

In-Service Teacher Training

*A Case Study of Primary School's Untrained Teachers in
Northern Ghana*

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I am dedicating this thesis to
my Godmother Margaret Spear and
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Abstract

This thesis analyzes a case study on untrained teacher in-service education located in northern Ghana, Africa. The purpose of the thesis is to explore the in-service teacher training phenomenon as it occurs in a national socio-economic context. The research ambition is accomplished in an exploratory field study design. I collected empirical data at different societal levels in Ghana's education system, although the main contribution is drawn from a single case study, labeled School A. This thesis provides an analytical discussion of the findings I collected while in Ghana in October and November of 2006, interviewing the actors involved with these gaps, in the light of relevant theory. I apply Lave's and Wenger's (1991) theory of situated learning, and Wenger's (1998) notion of community of practice as a theoretical framework for understanding better the phenomenon under investigation.

The case study provides empirical evidence of how the untrained teachers learned to teach and used one another as resources. The research has, however, identified a range of mismatches between policy goals, official plans, real life practices, along with practical interruptions the teachers' daily workplace learning. I conceptualize these reoccurring situations as gaps that occur at the school, as well as the macro (national educational level) and meso (school district level) level of education in Ghana. The gaps include lack of resources, communication, finances, in addition to managerial support and facilitation of learning at the micro level. The case study illuminates empirically that School A has developed a community of practice, although at a rudimentary and immature stage, a survival community of practice. I propose to apply the concept of community of practice with the purpose of training their untrained teachers and socializing them into professional teaching. In this perspective, the community of practice emerges as an ideal model to fill these recurrent gaps. In the discussion, I address critical factors and preconditions for the ideal model of a community of practice to work as learning and knowledge structures to facilitate in-service training of unskilled teachers.

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Abbreviations

EFA	Education for All
CoP	Community of Practice
CRGD	Curriculum Research Government Development
DTST	District Teacher Support Team
FCUBE	Free Compulsory Universal Basic Education
GES	Ghana Education Service
ILP	Improving Learning through Partnership
JSS	Junior Secondary School
NCLB	No Child Left Behind
NGO	Non-Governmental Organization
NLM	National Liberation Movement
PISA	Program in International Student Assessment
PTA	Parent Teacher Association
QUIPS	Quality Improvement in Primary School
SSS	Senior Secondary School
TIMSS	Trends in International Mathematics and Science Study
TTC	Teacher Training College
TTISSA	Teacher Training In Sub-Saharan Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTTDB	Untrained Teacher Basic Diploma
WSD	Whole School Development

1. Introduction

1.1 Introduction

I conducted my pre-study in April 2006, while in Damongo, a town in the northern region of Ghana, working with a school I will refer to as School A for the duration of the thesis. I worked with another teacher from Norway to discuss in-service training and teacher support with the teachers at School A. As I learned about the teachers' educational background I realized that a gap existed between the amounts of training needed to teach and the training or lack of training they received. The other major difficulty that I observed during the pre-study was the school's challenge of retaining teachers. A handful of teachers at School A have worked continuously at the school, but this is rare: most teachers are transient due to other job and schooling opportunities. When reviewing the options that the school [teachers and the headmaster] can employ to reduce the training gap, the headmaster expressed concern with possible loss of teachers sent to a teacher preparation program in Tamale¹ or in Accra, as well as the costs of in-service education.

The headmaster's concern is apt: teachers who attend an educational institute in Tamale are far less likely to return to the villages to teach. Rose Folsom comments on the situation of academics' tendency in Ghana to move from the villages as well as the country, in "Economic Restructuring and Education in Ghana" (2006). Folsom states that

most students who completed school were likely to have acquired little technical knowledge and did not see their future in rural farming work that was not tailored to the work they were capable of doing. Rather they migrated to the urban centers to see commensurate jobs. (2006, p. 140)

¹ Tamale is the closest major city with a teacher training college. Tamale is a few hours' drive from Damongo.

The same pattern of migration holds true with teaching, if people from the villages are given the opportunity to leave the village or a town in a rural area, much like Damongo. Those that have the capacity to leave and study to be teachers, as well as other professions, will leave the villages for work in the urban areas. This contributes to the high concentration of untrained teachers in the rural areas, like Damongo, in which more than 60% of the teachers in the public sector are untrained teachers (Director of Education of West Gonja District, interview, 2006). I will be looking at how to retain teachers in that area, proposing that School A should work on producing teachers for the school and people to contribute to the community, rather than migrate to another area of Ghana. A program which includes incentives and changes in work environment needs to be implemented to help combat the brain drain in the area.

As I continued to learn about the situation of teachers, the district of education, and the country, certain gaps came to light. Particular ideas and initiatives begun by the educational district as well as the school did not take complete shape, leaving a gap between the need that the initiative addressed and the actual assistance provided. I will present and explore the gaps in my case study of School A. The presence of gaps is not a unique predicament to the northern region of Ghana, but occurs in other areas of Ghana and the world. This is a circumstance that occurs within education as well as other vocations, when those working do not have the training necessary to perform the jobs, yet must do the job to the best of their abilities, even drawing on one another as resources.

My research aims to find out about in-service teacher training as it occurs in Ghana. The case of School A piqued my interest in my pre-study, due to its situation: all the teacher have no prior training, nor does the headmaster have any educational training, yet they are in a situation of establishing a school and teaching. They are the main actors in the study I will be presenting (see figure 1.1).

Figure 1.1 Actors in the Case Study

	Categories
Macro Level	<ul style="list-style-type: none"> • Secretary of Education • Ghana Education System (GES) • Teacher Training College
Meso Level	<ul style="list-style-type: none"> • District Education Office of West Gonja² • District Teacher Support Team (DTST)³ • University students
Micro Level	<ul style="list-style-type: none"> • School A • Headmaster • Class teachers • Parents • Student • Parent Teacher Association (PTA)

1.1.1 Goals

This thesis will be an analytical discussion of the findings I collected while in Ghana in October and November of 2006, interviewing the actors involved with these gaps, in the light of relevant theory. This research responds to the case of the private school, School A in Damongo, and its predicament of having untrained teachers in the classroom, limited resources available to train them while they work, and the general employee turnover that the school experiences. The result of my research will offer a plan to raise the level of teacher education and training at School A and generalize to a greater scope. I will present an integrated way of implementing teacher education while keeping the teachers in their regular practice.

² Damongo is located in the West Gonja School District.

1.2 Demographic Background

Ghana is situated in Western Africa on the Ivory Coast, with Togo to the east, Cote D'Ivoire to the west, and Burkina Faso to the north. Ghana has a land mass of 239,000 km^2 and a population of 20 million (Hudgens & Trillo, 2003, p. 723). The country is divided into nine regions: Central, Western, Easter, Volta, Ashanti, Brong-Ahafo, Northern, Upper West, and Upper East. Similar obstacles common to Western Africa are present in Ghana as well. Ghana possesses a rich culture of tradition and Ghana as a nation, like many others, marks events that shaped the country over time.

Figure 1.2 Map of Ghana⁴



The Ghanaian people were involved with northern African trade, selling gold to the traders, Berbers and Arabs, which would eventually be sold to Europeans (Shillington, 2005, p. 563). Rich deposits of gold in ancient Ghana led to Ghana's development as a wealthy country.

The Portuguese were the first Europeans to land in Ghana. Upon their arrival they traded with the locals, and also built the first and largest fort in Africa in 1482,

³ I will go into further detail about the DTST and its functions in the Context chapter.

⁴ Map from Zook (2006).

called Elmina castle⁵ (Gocking, 2005). The Portuguese monopolized the coastal ports and the trading with the gold coast until the early 17th century (Gocking, 2005, p. 26).

Another outside influence, the British traded with the Ghanaians from the 14th century and gained rule over Ghana after the Dutch and Portuguese (Gocking, 2005). Ghana started the self-governing process in 1951, with the National Liberation Movement (NLM), and received full independence on March 6, 1957.⁶

1.3 Why Ghana?

Ghana has been influenced by many different cultures in aspects of governmental structure and economy as well as education. Despite this outside influence in education, Ghanaians themselves made the biggest impact on their own educational system, taking matters into their own hands to establish educational institutions rather than waiting for the colonizing countries to take action. Assisted and non-assisted schools founded before independence represented the majority of schools in Ghana. As Ghana gained independence, the government caught up and focused on establishing schools and setting educational goals. Though it is impossible to see how the earlier educational Ghanaian pioneers taught initially, we can look at a contemporary situation.

The pre-study began examination of in-service education at School A. This school is not unique in its status as a non-assisted institution in the history of Ghana. The private sector does have a history of forging the way for education in Ghana's history, since it is not under the control of the government, which can be positive and negative factor. Education in the northern region has been slower to develop than the

⁵ Elmina castle became the one of the largest ports for the slave trade (tour of Elmina castle, Oct 2006). In the 19th century the slave trade was stopped (Gocking, 2005, p. 29).

⁶ I will only discuss education after independence for a limited amount of time, dealing with reforms that the Ghanaian people had more control over.

rest of country comparatively, due to the culture as well as geography of the area.⁷ Prof. Ron Rife estimates that the northern region is nearly 50 years behind the southern regions, with regard to education (interview, 2006). In the northern district in Ghana as many as 60% of the teachers have had no formal training (Director of Education, interview, 2006). For this reason, observing teacher training patterns at School A will give a good picture of how teachers learned to teach before independence.

This case study looks at a school with minimal influences outside the circle of immediate reference in which the teachers are expected to teach and the students are expected to learn. Given this situation, it is fascinating to see how the teachers are able to teach the students and how they themselves are learning as teachers. Do they draw upon fellow teachers within their own community? What kinds of provisions are enabled by the government? Are their techniques unique or similar to generally accepted practices in the West? How did they learn to teach and how is that process refining itself? In what ways could an external program assist their development?

1.4 Theoretical Ground of the Study

The theory that I will apply to this case study is Wenger's (1998) idea of Communities of Practice and Lave's and Wenger's (1991) situated learning theory. Due to the lack of theories of teacher in-service education as on-the-job-training, I have chosen a theory that addresses learning in the work environment. The theory focuses upon raising the skill level and knowledge among the unskilled practitioners, that is, the apprenticeships or novices. Finally, the theory addresses both the learning process, i.e. situated learning or learning by doing; the context, i.e. the CoP and the outcome, i.e. the shared practice, or the situated curriculum.

⁷ This will be discussed in more detail in Chapter 5: Presenting the Context.

Teacher in-service training is essentially a form of on-the-job-training, in which teachers already experience the situation that they learn to confront. Situational learning can easily apply to in-service training in this case as well as a more generalized extension. In this case study a theory that uses available resources and draws on knowledge already present in the environment is crucial, especially in developing countries. In Chapter 3, I will discuss the theory in more detail, as well as the application in Chapter 7.

1.5 Methodology

The research was conducted in a field study, organized using the case study model of research. The bulk of the research takes place in Northern Ghana, at School A in Damongo. The research is a combined design using the organization of a case study in an ethnographic field study. I used mixed methods, such as interviews, observations, policy review, secondary sources, and collecting data outside the case study. I used this wide array of techniques and methods to gain a more comprehensive understanding of gaps at the micro level of the case study.

The primary mode of research consists of interviews and secondary information about the Ghanaian school system gained through interviews. I chose this model due to the lack of printed information on schools in the northern region of Ghana. In order to understand the teachers' methods of teaching, how they conversed, and the application of the policies and educational structures, I observed firsthand in their classrooms, in addition to interviewing volunteers who worked at the school in the summer of 2006.

While interviewing teachers, headmasters, and district officials, I discovered gaps in the different levels of education. These gaps within the educational system cannot be seen from pamphlets, phone interviews, or reading of policy. All of these technical aspects look good on paper and appear well thought-out to encompass the problems faced by the country's educational system. However, examining the

situation firsthand, I was able to see its shortcomings as well as the programs that function and other programs that are not being documented.

1.6 Research Questions

The research questions of the study focused on untrained teachers at School A. I wanted to experience firsthand the environment in which the teachers in Damongo taught, how they communicated with one another, how they exchanged information about teaching, and how, if they did, they collaborated about teaching techniques. The reasoning for doing mixed method field research was that being an observer in the teachers' environment gave a clearer understanding of how the teachers developed their techniques. Another goal was to observe how teachers communicated with each other about teaching techniques and used each other as resources to refine their teaching methods.

When interviewing actors on the meso and macro levels of this scope of research, I wanted to learn more about the teacher initiatives that were in place, particularly Teacher Training In Sub-Saharan Africa (TTISSA). However, this discussion ended in the office of the Secretary General, for no other official or teacher spoke about it as a reality that influenced how the teachers were formally trained in teaching. While in Ghana, my research questions changed because my first draft of questions, dealing with how the teachers have learned to teach and about their methodology, were inconclusive, as the teachers were not taking on new roles, nor learning from one another in a way that they had informally structured.

The main research question of this master's thesis addresses in-service training of unskilled teachers, conceptually understood as practice learning (Wenger, 1998). Specifically, the questions that guided the field inquiry were: What techniques do teachers, without formal training, employ when teaching? How do they formulate their own philosophy of teaching? Are the teachers using one another as resources? How can we address the theories behind what they are already possibly practicing and

implementing? If they are not implementing those skills, how might we develop a process and a way to deliver information to them?

The theoretical concepts of practice learning and workplace learning seemed to address the subject of the research. The theory of situated learning (Lave & Wenger, 1991) and Communities of Practice (Wenger, 1998) became more of an applicable reality with School A as a way for the teachers to train each other and learn how to teach from a community of practice.

1.7 Delimitation and Limitations

This study has limitations and areas that require further research. One of the main limitations that arose in the research was the language constraint, and the amount of interviews needed. Language became a barrier in Damongo, for while the school's language of instruction is English, not all the teachers at the school have mastered English and some had problems with my accent. I conducted all the interviews without an interpreter; however, on certain occasions I had to have another Ghanaian present to clarify questions to the respondent, due to vocabulary or pronunciation. Having another person present creates the possibility of altering the respondent's attitude towards the subject and answers to questions. As I interacted with the teachers more and more, we became better at communicating with each other. I interviewed the teachers at School A, but the public sector was on strike so I was unable to interview many people involved outside the private school. This did not limit the scope of the micro case study but did limit situational research to determine what was happening in the public sector in relation to the district office and teacher training.

I learned while interviewing governmental officials that the government has theoretically established communities from which teachers may learn. However, I did not meet with these groups to see how they are functioning or not functioning. A limitation of the study would be not looking into the communities of learning that the

government tried to establish; that is, why they are not taking place and how they were established. School A, however, had no such practice; it was only in the scope of the public schools that the idea was established.

Over the course of this case study I look only at the situation of one school and one set of untrained teachers. This case does not represent the whole situation of untrained teachers in the northern region of Ghana, but is rather a case of teachers and how they communicate at this particular school.

1.8 Organization

I will organize my thesis by beginning with the review of literature relevant to the topic of in-service education. In Chapter 4, I will present my formal organization and methodology of the research, based upon a case study using different sources to depict the whole context of the story of School A and its untrained teachers. In Chapter 5, I present the context of School A, giving background information on the Ghana Education System (GES) to show what type of system this private school comes from and the outside influences that affect it. In Chapter 6, I analyze the data that I collected while in Ghana, presenting the gaps and trends that I found. Following these, the summary in Chapter 7 discusses the data analyzed in the context. Finally, Chapter 8 discusses more thoroughly the information that has been presented, applies the theory of Communities of Practice to the case of School A, and addresses gaps within my own research.

2. Review of Literature on In-Service Education

The literature I have reviewed concerning teacher in-service training, also known as INSET, works from the assumption that teachers receiving in-service training obtained pre-service training. I found a lack of literature on in-service education aimed at teachers with no formal training in education. Most of the literature examines teacher support and courses that can be offered, what setting is most effective to teacher learning, and attention to why this type of teacher training works well.

2.1 Methods Used

I used the search engine Education Resource Information Center (ERIC), searching with the keywords: *teacher in-service education*. This search returned 3798 sources.⁸ Performing a search within the results, limiting the sources to published materials in the time period of 1990-present, and setting the ERIC thesaurus descriptors to *In-service Teacher Education, Faculty Development, Teacher Collaboration, and Teacher Skills*, the search returned 360 items. To narrow these results, since a great majority deal with teachers that have taught for many years and already possess formal training, I used the keyword *training*. This totaled 150 items within the search.

Another search, using *teacher* and *on-the-job training* as keywords, resulted in 2,987 sources. I revised the search using the search within the results function, limiting the sources to years 1980-present, using the ERIC Thesaurus Descriptors as *on-the-job training*, and professional development, and requesting publication types

⁸ ERIC sources include: journal articles, books, research syntheses, conference papers, technical reports, policy papers, and other education-related materials. These materials are dated pre-1966 to present.

as journal articles, research reports, and books. The search supplied a sample of 20 items, from which I will review relevant materials. See table 2.1 for further description of the topics covered in the items in the sample of literature.

Table 2.1 Topics in the Literature

Topic
Mentor teacher
Team teaching
In-service training used as motivation
Involvement of the teachers in in-service education and further education
Critics of in-service education
Teacher education in Africa
Teacher education in Ghana
Vocational training in Ghana

The above process contributed to the review of literature, in addition to searching for Ghana within the topic of teacher education. However, there were also gaps in the literature, especially regarding on-the-job training for teachers with no prior experience or training as a teacher.

2.2 Mentor *Teacher and Team Teaching*

One reoccurring notion in the in-service teacher education literature is the idea of a mentor teacher and a team of teachers working together to improve their skills as

teachers. This is not just in the sense of a mentor teacher during student teaching⁹ or practicum work, but rather a mentor teacher who is employed at a school with the express purpose of assisting teachers to enhance their techniques, as Brimijoin notes in the chapter, “New Dimensions for Building Expertise in Mentoring and Differentiation” (Brimijoin, 2003). This mentor system is often aimed at supporting new teachers who begin teaching upon completion of a teacher training program, and helping them in their transfer of knowledge from theory to practice. The mentors help new teachers with their techniques, classroom management, and answer questions typical of beginning teachers. An interesting aspect of this model is that the mentors help with the reflective process of the teachers as they “explore the thinking behind their practices” (Ertmer, 2003). In the article “Transfer of Training: The Contributions of Coaching,” Bruce Joyce and Beverly Showers discuss the importance of mentor teaching and the continuation of teacher education as on-the-job training (Joyce, 1981). This proves to be an important structure; even if the teachers have been formally trained before starting in the teaching field, in-service education is still beneficial to the teacher and students.

2.3 In-service as Motivation

Some articles focused on setting up initial teacher training and the possibility of training the teachers further after they have finished student teaching in practice classrooms. For example, Menlove et al. (2003) discuss the topic of special needs teachers and how to keep them teaching rather than changing professions. Menlove et al. demonstrate that teacher in-service training is a factor in the decision to continue teaching and motivation in the article, “A Qualified Teacher for Each Student: Keeping the Good Ones” (Menlove, 2003). Using teacher in-service

⁹ Student Teaching is a program that many teacher training programs in the United States employ the last semester of a student’s education. The student’s final semester will be dedicated to teaching full time in a school with a cooperating teacher to obtain on-the-job experience before becoming a certified teacher.

training can not only refine teachers' skills, but also help to motivate them so that they feel supported in their field.

2.4 Involvement of Teachers

Getting teachers involved with their continued education is another area of concern within teacher in-service education. Research seems to show that if teachers do more of the work of further education, they also do more of the learning. Kenneth Miller writes about qualitative research done in an in-service teacher education program called *Triad In-service Model* (1996). The Triad In-service Model is based on increasing teachers' involvement in continued education. The programs involve peer coaching, interviewing students, conceptual change teaching, sharing and discussion, and using the teachers as researchers (Miller, 1996, p. 13). Having the teachers as active part of the education helps the program run itself, and the teachers draw on their colleagues' experiences and contribute in that manner as well.

Miller also stresses the importance of the administrators' involvement with the Triad program (1996, p. 12). If the administration supports and knows about education in which teachers participate, it helps to motivate the teachers to continue, and promotes communication between different levels in the schools and areas. The program, like most in-service education, does take time: "more time is required to work with teachers and facilitate growth" (Miller, 1996, p. 13). Growth is the desired outcome of any in-service project, and since the programs take time, incorporating the in-service training into the teachers' daily routines can be effective, as Miller demonstrates. While the Triad Model incorporated many aspects of in-service education, further research on mentoring and the teacher as a researcher reveals positive and negative sides of the story.

In James Stigler's and James Hiebert's book, *The Teaching Gap*, they emphasize the importance of getting teachers involved with discussions of teaching and interactions with the curriculum. The book was a response to the poor results the

United States educational system received in mathematics in the Trends in International Math and Science Study (TIMSS) and Program for International Student Assessment (PISA). Stigler and Hiebert performed a video study on how teachers teach year-8 level mathematics in Germany, the United States, and Japan. They addressed gaps in how to improve teaching using the example of the United States' education reforms to improve education rather than reforming how the teachers are teaching and learning (1999). "To really improve teaching we must invest far more than we do now in generating and sharing knowledge about teaching. This is another sort of teaching gap" (Stigler & Hiebert, 1999, p. 37). Their solution uses teachers as resources to fill in teaching gaps and improve the system at hand, as a different approach to continued education.

2.5 Critics of In-service Education

To this point, I have not read anything that casts in-service education in a negative light. Certain existing programs have been depicted as less productive or useful, yet the concept of teachers continuing their education and reflecting on teaching practices is far from rejected. The same is true for the concepts of teachers as researchers, and working with mentors. Patterson comments, on the establishment of teachers as researchers, that "the importance of classroom teachers as agents of education change and substantiated that the teacher as researcher model of change produces more effective teachers" (quoted in Herndon, 1996, p. 4).

Problems arise, as Herndon and Fauske point out, when teachers feel resentful towards a mentor teacher (1994, p 14). The negative aspects of mentoring other teachers is the time that it takes and additional duties, such as report writing and tracking progress, and methods of supervision in use (Herndon, 1994). Herndon and Fauske also point out hesitations that the teachers have in participating as researchers, such as "choice of topics directly related to improvement of practice, fear about conducting research, adversity to using their students as potential pawns, confusion

over qualitative and quantitative data collection and analysis, and lack of time and commitment to formal report writing” (1994, p. 14). Herndon and Fauske point to the insecurities of teachers in research; not their inability to perform research, but rather the reluctance to start the process.

Despite negative aspects or hindrances to in-service training with mentors and teachers conducting research, this training does enhance the teacher’s performance. As Korthagen states, “work with apprentices teachers is based on the assumption that while it is not possible to prepare future teachers for every situation they might encounter, it is possible to train them to reflect on their experience of situation as a means of directing their growth” (quoted in Herndon & Fauske, 1994, p. 7).

2.6 Teacher Education in Africa

At the beginning of my review of literature, I examined articles about teacher education in Ghana. Many of the works that I found were not current, but written 10 to 20 years ago. The difference in time did not seem to produce gaps in the content of teacher education and the situation of education. The literature contained the recurring plea that something needs to be done about teacher education in Africa, a statement that is familiar to most countries.

Another theme of literature on African education was the questioning of the current system for teacher training; regardless of the year, an ongoing call for a process of reforms in the educational system persisted through the literature. In the article “Current Trends in Teacher Education in English-Speaking Africa,” A.R. Thompson states:

Again we are beginning to ask to what extent conventional patterns and programs of teacher education are capable of producing educationists able to develop their academic and professional knowledge and skills and to draw upon their own experience and that of others to undertake this development effectively. (1984, p. 54)

This questions that Thompson pondered in the article are still considered today. What is the best way to train teachers? What is the teaching gap? Many education professionals believe that they know, but many of the questions in the articles and shortcomings of current teacher training and proposed in-service education are the same, no matter what the year of the article or book.

The criticism of initial and in-service education focuses on application or lack of application of the material covered during the courses. As Thompson states,

universities, governments, and volunteer agency colleges ranging from the advanced to the elementary, inspectorates and mobile teacher educators, curriculum development centers, resource and teachers centers, teacher's unions and professional associations. These agencies provide initial and upgrading refresher and retraining programs often overlapping and sometimes competing, rarely adequately coordinated and often lacking the conceptual framework that would permit planning decisions as to priorities and resource allocations. (1984, p. 71)

Other criticisms include the disjunct between initial training and in-service training. For teachers that do possess an education, training once they become teachers is not a continuation of their previous training and does not go into greater detail in the areas that teachers require once they have been practicing in the field. Thompson continues, to state that there is a “distinct lack of convergence between educational research on the one hand and teacher education/curriculum organizational development on the other” (1984, p. 71). This lack of convergence can be attributed to a gap in communication between the teacher training institutions and the schools in which teachers are employed. The need for more communication between schools and the training institutions is a need expressed in the article, “Teacher Development in Schools” (Wallace, 1987). Communication is important so that the institutions can have a clear and current view of the classroom, and so they can better prepare future teachers to enter that environment and be successful.

2.7 Case of Ghana

Ghana has had a problem with “Brain Drain,” as Rose Folson puts it, in an article about Ghanaian education and what is happening to the educated population (Folson, 2006). Her notion of “Brain Drain” refers to the tendency of those educated in Ghana to leave the country to work, often not returning to Ghana to contribute to communities or the nation. Folson states that about 60% percent of Ghanaian-trained doctors practice outside of Ghana (2006). This drain happens not only within the medical profession, but in other areas as well. If those that are being trained and educated leave the country, they are not investing back into the community to aid in the process of bringing the society forward.

In response to the “Brain Drain” problem, a teacher training program in Ghana is under construction now, in conjunction with the UNESCO program, Teacher Training in Sub-Saharan Africa (TTISSA) (UNESCO, 2006). UNESCO’s TTISSA program began in Ghana in August 2006.

Another obstacle examined in literature about pre-service and in-service education in Africa is the factor of motivation in education. As John Turner states, “in many countries teacher training is considered a low status activity conducted in low status institutions” (quoted by Thompson, 1984, p. 57). The lack of motivation for people to become teachers is associated with the “low status” that Turner points out.

This creates an interesting situation at the intersection of those teachers that are being educated in Ghana leaving the country or rural areas, as well as people in general not wanting to become teachers due to the stigma it has in the society. These two problems do not affect each other directly, but each helps to perpetuate the situation of placing untrained teachers in the classroom.

2.8 Summary

The literature presented here is merely a sample of in-service training literature. During my review, I discovered that the literature was based upon empirical work: case studies of schools and how individual districts or countries handle teacher in-service education. Few programs exist tailored for the teacher that has no initial education. And few institutions view teacher in-service training as a way to train teachers in the ways of teaching, or replace initial teacher training programs.

The consensus of the literature put teacher in-service training in a positive light, stating that continued education is vital to the teaching profession and for retaining teachers. In-service training, in turn, when applied to the situation of the brain drain of teachers in the rural areas in Ghana, may be the support that teachers need in the field. This continued education can be viewed as on-the-job training or refresher courses, but does not directly apply to the situation of untrained teachers' on-the-job training. The literature also lacks consistent articulation of theories of learning. There was an overall gap in the literature of a consistent theory or point of reference in the articles. Each was trying to form a new system and forge a new way to influence teacher education.

The only theory that seemed to come up or against which empirical data in the articles was held is that of situated learning (Lave & Wenger, 1991) or Vygotsky's "learning by doing" (1978). The articles reference the importance of learning while in the practice of teaching, or on-the-job training, which gives good background and support for my application of situated learning theory (Lave & Wenger, 1991) and Communities of Practice (Wenger, 1998).

3. Theoretical Foundations of Workplace Training

3.1 Introduction

While evaluating the sample of literature on teacher in-service education, no consistent theories were presented to support the use of in-service education or address techniques that gave consistent results. Due to lack of a specific theory in the literature review, I turned to other areas of the research literature. Specifically, I considered situated learning theories (Lave & Wenger, 1991; Wenger, 1998; Brown & Duguid, 1998; Wenger et al., 2002) applied to workplace learning, alongside other branches of situated learning theories.

Situated learning theories describe on-the-job learning when an employee has both prior knowledge and training for the position (Brown & Duguid, 1998). This theory applies in a limited fashion to in-service teacher education when the teachers possess knowledge of the theory behind their practice from previous training. However, the teachers that are the subject of research in this study possess no prior knowledge of pedagogical education background upon which to build. Brown and Duguid refer to this type of prior knowledge as *know-how*, asserting that “know-how is critical in making knowledge actionable and operational” (1998, p. 31). The teachers at School A are deficient in prior knowledge of theories and a variety of methods, so establishing know-how while on the job is the challenge.

When considering training untrained teachers while they work, the optimal theory to apply relates to learning while on-the-job. Lave and Wenger’s (1991) situated learning theory, stemming from John Dewey’s “learning by doing” theory (1997), has been selected due to the resourcefulness and the applicability the theory has to the case study. From situated learning, I will use the application of Communities of Practice theory (Wenger, 1998).

3.2 Situated Learning

Situated learning's cognate learning environment is most similar to apprenticeship learning, in which a novice learns from a skilled master worker while on the job. Lave and Wenger note that, "Apprenticeship happens as a way of, and in the course of, daily life. It may not be recognized as a teaching effort at all" (1991, p. 68). Lave and Wenger (1991) describe the apprenticeship as a situated learning environment, when a person works in the situation to apply immediately the knowledge that he or she has acquired, or observes firsthand the situation in which knowledge will be applied. They also describe it as a "historical-cultural theory" (Lave & Wenger, 1991, p. 32). In the environment of an apprentice and the novice, Lave and Wenger reference research on apprenticeships and teaching, and consequently state that, "researchers insist that there is very little observable teaching; the more basic phenomenon is learning.... A learning curriculum unfolds in opportunities for engagement in practice" (1991, p. 92-93). Engagement in the practice, as Vygotsky observed in children, is where the "higher functions originate" (1978, p. 57).

3.3 What is a Community of Practice (CoP)?

In the book *Cultivating Communities of Practice*, Wenger et al. (2002) defines the Communities of Practice as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4). There are different types of communities, which serve different functions in addition to long-established methods of learning and practicing. Despite the different types of communities, they share a common structure with "a unique combination of three fundamental elements: a domain of knowledge... a community of people who care about this domain and the shared practice that they are developing to be effective in their domain" (Wenger et al., 2002, p. 27). CoPs have a long history before the clarified phrase and definition.

Since these communities have been intact for centuries, dating back to guilds in the Middle Ages, unions of masons and craftsmen, etc. (Wenger et al. 2002, p. 5) and continue within academia and the workplace, as current examples, we can conclude that both community and practice are sustainable with the establishment of CoPs.

3.3.1 The Community Dimension

The community is not merely a collective of people who ride the same elevator or attend a music concert together, but rather a group of people working within the context of a practice, solving the same problems or learning from one another. Within the community, members have different levels of membership, ranging from peripheral members and cores members to flux members and recruited members. The CoP is the group that gathers informally to discuss the activity, problems, solutions and or ideas that bring them to possible solutions (Wenger & Snyder, 2000). The CoP uses its members as the resources, yet also solicits outside influences; however, the theory is based upon the idea of the community.

Even though the CoP assembles in an informal setting, certain roles surface in the groups. Fred Nickols, in his article “Communities of Practice: An Overview,” identifies the main actors in a CoP as: Champion, Members, Facilitator, Practice Leader, and Sponsor (2003, p. 4). The champion acts as the group organizer; members participate in the CoP; the facilitator “is responsible for clarifying communications” (Nickols, 2003, p. 4), making sure people understand one another and that keep the group on task; the practice leader is a leader among the members that naturally comes forth; and the sponsor supports the group by “establishing the mission and the expected outcomes of the community” (Nickols, 2003, p. 4). Not all CoPs have each of these roles. For example, some communities do not have a sponsor bringing the group together, resulting in the group that forms to meet and exchange ideas on its own initiative. However, in other situations, a sponsor identifies the demand for such a community and organizes and facilitates meetings, providing supplies for the members (Wenger & Snyder, 2000). Wenger et al.

delineate five “degrees of community participation” (2002, p. 57). The five degrees of participation (from the center outward) are coordinator, core group, active participants, peripheral participants, and the outsider (Wenger et al. 2002, p. 57).¹⁰ The only difference in the identification of members with Wenger et al.’s “degrees of community” (2002, p. 57) is the addition of peripheral members: those who participate occasionally but not consistently, and perhaps only with certain topics within the practice.

3.3.2 Practice

A practice has to constitute the forum in which to solve problems and share understanding. Wenger (2002) describes the practice as “a way of talking about shared history, social resources, frameworks and perspectives that can sustain mutual engagement in action” (p. 31). The practice creates a platform for a community that is the social forum for people within a domain of knowledge to discuss problems and experiences, learning from one another. The social learning is based on human beings as social creators, a theory for which Lee Vygotsky is famous. Learning while in the midst of the subject environment is the essence of situated learning. A psychologist, Vygotsky wrote about the significance of the social aspect of learning and the situational learning of children. Vygotsky writes:

Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals." (1978, p. 57)

Here Vygotsky is theorizing that the child learns first about social context in a situation, then reflects upon what the child was exposed to while internalizing the

¹⁰ From the most involved or enveloped in the group to those outside of the group.

information. The same can be applied to the concept of practice, in which knowledge has a social relationship to learning. According to Wenger (1998) and Duguid (2005), practice is a knowledge asset developed through the interactions of the community members. This body of work-related tools, frameworks, and local routines, furthermore, guides and assists the community members to master their work and to further grow their shared repertoire.

3.3.3 Domain of Knowledge

Knowledge within the context of a practice can be a difficult definition and concept to clarify. Wenger describes knowledge in the sense of CoPs as:

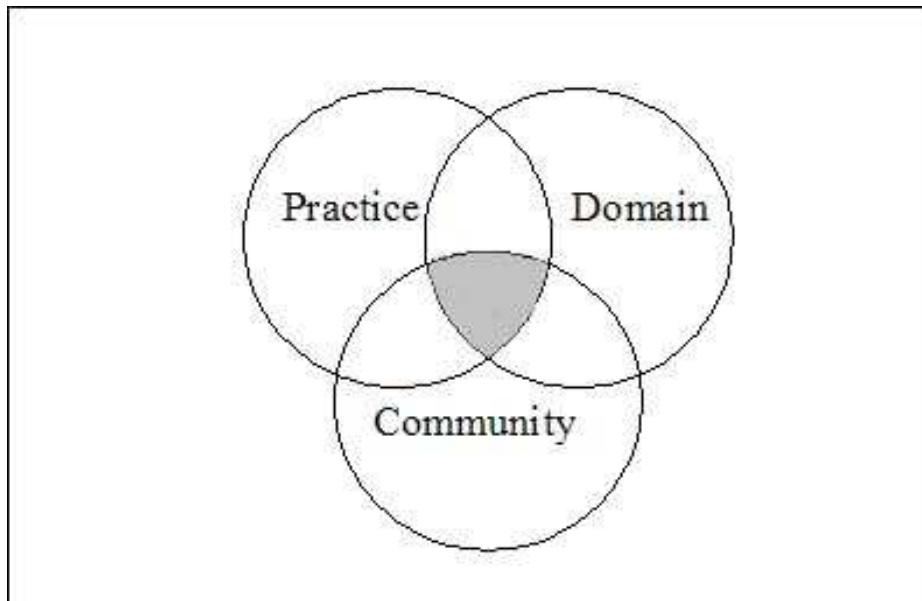
What can be called knowledge, therefore, is not just a matter of local regimes of competence; it depends also on the orientation of these practices within broader constellations. Yet, whatever discourses we use to define what knowledge is, our communities of practice are a context of mutual engagement where these discourses can touch out experience and thus be given new life. In this regard, knowing in practice involves an interaction between the local and the global (1998, p. 141).

Knowledge in this sense is contextually bound and based upon the practice in which subjects are involved. Within the conditions of a CoP, knowledge is what members use to operate within the practice; what skills, habits, and routines they have acquired to carry out the practice. Wenger continues, “What transpires is that knowing is defined only in the context of specific practices, where it arises out of the combination of a regime of competence and an experience of meaning” (1998, p. 141). CoPs constitute knowledge that is based on the situation (much like the format of the group), and is context-bound to the problems and occurrences in the practice.

3.3.4 The Intersection of the Components

As discussed above, CoPs have three different components: knowledge domain, the practice and the community. We can see how these three components intersect and how, at that intersection, a CoP is formed (figure 3.3).

Figure 3.3.4 Intersection of Three Components of CoP.



The domain set includes the knowledge, the practice as the body of knowledge, and the framework that guides individuals. When a practice, domain, and community find a commonality where the components intersect, a community of learning is possible. In practice, CoP becomes a powerful tool in work situations and outside of the work place. The CoP cultivates an environment that exchanges ideas for the sake of learning, not for the purpose of compensation or reward for results but out of passion for the subject and knowledge of how to solve the problem at hand. According to the situated learning theorists, the three dimensions are mutually interdependent: The knowledge domain constitutes the ground for a work-related grouping, that is, the community, to be formed. During the interaction, a unique practice will emerge from the interactions embedded in the community. It is therefore the practice that defines both the boundaries of the community and thereby the rules of membership (Duguid, 2005). Theorists use the term 'situated curriculum' (Lave &

Wenger, 1991; Gherardi et al., 1998) to describe the value of this practice-based knowledge: It works similarly to a curriculum, by guiding the work behavior of the members.

3.4 How do Inexperienced and Unskilled Practitioners Learn in Such a Grouping?

“Learning by doing” is a phrase that my mentor teacher¹¹ would repeat to me reviewing lesson plans for the mathematics. The point that he imparted to me through that phrase shaped how I structured a class. For example, learning by doing meant having the students do most of the work, rather than lecturing them on mathematics; helping them discover how to solve formulas and obtain answers to complex equations. Functioning as a facilitating teacher worked foremost, and imparted to the students a clearer understanding of how to work out the formulas individually. Discussing as a class how they solved the equations or what problems they encountered trying was important for the students to understand their own mistakes and other methods of solving mathematic problems, and for myself, the teacher, to gain insight on common mistakes and how students approach problems. As my mentor teacher advised me, few techniques replace that of students actually working out the mathematic problems for themselves. When they did so, the learning curve increased drastically.

The increase in learning by doing as a practice is not an original idea that my mentor teacher imparted to me, but one established centuries ago. The foundation of apprentice and intern positions rests in the idea of learning by doing: learning from masters by working alongside them, observing and asking questions, not just reading out of a book or manual, or listening to the lecture. John Dewey articulated the

¹¹ A mentor teacher or cooperating teacher while I was studying for a degree in Secondary Education to become a teacher; I worked alongside a seasoned teacher and taught under his supervision for a semester.

educational theory of learning by doing in his book, *Democracy of Education* (1997).

Dewey states that:

In determining the place of thinking in experience we first noted that experience involves a connection of doing or trying with something which is undergone in consequence. A separation of the active doing phase from the passive undergoing phase destroys the vital meaning of an experience. (1997)

Dewey indicates that separating application from the knowledge domain breaks down the learning occurring with the student. This concept of learning by doing is also explored in Jean Lave and Etienne Wenger's book, *Situated learning: Legitimate peripheral participation* (1991). Lave and Wenger bring to light the concept of Communities of Practice (CoP) in relation to 'learning by doing' and people finding identity in their learning (1991, p. 53). They bring together the three components of domain of knowledge, the practice, and the community to form a CoP.

3.4.1 Benefits of Communities of Practice

A CoP is based upon the notion that people in similar situations can learn from each other's experiences. Due to its long history, we can detect reason and purpose for why these communities exist and for the benefits provided by communities to the members, the trade, or the subject. Wenger et al. states that CoPs:

may create tools, standards, generic designs, manuals, and other documents or may simply develop a tacit understanding that they share... It also accrues in the personal satisfaction of knowing colleagues who understand each other's perspectives and of belonging to an interesting group of people. (Wenger et al. 2002, p. 5)

The community provides resources to members as they exchange ideas and methods and branch out to others in the field who are not participants in the particular community.

The community builds on knowledge that members contribute, and takes this knowledge to another dimension of application. "The knowledge of experts is an

accumulation of experience ... This type of knowledge is much more a living process than a static body of information” (Wenger, et al., 2002, p. 9). The community helps prevent ideas and applications of knowledge and experiences from dying with veterans as they leave the field. The community shares ideas and gleans from others to spread knowledge, and refine the practice together.

Wenger et al.’s book about CoPs maps out the benefits of such a community in terms of short and long term goals in the figure 3.4.1.¹²

¹² Wenger et al. 2002, p. 16.

Figure 3.4.1 Short and Long-Term Value

	Short-Term Value	Long-Term Value
	Improve organizational outcomes	Develop organizational capabilities
Benefits to the Organization	<ul style="list-style-type: none"> • Arena for problem solving • Improved quality of decisions • More perspectives on problems 	<ul style="list-style-type: none"> • Ability to execute a strategic plan • Increased retention of talent • Knowledge-based alliances • Emergence of unplanned capabilities
	Improve Experience of Work	Foster Professional Development
Benefits to Community Members	<ul style="list-style-type: none"> • Help with challenges • Better able to contribute to team • Confidence in one's approach to problems • Fun of being with colleagues • More meaningful participation • Sense of belonging 	<ul style="list-style-type: none"> • Forum for expanding skills and expertise • Network for keeping abreast of a field <ul style="list-style-type: none"> • Enhanced professional reputation • Increased marketability and employability • Strong sense of professional identity

We can see that the benefits are not only short-term (building up an organization), but are long-term, as the CoP continues to meet and work with problems and exchange ideas. The short-term benefits at the level of the individual members pertain mostly to motivation with the group. Members feel supported in difficulties and have an outlet through which to express frustrations, or ideas on how to solve problems. This affects how the member feels on a day-in-day-out basis within the context of the

work environment or practice. The long-term benefits for the individuals additional to that of the company are tangible results in increasing the ability of the employees, thus affecting the running of the company and productivity. Furthermore, the CoP gives intangible results for new trainees, who have support on the job and resources and a community in place upon starting with the practice.

3.5 Critical Resources for Effective Learning in a Community of Practice

The critical resources of for an effective learning in a CoP include skilled masters, and thereby a minimum level of prior knowledge embedded in the community, critical mass of relationships and interactions, learning resources, and shared identity. These are the building blocks enabling a CoP to succeed.

3.5.1 Skilled Masters

As mentioned earlier in this chapter, members of a CoP each contribute to the group as the group moves closer to achieving its goal and acquiring shared knowledge. One such role is that of the skilled masters, figures from whom other members can glean knowledge and insight. Much like an apprenticeship situation, a master or mentor is needed to guide the novices in addition to the experienced members of the community. Skilled masters thereby build a potential knowledge reservoir for untrained community members. Through the regular interactions, where the novices gradually move in status from peripheral and unskilled members towards legitimate membership, the learning process increases in speed, intensity, and scope (Lave & Wenger, 1991).

3.5.2 Critical Mass of Relationships and Interaction

The critical mass of relationships and interaction refers to the CoP as a group and the interactions that occur. Wenger states that participation “is a complex process

that combines doing, talking, thinking, feeling, and belonging. It involves our whole person, including our bodies, minds, emotions, and social relations” (1998, p. 56). Cultivating a CoP depends on the participation of the members and the communication that takes place. This interaction provides a platform for learning and progressing within a practice for the members. Wenger describes that, learning in such a practice, “We create ways of participating in a practice in the very process of contributing to making the practice what it is” (Wenger, 1998, p. 96). Wenger’s description seemingly backpedals however, he addresses the ideas of organization and utilizing relationships to learn about a practice while practicing, as well as redefining the identity of the practice (I will return to this idea in the following section). In regards to situated learning and CoPs, relationships formed on-the-job are vital to the learning curve that takes place. As Wenger states, “creat[ing] ways of participating” (1998, p. 56) are basically how members interact with other members in the group, relate information, and discuss current situations and concerns. As discussed in the literature review, the importance of the mentor teacher and novice teacher relationship for the novice teacher to glean information, experience, and the refinement of skills is vital for a beginning teacher.

3.5.3 Shared Identity

Lave and Wenger state that “learners must be legitimate peripheral participants in ongoing practice in order for learning identities to be engaged and develop into full participation” (1991, p. 64). The concept of identity occurs as an aspect of CoP for participants individually and as a group. Members will associate themselves with different identities and standings as their knowledge grows in the practice through interaction with each other. Identity can come from the situation and the commonality people share within a context; however, out of the context they do not have the same relationship and bond or identity

Lave and Wenger address the notion that learning changes people’s identities: whether changing the person from an intern or apprentice to an expert, or an

instructor altering of identity comes out of the exchange of knowledge (1991). As Wenger and Lave continue, “Learning thus implies becoming a different person with respect to the possibilities enabled by these systems of relations... viewing learning as a legitimate peripheral participation means that learning is not merely a condition for membership, but is itself an evolving form of membership” (1991, p. 53). Accruing meaning within a practice as well as the identity of a group is a powerful tool within the community. Identity within the field of practice gives a sense of belonging as well as responsibility to the craft, which contributes to further learning and teaching others in the same regard. In Etienne Wenger’s book, *Communities of Practice*, she asserts that, “Such learning has to do with the development of our practices and our ability to negotiate meaning. It is not just the acquisition of memories, habits, and skills, but the formation of an identity” (1998, p. 96).

This idea of identity recurs several times in Lave and Wenger’s book, linking to how the CoP theory comes into play in the process of identity. Lave and Wenger refine their definition of CoP as:

A community of practice is a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice. A community of practice is an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage. (1991, p. 98)

The CoP helps members understand the “heritage” of the group as the history of the group. This idea of knowing where the practice has come from also helps people shape their identity.

3.6 In-service Training Approached as a Community of Practice

3.6.1 Application of Communities of Practice

The Xerox CoP started when two gaps were identified by the practitioners: “first, there’s a large gap between what a task looks like in the process manual and what it looks like in reality. Second, there’s a gap between what people think they do and what they really do” (Brown & Duguid, 2000, p. 76). Xerox copy machine repairmen formed a CoP to address gaps in the function of copy machines and the manual instructions. They troubleshoot situations and problems not explained in manuals and eliminated gaps. This CoP began with employees meeting in an informal setting, and evolved into a great asset to the company (Brown & Duguid, 2000, p.76). The most common examples of a CoP practitioners are the Xerox copy machine repairmen (Wenger et al, 2002), school teachers, car repairmen, musicians, builders, architects, contractors, ministers, pilots, businessmen, politicians—and the list continues.

Having an informal setting for teachers to discuss problems, new occurrences, solutions and knowledge of the field can be profitable to the group, in addition to the company or organization to which the members belong. I propose to apply the CoP theory to teacher in-service training in situations of untrained teachers to fill in the gaps that occur at School A.

In the context of untrained teachers a CoP’s main membership would consist of the untrained teachers, mentor teachers¹³, supervisors, in addition to a sponsor. The untrained teachers’ membership would comprise the majority of the teachers and much of the interaction would occur between themselves. Wenger describes communication among members as “mutual engagement [that] requires interactions,

¹³ A teacher who has experienced teaching, education, and training in teaching within the educational field

and geographical proximity can help” (1998, p. 74). Untrained teachers that teach together have the opportunity to create a CoP at the school, as Wenger describes people who “sustain dense relations of mutual engagement organized around what they are there to do” (1998, p. 74). The teachers are there to teach, but do not have a large pool of knowledge from which to draw, which is why the apprenticeship and novice relationships are vital. The mentor teacher membership comes into play to guide the untrained teachers as well as instruct them in curriculum, classroom management, educational theory, and other subject areas that untrained teachers lack from not attending a TTC. I will go into more detail about the membership of the CoP in regard to untrained teachers in Chapter 7.

3.6.2 Critical Factors

For any kind of theory to be put into practice, certain stipulations must be observed. A CoP requires three components: the community, the practice, and the domain of knowledge. However, it is not enough that these components exist; there must be a structure within community members (see section 3.3.1). The members have roles to fulfill and the success of the group depends on them learning together, as well as bringing in outside influences to broaden their domain of knowledge. Brown and Duguid state that:

Informal relations between firms and universities are more extensive and probably more significant than the formal ones. Informal relations dominate simply because they are easier, building on established social links. Formal inter-firm relations, but contrast can require tricky intrafirm negotiations between quite diverse communities. (1998, p. 36)

The structure of informal groups gives the community a supportive atmosphere of learning for the sake of learning, and an internalized goal to improve learning practices as well as solve the problems at hand. When the situation is far from ideal, the theory—no matter how valid—can flop. One problematic aspect of the CoP theory to Duguid is that the theory “Implicitly [asks] now can we exchange something that we can’t articulate and may not even know what we possess” (2005, p. 110). It is

valid to question whether it is possible for all people to be able to transfer knowledge that they are not necessarily aware of fostering. Furthermore, communicating in unarticulated knowledge or the instincts and training one possesses has to others can be difficult. Sometimes the hardest things to explain are our innate traits. Sometimes the explanations fail for already-mastered skills. This in turn can happen within CoPs.

3.6.3 Theoretical Framework for the Case Study

I will apply the theory of CoPs to my case study of the untrained teachers at School A. The teachers need on-the-job training, which corresponds with situated learning theory, in which people learn within the context of their domain of knowledge. The CoP theory relies upon resources available currently to the members, as well as drawing on outside knowledge to keep the group progressing within the domain of knowledge. I believe that this theory will help to alleviate training gaps among the teachers at school A and benefit the administration of the school. Table 3.6.3 gives the itemized list of the members in the CoP and critical factors in establishing the CoP; the leadership as well as the expected learning outcomes of the untrained teachers.

Table 3.6.3 Properties of the Communities of Practice Construct

Components	Description
<i>Membership</i>	<ul style="list-style-type: none"> ○ Untrained teachers ○ Mentor teachers ○ Headmaster ○ Supervisors from District level
<i>Critical Factors</i>	<ul style="list-style-type: none"> ○ Resources ○ Commitment to progressing as a group
<i>Leadership in the CoP</i>	<ul style="list-style-type: none"> ○ Sponsorship ○ Head teachers
<i>Expected learning curve</i>	<ul style="list-style-type: none"> ○ Teachers to learn new methods of teaching and

3.7 Summary

Any theory, of the countless number available, can seem like the best solution to a wide array of problems and situations within a workplace. Often, though, when these theories are put into place the theory does not create a solution but a problem, or fails to address problematic situations, leaving them no better off than they were before. In an ideal situation, Duguid notes, “With the right incentives, knowledge will be produced, articulated and shared without problem” (2005, p. 110). In step with these goals, applying the CoP theory within the context of School A fits well. From the information that I gathered in the pre-study and research phases, I conclude that the school needs a tactic for situational learning, and relying on resources available to them. The simplest and most worthwhile asset the school possesses is experience of the teachers and some knowledge within the practice. In Chapters 7 and 8, I will go into further detail about the precautions and modifications School A will have to make to apply the theory.

4. Methodology

4.1 Introduction

I will investigate a method to retain the teachers in a rural village context, who are teaching while they are educated, as a way to combat the brain drain at the micro level. The study will employ mixed methods of a field study and case study determining how the teachers currently learn to teach and resources to which they have access in the community at the micro level, as well at the meso and macro levels.

4.2 Data Collection

4.2.1 Role as a Researcher

For my research tour in Ghana, I intended to observe at School A and interview the teachers and education officials on condition of education in Ghana. I took on the role of an overt researcher, notifying the subjects of research and education officials while interviewing my aims and goals for the project (Bryman, 2004). It was nearly impossible for me to be a covert researcher, given my status as an outsider to the community, and research in Ghana is a common occupation of people external to the community or involved with an NGO (Non-Governmental Organization). For the purpose of consistency, I assumed the role of an overt researcher.

4.2.2 Organization

The organization of the research is a mixed method study, a case study combined with an ethnographic field study. Both aspects of organization allowed me

to collect data and get a clearer grasp on the situation of teacher in-service training, teacher learning, and gaps in the educational system in Ghana.

4.2.2.1 Qualitative Design

The qualitative case study research design offered the most efficient way to obtain information about the situation. Robert Stake states that “case researchers seek out both what is common and what is particular about the case, but the end results regularly presents something unique” (1994, p. 238). I used interviews and field notes to get information on the case of School A. This information included:

1. The nature of the case
2. Its historical background
3. The physical setting
4. Other contexts, including economic, political, legal and aesthetic
5. Other cases through which this case is recognized
6. Those informants through whom the case can be known

(Stake, 1994, p 239)

I focused mainly on the “nature of the case” (Stake, 1994): the setting and background, from those I interviewed who were working with the school. I became more familiar with the physical setting by living with Ghanaians and being there for an extended period of time as well as the economic, political, legal and aesthetic aspect of the case study (Stake, 1994). All of this information helped me set a context for my interviews and adjust simultaneously to cultural concerns and communication.

Another justification for choosing the case study research design comes from its applicability and the ability of the readers to relate to the material, case and concept being presented. As Weiss states in the book, *Learning from Strangers*, “because investigators, as well as readers, grasp concrete cases more easily than abstract models, constructing case studies can be useful even in an issue-focused

analysis” (1994, p. 168). I wanted to conduct research that can be easily related to my readers, and research that also applicable to generalization for a more-encompassing scope.

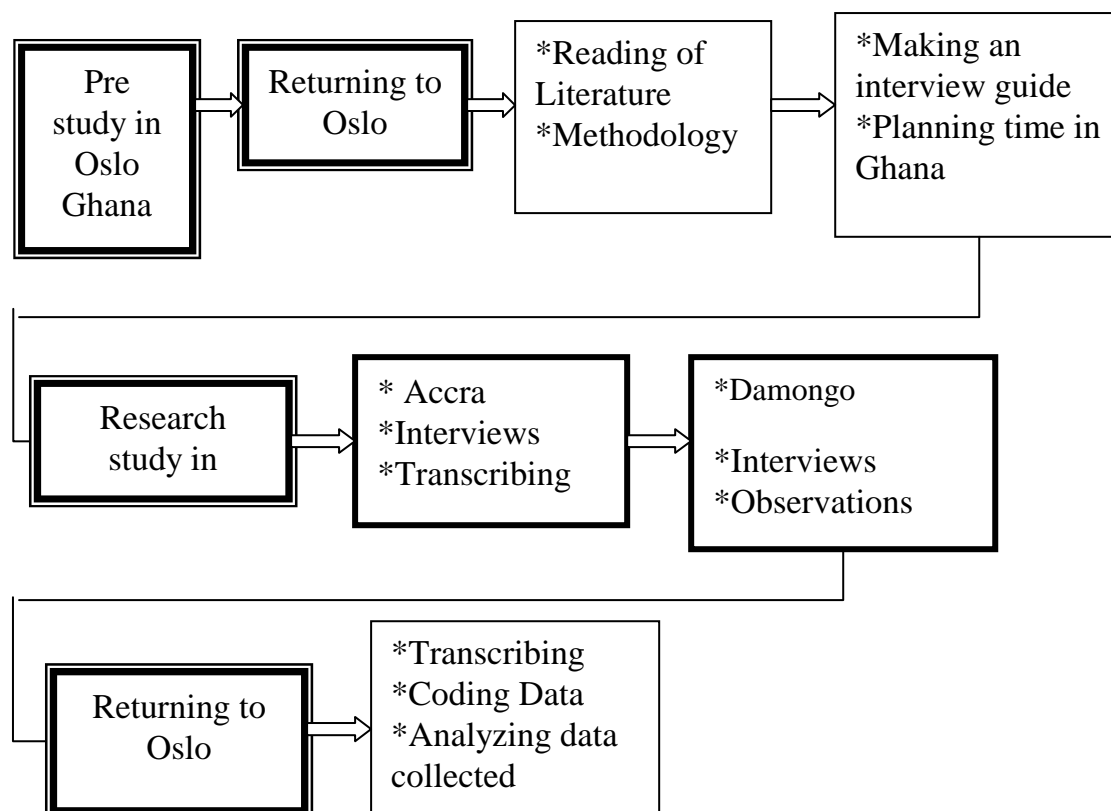
4.2.2.2 Ethnographic Field Study Design

Another method that I explored was that of a “micro-ethnographic field study” (Bryman, 2004, p. 293). I participated in the culture and events to learn more about the context that was the subject of my research. While in Accra, I lived in a house with five Ghanaians and learned about traditions in the culture through day-to-day living, community events, ceremonies, modes of communication, and social norms. I was not there long enough to assimilate completely into the culture. However, I was “immersed in a social setting” (Bryman, 2004, p. 293).

When in Damongo, I lived not only with foreigners, but also with Ghanaians to provide an environment to “develop an understanding of the culture of the group and people’s behavior within the context of the culture” (Bryman, 2004, p. 293). I did not live with any human subjects operating within the scope of my research, so those people or “key informants” as Bryman calls them (2004, p. 300) gave me insight of on the culturally context in which the school was located as well as context for the people who managed the school and taught there.

4.2.2.3 Stages of Research

My research included five phases. The following chart (figure 4.2.2) shows the progression and stages of my research.

Chart 4.2.2 Stages of Research

Phase one of my research began in a pre-study in Ghana in April of 2006. I gathered information from teachers at School A to learn more about the school, its difficulties, and the problems that occurred at the school.

Returning to Norway began phase two, gathering more background information on Ghana and untrained teacher in-service education in preparation to return for the fieldwork phase of my research. I wrote a research proposal, outlining the problem statement and how to obtain information, and prepared interview guides for meetings with teachers and government education officials.¹⁴ I tried to contact education officials, as well as students that had taught at School A in May and June

¹⁴ See Appendix B for an example of a teacher interview guide.

of 2006, before I went to Accra. However, I experienced problems in setting up interview beforehand.

Phase three started upon arrival in Accra, Ghana. I set up interviews with officials and went on occasional wild goose chases to get information from the correct persons. Most of this research had to be done in person to make sure that there was not a breakdown in communication. I began my research journal in Accra, recording each day what I had done, thoughts on information and my experiences that involved my research and questions and concepts to examine more closely.¹⁵

Phase four of the research took place in Damongo. I spent the first week observing teachers at School A, and being around for their breaks and lunch time, to speak with them casually about teaching and the school in general. I made appointments with district officials to speak with about the situation of untrained teachers. I also met with the headmaster of School A to discuss plans for the coming week and in-service training. The second week in Damongo, I started interviewing teachers at the school in addition to district officials. The third week, I continued interviewing the teachers and meeting with the headmaster. In my final days there, I did an in-service training for the teachers on classroom management. This was upon request of the headmaster; the topic was chosen by him and in reaction to the teachers' conduct in the classroom.

Phase five, documentation of observations and interviews, began while in Ghana, and continued upon my return to Oslo. I conducted the interviews using a digital recorder, and the combined interview time totaled more than 8 hours recorded. I started transcribing interviews in Ghana and completed the process in Oslo, categorizing the material, coding the interviews, and analyzing the data collected.¹⁶

¹⁵ See Appendix C for an example of a research journal entry.

¹⁶ See Appendix C for an example of a coded and cut interview and Appendix E for the coding scheme.

4.2.3 Interviews

My main sources of data are interviews and field notes. I chose these methods of data collection due to the resources available to me while I was in Ghana. The limited amount of written and published materials on untrained teachers in northern Ghana required me to seek other sources for information. For this reason, I relied more upon interviews and observations to understand how teachers are learning to teach, what resources are available to them for possibilities of training, and the applicability of the theory of CoPs to the situation.

The sample of human subjects that I interviewed was derived in direct relation to the school, that is, teachers at the school. Figure 4.2.3, Human Subjects, breaks down the populations that I interviewed.¹⁷

¹⁷ To see a more detailed list of interviews with descriptions, refer to Appendix A.

Figure 4.2.3 Human Subjects

Locale	Category	Level	Number respondents	Number of interviews
Accra	Secretary General of Education	Macro	1	1
Accra	Teacher Training College Director	Macro	1	1
Accra	Director of Curriculum University Professor	Macro	1	1
Accra	University Students	Micro	4	1
Damongo	Director of Education West Gonja District	Meso	1	1
Damongo	Public Relations West Gonja District	Meso	1	1
Damongo	Human Resources Director	Meso	1	1
Damongo	Group interview with District Teacher Support Team (DTST)	Meso	9	1
Damongo	School Manager of School B	Meso	1	1
Damongo	Education Official for Adult Education	Meso	1	1
Damongo	Headmaster of School A	Micro	1	2
Damongo	Teachers at School A	Micro	9	9
		Total	31	21

I interviewed those involved with the governmental sector to understand more of the framework that the school was operating in and how it fared in comparison to

governmental schools.¹⁸ I interviewed students from Ghana Christian College and Seminary in Accra who were involved with the school in May and June of 2006, to grasp more understanding another perspective and a Ghanaian perspective of the school. Each respondent, aside from the education officials, was guaranteed anonymity within the interviews and no quotations would be used that would reveal their identity (Morse, 1994). However, since there was limited printed material concerning the topic, I received permission to quote certain officials as sources on factual information.

In Ghana, I conducted interviews as my primary source of data. The goal in conducting interviews was to “interview subjects [to] construct not just narratives, but social worlds... to generate data which give[s] an authentic insight into people’s experiences” (Miller & Glassner, 1997, p. 100). To capture this ‘insight,’ I created an interview guide¹⁹ consisting of open-ended questions pertaining to my problem statement. I used Bryman’s suggestions of “Introducing questions, follow-up questions, probing questions, specifying questions and direct questions” (2004, p. 326). I planned to conduct guided interviews as structure interviews, so all the interviews would be consistent and it would be easy to extract data from them in a systematic way.

However, while I was performing the interviews I realized that I would have to switch to semi-structured interviews due to language and communication barrier s, in the interest of using more probing questions. Miller and Glassner point out a problem that can arise with interviewing, as it did in my case, that, “as a result of social distances, interviewees... may not understand our questions” (1997, p. 101). This I found to be true of my situation in Accra as well as Damongo. Some respondents, though they spoke English, had difficulty understanding my accent and

¹⁸ My objective was not to compare School A with the governmental sector merely to see what setting and what system and resources it has come from.

¹⁹ See Appendix A for an example of an interview scheme.

words I used from my interview guide. This could also have been due to differences in culture and how we communicate, and a sign of the differences in the English that we spoke.

To compensate for the differences in English, I deviated from my interview guide at times, which brings problems such as discrepancies with the clarity of questions that I posed in my interviews. Also, some interviews with the teachers focused on different aspects of training and views of the school, depending on the respondent. I was not able to completely follow Kvale's "criteria of an interviewer" (quoted in Bryman, 2004, p. 325), as I was deficient in the area of clarity. I will address the issue of language in the interviews in section 4.3.2.

4.2.3.1 Secondary Information

I also used interviews as a way to collect secondary information. Secondary information at the Meso and Macro levels set the stage for the research and understanding the context as well as appropriately applying theory to the situation. From the interviews, I obtained information about policies and reforms as well as statistics about the educational system in Ghana. Figure 4.2.3 maps the different human subjects in the research, which can essentially be put into three categories of Macro, Meso, and Micro. The Macro level is the national level of education. Meso is the district education level, in addition to sources involved with education but not directly involved with School A. The Micro level solely involves School A: headmaster, teachers, and university students who helped at the school for an extended period of time. The micro level comprises the major body of data that I will be analyzing. However, the secondary information helped me to see the larger context in which School A operates.²⁰

²⁰ See Appendix G for a table of level of interviews and status of primary and secondary information.

4.2.4 Field Notes

My field notes were based upon my observations and encounters with the people at the school, in the community, and those involved with education or who gave opinions on education. Taking Bryman's advice, I kept a note pad with me at all times (2004) and jotted observations regularly. I narrowed my focus to situations and ideas pertaining to my research topic, as well as epiphanies about the cultural context. I stayed for the teachers' breaks and observed their behavior, taking mental notes of their conversations. I did not take notes while they spoke, as that might "make people self-conscious," as Bryman points out (2004, p. 306). However, after the teachers went to class I would record notes about the conversation: what was discussed and how that pertained to the theory of CoPs.

My field notes about the day were general. However, the note pad I kept with me was more detailed, and my notes that I wrote each night summarized what took place that day, what my agenda was for research, and how I wanted to follow-up conversations, as well as the questions for the next day of research. The field notes were my notes from classroom observations, interviews, and cultural events. The classroom observation notes concerned the methods that the teachers used, as well as ideas for follow-up questions when I would interview them. Interactions and comments made in-town by members of the local population about education also gave me a clear picture and a broader picture that frames my research and context.

4.2.5 Observations

In my primary research, I used observations as a way of collecting data. While in Damongo, I observed in all of the primary teachers' classes the first week. I then spent time with the teachers at their 30-minute break and 60-minute break for lunch to talk to them about the school and get impressions of what they discuss among themselves. I noted whether the teachers talked about teaching, methods, the school, or other topics during their break. Through these observations, I saw how the teachers taught, what methods they used, and if they reflected upon the methods in

the interviews. I did not have an observation checklist, so the objective was to learn how the teachers taught, creating a point of reference when interviewing the teachers. I did take field notes of classroom observations.²¹ I took Marshall's advice for entering researchers: "in the early stages of qualitative inquiry, the researcher typically enters the setting with broad areas of interest but without predetermined categories of strict observational checklists. The value here is that the researcher is able to discover the recurring patterns of behavior and relationships" (1999, p. 107). My observations were not looking for any particular objective, just attempting to understand the classroom environment and be able to draw upon those experiences in the interviews with the teachers as well as administrators (Marshall, 1999).

4.3 Validity

Since my research is based upon qualitative research and interviews, the question of validity arises when examining the data and the analysis. Though no study can be error-free when dealing with human research subjects and their relationships, certain measures can be taken to increase the credibility of the study.

4.3.1 Validity Within Interviews

I used triangulation as a way to increase the validity of my study, as Silverman suggests in his book, *Doing Qualitative Research* (2000, p. 212). I interviewed not only teachers at the school to examine their community of practice, but also the headmaster of School A in addition to officials at the district office, to examine their insights and to add district-level procedures to the scope of research.

I interviewed the teachers after observing how they taught, the classroom conduct they enlisted, what type of methods they used, usage of classroom time, and

²¹ See Appendix F for an example.

their social patterns. From these observations, I was better able to discern in the interviews whether they were consistent with their practice as teachers at School A.

There were a couple of cases in which I found information given in interviews inconsistent with other interviews or observations, and could not find the “truth” of the matter. One particular occurrence of this was on the subject of the involvement of the District Education Office with School A. The teachers stated that supervisors from the district come to observe. However, district officials stated that they do not do so. I also interviewed people outside of the school who had knowledge of the school system in Ghana and that area, as cross-references. For example, I interviewed the school manager of another local school that used to be private and was working with the education office to use its services for teacher education. This interview helped me to form questions and create a knowledge base with which to follow up my interview with the education office.

I used a digital recorder to tape the interviews and I transcribed them, due to expenses as well as the Ghanaian English accent. Sometimes the accent was hard for me to understand, but by the end of my stay I felt more comfortable with it and was able to understand their English better, and adjust my own pronunciation to help their understanding of my questions and comments.

However, due to the situation of the school and the buildings there was not always a quiet place to conduct interviews. I had to conduct the interviews during teachers’ breaks in buildings with open doorways and children running around. In two of the teacher interviews, as well as part of the interview with the headmaster, it is hard to understand the teacher due to rain.²² While I was interviewing the headmaster when school was out of session, the rains began and were so loud on the tin roof I could not even hear him though he was across the table from me. In that instance, we paused the interview and waited till the rains subsided.

²² In this case I had to rely upon my field notes of the interview and fill in the gaps the best I can remember.

4.3.2 Issue of Language

Ghana, being a former English colony, uses English as a working language consistently throughout the country. Though English is the language of instruction at School A, it is not the mother tongue of many people. In the West Gonja District, people mostly speak Gonja; however, there are many other tribal languages. That said, I did not go to the extent of requiring an interpreter for the interviews, but chose to speak simple English in the interviews. During my pre-study, I spoke only English with the teachers and did not have an interpreter.

Despite English being a common language to many Ghanaians, I still experienced communication problems. For example, Teacher 1 at School A had trouble understanding my American accent, so another teacher explained to her the meaning of my questions. Teacher 1 was able to respond and express herself in English, though she was limited. Due to another teacher's presence, I am not sure if those would have been the same answers that I would have received from her in a more private setting.

Due to the level of English spoken by some of my respondents, I deviated from my interview guide and used more explanation about the questions. My short, clear questions on the interview guide were not working, so I used "jargon," which Kvale recommends avoiding in interviews (quoted in Bryman, 2004, p. 325). Furthermore, I used longer explanations and examples to get the question across to some respondents. Since some of the questions were not perceived as clear on the respondents' part, it could possibly alter the answers that I got from the respondents. However, since I was conscious of this I would steer the interviews and re-ask or re-state the question so the respondent would answer the question I was posing, not the questions they were interpreting. Some of this created the possibility of leading questions; however, in some cases I had little choice. I would ask the question until the respondent gave an answer or the information to the question that I tried to pose. Many of the interviews were more of a conversation and follow-up with what they

were saying, so that the conversation would flow and it would be easier for them to understand where the questions came from.

4.3.3 Observations as a Tool

The purpose of the observations was to get a clearer picture of the daily operations of the school and the conditions in which teachers worked. Some things differed due to my presence since all the nursery kids were around. Though I was not able to observe in the nursery because the kids could not concentrate if I was in the room, the older students seem to behave ‘normally’ and I was not a huge distraction. I used observations to have a point of reference with the teachers during the interviews and gain a greater understanding of types of techniques they used as well as what resources they utilized in the classroom.

4.3.4 Transferability of Findings

When looking at the data and the analysis, can I transfer the ideas, methods and findings to another situation or are they bound to the case of School A? Applying situated learning to the context of school A, the obstacles that surface are related to resources and organization of the administration. Applying CoP to in-service teacher education and continued education will aid the development of teachers and thus schools not only in African rural schools, but schools independent of locale. The organization of CoPs will solve problems with untrained teachers or inadequately trained teachers.

4.3.5 Credible Research

Can another researcher audit my research conducted in Ghana through my field notes and interviews? I believe that another researcher could, in theory, follow my paper trail of research by going through my field notes, transcribed interviews and observations, and find the same information that I will present in Chapter 5, “Data Analysis: Identifying the Gaps.” I have conducted my research in such a way that all

my interviews are transcribed, with audio files available for clarification. I have the original drafts of the interviews, in addition to the coded and cut interviews. I kept field notes, observation notes from classroom and have all these items in word document form.

4.4 Analyzing Data

4.4.1 Transcribing the Interviews

Dealing with the transcribing of the interviews I decided to transcribe them myself. This was due to funding; however, this choice allowed me to review them again, and write memos alongside the transcriptions. I saw patterns arise and developed a coding system while reviewing data. The interviews were transcribed verbatim, excluding sighs, laughter, and pauses, which would differ culturally as well as linguistically. The “linguistic analyses; the inclusion of pauses, repetitions, and tone of voice are relevant for psychological interpretations” (Kvale 1996, p. 166). My interest is not in the psychological aspect in interpretation, as I desire to identify what occurs with the teachers who are learning to teach and the actors involved. While a psychological interpretation could be a point of interest, due to time and resources, that is not within the scope of my analysis.

Lack of these signs and surrounding information can bring about a problem in the transcriptions as well as in the analysis. As Kvale warns, “the problems with interview transcripts are due less to the technicalities of transcription than to the inherent differences between an oral and a written mode of discourse. Transcriptions are decontextualized conversations” (Kvale, 1996, p. 166). To avoid the decontextualization of interview transcripts that Kvale warns about, I documented the transcripts according to firsthand knowledge of the interview situation, referencing the field notes that corresponded with my interviews to help me situate the interviews in the proper context.

4.4.2 Organization of Information and Coding

After the process of transcription and data reduction that Miles and Huberman discuss in their book, *Qualitative Data Analysis* (1984), I sorted through the interviews, juxtaposed with my field notes, to evaluate the viability of information pertaining to my problem statement. Once the interviews were sorted, I coded my interviews and field notes. I finalized a coding system after the data collection phase to better tailor the codes to my data.²³ As Miles and Huberman state, “Data get well molded to the codes that represent them and we get more of a code-in-use flavor than the generic-code-for-many-uses generated by a prefabricated start list” (1984, p. 57).

The interviews were coded and classified according to different sub-categories of concerns felt by the respondent within the areas of teacher in-service training, view of roles of administrators and goals within education.²⁴ This classification assisted me in perceiving a clearer picture of the overall themes, how frequently those themes occur and the relationship between themes.

4.4.3 Analyzing Data

Having transcribed interviews, and established that I will not be analyzing the linguistic aspect of the interviews, I will focus upon the discourse analysis. These transcriptions are “documents of experience can be content analyzed; that is, themes, issues, and recurring motifs within them can be isolated, counted and interpreted” (Denzin & Lincoln 1994, p. 358). I plan to look at the recurring themes that arise in the various interviews to determine their meaning within teacher in-service training. These themes include analyzing how the teachers view themselves and the proprietor, as well as the university students’ perceptions of the teachers’ training.²⁵

²³ See Appendix E for the teacher interview coding scheme.

²⁴ See Appendix D for an example of a coded interview.

²⁵ This particular school the proprietor and the headmaster are one in the same person.

Viewing “knowledge as conversation,” as Kvale writes in the book *Interviews: an Introduction to Qualitative Research Interviewing*, I will approach my data discourse analysis from that perspective (1996). I aim to leave behind linguistic details to focus on the themes of the respondents, as well as the stories that they tell in conjunction with the questions they answer.

The drawback to dissecting interviews and to draw out informative details is that one can miss out on the greater picture of the interview. As Kracauer points out, “inadequacy of quantitative analyses stems from the methods themselves: when trying to establish the meaning of text by breaking them down into quantifiable units, analysts in fact destroy the very object they are supposed to be studying” (quoted in Denzin & Lincoln 1994, p. 359).

4.5 Summary

From my pre-study, I gained an initial understanding of the body of knowledge at the school as well as at the district level. The pre-study time helped me to discern what methods to employ while preparing for my fieldwork in October 2006. Using the mixed method approach gave me a clearer understanding of the context and the operating framework of School A. The case study research design is a feasible design allowing me to analyze my data most efficiently to extract content and meaning. Analyzing the data collected and categorized, I survey a procedure to generalize my analysis to in-service training and the gaps that occur within areas of resources and training, to provide School A with a recommendation for in-service training.

5. Presenting the Context

While the case study takes place at the micro level in the education scheme in Ghana, this chapter frames the context within which the micro level operates: the macro and meso levels. The macro level encompasses the national level of education: the Ghana Education System (GES), and my research involves secondary information at this level through interviews in Accra. The meso level represents the West Gonja district of education, which has jurisdiction over School A.

At each level, macro, meso and micro, gaps exist that obstruct the process of education, hindering the creation of an environment in which teachers can increase their abilities or participate in communities of practice. Each level contains different gaps that in turn exacerbate problems and challenges on subsequent levels. Later in this chapter I will combine the gaps the macro and meso level to draw connections to the micro level and effects of the macro and meso levels on the micro level. In Chapter 7, the summary, I relate the gaps at the macro and meso level to the case study at the micro level. In Chapter 8, I propose solutions that will not depend solely upon filling in the gaps in the system only at the macro and meso levels.

5.1 Education System Overview

5.1.1 Education Pre-Independence

Before Ghana gained its independence, the public school system was controlled by Britain. Philip Foster's book *Education and Social Change in Ghana*, describes the progression of the education system in Ghana from colonial days in the early 1900's, to the 1960's post-independence. Ghanaians had much influence in the progress of the education system through establishing schools. Foster shows the rate of schools being built in three categories: *Government*, *Assisted*, and *Non-Assisted* (1965, p. 115), pre-independence. The spread of the influence is interesting, as the

British colonists did not play a major role in establishing or funding schools. Foster comments that, “the reluctance of the colonial power to impose controls upon the quality and quantity of educational provision had led to the autonomous growth of an educational structure which lay to a considerable degree outside the system of government or grant-aided schools” (1965, p. 113). Foster uses the following tables, Table 5.1.1 and Table 5.1.2, to illustrate the slow movement with which colonists established a school system.

Table 5.1.1 Government Primary and Secondary Institutions 1920-1950

(Foster, 1965, p. 114)

Year	Number of Government Schools	Total enrollment	Percentage of total enrollment
1920	20	4,292	10.2
1930	30	6,524	12.0
1940	25	6,6708	7.3
1950	48	8,678	3.0

As we can see in Table 5.1.1, the government schools’ scope of students decreased each year, even with the increase of schools from 20 in 1920 to 48 schools in 1950. Many of the non-assisted schools were mission schools aiming to educate and proselytize Ghanaians (Foster, 1965). Looking at the growth of secondary schools in Table 5.1.2, we can clearly see which schools students attended, as well as their increasing enrollment and source of establishment.

Table 5.1.2 Growth of the Secondary School System, 1920-1950

(Foster, 1965, p. 115)

Year	Type of School	Number of Schools	Enrollment
1920	Government	1	42
	Assisted	1	75
	Non-assisted	1	90
	Total	3	207
1930	Government	2	162
	Assisted	2	376
	Non-assisted	2	63
	Total	6	601
1940	Government	2	401
	Assisted	3	798
	Non-assisted	12	1,436
	Total	17	2,635
1950	Government	2	857
	Assisted	11	1,919
	Non-assisted	33	3,386
	Total	57	6,162

This table contributes to the picture of how little impact that the government had on the establishment of schools. A majority of secondary schools were started by Africans and run by Africans, Foster states (1965). The demand for the schools present in some areas of the country, however, came later to the Northern region in Ghana. The non-governmental schools were growing faster, but where were the teachers coming from? Who was training them?

5.1.2 Education After Independence

Educational reforms in Ghana started in 1951 with “The Accelerated Development Plan,” which was formulated in order to promote national economic development” (Dankwah, 1987, p. 12) and also included the educational system. As time went on, Ghana worked to keep up with the demand for education, building schools and preparing teachers to teach. From 1951 to 1961, primary schools increased more than 200%, secondary schools as much as 440%, and teacher training college by 135% (Dankwah, 1987, p. 14). This influx clearly shows that the Ghanaian people enrolled in schools and desired to have an education, yet there were

not enough teachers, a problem that the country still faces today. A.R. Thompson comments on the continued situation of lack of desire to be teachers in Africa:

low standard of motivation to enter the profession of many entrants who see teacher education as second or third choice subject for secondary education or higher education and wish to retain a wider range of career options than a narrow teaching focus program might itself afford. (2006, p. 57)

Furthermore, after “The Accelerated Development Plan” was put into place there was very little maintenance of the program and the educational system, and the system was not functioning as well as it ought (Eyiah, 2004). The focus for education was to expand the educational programs. However, the country was so influenced by the Europeans and their systems of administrations, as Professor Ron Rife stated in an interview that “the British left their bureaucracy” behind for the educational system in Ghana (2006).²⁶ That is, many of the structures and programs set up in the beginning did not function in practice. This bureaucracy is a contributing factor to the gaps in the educational system that I will address further in Chapters 5 and 7.

In the 1980’s, more reforms and literacy programs began. When President Kufuor came into office in 2001, he proposed “some education reforms up to now. Unfortunately, very little has been achieved in the light of all these reforms, especially for those living in rural communities” (Eyiah, 2004). The creation of gaps in the educational system is a theme that is repeated and left unattended on both the macro and micro level. I will be addressing these gaps on the three levels in Chapter 7.

²⁶ Prof. Ron Rife is an American who has been working in the educational sector in Ghana for the past 47 years, establishing a university as well as working with teachers.

5.1.3 Current Education Policy

UNESCO just added Ghana to the list of countries that will pilot teacher training reforms in Sub-Saharan Africa (UNESCO, 2006). This program is called Teacher Training in Sub-Saharan Africa (TTISSA), and it aims to help the training institutions in various countries train more teachers, in effect raising the standards of schools, to work toward the Millennium Goals²⁷ for “Universal primary education” (UN web services, 2005) or Education for All (EFA). UNESCO states that 30 percent of primary teachers in Ghana have had no teacher training (2006). This is a common problem in Ghanaian schools. It is difficult to determine when requirements could come into effect that would expect all teachers to be “highly qualified,” as in the case of the USA and its No Child Left Behind Act. The TTISSA proposal offers a few options for teachers to pursue training; one of these is on the job training, or in-service initial training teachers would receive while teaching.

5.2 Macro Level: National Level

Currently Ghana is experiencing change in its teacher education program. In 2005, Ghana appealed to UNESCO for assistance with the teacher training, to achieve the Millennium Goals for education in the area of Education For All (EFA). As stated in Chapter 1, Ghana qualified for funding the Teacher Training in Sub-Saharan Africa (TTISSA), a program operated through UNESCO. TTISSA assists with training teachers and untrained teachers and provides assistance to those teachers already in the field (Education Secretary General for Ghana Education Ministry, interview, 2006).

²⁷ United Nations proposed eight goals for developing countries to achieve by 2015.

5.2.1 Teacher Training Institutions

Throughout Ghana's nine regions and 110 school districts, there are 38 established Teacher Training Colleges (TTC) (Teacher Training College interview, 2006). The current manner of training for teachers requires three years of school at a training college. During the first two years, students study the theory of teaching, learning about methodology. In the third year of the program, trainees are posted at schools throughout the country as a part of a work-study program. Two trainees are placed with one mentor teacher (Kofi et al, 2002, p. 3) and receive the practical experience aspect of the training. The classroom teacher acts as a mentor teacher for the two trainee teachers, and each does one-third of the classroom work (Teacher Training College Director, interview, 2006). The program is described as the following:

Also, under a new programme known as In-In-Out, teacher trainees are expected to spend two years at school and use the third year for practical training in the classroom. The Ministry is vigorously pursuing a programme to turn all the 38 Teacher Training Colleges into diploma awarding institutions. (Ghana Education System website, accessed 2007)

Currently, teachers do not receive a university status diploma upon completion of the teacher training college. However, plans to have participants receive diplomas from the program are forthcoming (Teacher Training College Director, interview, 2006).

The Teacher Training College's main office in Accra said that the program has altered its philosophy in sending the trainees out for practical experience, in terms of where trainees are sent (2006). In past years, the trainees' practical experience was conducted in major cities, however, once the teachers were placed in a school in the rural area, new teachers often quit due lack of experience in the rural area and the different challenges that the teachers were not exposed to in training (Teacher

Training College interview, 2006).²⁸ This practice created a gap between the amount of trained teachers and the amount of trained teachers that continued to teach after their first year in the field. Moreover, the program perpetuated the brain drain already happening in the rural areas.

5.2.2 In-service Training for Teachers

Looking at Ghana's system of education on paper gives the impression that the areas of concern and the problems that the country faces have well-established solutions. However, a closer examination of the systems and structures as they operate reveals that this is not the case. For example, a report written by Barbara O'Grady looks at a system to train teachers in Ghana, called Improving Learning through Partnership (ILP), which uses master teachers to help inexperienced and untrained teachers in the classroom (2000). The program is well conceived and proposes change in the system and the quality of the teachers over a gradual period. However, in Damongo and the northern region of Ghana, the ILP is not put into practice at the school level. Nor was it a program of which the meso level spoke, at the district office.

Another program and resource that has been set up nation-wide for the teachers is the District Teacher Support Team (DTST), an initiative supported by the British Government and the Whole School Development. The DTST was created upon the idea that this team would administer training to the various schools in the district:

We have in-service training at two levels. One at the national level and one at the district level. Originally, most of the in-service is top down if they decide on the needs of the teachers and then they go out into the field to do what type of service they want to give to the teachers.

²⁸ Teachers in Ghana do not apply to specific schools when they are applying for a job; instead they apply to work and the educational ministry will give them placements. Most teachers go to school on an agreement with the government that they will work where the government sends them after completing the training.

However, about 5 years ago we realized that it is better to the teachers in the field to identify their needs and then tailor this to suit their needs....But in terms of improving quality education in the schools we expect the district teacher training support teams to be active in the districts. (Human Resources, interview, 2006)

DTST visits to schools spend time evaluating the teachers, determining areas in which the teachers and the headmaster need more support and training, and then organizing a teacher in-service training program to address those issues. Basically, the DTST “tailor” makes in-service education for teachers working in the government sector to make the training relevant and applicable to their individual situations (Teacher training College Director, interview, 2006). This in-service training is only provided to the trained teachers in the schools, not the untrained teachers.

At the national level, untrained teachers have not been recognized for teacher in-service training in the past. The representative from the Teacher Training College in Accra, as well as the director of Education in the West Gonja District, said the reason for the lack of further training for the untrained teachers is that they are employed on temporary contracts (Director of Education, interview, 2006). However, this changed when the Ministry of Education and the school districts were noticing that untrained teachers stayed longer than a year, the temporary length. This is much like the case of the West Gonja district, where the untrained teachers are a majority of teachers that the district employs.

To address the gap in trained teachers to the needs of the school the Ministry of Education proposed a plan. Starting in 2004, a program was created for the untrained teachers to get their teacher credentials while working. The program is called the Untrained Teachers Diploma Basic Education (UTTDB), and is currently going through its pilot period, rotating through the regions starting in the north and moving towards the south. The program is four years long: teachers attend a training institute on school breaks, and work with modules through the year while supervisors

monitor their progress. Later, I will address the function of the program and the realities it holds for the district, the meso level, and then the micro level.

5.3 Meso Level: District Level

The school District of West Gonja in the northern region of Ghana faces many challenges and gaps as a district. While I was in Damongo, I met with district officials to learn more about the district and the situation for the teachers across the district. The main actors in the West Gonja district of education include: the Director and his staff, trained teachers, untrained teachers, headmasters, District Teacher Support Team (DTST), supervisors and NGOs. All of these groups take part in running and contributing to the education system in the district that is supported by the government at the national level.

5.3.1 District of Education in West Gonja

The district has a unique situation with regard to the locations of the schools that comprise it. The district is one of the largest school districts in terms of land mass, according to the Director of Education; however, not all of the schools are assessable for the whole year. Certain schools are considered “Overseas Schools.” “Overseas” status means that the schools are completely isolated during the rainy season, when the White Volta River is high due to the rains and flooding. Of the eight circuits within the district, four of them are considered ‘Overseas’ Schools, meaning that half of the district can not be accessed for at least five months a year.²⁹ According to the Director of Education, there are more untrained teachers in “Overseas” circuits in the district, since it is hard to hire teachers for “Overseas” assignments. This lack of accessibility to the schools poses another problem: even if district funding is available to train the teachers; teachers posted at “Overseas”

²⁹ A sub-area within the district.

schools are unavailable due to the restricted accessibility of the schools, which also hinders attempts to monitor the progress and needs of the schools.

5.3.2 Untrained Teachers in the District

As I spoke further with the director and his staff, additional gaps became apparent. The Director of Education and the Human Resources personnel estimated that at least 60 percent of the teachers working in the West Gonja district are untrained teachers, or pupil teachers (interview, 2006).³⁰ When questioning the director further on the status of training provided to those untrained teachers, I learned that no program set up by the district, until recently, would train the teachers. The government's four-year program, called Untrained Teachers Diploma Basic Education (UTTDB), no longer admits new teachers in the northern region due to the trial status of the program. The supervisor of the participants in the program is from the district office. I interviewed a member of Human Resources personnel as well, who supervises teachers in the UTTDB program. He expressed his concern with the program, saying that the students are not doing well, and pointed out his difficulty in supervising the teachers in the program due to the distance and "overseas" posts at which they are stationed. Though the program is in place there is still a gap between the help that the untrained teachers need while they are on the job, and the help they are able to receive.

When questioning the director about teacher in-service training and how often it was provided at the schools, he was unable to answer due to the circumstances of the district. The main restriction of the training teachers centers around funding of the programs. The district is given a budget ceiling from the national education system based in Accra (Director of Education, interview, 2006). However, inadequate finances to conduct in-service training program for teachers means they do not occur on a regular basis.

5.3.3 District Teacher Support Team

Each of the 110 educational districts in Ghana is provided a District Teacher Support Team (DTST). Nine members constitute a team, and each member contributes a different specialization: mathematics, sciences, English, language, or methodology of teaching specialists. The team functions include: visiting schools within the district to evaluate the teachers, providing an assessment of the school, communicating with the headmaster and head teachers about concerns with the schools, developing a tailored teacher in-service for the teachers and/or headmaster and conducting in-service training for schools in clusters on relevant topics (Human Resources West Gonja District, interview, 2006).³¹ The DTST members are chosen by the district education office and trained through the budget of Ghana Education Service (GES) (West Gonja DTST group interview, 2006).

The members of the team for West Gonja currently work as teachers in Damongo in their specialized fields. The members some have prior training and others are untrained teachers that have been teaching for years and were chosen for training.

5.3.4 Outside Viewpoints

A group of five university students from Accra spent May and some of June, 2006, assisting the teachers at School A. I interviewed them about the situation of the school, their view of School A's administration, and what is typical for the area. The recurring statements made by students were in regards to the status of conditions at the school and the amount of time that the headmaster spent or did not spend with the teachers managing them and training them. One of the students commented about the headmaster's presence at School A:

³⁰ Pupil teachers, or student teachers, are the terms that the district officials used to describe the untrained teachers.

³¹ A school cluster is a sub group of schools that are in the same district, most likely close in each other's proximity.

Student 4

So if someone is going slowly away from the curriculum so he can say look this is what you must do because there is no one to check on them the headmaster does not have time he is always riding on his motor bike going up and down and he does not have the know-how. (Interview with GCU students, 2006)

The students observed that the headmaster was not a consistent figure at the school, and they went onto say that the headmaster was not at the teacher in-services that they held for the teachers (GCU students, interview, 2006). The students were positive about the teachers and their receptiveness to the in-services, but also as insecure and intimidated with the volunteer teachers coming to the school and teaching classes (GCU students, interview, 2006).

5.3.5 Educationalist for Adult Education

I interviewed a person working for the district office in the adult education section, who also worked as a teacher. He taught in the West Gonja district for 11 years as a primary teacher, and then returned to university to teach in Senior Secondary School (SSS), and finally in adult education. He has a great deal of experience in education working with trained and untrained teachers in the West Gonja region, and also has a connection with School A. Asked what he believes is the cause of the amount of untrained teachers in the region, he stated:

Most of the people do not get the required qualifications to go into the professional teacher training. So because of the lack of trained teachers they delegate them as untrained teachers to teach to fill the vacant positions. In fact in Ghana the shortage of qualified trained teachers is high every where in the country. And so most of the regions and districts they rely on the untrained teachers. (Adult Educator, interview, 2006)

The problem of untrained teachers teaching more than temporarily is not unique to Ghana, as it is also the case in other parts of West Africa. In addition, another factor is the difficulty level of the entrance exams to teacher training colleges to qualify to

continue their education (interview, 2006). The educationalist also stated his opinion on School A and the situation of the teachers and training at the school:

Academically they are average the teachers are average, but they do not have a professional qualifications because in handling children as a teacher you should have gone through some child psychology you should know the behavior of the child at a certain age you should know your professional ethics of the teacher service. (Interview, 2006)

From an outsider's perspective who has training in education and experience, he sees the teachers as in need of more training, whether that is through the government sector, in-service education or having a mentor teacher to whom teachers can go for guidance.

5.3.6 School Manager

I interviewed a school manager in the area about teacher education and teacher communication at another school, which I will call School B.³² The parameters for the interview included: the district level concerning teacher in-service training, how the teachers at School B communicate with one another, and their perceived teaching methods.

The school manager moved to Ghana over a year and a half ago to work with School B. She is trained as a clergy member in the Presbyterian Church and has worked in the church as well with Montessori schools in Europe. The school manager organized a teacher in-service training for the teachers at School B and other schools in their association. The School B's school association received funding from an NGO for teacher in-service training. School B's manager contacted the district office to organize such an event. She reported that the district office complimented her on the initiative that she took for organizing a training course for the teachers. The school manager stated that School B was told, "that we were the

³² I was only able to speak with one school manager while in Ghana, due to the teacher strike taking place nation-wide October through November of 2006.

first school managers of carriers with the state school who did such a thing. And I am surprised” (School B Manager, interview, 2006). She continued to talk about the untrained teachers at School B and through her observations, she came to the conclusion that the district is doing nothing for those untrained teachers (School B Manager, interview, 2006). She has observed some exceptions with teachers who receive additional training, but those teachers who receive more training completed teacher training from a teacher training college, and therefore do not fall into the category of untrained teachers. The courses that the selected teachers took were specific to an area of teaching; for example, computers and technology.

The school manager expressed frustrations about the training and lack of training that the teachers have in the area and at School B. Asked if the teachers speak with one another and how they deal with problems, she responded, “But there is not, no qualifications or training that would help them doing it [handling behavior problems] better” (School B Manager, interview, 2006). The school manager gave an overview of how teachers in the public sector work and interact, as well as their training. Also, if the school is praised for using a teacher training resource that is readily available to all schools and told that many schools do not organize teacher in-services indicates of the lack of the DTST being utilized.

5.4 Summary

Overall, the picture that I saw of the teaching environment and my contact with the District Education Office left me with questions. The office’s general impression and structure of programs looks good on paper. However, in follow-up questions the gaps appear, rendering the structure of little use when programs are not intact or functioning as they were proposed and designed originally. The District Education Office has trained personnel to provide teacher in-service seminars for teachers in the area. Teachers in the area need this training; however, a gap exists between how often training actually occurs and how often the training ought to take

place to foster environments for the teachers to improve and feel supported in their work. Discussing these matters with the District Education Office, officials expressed the desire to provide training services. The Office would like to see a teacher training college or a resource center established in the area, but all of this depends on the funding (Director of Education of West Gonja, interview, 2006). The government decides where training facilities will be built and established, requiring the district to asking for the allocation of funding, but dispensing the funds only at the disposal of the national sectors.

The district experiences a gap between what they want to do and what they need to accomplish. This gap is caused by the lack of funds from the government. The manager of School B said that the DTST requires an additional salary to perform teacher in-service training and assess what types of in-service would be beneficial to those teachers. Sayed states, in the article “Partnership and Participation in While School Development in Ghana,” that the “structures for supporting and training teachers such as DTSTs, clusters, have been established but have not developed an active and visible set of training and development activities” (quoted by Akyeampong, 2004, p. 12). Though Sayed made this remark in 2000, the structures that have been set up to reform education seemingly do not perform their tasks in the northern region at present.

The ideas of production and reform are intact and well-articulated, which contrasts with their application in the districts. The schools, to a certain extent, model the gaps as well on a localized level, as you will see in Chapter 6, Data Analysis. The solution to the problem must take place not only on the macro level, hoping that the remedy will trickle down to the meso and micro levels, but each level will have to be addressed in specific ways to design a reduction of the gaps. The general gaps at the macro and meso level were presented in this chapter, and the Data Analysis Chapter will present the gaps at the micro level. This includes the case study of School A, and possible solutions to that level will be addressed in Chapter 7: Discussion.

6. Data Analysis: Identifying the Gaps

6.1 Introduction

None of the teachers at School A had any formal training as teachers, including the headmaster/proprietor of the school. The objective of my fieldwork in Ghana was to study the system of learning that these teachers used over the years to learn and improve teaching techniques, and to see how the TTISSA initiative was implemented in schools. Regarding TTISSA, I found that neither School A nor School B has any programs from TTISSA. In fact, no one had heard of the initiative, even at the district level. This immediately affected the course of my research; I moved from looking at an existing program to determining whether the teachers had made a program for themselves out of an impetus for survival in their field. Some of my research questions included: Is their current system of learning and refining teaching techniques functioning, in the sense that the teachers are teaching with the capability of trained teachers? What is the role of the administration in the process of teachers learning and refining their skills as teachers? If there was no system established, can we apply the theory of Communities of Practice to this case? Is a component or resource lacking at the school, and if it were to be filled, would that solve the problem of untrained teachers?

The availability of resources for teachers to use, as well as any available partnerships with other private schools, public schools or programs established by the district education office were points in the scope of my research. How does the headmaster raise awareness among the teachers and raise their standard of teaching? Does he, in fact, help them with teaching, and what is his role in teacher in-service training?

In the beginning stage of my research, as well as my analysis of material collected, I realized that the problem is not simple as schools just lacking trained

teachers. Many factors contribute to the teachers lacking the training and resources they need. The more I studied the problem, the more gaps became apparent at various levels and areas, pertaining to training as well as the running of the school.

The most pervasive gap is the training gap. This gap is created by the teachers' shortfall of knowledge they need in order to teach the children and perform their jobs more effectively. I found that the teachers compensate by relying on their own experiences as students to develop their methods. The teachers at School A expressed a desire to acquire more in-service training. They acknowledge the need for training and that application will help their situation in the classroom. However, not all the teachers have the drive to pursue more training, and a second gap is found between the training that the teachers need and their motivation to receive this training.

Through the interviews, I researched the teachers' view of the proprietor's role in their training, and in the school more generally. Most of the teachers stated that they view his role and responsibilities as the following:

1. Being in charge of getting the school fees from the students,
2. Paying their salaries,
3. Arranging training for the teachers,
4. Addressing other logistical matters that they did not specify.

When looking at a case in point, the matter of school fees and payment, many teachers do not hold the proprietor responsible when they do not get paid their wages. They view the problem as their students' parents, who do not pay school fees, rather than the proprietor's fault. Yet in this case, the responsibilities of the proprietor and his accountability for those responsibilities do not line up, creating a gap. In this chapter, I will analyze my collected data and present the case study of School A.

6.2 Gaps in Physical and Financial Resources

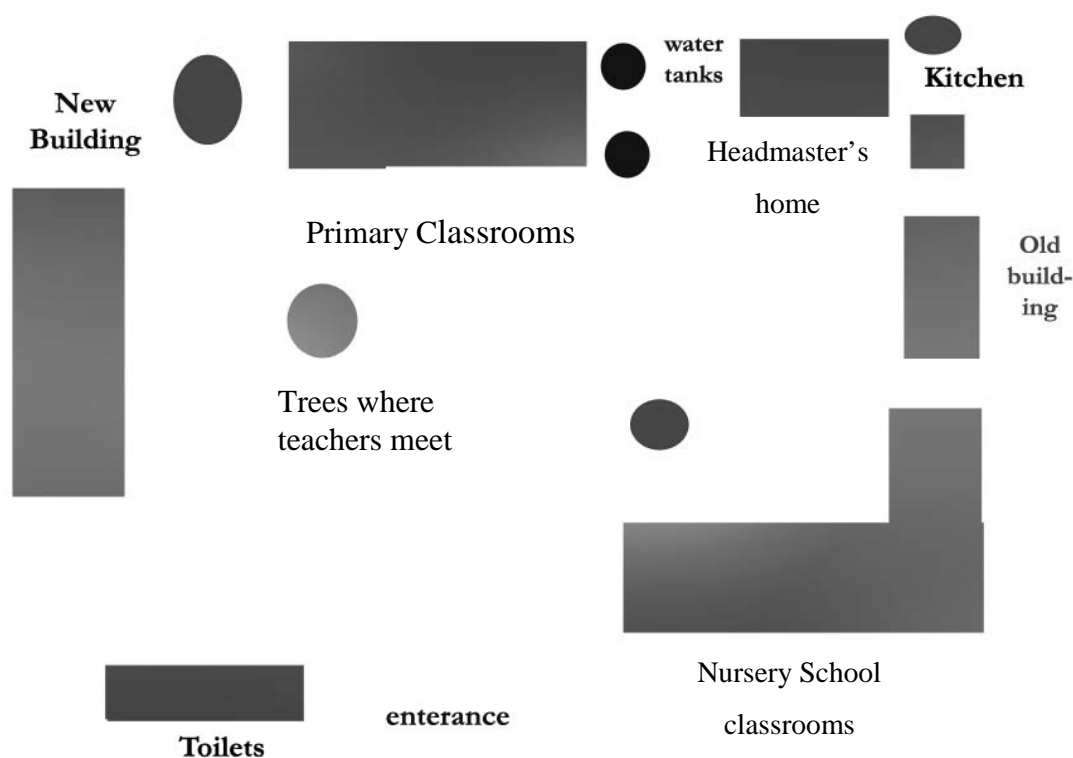
From my pre-study I grasped the some of the main physical and resource gaps that affect how the teachers teach. Upon return for the fieldwork phase, my research exposed more than physical and financial resource gaps at School A.

6.2.1 Water

Damongo is located in an area of the world in which people do not have access to fresh drinking water year-round. I was in the Damongo in the rainy season, so tanks were set up to catch rainwater at the school. However, when the dry season comes for the other 7 months of the year, water is a precious commodity. Often, in the dry season, if the school does not have water it must close until they have enough water to accommodate their staff and students. One primary teacher reported that sometimes he has to find water for the school in the morning if the headmaster is unable to do so. The teachers have to go get water on their motorbikes or bicycles in order to conduct lessons during the day. The lack of water adds another stress on the teachers at the school as well as environment for the school.

6.2.2 Classrooms

With a population of over 800 students, School A needs to have the building capacity to handle that many people. However, lack of buildings and classrooms account for another gap between the need and the reality of the resource. Currently, the school campus has five buildings: the headmaster's house, a building that is used as storage and should be demolished, and three buildings with classrooms. The two classroom buildings contain six classrooms for the primary school, holding approximately 250 students. The last building contains four classrooms that accommodate around 550 nursery students under the age of five years old (the L-shaped building in figure 6.2.2).

Figure 6.2.2 School Site

The cement on the entrances to the classrooms in the L-shaped building has eroded, leaving gagged slabs of cement for the students to stumble over, and causing them to track in dust and dirt on the classroom floor, on which the students sit during lessons. The teachers at School A commented on the high level of heat in the classroom, and university students that came up from Accra commented on the hygiene levels in the classroom, and how it is not healthy for students to be exposed to such conditions. The classrooms present another obstacle for the teachers to address and manage daily.

6.2.3 Classroom Furniture

Another gap was the amount of classroom furniture. The students sat at hand-me-down desks from the school district that the headmaster acquired, due to the fact that the desks were seen as not fit for use by the district. The desks lacked a flat writing surface for the students when acquired by the headmaster, and he fixed the desks for use. He was not able to fix all the desks and benches for the lower grades

in the primary, so those students must sit on benches not properly adjusted to the desk size.

In the nursery school, children sit on the floor. They write on the ground to practice the letters, instead of in books. One classroom in the nursery has desks, but not enough for all the students to sit at comfortably. The desks line the classroom from wall to wall, cramping the classroom and not allowing easy access to the door. The classroom furniture gap occurs at an intersection of gaps: Lack of proper desks and lack of classroom space for the student population.

6.2.4 Books

Lack of materials and books comprised gaps as well. The school, as the headmaster informed me, starts the students with science in primary two, one year earlier than the public school does. However, School A does not have any science text books or materials for the teacher to use to teach the students. Some teachers do not have a syllabus book for the class, let alone enough text books for each student. The books that they do have are leftover books from the district, the headmaster tells me; some are no longer used by the district and possibly outdated (interview 2006). One teacher states:

Teacher 7

We have some syllabus books but we do not have some materials to present those subjects to the children. You do it with the syllabus books but some of the materials we do not have it. (Interview, 2006)

The teachers recognize the problem with the lack of books for students and preparation materials for themselves as having an adverse affect on them as teachers, and furthermore, on the students as learners.

6.2.5 Payment of the Teachers.

School A relies upon school fees from the students to pay the salaries and other operating expenses. The staff includes six primary teachers, five nursery teachers, two cooks, and the headmaster of the school. More than 800 students, accounting for the nursery and the primary school, attend School A. Currently, the school fees that the students should be paying can support the school's basic needs and salaries and still result in money left over for various projects, one of which is further teacher education. However, this is not the case and the school fees are the subject of where the vast gap occurs.

When interviewing the teachers, each teacher addressed the problem of late payment, which is insufficient to meet their basic needs. Furthermore, as a normal occurrence, they do not receive their whole salary each month.³³

Teacher 6

For instance as of now, today is the 20th the month is getting to an end. Maybe by the time we get our pay we started teaching are doing our best but if the month comes to an end the 30th then November 7th, 8th and you do not get paid you will see that it will not help you will feel reluctant to come to school. (Interview, 2006)

Teacher 7

Because at times the salary, we know the salary is too small for us. But you teach, teach, teach, two months, three months and you do not take your salary. (Interview, 2006)

The issue of payment is taxing on the teachers' view of their jobs and motivation, I will address the issue of motivation later in this chapter.

³³ Currently all the teachers are paid the same with the exception of one teacher that has taught in the nursery school since the school opened. The headmaster stated in an interview that he wants to have a graduated pay scale for the teachers so that teachers with more experience will get paid more than the teachers starting out of secondary school.

Analyzing the bookkeeping and interviewing the headmaster about how much he collects for the school fees for a typical month, he was unable to account for the amount of money coming in each month. He disclosed that at the end of October, two months into the school year, School A was still owed 26 million cedis from the students enrolled. The students who do not pay the school fees still attend the school under no penalty. The headmaster sent home reminders and warnings about the insufficient payment from with children enrolled, yet some still do not pay. Discussing with my key informants the lack of payment of school fees by the parents, they said was not due to the families lacking money, but an unwillingness to pay for the education (field notes Oct. 06). The school has a history of a gap between the school fees they collect and the amount of revenue required to operate the school. This gap adds to the gap of training for the teachers, by not having available funding for in-service trainers and seminars.

6.2.6 Training Materials

When interviewing the students from a university in Accra that went to help School A in May and June of 2006, about the school and the teacher training, they expressed a lack of the teacher training and resources. The headmaster has not set up a consistent program to help the teachers refine their skills in a formal or informal setting. Workshops are not arranged in the school plan, but more as a happenstance occurrence. Due to the lack of programs organized for the teachers, even though they would like to be trained, the absence of resources and materials creates a gap in further education and training. Also, the absence of training materials gives the teachers little to work with, and rather than sharing material, creating a form of a Community of Practice, they share ways of coping with the situation.

6.2.7 Materials for Lessons

Another gap at School A exists between what the teachers teach and the materials required to do so. A large aspect of teaching small children a new language

or their own language is showing them pictures or physical examples, so that they can relate to what they know to the word. If there are no materials to do so, this makes it difficult for teachers to impart knowledge to the students as well as the difficulty for the children learning. In the case of the nursery school, one of the teachers describes the material situation:

Teacher 7

You look at the thing the material is not there, and because the material is not there you can not teach... if you do not get that animal [you are] teaching the children... just describing what they do over and over to the children, they will never know. (Interview, 2006).

Without the materials it is difficult for the teachers to do their job, as Teacher 7 expressed. The teachers recognize the necessity of students having contact with the material that they are learning, to internalize and bring meaning to what they are learning at school.

6.3 Motive Structure of the Untrained Teachers

Motivation within education addresses not only students possessing motivation to learn, but motivation as a key component for teachers to accomplish their job. I will highlight the motivation of the teachers at School A; how motivation affects them as teacher and the contributing factors to lack or gap of motivation.

Teacher 3

If a teacher is not motivated it gives you a down spirit because you are not always happy and you are not interested. (Interview, 2006)

This insight from teacher 3 summarizes how the lack of motivation affects the teachers. There are many aspects that contribute to the lack of motivation, and I will look at the areas that the teachers reported in the following sections.

6.3.1 Money and Monetary Gifts as Motivators

“Cash is a motivator that will always be popular. And, if possible, money is always a good choice to use for employee motivation because who doesn’t like money?” (Curry, 2004, p. 31)(Curry, 2004). A majority of the teachers work at School A out of the desire to educate the children in the area and belief in the premise of the school. However, this alone does not motivate them to come to work everyday. Like any job, they expect an exchange of service for monetary benefits. When the benefits in the form of salary are not paid to the teachers working, this adversely affects their motivation. Payment is a topic that each teacher brought up in the interviews consistently as an area in which the school can improve, and how the lack of money plays a role in their motivation to come and do their best as a teacher.

Teacher 7

I do not receive any salary I am teaching but I do not get anything. So should I stop at times when you go to class your mind will be on that...If teachers are paid they will teach well. (Interview, 2006)

This was spoken by a teacher who has taught for a number of years at the school. She instructs other teachers and wants to go back to school to become a trained teacher, yet after all these years of working at School A, she still gets discouraged when she does not receive payment.

When reviewing the hiring process with candidates, the headmaster tells the teacher candidates that he is not able to pay each teacher on time each month and they have to understand that before starting to work. Despite the fact that the gap in funds is no surprise to the teachers when they start teaching, no matter how long they have worked at School A the lack of payment and late payment takes a toll on their motivation in coming to school and doing their jobs. As another teacher put it in an interview:

Teacher 6

You do not get paid you will see that it will not help you will feel reluctant to come to school. (Interview, 2006)

The lack of motivation can be greatly associated with the late payment and underpayment of the teachers. This gap creates a type of CoP, in which teachers exchange information about coping with the lack of payment and how to continue working under the conditions, and also how to survive with late payments.

6.3.2 Reason for Teaching

All the teachers fall into three categories for motivation for teaching: (1) waiting for their exams results to see what program they qualify for, (2) needing a job, and (3) wanting to teach and pursue that career.

6.3.2.1 Waiting for results of an exam

In Ghana, after students complete Senior Secondary School, they take exams in the subject area that they want pursue in further studies. While in Damongo, some of the teachers teaching at School A were retaking exams for senior secondary school to improve scores to qualify for a further education program in teaching, medicine, nursing or a trade. Those taking the exams that want to go into teaching view their time at School A as experience that they can use, but will leave the school if they get into a program. As a teacher states:

Teacher 2

In case for teaching I am just here teaching but in case the need arise for me to leave to school then I have to go... I do not want to use my skills on the side of teaching but health... But teaching I do not like it. I do not like it as a job. (Interview, 2006)

Their motivation in working at School A takes a backseat to their education and goals. However, those that are taking exams stated that they find their time teaching helpful for reviewing and continuing to learn in preparation for their exam. These students have an outside motivation to do their jobs. These students have more potential to create a Community of Practice at the school, due to motivation to continue to teach as well as use the experience at the school to their benefit.

6.3.2.2 Necessity of Having a Job

Those that teach at the school because they need a job were not too concerned with other things going on at the school. One teacher in particular I interviewed had experience at another school but wanted to go into a different vocation. He said that he would quit tomorrow if a better job comes along that provides him with more money (Teacher 5, interview, 2006). He was not teaching for any other reason than that it was the best-paying job he found. Observing his class, I could see that he was not methodical about teaching, but taught with the book in his hand, and did not refer to the topic of the lesson or reinforce the topic through out the lesson (field notes 2006). This particular teacher did not participate in teacher exchange of material on the breaks and seemed uninterested in situation in the classroom.

When asking the teachers who worked at the school because it was the only job they found about their interest in teacher training to help in the classroom, they indicated that they were not interested, since teaching was not their goal, even if taught more than a year. Due to the lack of interest in teaching, there was little motivation in improving as a teacher even from the perspective of helping their situation in the classroom.

6.3.2.3 Wanting to Teach

The teachers that wanted to go into education explained in the interviews more of their methodology in teaching and how they came to those conclusions. They were more reflective in their teaching methods, how they organize their class and time plan, how they treat the students and their role as a teacher in communicating with other teachers. They were motivated to improve as teachers and they expressed the importance of getting more education. Those that have motivation to teach and improve would be the core and contributing members of a Community of Practice.

6.4 Self-Perception of Untrained Teachers

When speaking to the teachers about how they viewed themselves, a few responses recurred: that they were similar to trained teachers, they need training, and they might be better than trained teachers. Overall the self-perception of the school and their view of themselves was that they need more training and are not on the same level as ‘professional teachers.’³⁴

6.4.1 Similar to Trained Teachers

In one case, Teacher 7 stated that she believed she has the same skill as a trained teacher. As Teacher 7 answered the questions, her opinion on how the teachers at School A compared with the trained teachers fluctuated. At first, Teacher 7 stated that the untrained teachers do not have as many techniques as the trained teachers, but then came to the conclusion that in some areas they, the teachers at School A, are doing a better job than some trained teachers:

Teacher 7

So I see that with the training we have had a lot it is just because those that went through the teachers’ training college we are not the same. Because they get some training that we do not get. I am sure that we are not all that good because we have not had all the training. Because if you go to the public this government school the teachers will be teaching and you will stand and watch their teaching you will see that you did not catch that one. And at time too if they are teaching you can see I am doing much better than them even the trained teachers. (Interview, 2006)

Here Teacher 7 tries to communicate that even though the teachers are untrained they can perform like trained teachers, if not better than some trained teachers. She does not disclose how they can get to this level of teaching or why this occurs.

³⁴ Teachers that complete a teacher training program have certification.

6.4.2 Lacking Certain Skills

Some teachers shared a variety of views of themselves, and discussing the untrained teachers at the school, stated that they possess experience and the ability to help other teachers improve. However, most acknowledged that teacher training would benefit them, even those who do not want to continue teaching.

Teacher 2

But maybe if you went to the training college and they taught you how to deal with such matters [misbehaving children] I do not think that you would use the cane. (Interview, 2006)

This teacher, though he is reflective in his teaching, believes with more training he would be better prepared for situations he encounters as a teacher, for instance without using a cane for punishment.³⁵

In interview with the university students in Accra, they addressed the teachers being “intimidated” by their presence, since some of them were trained teachers and from a university. The students from Accra stated:

Student 4

Because they themselves are not professionals so if you lack the necessary things you are totally handicapped. (Interview, 2006)

Student 4 commented on the situation in which the teachers find themselves not possessing the skills needed, and acknowledge this through their actions while the university students were at the school. The students said that the teachers would not come up to them on their own initiative and only came to the in-services on classroom management and lesson planning.

³⁵ Both private and public school teachers throughout Ghana use a cane to deal with discipline problems.

6.4.3 Can Be Better Than Other Teachers

In two cases during the interviews, teachers said that they felt that there were situations in which that they had more experience than trained teachers. The first instance was with Teacher 6, who taught previously in the public sector, and the public sector offered him a teaching job.³⁶ This indicated to me that he views himself as a teacher with valuable experience and on the same level, if not better than, some trained teachers. He also trains the new teachers at School A and helps teachers with planning lessons, giving advice when the headmaster delegates that to him.

In the other case of a teacher indicating that she can perform better than trained teachers, I inquired whether the teacher saw a difference between untrained teachers at School A and trained teachers. Her response was:

Teacher 7

And at times too if they³⁷ are teaching, you can see I am doing much better than them. Even the trained teachers. So I see that the training is ok for us. (Interview, 2006)

During the interview she stated that the teachers need to be trained more at School A, and that they are deficient in certain skills. Later, she stated that if you compare them with some of the teachers in the public sector who are trained teachers, in some cases the teachers at School A have more skills than the trained teachers, and that trained teachers even make mistakes while teaching. So, in effect, she changes her mind about their status as teachers, but continues to state the importance of continued education for the teachers:

Teacher 7

Because no one can be perfect. (Interview, 2006)

³⁶ He continues to teach at School A due to closeness with the headmaster at School A

³⁷ Trained teachers in the public school.

This difference was interesting in that though the teachers are untrained, their experience or talent exceeds those that have training, yet they still have a desire to learn more and do not see their education or the trained teachers' education as complete.

6.5 Didactical Repertoire Employed by Untrained Teachers

Due to the teachers' lack of formal training, they must rely on prior knowledge to teach, whether that is previous experiences, influences from past teachers or from fellow teachers. The untrained teachers have to draw upon a knowledge base to conduct class. When interviewing the untrained teachers about how they teach lessons, they responded by describing people, events or circumstances that influenced them.

6.5.1 Reflective on Their Own Teaching

Many of the teachers were reflective about their methods of teaching, such as why they decided to teach a certain topic, arrange the period and lessons, as well as how they would question the students. Perhaps their methods were different than how a trained teacher would handle the children or situation, but the untrained teachers had their own philosophy of teaching.

6.5.2 Using Influences From Past Teachers in a Positive Manner

Some teachers discussed past teachers, their positive experiences, and how they shape how they teach. One teacher spoke of past teachers that taught him to teach peers as a student:

Teacher 4

I learned this teaching through my teachers because any time my teachers entered the class I always observe how they teach. So I also

copy how they teach and they start and that is also why I was also trying it when I was at SSS [Senior Secondary School]. (Interview, 2006)

Teacher 4 described how his teachers in SSS molded his teaching style. He observed teachers, taught lessons and received instruction from teachers. They conditioned him to be a teacher and reflect on teaching practices. He spoke of this experience as positive, and uses the techniques that he learned from his teachers while teaching at School A. This teacher is a product of an apprenticeship form of learning. Though it is no longer occurring at School A, it is a possibility for teachers to work in such a manner.

Another teacher discussed his methods being inspired from past teachers, in addition to recognizing how he learned as a student. He stated that he did not think that all of his teachers taught him properly. However, he used some of their techniques of questioning, for he thought they served a purpose in checking for students' understanding:

Teacher 2

When I ask you a question, even if you answer it correctly, because one of my masters, that is what he was doing, even when he asked me a question and you answer it rightly he will not tell you that it is right. He will always be frightening you to test your understanding to see if you really understood what he said so he will be frightening you. So if you know the answer you will say 'yes that is the answer' if that is the answer. So that is the method I use. (Interview, 2006)

This particular teacher identified his previous teacher's method of probing students for understanding and uses the same technique in his classroom. He has a philosophy to back up his practice, which built upon his experience as a student and what he saw to be "proper teaching." In both cases, the teachers reflected upon their own experience as students and modeled what their former teachers did in the classroom.

6.6 Teacher Communication

Communication at the workplace happens regardless of the setting. When interviewing and observing teachers at School A to discover how they interact, I found different forms of communication. The teachers seemed to be comfortable with one another in conversation and often I saw them smiling, and laughing with one another during the breaks. They communicated on an informal level about their lives, concerns, and needs outside their job. Beyond the exterior of the ease of communication, I wanted to understand how they communicated about teaching, and dealing with school-related problems that developed in and out of the classroom.

6.6.1 “Yes, we talk”

When questioning the teachers if they communicate with each other about teaching and school, the common response was, “Yes, we talk.” I observed that the teachers spent most of their break time together, with the exception of a few teachers who stayed in their classrooms during the breaks to monitor students. The teachers congregated in two different groups on either side of the school yard under trees. One group consisted of five of the six primary teachers and the other group included teachers from the nursery school, as well as one primary school.³⁸ As I observed their conversations and took mental notes, I noticed that they mostly discussed the day, nothing really pertaining to school. They discussed students, talking to students from time to time in regard to the break, not classroom behavior. A learning community exists at the school. Though they do not discuss the teaching practice, perhaps they discuss other practices. Overall, the teachers gave the impression of approachability by their colleagues.

³⁸ That particular teacher had taught nursery in years past and was in her first year in the primary school; she had already been in that community of teachers.

6.6.2 Corrections

What do they discuss? Some teachers stated in interviews that they correct their colleagues in their teaching. Some of the teachers stated that if they catch a glimpse of other teachers' lessons, or if the teacher makes a mistake while teaching, they will correct the mistake. Another type of correction that is perceived is in the behavior of the students and classroom management. A major concern of the teachers to refine teacher skills is in the area of classroom management:

Teacher 7

You know it is not always that we come in a group and we talk. But at time you will be teaching and you will make a mistake and your [colleague] will come and tell you the mistake that you just made and you will correct it. Not that you spell something wrong, not that. Maybe you will be teaching and the children are not concentrating and your friend sees that and him or her will come and tell you so that you will be also be alter teaching and concentrating on the children after teaching you will look at whether they concentrating or talking. So I think that is helping. (Interview, 2006)

The ease of the staff at School A in feeling comfortable enough to give suggestions to other teachers creates a good atmosphere of helping each other become better teachers.

When questioning the teachers about what occurs when they observe each other teach, I discovered that even though they try to make corrections, they do not observe another teacher for the sole purpose of correcting or helping the teacher refine skills. I will address how the teachers are evaluated in section 6.6.7.

6.6.3 Covering Lessons

Another context in which teachers communicate centers on their needs. When I questioned the teachers about discussing teaching with one another, they articulated covering classes and helping each other in a way that can be measured. Teachers recounted situations where other teachers covered lessons if the teacher went to town,

needed to grade papers, or was absent. These were all modes of communication to the teachers: needs, time, and assistance in class.

6.6.4 Concerns About Teaching

Teacher communication about practices of teaching also took place. The headmaster pointed out that staff members conduct emergency meetings concerning particular students or situations. Similarly, the teachers reported that they discuss problems among themselves. Teacher 2 stated that he had some problems with managing the students in the class and asked other teachers about their practices:

Teacher 2

Sometimes I say that the children their matter is hard. ... I do not know how I am tackling that problem so what [they] normally say oh that is true in the other classes. (Interview, 2006)

Teacher 2 initiated a conversation about how to manage students in the classroom; however, the input that he received was basically: ‘the same happens in my class, I do not know what to tell you.’ The communication happened, however a gap occurs between the advice they seek, advice that will address the problem, and the advice that they receive. Is the communication helpful to them in the classroom, or is just venting to another teacher about a situation that neither can do anything about? Something that might improve this communication or bring it to a deeper level is a trained mentor teacher, to offer suggestions or methods for the struggling teacher to administer.

6.6.5 Using Fellow Teachers as Resources

The headmaster demonstrated the use of teachers as resources. When new teachers start at School A, sometimes he will train them or ask another teacher to help the new teacher with lesson plans and talk about classroom conduct. This action suggests that the headmaster views some of his veteran teachers as training resources for new teachers. When interviewing or discussing informally with the teachers

whether they view other teachers as resources, they only brought it up in the context of training at the beginning of their time at School A. They only identified starting to teach as the time they needed instruction. With follow-up questions, I discovered that the continual process of asking teachers for help or suggestions on lesson plans and classroom management was not a typical occurrence. This also reveals another gap in training of the teachers: the conditions at the school tell the teachers only to expect training from the headmaster or other teacher when they begin to teach, and not as a continual process in the school community.

6.6.6 Instructing New Teachers

The instruction that the teachers receive when they start teaching at School A comes in the form of another teacher or the headmaster instructing them in how to compose lesson notes. In this case, the instructing teacher is used as a resource to the new teachers. The guidance given is basic information, and opens a line of communication with the new teacher, who now knows of the resource in the head teacher of the primary school or the nursery school. From this point, I will distinguish between the general teachers and the teachers who are viewed by their colleagues as resources; these teachers will be referred to as *resource teachers*. There was one teacher in the primary section of the school viewed as a resource teacher, who has experience teaching in junior secondary school. Two other teachers viewed as resources were in the nursery, both of whom have been teaching at the school since it began seven years ago.

A new teacher starting in the nursery, takes the first weeks of teaching with the resource teacher, going over how to create lesson plans and organize the class. In my interview with a teacher that was trained by a resource teacher, he referred to the resource teacher and her teaching style throughout the interview. This displayed that he did value her help and insights on teaching. This particular teacher went on to say:

Teacher 9

I learned so many things from her too. That is where I got some of my plans and maybe tricks to teach the children... so then the other teacher many knows other strategies or maybe tricks the person maybe can also teach you how to monitor and teach that child and the person can also watch and get the understanding. I think we normal[ly] do it here. (Interview, 2006)

This interaction with another teacher was valuable to him, and he reflected upon the other teacher's insights as he taught and would go back to her if other problems arose. The interactions between new teachers and resource teachers help the new teachers how to conduct class and gives them a type of model from which to work.

6.6.7 Supervising Teachers

Supervising teachers to see how they teach and if they do their job was a role that many of the teachers associated as the job of the headmaster. They view him as responsible to make sure the teachers have their lesson notes prepared and are in class (teacher 7 interview, 2006). The headmaster is also expected to handle problems with teachers or absences to organize a replacement (Headmaster, interview, 2006). The headmaster spoke of delegating supervision of the teachers on the side of techniques and methods to two different head teachers, one in the nursery and another in the primary. Those particular teachers are also the teachers to whom other teachers go if problems arise. In this area there is a gap, for if teachers do not observe one another, and if even the head teachers do not observe other teachers, they are not able to monitor how the teachers perform, creating a gap.

6.6.8 Teachers Being Evaluated

Another aspect of teacher communication comes in the form of evaluation. Teachers reported that the headmaster comes around, in addition to the district education office supervisors, to check on their lesson plans:

Teacher 6

The supervisor of Damongo the man from the office used to go around and check the lesson notes preparation, so sometimes they send a supervisor or any headmaster to the school and he will come to the school and check our lesson notes whether they are correct or not. So the guy that is in the classroom has to prepare the lesson before teaching the children. So they do come. (Interview, 2006).

When speaking to the district, they indicated that they do not visit private schools unless invited, since the school is not in their jurisdiction (Director of Education ,interview, 2006). The headmaster also reported that the district is only involved with the school in terms of providing books and desks when the district has excess amounts:

Yeah, I have not taken too much pain on that. I attempted one time to collect their lesson notes for a particular teacher to edit. Which was a few years ago, and tried to they tried to give our points for where they fall short. Another time teacher 6, he had tried to do more on that, and the new ones that came up I have asked them to see him for that. ... But at the end of the terms when they are filling the forms, when they are scoring and grades and other things. I go through almost every form to see how it is being done. And then if I see lapses in the charted performance. (Headmaster of School A, interview, 2006)

The headmaster admits that he does not have much of a presence in the classrooms or the ability to evaluate how the teachers conduct class, and is only involved with administrative paperwork on the part of the teachers.

The view of evaluation differs from the teachers to the headmaster as well as to the district. There is a gap in who is evaluating whom. The teachers view the headmaster and the district office as their evaluators, yet the headmaster indicates that he does not see this as one of his capacities and reveals that he is not doing that component of his job. The district office indicates that they do not visit private schools and the district has not even processed the papers to register the school, papers that the headmaster submitted more than five years ago (Interview, 2006).

As a private school, School A has an interesting position, or falls into a gap of evaluation. The district does not take responsibility for evaluating the school, the headmaster is not taking on his role as an evaluator, and the teachers communicate that there are supervisors coming around to check on their lesson plans. This area in the interviews did not have an intersecting point; that is, on all the sides, micro and meso levels do not intersect, creating a gap in evaluation.

6.7 Management of In-service Teacher Training

The headmaster is currently in charge of teacher in-service training for teachers at School A. This in-service consists of a course that a few nursery teachers attended in Tamale,³⁹ and the sponsors of School A sending university students to work with the teachers on an interim project. While the teachers have some in-service training, nothing has been consistently established.

6.7.1 New Teacher In-service Training

According to the headmaster, when he hires a new-teacher he will review how to make a lesson plan and classroom management with the new hire. Another mode of training consists of using teachers at the school to guide and direct the new teachers. The training is not extensive; perhaps just a day or two before school starts or before the teacher starts teaching (Interview, 2006). A new nursery teacher might be an assistant to a teacher for some time before teaching alone.

6.7.2 Funding of Teacher Training

Funding for teacher training comes from the school fees. However, due to the lack of school fees collected, the funding for teacher training is very minimal, if

³⁹ A major city in the northern region of Ghana.

present at all. For teacher training that the teachers attended, the headmaster paid a percentage of the course fees, as well as materials for the course that the nursery teachers attended, and teachers themselves covered the remainder of the cost.

6.7.3 Teacher Training Materials

Presently, the teacher training materials are limited at School A. The headmaster spoke of consulting a program on the television as a guide on how to train teachers, or implement new ideas in the classroom. Other than occasional books purchased for teacher training, there are not concrete resources or materials for the teachers at the school or in the area to use. There is not a resource center for teachers in the West Gonja district.⁴⁰ The establishment of a resource center would provide an area for teachers to come together and plan their lessons communally, as well as providing a context to discuss teaching and exchange ideas, rather than exchanging techniques on surviving the circumstances of the school.

6.7.4 Evaluating the Teachers

The headmaster did not address how he evaluated the teachers aside from looking at their lesson plans; however, evaluation was a big topic among the teachers. They said that district officials would come and check if they taught from the syllabus, were present in class, and had written lesson notes properly.

Teacher 6

The supervisor of Damongo the man from the office used to go around and check the lesson notes preparation, so sometimes they send a supervisor or any headmaster to the school and he will come to the school and check our lesson notes whether they are correct or not. So the guy that is in the classroom has to prepare the lesson before teaching the children. So they do come. (Interview, 2006)

⁴⁰ A center that offers supplies for teachers to plan lessons with and resources for classroom activities, as well as personnel to help the teachers use the materials available and offer training. Some of these resource centers are in conjunction with teacher training colleges (teacher training college interview 2006).

Teacher 4 describes how they are evaluated, or held accountable to do their jobs, by the district (meso level) as well as by the headmaster, on the meso level.

6.8 Investigating Learning Community

During interviews with the teachers and discussing informally conditions at the school and how they learn to teach, I often directed the conversation to their view of training and resource teachers. Basically, I wanted to grasp the type of learning community they established at School A, and understand their view of a formal learning community of teachers. The questions I investigated included: How do they view teacher training? Were they aware of each other as resources for teaching techniques? Did they speak casually about teaching with one another? Did they have a formal structure to compensate for the lack of professional training? What was the makeup of their learning community and how did it function?

6.8.1 View of Teacher Training

During my pre-study, I wanted to identify the teachers' needs and how they identified their needs, not my perception of their needs. We also did activities with them that they could do with their students or large groups.⁴¹ Upon my return in October 2007, the teachers asked me if I was going to do an in-service training for them (research journal 2006). Even the teachers who revealed to me in interviews that did not aspire to be teacher inquired whether there would be a teacher training session. The teachers expressed interest in training and having time and resources invested in them even if they did not want to continue teaching.⁴²

⁴¹ These were games to get the teachers attention as well as get to know them. The same activities are designed to use in big groups of children, as learning activities and games.

⁴² Not every teacher inquired about in-service training, only those that were there in April; there were 4 new teachers out of 12 from April to October, 2006.

The teachers were positive about teacher training in general. They recognized the need for training and how training will help classroom management and planning lessons (Teacher 2, interview, 2006). Teacher 2 stated:

Yes, my opinion, if teacher training were to be there it would be good. Because it will not only help me alone precisely but even it will help the community at large and even the nation... but because we do not get the training and we are just using our own capabilities. (Interview 2006)

Teacher 2 addresses two points: one, the importance of teacher training and two, how teachers currently learn. The teachers express interest in learning more about teaching in order to implement CoP, A focus shift must occur towards learning within a CoP, something that possibly would need to be introduced by a sponsor or a outside member.

6.8.1.1 Satisfied With the Training

When questioning the teachers if they were satisfied with the amount of training they received to this point, their responses were mixed. One teacher wanted more training at first, but came to the conclusion that she had enough after reviewing the training that the teaching staff has had in the last year. However, as I stated earlier, the students at the university in Accra reported that the teachers were intimidated when the students from Accra were at the school. This could indicate that the teachers are not completely confident with their training or teaching skills.

6.8.1.2 Wanting More Training

Many of the teachers, though they do not want to continue teaching, want more in-service training.

Teacher 4

It is like invite speakers or other people to education us on how to go with it. We have just completed SS we do not have further training so those that have more experience should come here to help us on a yearly basis. (Interview, 2006)

This teacher expressed the need to have more seminars, in the form of in-service training at the school for the teachers to learn more about teaching. Teacher 4 used the argument that they themselves do not have adequate training or the education that is required to properly teach the students. There is a desire for more training in the form of ‘on the job training’ or teacher in-service education. This is promising for initiating a CoP because of willingness to learn and the need for knowledge.

6.8.1.3 Do Not Want Teacher Training

The teachers that did not want more teacher training, as far as professional training at an institution, did not want to pursue teaching as a profession. They view teaching as a job, and when the opportunity to pursue another career comes along they will take it. Most of the teachers, however, felt that training is important for teachers to have regardless of whether they want to continue teacher training or not.

6.8.1.4 Training in Using Materials

During interviews with the teachers at School A, resources and materials were a subject the interview gravitated towards repeatedly. The teachers articulated how they currently use limited resources or their frustration with non-existent resources. In an interview A nursery teacher reported that they received training with drawing and how helpful it was to draw pictures to place in the classroom as examples; however, a gap in the materials existed:

Teacher 7

But with training and if we do not have some of the materials I think it will be a mistake because we will train but we can not get the materials to present in class. So if you train and you do not get that material you are just wasting your time. (Interview, 2006)

This teacher’s point is insightful, for if the materials are not available and the teacher is trained using those materials, the training is a waste of time because the teacher is not in the capacity to utilize the skills and training he/she received. Certain gaps, then, must be addressed: the gaps in resources available, before training of any kind

can be meaningful. Currently the Community of Practice is the teachers coming together to discuss how to survive and cope under these conditions.

6.8.2 What has helped?

The teachers find themselves in a situation characterized as “sink or swim.” They have no formal training in education, few qualifications, and they themselves completed their education in a school system with untrained teachers. In order to accomplish their job they acquired skills for teaching from experience.

6.8.2.1 Colleagues' Role in Teacher Training

The headmaster delegates certain teachers in the primary and the nursery as ‘go to’ teachers, or resource teachers. They are the head teachers who take other teachers under their wing and answer questions, in addition to meeting with the Parent Teacher Association (PTA). They can help the other teachers with the lesson plans; however, they can only help with what they know and with their limited resources. This means that teachers are not able to get past the point that head teachers have reached with their teaching skills. Resource teachers are mentor teachers in the Community of Practice, but in this case they need more training and need mentors themselves.

6.8.2.2 Experiences as Students

Many times we imitate what we have observed or what has been demonstrated to us. When the teachers spoke of the teachers they had as students, there were a few different responses:

1. Their teachers were lazy and they as teachers do not want to be like them
2. They had a several teachers that set good examples of classroom conduct.
3. They did not characterize their teachers, either way.

This goes along with reflecting upon what their experiences as students and the accompanying effect upon them:

Teacher 1

Some teachers were good and some were lazy. I do not want to be like the lazy ones. (Interview, 2006)

Teacher 4

Me for instance, the schools that I went to I did not get proper teaching so because of it I was not brought up properly because of it when I think of it I always try to bring them up. They should not be treated the way I was treated they should be better than me. ... When I teach them I try to make them understand more than what I did. (Interview, 2006)

Both teachers have had examples of bad and perhaps good teachers, and want to do the opposite of the teacher they identify as bad teachers. However, I observed teacher 1 and my main comment in my research journal entry for the date of observation was:

The class was going over mathematics, environment sciences and reading. There was not much instruction happening there was a lot of down time and the kids were acting out on one another. They were hitting each other and the teacher did not recognize this or do anything. (Research journal, Oct. 16, 2006)

Teacher 1 seemed lazy in the classroom, not accomplishing much with the students nor interacting. She states that she does not want to be a “lazy teacher;” however, her actions demonstrate the opposite. Quite possibly she is imitating what she knows as teaching due to the lack of instruction and guidance. Either way, her experience is what influences her conduct in the classroom. I interviewed an educationalist at a university in Accra, Prof. Ron Rife, who has been involved with education in Ghana for over 40 years⁴³ and has years of experience as a teacher in the United States. Asked about how Ghanaian learn to teach, he comments:

⁴³ He has been involved with starting a university, teaching Ghanaians, training teachers, and training them to train others.

They teach like all teachers teach; they do not teach how they were taught to teach but how other teachers taught them. The most effective way to learn how to teach is to be taught by quality teachers. And the pupil teachers are just doing what they were what happened to them while they were in school. I know because I was one of them. (Interview, Nov. 9, 2006)

The teachers teach from the knowledge gained from their experience as students. According to Dr. Rife, that is how teachers teach, even trained teachers. This is consistent with what I found in the case of School A; the teachers were using techniques they had observed in school as students. The teachers learned to teach in the situation of being teachers as well as reflecting upon how they were taught. In this way, the actions of a Community of Practice exist; however, there are gaps in the format of the group and the resources brought to the table.

6.8.2.3 Using materials

The teachers commonly identified lack of materials as a gap. The primary teachers expressed a frustration with the lack of materials as visual aids in class. I observed a Science Primary 6 lesson on positive and negative charges. The students copied notes from the board on electrons with cables and connectors. However the classroom building does not have electricity, so the possibility of the students working with positive and negative charged batteries was nonexistent. The Primary 6 teacher has taught for years but no matter how skilled the teacher is, if materials are not present it hinders the teacher's lesson. The primary teachers told of materials used in environmental science. One teacher would bring in different examples of leaves so the children could see what they were learning about and relate it to the world around them. Each teacher had a story about lack of materials, just as Teacher 7 pointed out the effect of lack of visual materials on her class:

Teacher 7

just describing what they do over and over to the children will never know, they will never know; teach, teach, teach, and they will not understand. (Interview 2006)

This teacher realizes that visual aids are a necessity in some lessons so the students see and touch what they are learning about, to have a clearer picture of the concepts. The teachers work around many obstacles in the workplace, lack of physical resources, or the resource gaps, take direct attention from teaching and performance as teachers. However, each discussion of what has helped them points to teacher communication, and how teachers viewing each other as resources and investing in their knowledge helps the most. Other resources gaps must be address in order to focus more attention on the training and investment in human capital.

6.8.3 Mentoring, Supervision and Evaluation

The idea of mentors, supervisors, and evaluation emerged in interviews as well as informal conversations. Upon asking the teachers what would help them to with their teaching ability, some mentioned the idea of having a mentor or a trained teacher to help them. A teacher at School A had a positive experience with a mentor situation while in Senior Secondary School:

Teacher 4

I always like that because at times I would be teaching and maybe something small may be wrong. So when they[other teachers] come out and tell you that if you teach to this level... so I learned a lot and I do always what they tell me to do. (Interview, 2006)

While he does not detail how he has been mentored at School A, Teacher 4 reflects upon his experience with mentors in the past and how it has helped him as a teacher; how the comments he received from others with experience shaped what he was doing in the classroom. When speaking with the students at the university in Accra, the idea of a mentor teacher, or trained teachers teaching alongside untrained teachers, was a recurring theme.

Student 4

the school needs like a trained teacher, at least two to be able to observe things and be able to help the others teachers because if all of them are not including the school proprietor the headmaster are not

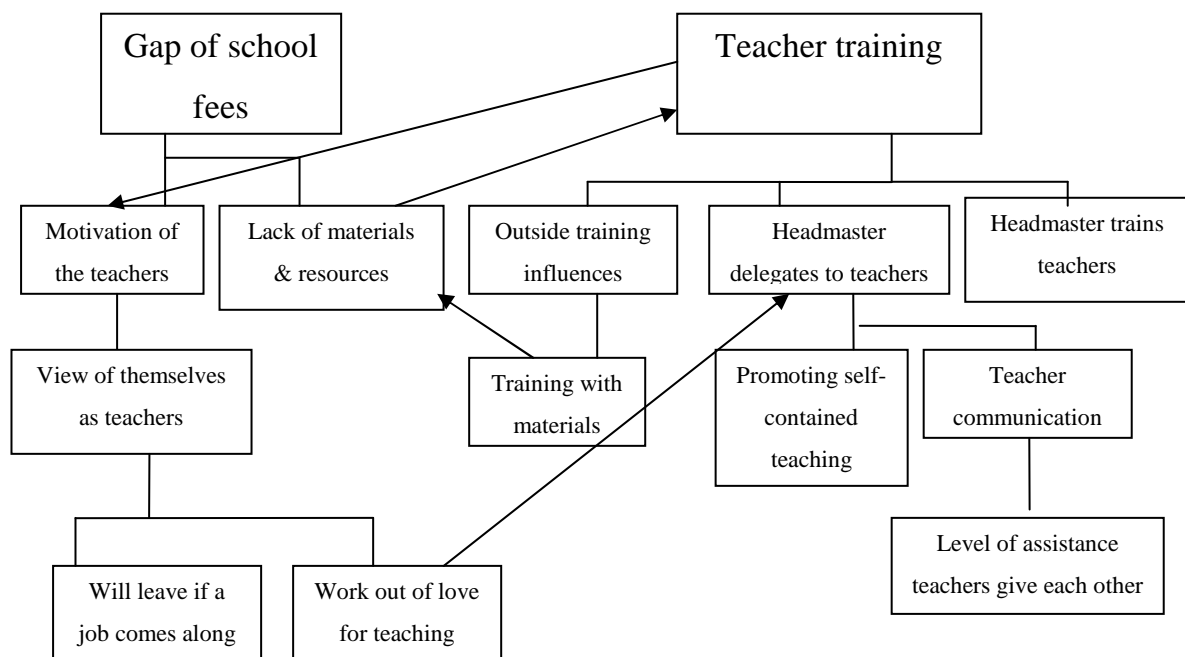
trained teachers, who is going to observe who? ...that source would be the stepping stone for the school to pick up because all the teachers are not trained and who is going to, including the headmaster, who is going to train them? (University student, interview, 2006)

The idea of mentors was not original to the students at the university but brought to the table by other members in the education community of Damongo, as well as by the training institutions in addition to the teachers. Having trained teachers would help the untrained teachers get past the roadblock of not knowing what do to when they approach one another with problems.⁴⁴

6.9 Identifying the Gaps

The overarching and recurring kinds of gaps in various areas of the school administration encapsulate to: Gap in the school fees and teacher training. In figure 6.9 we can see the general connection that is occurring between gaps and how they exasperate other looming gaps.

⁴⁴ As pointed out in section 6.5.4, teachers communicate problems but often say that they have a similar problem and are unable to offer advice on how to solve the particular issue through teaching.

Figure 6.9 Mapping the Gaps

The two main areas distinguished in figure 6.9.1 determine sub-categories that affect each other. *Gaps of School Fees* has two sub categories: *Motivation of the teachers* and *Lack of materials and resources*. The school fees gap results in not paying the teachers, thus adversely affecting motivation of the teachers, regardless the sub-category the teacher fall in: *will leave if a job comes along* or *works out of love for teaching*. The teachers with more experience in the sub-group, *work out of love for teaching*, are those the headmaster uses to train other teachers.

The *Teacher Training* category signifies the how the teachers are trained currently at School A. There are three ways the training occurs: (1) *Outside training influences*; (2) *Headmaster delegating training to resource*; (3) *Headmaster training the new teachers*. Teacher training affects levels of teacher motivation in a positive way and prepares the teachers for their job. Each teacher, talking about how they prepare lesson plans, went into great detail on the process. The training that they received on lesson planning from the university students gave them confidence and a sense of control of their lesson and teaching, as well as confidence in a skill that they have gained, increasing their motivation. With the organization of teacher training, the teachers seemed to feel valued by the headmaster or those that took time to give

some training. The training aids in the motivation of the teachers, but does not completely fill the gap that late and minimal payment creates.

A sub-category within the teachers training section, *training with materials*, in some ways contributes to the gap created by the school fees, resulting in *lack of materials and resources*, shown by the arrow drawn from *training with materials* to *lack of materials and resources*. The more resources to which teachers are exposed in training that they do not have access to at the school, the wider the gap in their ability to utilize training and skills at School A. Although the teacher training gives the teacher motivation, it can also expand the gap if the resource gap is not mended first. The arrow drawn from *Lack of materials and resources* to *Teacher training* shows the connection between lack of resources and the lack of training. The lack of money from unpaid school fees has a direct effect on the resources available to send the teachers away for training as well as participate in training at the district level.

6.10 How to create an In-service Community of Practice

When analyzing the predicament of School A, not only that of their teaching staff, but also the state of the school with regard to resources, finances, student population and buildings, it is hard to know where begin or what is the most vital area to address first. Most of the areas are connected and interrelated, as I demonstrated in this chapter. However, my research is concerned with the state of the teachers and how they learn to teach. Throwing money at the problem by simply allocating funds for additional hiring will not alone do the work; hiring new teachers will not solve the gap of untrained teachers, because one still has to look at the long-effect on the school, asking whether they will stay with the school and how to sustain them to that point. One possibility to lessen the gaps is to use the current resources available to the school as well as fill in some of the resource gaps. Though this will not fill in all the gaps, it will be at step in the right direction.

In the next two chapters I will evaluate whether creating a Community of Practice (CoP) (Lave & Wenger, 1991) for the teachers is a realistic solution to some of these gaps. Establishing a CoP is not out of the question for this school or culture. The Ghanaian culture, especially in the north, affirms principles of community and assisting each other. Creating an in-service CoP will require transferring the idea of community to the work environment and teaching environment at the school, as well as branching out into the community.

The process of creating a CoP will include: regular meetings and forums for the teachers involving trained teachers at School A, using outside sources, as well as retired teachers that are involved with the PTA at School A who facilitate conversations. This process brings about change in how the teachers think and view themselves as resources to other teachers. Refer to Chapter 3 for further details about the concept of CoP.

7. Summary

7.1 Introduction

My main research findings do not examine methods that the teachers used to advance themselves as teachers, but rather the gaps in teacher training at School A (micro level), the district level (meso level), and at the national level (macro level). Each level has plans for addressing some of the gaps I presented in Chapter 6, thereby propelling the country to achieve EFA and the millennium goals. In this chapter, I will summarize the context of School A, the gaps at the macro, meso, and micro levels and their connections to each other. I will also address steps that need to be taken and some of the precautions that must be considered to tackle interwoven problems with many levels, facets, and layers.

7.2 Gaps

The case study of School A in Damongo revealed gaps not only at the micro level in education but also in the macro and meso levels. These gaps from the top down make the gaps occurring at the micro level all the more challenging to repair the gaps. In this section, I will address the gaps at the macro, meso, and micro levels in Ghana and discuss how they are affecting each other.

7.2.1 Macro Level

The macro level encompasses the Ghanaian national education level. The macro level writes educational policy for the nation, allocates funds, and designates where to establish training institutes for teachers, among other things. When defining this level in Chapter 5: *Presenting the Context*, the actors I interviewed at the macro level include: Secretary General of Ministry of Education in Ghana, Teacher Training

College representative, and Director of Curriculum at Ghanaian Christian University College in Accra. In this section I examine the connection between gaps in education at the macro level with those of the micro level.

7.2.1.2 Training Institutions

The training institutions educate students to become teachers to prepare them for situations they will encounter when teaching. Furthermore, they aim to give students the tools to be successful teachers. However, teachers at School A who wanted to become teachers through the government sector schools had difficulty gaining admission to the programs. As a professional teacher from the adult education office at the district level stated:

The entrance exams of the training institutions have been high and students are having difficult passing the exams. ... The government is aware of this but they do not want to compromise their standards. So it takes more time to pass the entrance exams. (Interview, 2006)

In this situation, the government maintains a high standard for applicants to attain before they are admitted to teacher training colleges. However, if these applicants are the products of the school system, there is a gap between the curriculum they learn in SSS and the knowledge they must acquire for admittance. This requirement creates a difficulty for untrained teachers. As the teacher in adult education in Damongo, stated in an interview (2006), “It takes time” to pass the entrance exams. This means that teachers, like those at School A, study, retake their exams, and teach while untrained and waiting for the results.

Students of untrained teachers, then can theoretically experience difficulty and fail to learn due to their teachers’ lack of training. For example, if an untrained teacher struggled with mathematics in school and did not receive more training in mathematics in preparation to teach mathematics, the students can suffer, since the teacher will be less able to teach mathematics. If students in the schools do not receive qualified teachers, their education will be deficient, thus continuing a cycle of education of students by untrained teachers. The macro level creates a gap with entry

requirements for teacher training that perpetuate the predicament of untrained teachers that trickles down to the micro level.

Another gap that occurs at the macro level with regard to teacher training is in the area of communication with the other levels within education, such as the meso level, the district level, as well as the micro level. In an interview, a representative from the teachers' training college in Accra expressed the gap between what teachers were being taught in the classroom and what they experienced at the micro level in their placements.

7.2.2.2 In-service Training for Teachers

In our conversation regarding teacher education and untrained teachers, a representative from the national teacher training institute in Accra indicated that it was currently working at refining its program, while the GES doing the same thing. With this stated, the GES is attempting to fill the many gaps that exist, one of which is the applicability of the TTC's course and curriculum to the classroom. Upon completion of their program, the government places the teachers at schools. The representative of the TTC stated that students had difficulty in the government assignments, especially when they had no training in the rural areas and were placed there (Interview, 2006). Because the government sector had difficulty retaining teachers at posts, the teacher training college amended its program to include student practicum periods in rural areas rather than the urban areas, so teachers would be accustomed to the strain and the difficulty before being placed (TTC, interview, 2006). This is an example of a gap filled; however, more gaps like these need to be addressed.

For example, in-service training from the national level is only available for primary teachers and JSS teachers in the public sector. This creates a gap for the teachers that are at SSS level and do not receive training, and even further, private school teachers. The performance of the Secondary teachers can trickle down to contribute to hindering students' ability to pass entrance exams into colleges and

study programs. Another aspect of teacher in-service education that is deficient is the amount of in-service education received by practicing teachers. A further gap that the national TTC experiences, springing from the micro level, is that the teachers are not required to pursue further in-service education, and neither the government nor the schools can require teachers to attend seminars. One way that the TTC deals with this problem is to tailor-make training to the school or to address deficiencies of the teachers to persuade them to attend the training seminars (TTC, interview, 2006).

Currently, the government sector runs an untrained teacher training program, called Untrained Teacher Basic Diploma (UTTBD), as mentioned in Chapter 5. This program allows untrained teachers to receive training from an institution during the summer breaks. This training takes four years to complete. The pilot program began in the north in 2004. Teachers who benefit from the program must commit to teaching in the government sector for a period of time after receiving a diploma teaching (TTC, interview, 2006). While this is a good initiative for untrained teachers, the follow up with the teachers is with the DTST, a group that was introduced in Chapter 5, *Presenting the Context*. While in theory the DTST fills in gaps, in actuality no funding is available to follow up on the progress of the teachers, as the district official in West Gonja as well as the Teacher Training College official stated in an interview (2006). Again we see that the macro level has the capacity to address the gaps, but is unable to follow through with the necessary steps to fill in these gaps.

7.2.2 Meso Level

In Chapter 5: *Presenting the Context*, I identified the district education level as the meso level. The district education office in West Gonja has a system to handle the problem with training teachers and untrained teachers. The government has sanctioned money at the macro level to allocate to the meso level for the DTST⁴⁵; a

⁴⁵ See Chapter 5 sections 5.1.2 and 5.2 for clarifications of DTST.

team attends to the schools in the districts and their needs for training. Furthermore, the DTST members have representatives from the various subject areas in the school's curriculum to provide administrative help to the headmasters. If the DTST is utilized as it is designed for it could be a great asset to the school, and in turn, the district's overall achievement. However, this is not the case, and it is where the gap separates the DTST from the projected goals of the team.

As the Director of Education, in addition to the DTST members and other school officials, informed me, the DTST is not functioning to the full capacity of the need for the team. As I have stated previously, the northern region and the district of West Gonja employs a high percentage of untrained teachers. The need for training in the school is tremendous, yet the resources to supply such training are not available to the districts. While the districts have been supplied with funding for the DTST, they have not been provided the funding to employ the DTST in the field. Although the team goes to training in preparation for training the teachers, they do not use their education, due to budget constraints. This creates a gap between the resources that the district has and the ability to utilize those resources.

7.2.3 Micro Level

The micro level consists of School A. Through interviews with the teachers, headmaster, and volunteers from a university in Accra as well as members of the community, and observation at School A, I became aware of the gaps present. The gaps do not only pertain to the teacher in-service education but also affect the administration of the school and the motivation of the teachers. While these aspects are not directly impacts with regards to teacher in-service education, they do, however, affect the performance of the teachers indirectly or directly, and thus impact their motivation to pursue more training.

7.2.3.1 Indirect Gaps that Affect In-service Training

The majority of the gaps present at the school, I could argue, adversely and immediately affect the teachers' performance as well as further education. However, certain gaps can be identified as indirect gaps, or gaps classified as physical.

Similarly, the motivation of the teachers and their reasons for working can also affect the amount of teacher training they seek. Some of the teachers work as teachers because other jobs in the locale are rare, or they are waiting for exam results to get into a program. The lack of motivation for becoming a teacher can lessen their felt need for teacher training, or at least their interest, preventing any expression of interest to the headmaster. Motivation of the teachers impacts in-service training, affecting how they approach the in-service sessions, as well as how the teachers pursue development outside formal in-service training.

7.2.3.2 Direct Gaps that Affect In-service Training

The direct gaps affecting in-service training are easily identified. Financial gaps are clear, as the school cannot afford, without outside funding sources, to train the teachers. In addition, the school does not have the resources needed for the teachers to apply the training that they receive. One teacher stated that she was trained to do drawing for the students and make supplies as teaching resources, but the school did not have such resources available (Teacher 7, interview, 2006). The result of this was that the training that she received was obsolete and did not make a difference in her classroom. Even when teachers are trained to use a resource, the training will not affect activity in the classroom due to the lack of resources.

7.2.4 The Expanding Effect

Each of the levels have gaps that have been identified in this thesis, however, I assert that further gaps in each of these levels exist and could be identified with more extensive research. The gaps that I have cited at the macro and meso levels all contribute to the gaps on the micro level. There is an expanding effect on the various

levels, as the gaps are not merely contained in one level of education management within Ghana, and I will assert, for that matter, education systems throughout the world. Moreover, the domino effects in management also cause people to feel helpless and out of control to the extent that they do not feel responsible to take action on the local level.

7.3 How to Fill in These Gaps?

A school system containing districts and local schools with interrelated gaps that build on one another makes the solution complex. Thus a solution will not fill in the gaps with simply one measure. I propose to address the gaps in teacher in-service education and how to deal with the gap created at the micro level. Although this will involve actors at the meso and macro level, it does not depend completely upon them nor on what is contained in their gaps, addressed in this chapter and chapter 5. Though this acts as a band-aid for a larger wound, it is the beginning of a treatment.

Currently the Macro level is dealing with problems that arise from the “top down” as the representative from the teacher’s training college in Accra stated (Interview, 2006). Therefore, the other levels of the educational system in Ghana need to be addressed as well. Although this is not in the scope of my interest for this research, it would be profitable to the solution to the problem to continue to research. Other solutions to filling in the gaps include working on the meso level, addressing existing resources that are not being utilized and the cause of the disparity. What I found when asking the district office about resources and interest in having a teaching training facility was positive feedback and a great deal of interest. However, there was a disconnect between what they were saying and what was in implementation, mostly due to lack of funding or waiting for permission from the national level for approval.

“What managers have been missing so far is an understanding of the kinds of social structure that can take responsibility for fostering learning, developing competencies, and managing knowledge” (Wenger et al. 2002, p. 11).

8. Discussion

8.1 Introduction

In the previous chapters, I presented literature pertaining to teacher in-service education, a theory to apply the case study, the context of the research, methodology of the case study, data analysis, and summary of those aspects. In this chapter, I will apply the information presented to the case study and generalize the case study to a broader domain of situations. I will address the Communities of Practice that exist at School A, how CoPs can fill gaps at the micro level, and conclude with a generalization. Furthermore, I will point out the shortcomings of this thesis and areas for further research.

8.2 Current Communities of Practice at School A

As introduced in Chapter 6: *Presenting the Gaps*, the teachers at School A do talk to one another and have a type of community as a support system, with parameters and function. Wenger states in his book, *Communities of Practice: Learning, Meaning and Identity*, “Communities of Practice are everywhere” (1991, p. 6). As such, it is not a matter of establishing a community at School A. The question is determining the type of CoP that exists at School A, and whether that CoP can change into a CoP with the knowledge domain to train teachers.

8.2.1 Determining School A’s Type of Community of Practice

I hypothesize that the CoP at School A is a survival CoP. That is, the teachers support each other to survive the taxing gaps at the school, such as resources and payment. With a survival CoP, they focus not on working to *solve* the problem but to *survive* the problem. They learn how to handle the difficulties that the gaps produce,

rather than solving the problems and progressing as teachers and as school. The knowledge domain of a survival CoP has techniques, but they are not problem solving techniques or new innovations, nor are they practices that will operate using mentors in the sense of growth in a skill rather than working with confidants.

In the case of School A, certain obstacles create difficulty on the job and the teachers know about them before starting to work at School A. However, uncertainty about getting paid affects their teaching and attitude towards school, and this becomes a consistent topic of discussion. As Wenger states, within a CoP,

The fundamental principle is to connect and combine the diverse knowledgabilities that exist in a constellation of practices. The challenge of organizational design is thus not to find the one kind of knowledgability that subsumes all other, but on the contrary to coordinate multiple kinds of knowledgability into a process of organizational learning (1998, p.247).

Here Wenger comments that the organization of a CoP needs to incorporate a large domain of knowledge. Currently the domain of knowledge that is being utilized at School A includes:

- Teaching without consistent monetary benefits
- Lesson planning
- Limited Classroom management skills
- Limited subject knowledge

From the interviews and the observations, I conclude that the largest section in the knowledge domain is *how to survive teaching without consistent monetary benefits*. As reported in Chapter 6, in nearly every interview with the teachers the topic of payment was addressed, not initiated by myself but by the teachers. While the CoP employed at School A has a purpose for the teachers, it is a survival CoP, and so does not produce new knowledge or seek growth but relies on the containment of the experiences at the school and getting through the problems. This is a tactic that Wenger and others write to avoid being self-contained and only relying on knowledge from within the core CoP (1998). Brown and Duguid (2000) discuss the affects of not having crossover and exchange of information among CoPs, using the university institutions as examples. Observing that the history department does not

collaborate with the science department and often the physics department does not collaborate with chemistry, these CoPs miss out on further application of their individual knowledge domains by not branching out (Brown & Duguid, 2000, p. 35-36). The teachers at School A only talk with one another and do not consult outside schools, or use each other as resources in the area of teaching instruction. They are self-contained in their methods, which consist of surviving the circumstances, not expanding their knowledge domain.

8.2.2 What Gaps Need to be Addressed First?

To transform the current CoP at School A, a few issues must be addressed. The teachers' conditions as workers need to be altered so they can expect certain rights. Once these rights and needs are met by abolishing the obstacles at the school, minimizing reason for complaint about working conditions, then a CoP to refine the techniques of being a teacher can be established. This will not be solved right away, but is a process of getting rid of the constraints and unsatisfactory conditions.⁴⁶

8.3 Community of Practice as a Solution

Over and over again in interviews with the teachers they stated that when they bring a problem to another teacher that they are experiencing the other teacher has a similar problem yet they do not come up with a way to solve the problem. A CoP would provide a platform to finding solutions to these problems. As Nickols states, "innovation depends on people applying knowledge in ways that yield new solutions to old and new problems" (2003, p. 2). Implementing a CoP at School A can aid in filling the gaps at the micro level. The schools can start a CoP for their teachers until the TTC expands to encompass the rural areas with untrained teachers. Also, after extending the TTC network, the CoP can be an ongoing program in place that

⁴⁶ This will have to be to Ghanaian standards, for we cannot compare with other countries the standard until the country gets to that level. I will take the suggestions of those students from the university who have experience in the GES public sector as a point of reference for the standards.

communicates training needs in the field to institutions. The CoPs are a part of the solution, not the complete solution for the problems and the complex and intertwined gaps.

8.3.1 What Type of CoP?

The CoP generated by an outside sponsorship would bring together the untrained teachers with the mentor teachers, or experienced teachers. Due to the financial situation of School A, it will also need financial assistance in hiring an experienced-trained teacher, bringing in supervisors, or employing the DTST at the meso level to supervise the teachers and facilitate in-service training and discussion about teaching. A sponsorship CoP is important because the CoP School A has currently does not function outside of survival mode. Furthermore, the CoP within the government, at the meso level--at least the CoP on paper at the meso level--does not include the private sector. Therefore, schools in this sector must look elsewhere for affiliation and support.

Though a CoP, mentor teachers will be employed in a different capacity than the novice teacher, or untrained teacher, in the case of School A. Both parties will not be viewed as experts, as Fullera et al describe:

The process by which the established members of the community can also learn from newcomers is deliberately promoted here, but it happened in other departments as well. Students and young teachers are widely expected to have more skills in relation to computers and new technology that older teachers can learn from. ... The research also revealed a situation where at the same time, a teacher is both a newcomer and expected to be an expert. (2005, p.62)

The teachers at School A do not possess the knowledge of experts in their field according to Fullera et al.'s definition. While they do have experience, at least some, they do not possess training in many areas within education.

8.3.2 Roles at School A

As discussed earlier, there is a CoP currently at School A which could implement the idea of CoP as a mode to train the teachers. To start the CoP a

sponsorship is required in the form of an NGO, in addition to School A's PTA, to promote the CoP's goal of training teachers. The members of the CoP will consist of the untrained-teachers at School A and mentor teachers. Guided discussions and in-service information facilitated by from a member from the DTST, or retired teacher. The practice leader will emerge from the group of teachers.

The headmaster of School A needs to recognize the skills the teachers and community possess to help foster the spread of that knowledge. As Brown and Duguid state, "First, managers need to learn what local knowledge exists. Then if the knowledge looks valuable, they need to put it into wider circulation" (2000, p. 76). The headmaster's role in the CoP depends on him observing the teachers, discussing with them, and listening to their classroom needs, in relationship to methods used and classroom management. It will be a challenge to create the kind of environment Brown and Duguid describe, where

New knowledge is continuously being produced and developed in the different communities of practice throughout an organization. The challenge occurs in evaluating it and moving it. ... Moreover, because moving knowledge between communities and synthesizing it takes a great deal of work, deciding what to invest time and effort in as well as determining what to act upon is a critical task for management. (2000, p. 35-36)

The formation of the CoP will not take place overnight, but will be a process and a learning process for those members involved. The teachers, headmaster, NGO, PTA, and members from the DTST as well as other school officials will make up the core and the peripheral members of the CoP. Getting it coordinated and operating will take time, but is not an impossible undertaking.

8.3.3 Goals of the Community of Practice

The goals of the CoP at School A are to train teachers while on-the-job, improve teaching techniques, and fill in the gaps of the knowledge. An additional goal includes fostering an environment where the teachers view each other as resources. This would help the teachers work more as a team, create a better work

atmosphere, and help combat the brain drain. If the teachers feel they are an integral part of the school, as they contribute and aid their colleagues' development as well as the students', they will less likely leave the area. As Nickols states, the CoP creates an environment that is "stimulating interaction, fostering learning, creating new knowledge and identifying and sharing best practices" (2003, p. 4). This is what the teachers should be teaching out of the support that they are getting and creating new knowledge with colleagues.⁴⁷

In order for these results to take place, however, certain gaps must be addressed first. Otherwise the training and the CoP will not prosper or give the results that are desired. Due to the amount of gaps occurring at School A, the first resource gap that needs to be addressed is the payment gap. If the teachers feel supported in their field as professionals yet do not receive money that they need to survive, professional support will only help to a certain extent and will not alone keep a teacher working at the school. Another resource gap that needs to be addressed prior to the establishment of a CoP is that of materials at the school. The teachers need the proper materials to prepare lessons and administer them. If the supplies and payment are not available, it becomes difficult for the untrained to teach and work at the school.

8.4 Generalization

The CoP theory as a form of on-the-job training or in-service training for teachers can be generalized not only in circumstances with untrained teachers in rural areas of developing countries, but to teachers regardless of their educational background and area of the world. The CoP provides an informal environment for teachers to address concerns, draw upon other teachers' experience and knowledge domain. Hiebert and Stigler give an example of a CoP in Japan among mathematics teachers in junior secondary school (1999). The teachers worked as a team to refine lessons plans over the years through discussion and action. That CoP focused on

⁴⁷ See Appendix H for more examples of the benefits of the CoP for School A.

developing a curriculum and lesson plans among a group of teachers. A similar CoP could be applied to train teachers and continue teacher in-service training. Having a CoP of teachers with administrators will help the communication and also make the training more practical and applicable to the teachers themselves.

8.5 Gaps in This Paper and Research

My research does not provide a definitive answer to the gaps that I identified in the case study at the micro, meso, and macro levels in the area of teacher training. The solution that I present in CoPs implies that other resources need to be in place, or at least worked upon. If those resources are not present the hypothesis of Communities of Practice to assist a solution becomes obsolete. The CoP's functionality becomes threatened without the resources of mentor teachers, sponsors, and supervisors, as well as the desire on the part of the teachers.

Filling in the gaps within my research requires another case study or research trip to Ghana for an extended period of time. The post study would include observing and interviewing people within the education system and the areas in which the gaps occur. It would benefit to my research to take a case of a school⁴⁸ in southern Ghana and interview the teachers regarding the achievement of qualified teachers. Another possibility would be to observe the operations of the DTST, attend a training session that they provide to analyze how they train, and assess teachers on-the-job and the receptiveness of the teachers to the training. Within those observations and follow-up visits, I could interact and observe any possible CoP formations resulting from the atmosphere the DTST generates.

The gaps in my resources caused limitations in my interviewing process. Due to language barriers, some of my interviews were not consistent and had leading

⁴⁸ A school with trained teachers that interact with each other about methods of teaching; also a school that which a majority of the teachers have been teaching consistently.

questions and deviated from the interview guide. Also, due to language and my accent I had to change some wording and flow of the questions for context in the interviews. The use of an interpreter to translate the questions or interviews would assist with data collection as well. This would prevent discrepancies in the interviews, and guarantee a larger percentage of my interview guide would be covered in the interviews.

Another hole in my research was a result of the teachers in the public sector on striking for more pay. The strike lasted more than two months during the time I was in Ghana. This limited my access to more of the context at the micro level.

During my research I asked for paper resources to bring back to Norway. However, the limited resources did not provide current information on teacher education in Ghana, so I relied on interviews as a mode of extracting information.

Appendix A

Human Subject Interview Descriptions

Location	Interviewees	Description
Accra	Secretary General of Education	Director of Education and the UNESCO TITTSA program that is now established in Ghana.
Accra	Teacher Training College Director	Gave background information of teacher education and the possibilities that exist for untrained teachers.
Accra	Director of Curriculum University Professor	An American that has been involved with education in Ghana for over 40 years. He is an educator and provided insight on how Ghanaians learn as well as the progress of their education system.
Accra	University Student 1	Spent 5 weeks in Damongo helping at school A, teaching and giving in-service programs for the teachers. Currently a seminary student; a former headmaster for eight years.
Accra	University Student 2	Spent 5 weeks in Damongo helping at School A, teaching and helping teachers. Currently a seminary student; background in administration.
Accra	University Student 3	Spent 5 weeks in Damongo helping at School A, teaching and helping teachers. Currently a seminary student; background as a trained primary teacher.
Accra	University Student 4	Spent 5 weeks in Damongo helping at School A, teaching and helping teachers. Currently a seminary student; background in art.
Damongo	Director of Education West Gonja District	We discussed the situation of teachers in the West Gonja district and the problem the district is experiencing with training.

Damongo	Public Relations West Gonja District	He was present at the interview with the Director of Education.
Damongo	Human Resources Director	
Damongo	Group interview with District Teacher Support Team (DTST) (9 members present)	The team of teachers that travel to and support teachers in the schools around the district.
Damongo	School Manager of School B	A school manager who was organizing a teacher in-service education course using the DTST. The school was previously a private school, and became a public school.
Damongo	Education Official for Adult Education	A trained teacher who has worked with various levels of education. Has experience with School A and knows the school headmaster.
Damongo	Headmaster of School A	The headmaster is trained as a pastor and has experience as a manager, but no formal training or training as a teacher.
Damongo	Teacher 1	Teaches Primary 1, and previously taught in the nursery. No formal training.
Damongo	Teacher 2	Teaches Primary 2; started at the school in September 2006. Completed Senior Secondary school in 2006; waiting for exam results.
Damongo	Teacher 3	Teaches Primary 3. Has taught at the school for three years; has a Senior Secondary School.
Damongo	Teacher 4	Teaches Primary 4 and is filling in for another teacher that is taking exams. Has a Senior Secondary education and has taught night classes for siblings.
Damongo	Teacher 5	Teaches Primary 5. Completed secondary school and technical training school. First year teaching at School A; taught at another private school for two years.
Damongo	Teacher 6	Teaches Primary 6. Has completed Senior Secondary school; wants to continue education. Has taught at School A for four years, and taught in the government sector

		in Junior Secondary school for two years.
Damongo	Teacher 7	Teaches in the nursery; has been at the school for 5 years. Has a secondary education, and some teacher seminars.
Damongo	Teacher 8	Teaches in the nursery for KG2, and has been at School A for six years. Attended an 8-week training course.
Damongo	Teacher 9	Teaches in KG1 and has been at the school for six months. Has not completed senior secondary education.

Appendix B

Teacher interview scheme

Name:

Years of teaching:

Training:

Describe your typical day of teaching:

How did you learn to teach? Did anyone help you? If so, who?

How are you improving your techniques?

Describe a lesson that is successful to you:

What do you think the administration at the school could do to help you more?

Appendix C

Research Journal entry

Oct 10th, 2006

Accra, Ghana

Agenda:

- Meet Secretary General of National Commission at the ministry of education in Accra, Ghana- Mrs. Charity Amamo
- Speak with Victor ___ at the Teacher Education College, Accra
- Go to Metro Office for education, Accra District office

Overall impressions of day of research:

I started at one place: at the National Commission to speak with the Secretary General about the TISSA project in Ghana. She was helpful in sending me elsewhere; however, the man to whom she sent me still did not address my questions of how TISSA is affecting teacher training. He just gave the synopsis of what has been occurring in past 5 years since the millennium goals. I did come into contact with one man who wanted to see a formal letter of research before I interviewed him, so he could know what information I would be looking for and what I would like to speak with him about. I had no such letter, so I needed to come back with that in November when I return from Damongo. He also questioned why I needed to speak with him since he is dealing with the district of Accra.

Meeting with Secretary General

She went over the history of UNESCO with Ghana, saying that it began with the Millennium goals in 2000, which need to be achieved by 2015; UNESCO is in charge of seeing that through. The two goals that she focused on were:

Quality Education

Education For All (EFA)

TTISSA came out of the UNESCO conference in 2005, where countries from Sub-Saharan area met; the conference focused on a fast-track initiative to achieve quality of education in the countries. Other “richer” countries had the opportunity to sponsor at risk countries.

Teachers’ education comes under the quality education goal. The quality of education is dependent on the teachers’ education and ability to instruct the students. It is integral in the education process, and the need to serve teachers is not dependent on technology. If they increase the quality of education and the teachers, the quality of the students and the results will improve.

Ghana saw that there were gaps in the education system and education of their teachers. They made an appeal to UNESCO, and through Japanese funds, money was given in 2004 for teacher education. This also provided for training teachers to train other teachers. Ghana made another appeal for Sub-Saharan Africa in EFA in October 2005, at the UNESCO conference.

National Coordinator for Education is the link between UNESCO and the National Council. Ghana is among the 17 countries in which the TTISSA project is piloted starting in August, 2006.

Charity Amamo directed me to speak with the Teacher Education College.

Otherwise, all her comments were rather general and did not detail how teacher in-service education is being effected in Ghana, and what will be done with the teachers that are already in the field.

Teacher Education College- Victor

A very helpful conversation: he spoke about the teacher training and gave a basic run-down of the system and those areas that they are working on and observing, as well as improving. There does seem to be a gap into which private schools fall. It seems that the case of Damongo is not uncommon for the area, in that there is no teachers' college that is close.

He made an interesting and significant comment about training. They envision need-based training as a way to get the teachers to attend and make it more relevant to what they are doing. They have trouble getting people to attend in-service training, since there is no institute for continued education or in-service education.

Questions that came out of the day:

- How does TISSA fit with the projects that have already been started in Ghana?
 - Where do the private schools fit in?
 - Any regulation of private schools?
 - What is JICA?
 - What will happen in Secondary School?
 - I should pick an area to focus on; possibly primary school
- What is the school plan at New Life?

Appendix D

Coded interview

Interviewer, Amanda
Riske

Teacher 4

How did you, um how did you get any type of training before you started here?

Yeah, because at the time I was at SSS, I do help my junior sisters and brothers. And my juniors they do come to me so that I always help them and when I am on holidays, even when completed, I went back to my former school and I was there helping them. I was there teaching some subjects in that school HP-EXP. So that is how I started teaching.

Ok, what do you want to do? Do you want to continue teaching?

Yeah I would like to continue if only I get the chance, because I am ready to help my brothers and my sister.

Do you have any other training besides working with your brother and sisters?

Yeah, because I organize classes in the house they do come to me in the house at time in the night, and I will just discuss some questions and work some with them HP-EXP.

How have you learned to teach them? You are teaching them; how have you learned to teach?

Ok, I learned this teaching through my teachers, because any time my teachers entered the class I always observe how they teach HP-OBS. So I also copy how they teach and they start, and that is also why I was also trying it when I was at SSS.

Um, the teachers that you had in JSS and secondary school; do

Yeah I think of them because I learned a lot from them. So I hope to think of them everyday because they

you think of them while you teach?

helped me to even get to SSS. So I have to think of them and I will always be thinking of them because of what they have taught me.

Do you talk with the other teachers about teaching?

Yeah I talk about [it with] them. TC-YES. At lunch at times we sit and just discuss some small things and even the time I was helping my former school TC-CONC, the headmaster would come and sit down and just watch the teaching and we would go and discuss to know things about the teaching.

What; give me an example of things that you discussed with that teacher?

At times we would go over the way I would express myself to the class at times they would ask me to increase HP-MENTOR or at time they would tell me, oh it is ok with this and this and this and what you are doing is ok, and at time they would guide me to do more to increase my ability.

How did you find that? How did you find that, was that was it good, was it bad? Tell me your feelings about that experience.

I always liked that because at times I would be teaching and maybe something small may be wrong. So when they come out and tell you that if you teach to this level maybe you allow the students to also So I, so I learned a lot and I do always what they tell me to do.

Describes some tips that he was given.

Tell me your opinion on teachers; there are a lot of untrained teachers in Ghana, correct? And they, some of them get trained while they are teaching. Do you know of any of this or do you have an opinion on that?

At times you will be in school and some officers will come EV-OUT to the school and they will gather you to teach you something about the teaching class TT-OUT. We last had some in the class because at times they would just come. Someone would just come and gather you, teach you TT-REV or remind you about something else. ...

He really does not answer the question here but does talk about adding knowledge to teachers and that they need to be reminded of what they have learned... what happens if they have not really learned anything?

Do you see that as something good for the teachers or not?

Yeah, yeah it is good. TT-+ Because at times you can be learning and doing things a certain time but not all the time, so they will come and remind you to go all over the place. If you are in that place you will see that it will be ok for you but those who are not in that place you see they will try to go to that place and act what they are.

Ok, Do you want to go on to teacher training?

Yeah, yeah, I want to go; I want that.

What is the career that you want to do?

Yeah, right now I am still learning how to continue my education; either to get to a training college or a university to continue my education TT-+.

What do you want to study in the university?

Ok, I was offered agric, so if I get there I will I will be happy if I can continue this agric aspect. But if I get to training college I will just learn how to teach and get the quality of teaching and come out and help others teach.

Responsibilities of the proprietor for teacher training.

Ok, as for this one I think I have more knowledge about it because I have been to that place, I have not got to that place because I have not much of an idea about it.

Is there anything you want to add about how you have learned to teach?

... those that just completed SSS and are here trying to get something small small we would like maybe if only, although you will get your papers, if they are good you will go to school, ... get somebody's attention and they just advise you to take some advice so that you will be able to go to school. Complete it and come back and also do what you are

suppose to do at the end the training college or the MOT-MENTOR.

What do you mean by advice?

You can get someone, maybe an elderly person or even anyone can come out and help you or send you ...so if we get such people who can help you or advise you in education serious in education that would be good for also, also to benefit from that MOT-MENTOR.

One last question: what do you think the situation of teachers is to work here for a teacher? What do you think the situation is like?

Ok, I do not come here for long, but I see it to encourage or to improve the teaching. The teachers have to get what they are supposed to be given in a month; this is their pay, MOT-\$ so if you encourage them in that way I think that the teaching will increase and if you help them, because this is a help the teachers then they will be happy and give out all the necessary things for the students in this school I hope that will will help them a lot.

Appendix E

Coding Interviews Scheme

	Headmaster's role	Code
HM:	School Fees	HM-SFee
HM	Responsible for fees	HM-Res-SFee
HM	Not Responsible for fees	HM-Non-SFee
HM	Training new teachers	
HM	Headmaster trains the teachers	HM-TT-HS
HM	Delegates other teachers to help the new teachers	HM-TT-Del
HM	Funding teacher training	HM-TT-\$
HM	Bringing in people to train teachers	HM-TT-Out
HM	Checking on teacher to see if they are doing their job	HM-check
HM	Headmaster trains new teachers	HM-TT-1st
HM	Teacher training materials	HM-TT-MT
HM	Evaluating the teachers	HM-EVAL

Materials

MT	Classrooms-structure	MT-ClasS
MT	Cleaniness	MT-ClasC
MT	Desks	MT-ClasD
MT	Books	MT-Bok
MT	Materials related to lesson	MT-Less
MT	Water	MT-Wat

Teacher communication

TC	Yes they talk	TC-Yes
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TC	Corrections	TC-Cor
TC	Cover Lessons	TC-Sub
TC	Cover lessons when absent	TC-Sub-Ab
TC	Cover class when out of the room	TC-Sub-Out
TC	Concerns about teaching	TC-Conc
TC	Resource	TC-Res
TC	For new teachers at school	TC-Res-New
TC	Supervising teacher	TC-Sup
TC	Teachers being evaluated	TC-Eval

View of teacher training

TT	Satisfied with what they have	TT-Sat
TT	Want more training	TT+
TT	Don't want teacher training	TT-No
TT	Want training with another profession	TT-NoDiff
TT	Materials	TT-MT
TT	Refresher course	TT-Rev

View of themselves (teachers) as professionals

VP	Similar to trained teachers	VP-Sim
VP	Lacking certain skills	VP-Lack
VP	No difference	VP-Same
VP	Better than trained teachers	VP-BTR

Methods of teaching

Meth	Reflective	Meth-ref
Meth	Past teachers' methods	Meth-PosPas
Meth	Opposite of past- teachers	Meth-NegPas
Meth	Using materials	Meth-Mat
Meth	Lecture	Meth-lect

Meth	Practical	Meth-Prac
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What has helped

HP	Colleagues	HP-Col
HP	Positive experiences when they were students	HP-PosP
HP	Negative experiences	HP-NegP
HP	Training	HP-TT
HP	Suggestions from colleagues	HP-Col-Sug
HP	In-service training	HP-InST
HP	Training from headmaster	HP-TrHM
HP	Past Experiences	HP-Exp
HP	Mentors	HP-mentor

Motivation

Mot	Motivation of the teachers	Mot-Teac
Mot	Motivating factors	Mot-fac
Mot	Money	Mot-\$
Mot	Gifts	Mot-gift
Mot	Training	Mot-TT
Mot	Visitors	Mot-Vis

Reasons for teaching

WHY	Wanting to teach	WHY-LUV
WHY	Waiting for results of an exam	WHY-WAIT
WHY	Need a job and will leave tomorrow if a better job comes along	WHY-JOB
WHY	Wanting to teach, but more education	WHY-LUV-+

Evaluation

EV	Outside supervisor from education office	EV-OUT
EV	Done by headmaster	EV-HM
EV	Done by teachers	EV-TA

EV	Evaluation of the lesson plans	EV-OUT-LP
EV	Parents evaluating the school	EV-RENTS

Appendix F

Observation of Teacher 3

40 students

Second year of teaching this level for the teacher

Sees change from last year in environment of the school and teaching; feels that he has improved as a teacher and so have the students; comprehension is up

This is due to giving less work ****he feels**** and feels that they are able to retain more

Asked about classroom management and talking with other teachers, they do not comment

Also talking with T2 teacher about classroom management says the other teachers have similar problems but do not have suggestions for one another

Class starts after break, working on mathematics

Class starts after break 1030 when bell rings, teacher starts class at 1035

Subtraction and dealing with place value

Correction in vocabulary using “take away” corrects to “minus”

Calls on a student that was not paying attention; says that he will call on those that are not paying attention (this is some crowd control)

The student’s answer is incorrect and he explains why the answer is wrong then goes to another student

He does not probe the student that answered incorrectly

The students are calling out to be called on “sir please me, sir please”

When showing borrowing in the mathematics problem he does not cross out the number but has the student remember combining addition and subtraction

Write on the board from the book

Students talk and copy from the board

Says, keep quiet

**Overall this teacher has a very soft voice, I am amazed that the students are able to understand what he is saying and able to keep their attention

**He also talked about assessment of students so he can tell that they comprehend:

asks the student to explain in more than one way what they are doing

correction of vocabulary with the students

Is there a common vocab that you are teaching the students at the school?

Do the teachers know common expectation in each grade?

Asks for students' understanding and that he will explain if the students do not understand

Student explains borrowing then teacher reconfirms and explains what he says

701

Ex. $\underline{-269}$ borrowing from the zero then 7 which is the hundreds

Goes back and forth between

$$\begin{array}{r}
 432 \\
 + 269 \\
 \hline
 701
 \end{array}
 \qquad
 \begin{array}{r}
 7 \ 0 \ 1 \\
 - 432 \\
 \hline
 269
 \end{array}
 \qquad
 \begin{array}{r}
 7 \ 0 \ 1 \\
 - 269 \\
 \hline
 432
 \end{array}$$

There is not discussion between the adding and subtracting; small talk, but only points out that the numbers are the same -- not why

Calls on student that is not paying attention

Give example to work on

What homework do the students get if any?

Do they have their own math books?

What happens in JSS?

All students have a book and when introducing a lesson

Students have books and do receive homework

Gonja not taught at school though required at JSS and SSS level; says that people like that about this school **school proprietor as well as teachers** May introduce Gonja in 4,5,6 primary

Thinks local language will bring about confusion with the students and English

I had to go to a meeting so I was not there continuously

Back at 12:00

Student doing corrections on math; students answering a question probe the student; many students are correcting her while she is speaking and trying to answer the questions.

Students bring up corrections that they have made in their books to the teacher -- to check student -- while teacher corrects

Students collect books from a pile in the front

Good behavior is rewarded- gets them out of the teach to move

Bad takes a while to get the class back in order

English is the subject

Student said

“Ali played at 6 o’clock”

This was said to be wrong and said that “drunk” was the correct verb that was to fit in the blank

Appendix G

Level of Interviews and Types of Sources

	Location	Interviewees	Type of data
Macro Level	Accra	Secretary General of Education	Primary and Secondary information on Ghana's system
	Accra	Teacher Training College Director	Primary
	Accra	Director of Curriculum University Professor	Primary and Secondary information about culture of learning in Ghana
Meso Level	Damongo	Officers at District Education Office for West Gonja	Primary
	Damongo	Group interview with District Teacher Support Team (DTST)	Primary
	Damongo	School Manager of School B	Primary
Micro Level	Damongo	Education official for Adult Education	Primary
	Damongo	Headmaster of School A	Primary
	Damongo	Teachers at School A	Primary
	Accra	University students	Primary

Appendix H

Benefits for of CoP Untrained Teachers and Schools

Modification of Table 3.4.1, (Wenger et al. 2002, p. 16)

	Short-Term Value	Long-Term Value
	Improve schooling outcomes	Develop organizational capabilities
Benefits to the School	<ul style="list-style-type: none"> • Arena for problem solving and discussing school issues • Improved quality of teaching • More perspectives on problems 	<ul style="list-style-type: none"> • Ability to execute a strategic plan • Increased retention of teachers • Knowledge-based alliances among teachers • Having a built in training for new teachers at the school and program outlined
	Improve Experience of Work	Foster Professional Development
Benefits to Community Members/ untrained teachers	<ul style="list-style-type: none"> • Help with challenges in the classroom • Better able to contribute to team • Confidence in one's approach to problems • Fun of being with colleagues • More meaningful participation • Sense of belonging to the school 	<ul style="list-style-type: none"> • Forum for expanding skills and expertise • Network for keeping abreast of a field • Increased knowledge base • Increased preparation for passing entrance exams for training colleges • Strong sense of professional identity
Benefits to mentors and	<ul style="list-style-type: none"> • Feeling valued at the school for experience and what they can contribute 	<ul style="list-style-type: none"> • Reflecting upon their own teaching • Ability to use the skills they were

DTST

- **The DTST will gain more experience due to a school using their expertise**

trained in, as well as evaluate their training

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