for four hours one time each month to receive additional professional development from a local part-time education staff member supported and developed by the US team, and be required to lead the same development in their schools upon return. This process continued for the months of August, September, and October before their academic year ended in November to reconvene in January.

**Designing Tools to Measure Teacher Practice**

To support fidelity of implementation of the strategies, and to provide additional support, a second local part-time education staff member was trained to collect teacher observation data. The feedback was collected using a several simple prompts prepared with feedback from a US Dean of Education who had visited the project site in April, 2016. The prompts include:

- What were the outcomes of the lesson?
- What activities took place in the classroom during the “I Do,” “We Do,” and “You Do” portions?
- Could the students describe the purpose of the lesson?
- How many students participated, based on gender as well as individual and whole group participation?

The initial data collection sheet is included [here](#).

During its use in the field we found the data collection sheet to be complicated and to not fully capture the key actions that occurred in the class and therefore, a discussion began on better ways to provide quality feedback for the program and teachers.

In January 2017, the primary author was shown and coached by the second author on how to collect data using the second author’s newly developed three-part observation tool, which provided...
information to the teacher on assessment, measurement, and evaluation of effective teaching. The two calibrated their approach by first viewing a video of a teacher using the three tools, which included a

- Quantitative Effective Teaching Checklist (Chism, 2005);
- Qualitative Field Narrative; and
- Faculty Flow Diagram (Hargis, 2014).

From January to February, 2017, the primary author practiced utilizing the three instruments in conducting three faculty observations and comparing the results with the second author, who had used the instrument for over 400 post-secondary observations previously. The comparisons resulted in a high level of inter rater agreement. On January 28, 2017 the primary author used the Hargis (2014) Faculty Flow Diagram procedure to create diagrams which she referred to as “teacher flow diagrams” for eleven K-12 educators (9 primary, 2 secondary; 10 female, 1 male) during a TfC intensive week long teacher development session. The author shared with the teachers the importance of reflection on teaching; and the teachers practiced creating flow diagrams together watching a sample classroom video. The author determined that adding a few additional annotations might be helpful to identify student speech and interaction in the classroom, such as:

- Blue line represents a student asking a question;
- Green line represents a student answering a question;
- Dotted green or blue represents when a student raised a hand to answer but was not called on;
- Active Learning (ex. Think-pair-share) draw a dotted line between partners/groups; and
- Dotted lines for movement if they walk to meet in a circle, then redraw student signs if they remained in this new place for an activity.

The primary author created 12 flow diagrams when teachers led sample lessons and reviewed with teachers one-on-one asking questions such as “What do you think about this diagram” “What do you notice?” The primary author found that teachers needed more coaching than anticipated since this process was new to them and documented that a space for free notes would be helpful to supplement the diagrams. Through the initial process working with this portion of the observation tool, the following research questions emerged:

1. What methods for collecting evidence best support K-12 teachers’ reflection on praxis in rural Honduran schools?
   a. How can the Hargis and Soto (2017) Observation protocol used in a post-secondary settings be applied to collect quality teacher data in K-12 rural Honduran schools?
2. How does teacher dialogue and their beliefs surrounding professional development change through the review of teaching and learning data collected through classroom observation?

Current Study

This article details the process in which the observation protocol was adapted to fit the local Honduran K-12 context, as well as an analysis of ten preliminary observations that were collected to test the use and validity of the instruments. These initial observations were also used to gauge the observed teachers’ comfort level and prior experience with being observed; in addition they serve as baseline data to see how these conversations evolve as a relationship is built between observer and teacher—a key priority particularly when these interactions are voluntary at the educators’ discretion (Brew, 1999; Elton, 2005). Each teachers’ engagement with the program over two years will offer multiple opportunities for observations to be conducted as well as reflection on praxis, offering insight into how teachers dialogue and beliefs surrounding professional development change over time.
**Methods**

Ten preliminary observations were conducted employing an iterative design process (Barab & Squire, 2004) to align the Hargis and Soto’s (2017) three-part observation protocol to the local context in Honduras. The observations were conducted by TfC’s local educational staff member, whose pseudonym Roberto will be used, who was asked to take notes on the process of utilizing the protocol, and how it worked in the field. The primary author engaged in numerous communication loops utilizing the commenting functions within each part of Google Drive as well as Skype conversations to modify the instrument given the local staff member’s input. The accessibility of the Google Drive--particularly in the context of international collaboration--facilitated a fluid communication line between Roberto in Honduras and the primary author in the US; this medium also allowed for other stakeholders do give feedback on the instrument development when needed. Below is a narrative account detailing when, how, and why modifications to the protocol were made, with hyperlinks to the various versions of the research instruments addressing research question one. In addition, findings from the ten preliminary observations are included to address research question two, sharing insights into the information that can be gained using this modified protocol in these school contexts. This data, which was comprised of transcribed audio recordings of post observation conversations, and artifacts created during the observation, was collected a part of the Train for Change program design and evaluation process; participants were informed of the intention to use this data for this research purposes and consented to participate. All individual and school names have been included as pseudonyms to protect confidentiality. Observation excerpts and quotes are provided in Spanish and concurrently translated into English to ensure fidelity to the speaker’s language employed and the direct meaning of what was shared. Artifacts and protocols are provided in Spanish and translated into English when appropriate to facilitate review and prospective use of these tools for a broader audience.

**MODIFYING THE PROTOCOL AND INSTRUMENTS**

A narrative of the design process is outlined chronologically below as a way of visualizing the intricacies and iterations embedded with an instrument design process. In addition, it highlights the active role that Roberto plays in adapting the research process to fit the local rural Honduran educational context--a key feature of action research. This process, from its initiation to the end of the scope of work included in this current study, serves a foundation for the pilot study and the continued work of TfC in measuring effective teacher observation data to support Honduran rural schools.

*February, 2017:* Roberto and a local school director Carmen, who consulted with the TfC program, were trained on using the “teacher flow diagrams.” Carmen was selected to support on this project due to her experience having conducted over 70 observations of elementary school teachers at a school in the area. They piloted the instrument observing six classes to ensure inter-rater reliability.

*March, 2017:* The primary author translated the Chism’s (2005) rubric which had been modified for use by the secondary author. Attributes were left in the same categories, with certain attributes being removed due to their applicability to the Honduran K-12 context and the program goals of TfC. This includes attributes regarding incorporating current research in the field as well as identifying sources, perspectives, and authorities in the field. In addition, a leveling system of “Alto, Medio, Bajo, & N/A” (High, Medium, Low, and N/A) for each attribute were included in order to use the instrument to demonstrate potential growth in specific attributes.

*April, 2017:* Roberto reviewed the attributes and made initial comments. He determined that some of the attributes were repetitive and could be merged. In discussion with the primary author, they also determined that reordering the attributes to better align to TfC program outcomes (POs) could
promote ease of use.

A first draft was created mapping the attributes under the program outcome that they best supported.

- PO1- Attendance
- PO2- Clarity and Purpose of Instruction
- PO3- Engagement (Active Participation)
- PO4- Critical Thinking
- PO5- Increase Academic Performance
- PO6- Self-Driven Leadership

The attributes were sorted by POs to determine what weight was placed on certain POs across attributes. Considering that some attributes had multiple POs aligned to it, it was determined that it the alignment would be based on which PO was the best fit. The primary author determined that PO1 allows for all other outcomes to be met and it could be argued that all attributes would support PO1. Similarly, PO5 would be supported by all attributes and could be aligned with most of them. Therefore, these two categories were removed from the analysis.

Excluding PO1 and 5, the attributes were heavily weighted on three program outcomes:
- PO2 – Clarity and Purpose of Instruction
- PO3 – Engagement (Active Participation)
- PO4 – Critical Thinking

While there were some attributes that attended to PO6 – Self Driven Leadership, these seemed difficult to capture during one observational setting, therefore it was determined that the teacher’s reaction to the instrument as a whole and the “Alto, Medio, Bajo, and N/A” (High, Medium, Low, and N/A) scale could be used to measure growth in self-driven leadership.

April 3, 2017: Roberto reviewed the attributes again asking for clarification on some of the terms, resulting in the need to operationally define some of the attributes as well as remove academic jargon. He also identified a few codes that he did not believe would be easily observable for example “Demuestra curiosidad intelectual hacia nuevas ideas” (Demonstrate intellectual curiosity towards new ideas) asking clarifying questions like “What would this look like?” so that he knew what to look for. He also identified some potential areas in which Honduran teachers could struggle given the level of academic and professional training that they have including “Proporciona instrucciones explícitas para las tareas de aprendizaje activo” (Provides explicit instructions for the active learning activities) commenting that “es complejo para el nivel de la mayoría de los maestros, pero quizás es solo mi percepción” (this is complex given the level of the majority of the teachers, the maybe this is just my perception). Roberto’s input highlighted that these attributes should either be removed, or focused on during trainings so that teachers would have the knowledge and skills to reach these levels.

At this point, the primary author and Roberto raised the concern that teachers might be discouraged by the quantity and complexity of the attributes. They determined that sharing the rubric directly might be detrimental to the development process and that teachers may benefit more from a simplified follow-up format allowing them to put a few concepts into practice.

A modified memo format highlighting a maximum of three attributes that were observed at a “high” level and maximum of three that could indicate areas for growth was included as a portion of a post-observation conversation format.

April 18, 2017: A local Honduran teacher from one of the TfC schools shared with the primary author a document utilized by the Honduran government to observe teachers. This was used to cross reference the instrument being created to see if anything could be utilized, merged, or drawn from. Upon first review by the primary author, it appeared that the observation framework did not provide
space to mark positive things occurring with most attributes phrased with negative connotations for example “El docente llegó tarde, marca si ocurrió” (The teacher came late, mark if this occurred). In addition, this instrument was not grounded in pedagogical actions, and focused primarily on teacher actions, rarely attending to student actions. This instrument was shared with the Roberto as well as an additional TFC educational staff member to review, with the intention of receiving local Honduran educators’ perspectives. Their reflections echoed the belief of the primary author that we would be unable to draw from this instrument as it does not attend to the TFC program’s view on utilizing observations as a way of promote self-measurement and evaluation as well as tracking growth over time.

April 19, 2017: The primary author realigned the attributes by program outcome 2-4 incorporating Roberto’s comments on language as well as fleshing out certain attributes with examples. The newly designed version was shorter and more concise. While additional modifications in terms of the order of attributes to group similar ones together were discussed, a working version was determined ready to be employed.

April 22, 2017: The primary author created a post-observation interview guide for Roberto to use when discussing the observations with teachers which was reviewed and validated for culturally appropriate language and approached by Roberto and an additional TFC educator staff member.

While additional modifications have been made to these tools moving forward, the following data collection included below frames a pilot that was conducted engaging in teacher observations with the tools as they were outlined to date in this description.

DATA COLLECTION AND ANALYSIS

Roberto conducted ten observations from April - October, 2017 in six PROHECO schools where TFC had provided professional development to test out the modified protocol. The teacher participants were all females between the ages of 20-60 with mixed cultural identity differences. The grades observed ranged from 1st to 9th grade, including multi-grade classrooms which are common in rural schools in Honduras. The classes observed were varied, as the focus of observations were not tied to particular subjects of interest. A summary of the participants and classes observed are included in Table 1.

Table 1. Details of observations conducted

<table>
<thead>
<tr>
<th>Date of Observation</th>
<th>School</th>
<th>Teacher</th>
<th>Grade</th>
<th>Subject</th>
<th>Year in the TFC Program when Observed</th>
<th>Role in TFC Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 27, 2017</td>
<td>Escuela Alvarado</td>
<td>Margo</td>
<td>1</td>
<td>Science</td>
<td>1</td>
<td>Teacher Developer</td>
</tr>
<tr>
<td>April 27, 2017</td>
<td>Escuela Alvarado</td>
<td>Maribel</td>
<td>5 &amp; 6</td>
<td>Spanish Language Arts</td>
<td>1</td>
<td>School Principal</td>
</tr>
<tr>
<td>May 4, 2017</td>
<td>Escuela Palma</td>
<td>Mona</td>
<td>2</td>
<td>Spanish Language Arts</td>
<td>1</td>
<td>School Principal</td>
</tr>
<tr>
<td>May 18, 2017</td>
<td>Escuela Omar</td>
<td>Innes</td>
<td>2</td>
<td>Spanish Language Arts</td>
<td>1</td>
<td>Teacher Developer</td>
</tr>
<tr>
<td>May 18, 2017</td>
<td>Escuela Omar</td>
<td>Sara</td>
<td>5</td>
<td>Math</td>
<td>1</td>
<td>School Principal</td>
</tr>
<tr>
<td>August 17, 2017</td>
<td>Escuela Gabriel</td>
<td>Kendra</td>
<td>1</td>
<td>Spanish Language Arts</td>
<td>2</td>
<td>Teacher</td>
</tr>
</tbody>
</table>
Post-observation interviews were held directly after the observation and ranged from two minutes to ten minutes in length depending on the teacher's responses and interruptions. The location and privacy for these interviews was dependent upon various factors including: structural space available for this conversation, the availability of shade, the age of students which determined whether they could be left alone, as well as the presence of a parent or additional teacher that could cover the class. The majority of interviews were held in the hallways just out of earshot of the students.

Interviews were transcribed electronically by employing the free online OTranscribe software to slow down the audio and reduce background noise. Roberto reviewed the transcriptions to ensure they were valid and reliable to his experiences on the ground. An open coding process (Strauss & Corbin, 1998) was conducted through the initial review of four interviews—a principal and teacher pair from two schools—one from a school in their first year with TfC and one in year two. These interviews were selected as a way of reviewing potential within school differences and differences between schools who have been in the program longer. The commenting feature on Google Documents was used as an initial tool to highlight potential emerging codes (Appendix B).

Building upon these emerging codes, MAXQDA (maximum qualitative data analysis), a qualitative coding software, was utilized to establish a formal coding schema through the process of axial and selective coding. Axial coding allowed for categories of codes to be grouped as parent and child codes (Blair, 2015), organized around central concepts such as the reference to evidence, and focus on improvement. Through this process and the re-coding of the initial four interviews, redundant or infrequently appearing codes were removed. Each coded segment was assigned to a child code ensuring for a richer description of what was said. For example, if a segment was coded as parent code “Reference to Evidence”, meaning that the interviewee spoke directly about the observation protocol that was presented to them, then the child code selected attended to whether their response focused on improvement, positive features, or was neutral in nature. Therefore, the frequency of all parent codes is zero with the exception of the code for pleasantry.

Pleasantry was included as a code in response to multiple instances of the interviewer and interviewee exchanging niceties, thanking each other for taking the time to conduct and debrief the observation. These were coded to analyze the nature of communication exchanged and how these comments may reflect the relationship between the interviewer and interviewee. As the intention of this observation protocol is to conduct multiple observations and analyze change over time, inquiry into the relationship between the interviewer and the interviewee is critical, as this can influence the nature of openness and comfort that the interviewee may feel in sharing their reflections. A code for response type was also included to characterize the style of overall response to each question posted as either short or targeted, vague, or extended. While this could be indicative of particular interviewee speaking styles, it also could be reviewed as indicative of comfort with the interviewer, the process, and/or interviewee depth of reflection on their practice.
Utilizing the established coding schema, all ten transcripts were coded allowing for overlapping codes. This overlapping coding allowed for examples that were illustrative of diverse themes in short segments—representative of the conversational and choppy nature of transcripts (Campbell et al., 2013). While interviewers may ask particular questions that get at certain themes, they frequently receive answers that include tangents, digressions, backtracks, and overlaps with other themes (Kurasaki, 2000:180). Overlapping codes on the short rich dialogue sections of these transcripts allowed for the qualification of not only the content of responses to prompts, but also the style of response given. The final coding schema with definitions, examples, and frequency can be found in Appendix C.

RESULTS

Through the coding and analysis of the ten interviews, key themes emerged that provide insight into teacher beliefs regarding professional development as well as teachers' experiences being observed with a novel protocol.

Teachers' Beliefs Regarding Observation

Teacher beliefs regarding professional development and observation are shaped not only through their personal experiences, but additionally through the collective sense-making that occurs through the shared experiences of teacher networks. Drawing from the example of Holme and Rangel (2012), the collective sensemaking framework (Coburn, 2001) is relevant to this context, as Honduran teachers interact and grapple with the heavily punitive observation framework that is employed within the PROHECO education system. Under this protocol, teachers are observed weekly utilizing a checklist prioritizing logistics and physical descriptors of the class—In stark contrast to the pedagogical attributes favored by the employed Chism's (2005) modified rubric. The impact of this institutional focus is evident in teacher's first reactions to being observed. Anastasia thanks the interviewee and observer Roberto for taking the time to “dar una calificación” (give her a grade), noting that she knows this is a difficult process. While Roberto did correct her indicating that this process was not intended as evaluative, but more to gather additional information for them to reflect on, this example is indicative of the frame in which teachers may view observations. Additional beliefs surrounding observations included that in the beginning Maria “senti bien nerviosa” (felt very nervous) and Abigail exclaimed that “‘Ay vaya dios’ verdad” (Oh my god, right) with respect to when she first was asked if she could be observed.

However, despite these initial beliefs, teachers reflected that they felt positive about the experience and more calm throughout the process. Sara validated that the process “es muy bueno, así utilizo los aspectos para mejorar” (is good, therefore I can use the aspects to improve). Innes expanded upon this sentiment, noting that

“amo lo que hago. Siempre había un clamor dentro de mi, y me siento con lo que [este proyecto] ha venido a hacer, esta llenando las expectativas, y podemos darnos más, y con mayor, y mejor” (I love what I do. There has always been a clamor inside of me, and I feel that with what [this project] has came to do, that it is meeting the expectations, and we can give more, and more, and better.)

Each of the ten interviews concluding on a positive tone regarding the observation process, signaling a shift in teacher beliefs surrounding observations. Anastasia added that Train for Change's observation protocol fills a gap that should be covered by the government providing the necessary monitoring that would allow teachers to improve the educational quality they provide to their students. This type of response shows how exposure to a development focused procedure, can shift teacher expectations towards and desires for feedback and professional growth—therefore influencing future interactions and responses to observation as comfort develops between the teachers and the observer.
Focused Reflection on Improvement Evidence

The analysis conducted focused on the ways that teachers responded to two types of evidence presented—a flow-diagram of their movement around the room and student participation during the observed lesson (Figure 1), and a summary of positive attributes evident in their classroom pedagogy and areas for potential improvement drawn from the modified Chism rubric (Figure 2). After explaining the artifact, an open ended question was posed asking “What do you think?”

![Figure 2. Sample Teacher Flow Diagram](image)
![Figure 3. Sample Summary of Attributes](image)

During their interviews, when referencing the evidence directly, the participants overwhelmingly focused on the areas of improvement with limited attention to the positive attributes presented, with frequency of codes seventeen and six respectively. When prompted, Sara responded with an assurance that “[ella] trabaj[ará] con esos, estas críticas constructivas que usted acaba de hacer” (she would work on those, the constructive critiques that you just made). Innes also references the attribute evidence echoing that “este yo, es la actividad que me falto” (this I, is the activity that I was missing). One teacher, Kendra, even turned the question around and asked the interviewer “qué hay que mejorar? (what do I need to improve upon) seeking out Roberto’s opinion on her areas of weakness.

While this focus could be linked to teacher experiences and beliefs regarding observation, elevated attention to areas for improvement can have deleterious effects on teacher self-efficacy and motivation (Castle & Buckler, 2009). In addition, if this pattern is mirrored in the feedback that teachers give to their students, it can similarly negatively influence their self-esteem and long term academic success (Ackerman & Gross, 2010). A longitudinal approach to data collection, could provide evidence as to whether opportunities to reflect on observations and receive feedback and coaching would influence teacher areas of focus, favoring a balance among positive and instructional improvement feedback.

Improvement as a Mixture of Active and Passive

While reference to evidence focused primarily on areas for improvement, an even balance between active and passive strategies emerged through teacher responses. Of the teachers who attributed to improvement to an active process, three teachers cited specific strategies of focuses that they would modify in their practice. Mona attended to student participation in the flow diagram,
referring that one specific student appeared “un poco pasivo” (a bit passive) and suggesting that this might have to do with “el orden como los tengo ubicado” (the arrangement in which I have them organized). Maria also references her room arrangement and how putting students in groups still did not lead to the level of student participation she desired. She commented that “debiera haberlos dejado solo practicamente allí verdad. Después de haber dado instrucciones.” (I should have basically left them alone there. After they were given instructions) reflecting on how her presence in a group led to less student participation. By citing specific improvement strategies, teachers can actively modify their practice to improve student engagement and learning--meeting many of the TfC program goals.

However, there were five teachers that attributed improvement to a passive process or something that they would receive help from TfC to achieve. Both Abigail and and Anastasia posited that if there were any strategies that Roberto would be able to provide, that they would be pleased to learn from the organization and improve. However, they did not request specific strategies related to any portion of the evidence provided, leaving the potential supported open ended and vague. In addition, Maria reflected on the open ended nature of improvement as a process that occurs over time, arguing that “este es un proceso de aprendizaje y se que la próxima vez será mejor, jaja.” (this is a learning process and I know that next time I will do better, haha). Abigail agreed with this sentiment positing that “vamos a encontrar cada día para mejorar” (we are going to find every day something to improve). The view of improvement as a passive process that occurs over time or something that should be provided by external support systems is indicative of these teachers’ views regarding control and ownership over their practice.

**Control Attributed to External Factors**

When exploring the data provided through the observations, teacher reflections including various references to the idea of control of the classroom. Control in these instances can be defined as the who and what influences what goes on in their classrooms. While the teachers did discuss the importance of personal improvement, they tended to attribute the data collected to areas of external control such as them leading a multi-grade classroom, having a specific prescribed curriculum, or as something that was planned in the lesson but not observed during the specific window of time.

In these schools, and many schools across Honduras, multi-grade classrooms are common due to lack of enrollment and staff resources. Abigail shares that the reason she was not observed giving clear instructions--an attribute from Chism’s (2005) list of effective teaching attributes-- was because “fue algo de que hay que buscar la forma rápida de ayudar a los dos grados” (it was something that you have to find the quickest way to help both grades). Innes builds on this idea of certain classes not allowing for attributes to be observed stating that “hay clases en lo cuales donde permite más hacer la pausa para hacer las preguntas” (there are classes in which it allows you to have more pauses to [have students] ask questions).

Lorita expands upon this idea of control, by arguing that the attributes that were not observed may have been because “solo es una hora de clase que usted termina de ver” (it was only an hour of class that you have just seen). This can be seen as a limitation of observation as the process cannot always capture what was planned in a full lesson without access to additional artifacts such as lesson plans or unit plans. Lorita defends that she works with weekly lesson plans, and therefore this observation came at the time of their final summary lesson. While these segments from the interviews provide evidence into the belief system teachers attribute to control over their practice, attributing effective teaching as linked to external factors, could have a negative influence on teacher self-efficacy as well as influence their praxis (Finnegan, 2013). Further research on teacher control as well as a richer background into the context in which they work would add depth to the story of teacher learning in rural schools.
Teachers Openness to Professional Development

In each of the ten interviews, teachers expressed sentiments that illustrate an emerging positive relationship with being observed and with professional development as a tool for their continued development. Innes concluded her observation by expressing that “me siento realmente agradecida para el apoyo que nos brinda, muchas estrategias que nos enseñaron en la capacitación, y que nos han ayudado.” (I feel really thankful for the help that you have given us, and for the many strategies that you have taught us in the professional development, and that you have helped us.) Her sentiment is representative of how the teachers responded to interviewers’ final question of “what were your thoughts on this process?”—a positive indication of teacher openness to professional development and observation.

Collecting information regarding observations prior to their first experience with this protocol would serve as a useful baseline of teachers’ beliefs. In addition, future opportunities to enact the observation protocol and debrief over time with these same teachers will indicate how exposure to this new style of observation influences teacher beliefs and the impact of this shift on the depth and style of teacher reflections.

DISCUSSION

This article offers insight into the process of adapting a US employed higher education protocol to collect quality teacher data in K-12 rural Honduran schools. By outlining the iterative design process, the modifications made through praxis, and the ways in which local Honduran educators were involved in this process—the authors detail the importance of culturally relevant language and practices in educational research. Including Google Drive examples of each iteration in its raw form further illustrates the behind the scenes of the development progress. In addition, the data presented offer initial answers to the two research questions posed.

To respond to the first question, Hargis’ (2014) observation protocol was modified to successfully collect quality teacher data for ten teachers in rural K-12 schools in Honduras. This adaptation required that the primary author go beyond direct translation, partnering with local educators to practice using the tools while maintaining an open cycle of feedback. Roberto, who would be the one utilizing the protocol on daily basis, not only had to feel comfortable with what he was being asked of him, but also wanted to ensure that the data collected would be of value to the teachers observed. As was illustrated through the initial pilot data and our review of the tools used by the local educational administration, teachers’ experiences with observation were often negative and punitive. The goal in employing a growth framed tool by adding the indicates of “high, medium, and low” as well as creating an open protocol for teachers to reflect on the data collected, was to provide positive experiences with observation that could set the stage for future conversations and support. The pilot data indicates that this framework appeared to have the desired effect as well as supported the development of a relationships between the interviewer and the interviewee.

While the pilot data only reflects the first observation conducted with each teacher, it does offer initial insight into the way that teacher dialogue and their beliefs surrounding professional development change through the review of teaching and learning data—responding to research question two. Seeing as TfC is a voluntary opportunity for participating teachers, their openness to professional development can greatly influence their engagement and the success of the program writ large. In addition, providing in depth follow-up and an accompaniment to teachers bringing back new strategies to their classroom through this observation process is critical to ensure the success of the train-the-trainer model. Our pilot sample of teacher reflections offer evidence of their emerging positive relationship with observation, as well as a tendency to focus on areas for growth over their positive achievements. The mixed passive and active strategies for improvement presented by teachers, provides future direction for professional development to focus on teacher empowerment and advocacy for change. Understanding teachers’ beliefs regarding professional development particularly in under-resourced Honduran schools adds to the literature on rural schools—a relatively understudied area. The ability to conduct observation as teachers take part in
the two-year TfC program, will provide additional information as to how these beliefs and relationships change over time as well as how professional development translates to praxis.

LIMITATIONS AND FURTHER WORK

Directly embedded in the process of engaging in international research, this work could benefit from a further review of the nuance inherent in adapting research processes to different linguistic and cultural contexts. This includes a deeper dive into possible incompatible meanings, and discrepant educational management systems that could all contribute to challenges related to cross-cultural practice that cannot be fully resolved through the use of action research. While precautions were taken to minimize extraneous variables, limitations inherent to conducting research in rural under-resourced educational settings should not be ignored. These include ways in which the space and timing in which interviews were conducted not being most conducive to an open and honest dialogue with common interruptions from students.

In addition, tracking growth over time requires an acknowledgement that many factors can contribute to teacher change such as the period in the school year, opportunities outside of the TfC program under study for professional development, and exposure and developed comfort with the observation protocol. While these factors are embedded in process of conducting research in praxis, they are important to address when considering the validity and replicability of the findings. Moreover in future data analysis beyond this pilot study, having multiple coders analyze the interviews and provide input on the coding scheme will help address concerns regarding inter-rater reliability. While the length of segments led to extensive examples of overlapping codes, streamlining the codes may inform a more direct interpretation of teachers’ experiences reflecting on teaching and learning data.

REFERENCES


Appendix A. TfC Professional Development Trajectory

Train for Change

2-Year Professional Development Trajectory

TfC Program Outcomes:

Module 1 (July, Y1)
- Lesson Planning (Classroom)
- Lesson Delivery: practice-reflect
- Positive recognition: chants, cheers, competition
- Front-load vocabulary: main vocabulary, providing visuals
- Connecting learning: connect it to the whole class
- Asking questions: Lesson dependent; Bloom's Level 1 & 2
- Community Circle: Building trust; daily reflection circles on lesson planning

Module 2 (January, Y1)
- Lesson Planning (Training)
- Lesson Delivery:
  - Observation/Feedback Protocols
  - Student Interactions: Active learning; Promoting Attendance
  - How to chose vocabulary: academic vocabulary
  - Questioning: Bloom's Level 1, 2, & 3
  - Goal Setting: School, Personal
  - Meeting Protocols: Socratic Seminar; Professional Learning Cycles

Module 3 (July, Y2)
- Student Interactions: Group work
- Connecting learning: Self
- Explaining thinking: Instructor Led
- Questioning: Bloom's Level 4 & 5
- Community Circle:
  - Reflection/metacognition about instruction
  - Social-emotional development: Mini-lessons ex: growth mindset, resilience self-control for students

Module 4 (January, Y2)
- Connecting learning: World
- Setting Goals: personal, school, with students
- Explaining thinking: Student-led
- Community Circle: Mini-lessons ex: growth mindset, resilience self-control for instructors
- Observing others/providing feedback
- Meeting Protocols: difficult conversations

Future Leadership Opportunities (Y3 & Beyond): TfC trainer; Online discussion leader; Mentorship

Appendix B. Initial Coding Schema Utilizing Google Documents

- Teacher self-driven leadership
  o Do they take ownership for improving
  o Passive ownership “I am open to learning more from you (the organization)”
  o Attribute improvement to time “Will improve over time”
  o Cite specific ways that they could improve
- Beliefs about observation
  o “I was nervous”
  o Shift - “I now think that it is helpful”
- Length/Depth of responses & Amount of prompting required by interviewer
  o Only 1 prompt needed
  o Short and to the point
  o Vague responses
- Beliefs about student behavior
  o They get distracted; “have to do it this way so that they do not derail the convo”
- Multi-grade references
  o Ownership over what they can control/not
  o Ways class “must” be led - “must give instructions quickly”
  o Difficulties
- Direct reference to evidence provided (diagram, attributes selected)
  o Focus on positive attributes or only improvement ones
  o Add detail to each one, reflect individually, or general repetition
  o It is audio but you can still kind of tell if they are pointing to or referencing something directly.
- Niceties - Thank you, I really appreciate, etc.
- Reference to the benefit of the program TfC
### Appendix C. Final Coding Schema with Definitions, Examples, and Frequency of Codes

<table>
<thead>
<tr>
<th>Code System</th>
<th>#</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference to Evidence</td>
<td>0</td>
<td>Interviewee refers to evidence/artifacts presented by the observer/interviewer that were collected during the observation.</td>
<td>Creo que si se puede hacer una mejor rotación verdad, para evaluar bien a cada alumno. Creo que están ubicados donde me cuesta un poco trasladarme, en cuanto en la participación, creo que había más participación de los muchachos. (LG-13)</td>
</tr>
<tr>
<td>Evidence: Focus on Improvement</td>
<td>15</td>
<td>Reference to evidence/artifacts centers on areas in which they can improve.</td>
<td>me fluyó yendo bastante, pero...(pausa 5 seg).Yo lo miro bien, lo miro bien porque muchos niños participen, me ubico, me encuentro en varios lugares del aula, (OS 8)</td>
</tr>
<tr>
<td>Evidence: Focus on Positive</td>
<td>5</td>
<td>Reference to evidence/artifacts centers on positive areas.</td>
<td>estoy viendo donde me condujo, en el centro. (IB - 7)</td>
</tr>
<tr>
<td>Evidence: Neutral</td>
<td>6</td>
<td>Reference to evidence is neutral in nature.</td>
<td></td>
</tr>
<tr>
<td>Response - Type</td>
<td></td>
<td>What is the overall nature of interviewees response to prompts. How in depth are they in their responses and what type categorizes their response.</td>
<td></td>
</tr>
<tr>
<td>Response: Short/Targeted</td>
<td>7</td>
<td>Responses are short and targeted to the questions asked; do not include extra information.</td>
<td>Hay buena participación, y que anduve por todo el aula. (KC-12)</td>
</tr>
<tr>
<td>Response: Vague</td>
<td>4</td>
<td>Responses are vague in nature discussing the question but not specifics about the observation.</td>
<td>O: Oh, está bien, y de hecho, es muy bueno porque así utilizó los aspectos para mejorar, verdad. R: Uh huh O: Yo trabajo con esos, estas críticas constructivas que usted acaba de hacer, los atributos. R: Uh hmm O: Y como parte también la clase también fue más un repaso que todo</td>
</tr>
<tr>
<td>Response: Extended</td>
<td>Improvement</td>
<td>5</td>
<td>Responses are extended in nature, adding additional information that may not have been present in the observation.</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
<td>---</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>Improvement</td>
<td></td>
<td>0</td>
<td>How do interviewees reflect on improvement of practice?</td>
</tr>
<tr>
<td>Improvement: Active</td>
<td></td>
<td>4</td>
<td>The interviewee discusses improvement as an active process.</td>
</tr>
</tbody>
</table>

R: Si
O: Entonces, eh, estamos que con un reto. Pero si voy a poner en práctica las sugerencias que usted me ha dado. (OS 31-37)

A: Bueno realmente, ser vacío verdad que tiene diferentes cuadros, que está planteado de diferente forma. Y como le explicaba al principio a usted, pues multigrado y tengo que movilizarme bastante verdad. Entonces, creo que esta diagrama de activo a la realidad bastante, para poder dar una calificación en cuantos los grados.

R: Digamos su movilidad alrededor del aula verdad y las respuestas también de los jóvenes, se observa la participación de los niños verdad. Qué piensa acerca de eso?

A: Pues creo que la participación de los estudiantes es muy importante pues ya que ellos pueden, a veces aprendemos más de ellos verdad. Tenemos mucho, mucho que aprender de ellos, y darles la oportunidad de estar mostrando para que ellos pueden exponer y hacer y (inaudible). Pero nunca debemos de dejar que el niño sienta que no pueden pero transmitir que ellos pueden darme una respuesta. Eh, sin duda, mostrando lo que ellos tengan. (AP 6-8)
<table>
<thead>
<tr>
<th>Category</th>
<th>Improvements</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improvement:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Strategy/Examples</td>
<td>The interviewee cites specific strategies/examples they could employ to improve.</td>
<td>Entonces, por lo tanto, aquí podría, tendría que enfocarse en este niño que esta verdad un poco pasivo, según el orden como los tengo ubicado verdad, porque aquí no hubo participación. (MH-6)</td>
</tr>
<tr>
<td>Requested/Passive</td>
<td>The interviewee discusses improvement as a passive process or something where they would receive help from the organization.</td>
<td>pero si hay una estrategia que puedo proporcionar yo con gusto lo aprendo para poder mejorar en este aspecto (AP - 15)</td>
</tr>
<tr>
<td>Time</td>
<td>The interviewee attributes improvement as a passive thing that happens over time.</td>
<td>Si estoy totalmente de acuerdo con todo lo que ha pasado y este es un proceso de aprendizaje y se que la proxima vez sera mejor, jaja. (OM-15)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Control</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned in Lesson</td>
<td>Interviewee references that activities that were or were not observed were purposeful and set out in the lesson plan.</td>
<td>Y ahora me faltó en esta, en donde iba a hacer la actividad de su cuerpo de describir a sus compañeros y después pasar al frente (IB - 38)</td>
</tr>
<tr>
<td>Multi-Grade</td>
<td>Interviewee references that activities that were or were not observed can be attributed to what they can control teaching multi-grade classes.</td>
<td>Eh bueno creo que en cuanta de proporcionar instrucciones explicitas, pues fue algo de que hay que buscar la forma rápida de ayudar a los dos grados (AP - 15)</td>
</tr>
<tr>
<td>Curriculum/Grade Level</td>
<td>Interviewee references that activities that were or were not observed can be attributed to what they can control based on the curriculum they have to teach and/or the grade level they teach.</td>
<td>Hay clases en lo cuales donde permite más hacer la pausa para hacer las preguntas. (IB - 14)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Pleasantry</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Exchanges of niceties between interviewer and interviewee independent of the content of the observation.</td>
<td>en cuanto la felicidad de usted lo agradezco mucho (AP - 15)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Beliefs</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excerpts representative of interviewee beliefs</td>
<td>Y otra instrucciones claras, otro el niño interrumpe siente que le pierde clase, entonces por eso tenemos hay que darla de esa forma (AP - 15)</td>
</tr>
<tr>
<td>Student Behavior</td>
<td>Interviewee beliefs regarding student behavior</td>
<td></td>
</tr>
<tr>
<td>Beliefs: Teacher Responsibility /Their Job</td>
<td>Interviewee beliefs regarding their role and responsibility as a teacher</td>
<td>Considero que el maestro es importante que se mueva que está pendiente de lo que hace el niño. Observar su trabajo, eh, dónde están las debilidades del niño, o donde están las capacidades del niño. (AB-8)</td>
</tr>
<tr>
<td>Beliefs: Observation - Feedback/Evaluation</td>
<td>Interviewee beliefs about the experience of being observed/receiving feedback/evaluation</td>
<td>estaba nerviosa al principio &quot;Ay vaya dios&quot; verdad. Pero ya es algo para mejorar no para molestar para ayudarle para contar porque es la idea verdad de la instrucción apoyar (AP - 20)</td>
</tr>
<tr>
<td>Beliefs: TfC</td>
<td>Interviewee beliefs about the Train for Change experience</td>
<td>Me gusta mucho porque aprendemos muchas cosas. Nosotros no lo sabemos todo, y todo aprendimos, y conocimos nuevos compañeros. Y ahora tenemos ese grupo y imagino yo que vamos a seguir aprendiendo más. (KC-28)</td>
</tr>
<tr>
<td>Beliefs: Student Learning</td>
<td>Interviewee beliefs about student learning.</td>
<td>creo que la participación de los estudiantes es muy importante pues ya que ellos pueden, a veces aprendemos más de ellos verdad. (AP - 8)</td>
</tr>
</tbody>
</table>
BIODATA and CONTACT ADDRESSES of the AUTHOR

Maxie Gluckman is currently a PhD student in Education Studies at the University of California, San Diego. She earned her undergraduate degree from UCLA, a Master’s in Education, and holds a bilingual Spanish-English teaching credential. She has held positions as an education policy researcher, bilingual educator, curriculum designer, faculty developer, and founded an education consulting company that focuses on improving quality educational opportunities for Hispanics. She currently leads “Train for Change,” a nonprofit teacher development organization that aims to improve educational quality in 1000 schools in impoverished areas in Honduras. Her research interests include educator development and equity in access and quality of educational opportunities for underrepresented communities both locally and abroad.

Maxie GLUCKMAN, MEd
Doctoral Student
University of California, San Diego
La Jolla, CA 92092 USA
maxie.alexandra@gmail.com

Dr. Jace Hargis is currently a Professor and the Director of the Center for Teaching & Learning at NYU Shanghai. His prior positions include a College Director in Abu Dhabi, UAE; an Associate Provost of Faculty Development, Assessment and Research and Professor in Honolulu and Assistant Provost of Faculty Development and Associate Professor in northern California; and a Director of Faculty Development and Assis. Professor in Florida. He has authored a textbook and published over 140 academic articles as well as offered hundreds of presentations. He has earned a B.S. in Oceanography from Florida Institute of Technology; an M.S. in Environmental Engineering Sciences and a Ph.D. in Science Education from the University of Florida. Dr. Hargis’ research agenda focuses on how people learn while integrating appropriate, relevant and meaningful technologies.

Jace HARGIS, PhD Professor;
Director, Center for Teaching & Learning
NYU Shanghai
Shanghai, China
jace.hargis@gmail.com