

# **What teachers learn during the first years of teaching: The Perspective of a Group of Puerto Rican Teachers**

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## **Introduction**

This paper is about a group of teachers as they embark on the journey of teaching and their search for the meaning of teaching. It also deals with my own endeavor to understand what this experience means in the development of a teacher. This is not an attempt to express all there is to say about the first years of teaching, but rather to explore possible themes and ideas that recur in the experience of the novice.

This work focuses on those aspects which best describe the discoveries made during their first years of teaching. There are various reasons why I have selected this point of view. First, I believe that the teacher's induction period is characterized by learning. Second, a great number of the studies about beginning teachers have revealed a somber and limited picture of them, depicting only the negative side of such an experience. Third, very few studies have focused on the area of teacher's learning, and only a handful of them have used ethnographic methods to study this phenomenon. Avalos (1985) supports this fact when she mentions that "only recently have studies within the phenomenological and ethnographic perspective have begun to document classroom life, to examine the ways in which teachers conceive their teaching and see their pupils, and to look at what shapes their views, their decision making, and their efforts to change".

Finally, as far as I can determine, no studies have been done of Puerto Rican trainee teachers and only a few have been done in other cultural settings outside

the United States. This study about beginning teachers has been carried out within the context of a Caribbean, bilingual culture (by this I mean a country which has become part of the industrialized world through its political relation to the United States). Due to this relationship, the models of education followed in Puerto Rico are similar to the ones found in the United States, nevertheless teaching is also immersed in Hispanic traditions. This cultural duality is present in particular at the University of Puerto Rico Teacher Education program, from where the teachers participating in this project graduated. For this reason the circumstances that surround these Puerto Rican beginning teachers are similar to the ones that surround American teachers, especially urban teachers working with diverse student populations. This study contributes most to the literature about beginning teachers in the two latter areas.

The intention behind this work is not to look for evidence to confirm or disconfirm what is already known, but to contribute to the understanding of the experience from the perspective of the teachers' learning, and thus understand the role of the first years of work as the teachers develop and come to understand teaching. In summary, the aim of this paper is to capture, through the different discoveries made in the first years of teaching, the learning experience of the novice.

### **Discussion of the literature**

The literature reviewed on the subject of the beginning teacher has focused mostly on the problems that the novice faces in the first years of work. The various research projects, books, and articles that were examined can be categorized in four main areas: 1) identification of the problems confronted by the novice, 2) changes in attitude and behavior, 3) narratives of personal accounts, often followed by an interpretative essay, and 4) a few other writings can fall under

the categories of prescription for the new teacher and recommendations for dealing with the problems that beginning teachers confront. These four categories will be briefly discussed here.

### Identification of the problems confronted by the novice

Much of the literature seems to emphasize this area. The neophyte is presented as confronting a series of problems during the inductive years. The new teacher appears to be at the mercy of these difficulties, without any power to control them. Some of the problems seem to stem from circumstances the teachers find in the school environment, while others result from the pressures of work.

Ruggles (1980) presents the idea that as the neophyte is confronted with the circumstances of teaching, he/she soon realizes the possibility of failure and becomes disillusioned with the profession. This may be one reason why so many teachers "burn out" so quickly. One wonders then, what circumstances can so rapidly dissipate a teacher's ideals and dreams. The findings of Houston and Ferder (1982), Vonk (1983), and Dunleavy (1983) reveal a long list of problems that seem to shape the environments of new teachers. A few of the many difficulties mentioned are lack of knowledge of the contents of learning materials; inability to organize teaching and learning activities; the incapacity to deal with unmotivated students; little knowledge of classroom management and planning; and lack of skills to deal with the expectations of principals, fellow teachers, and parents. The lack of skills combined with the problems encountered in the schools have led some researchers to conclude not only that the first years of teaching are "difficult, complex, and traumatic", but also that the new teachers are incapable of providing the students with high-quality instruction (Houston and Felder, 1982, p. 460).

In general, not only do the teachers become disillusioned with their profession when faced with all these major problems; it also appears that the training programs have failed to give them the necessary skills to function as professionals. Contrasting with this view is the research done by Jordell (1985) in Norway. He looked at the different kinds of problems confronted by novices and more experienced teachers, and found that both beginning and more experienced teachers have similar difficulties. The "only major problem that beginning teachers seem to perceive as a greater problem than their more experienced colleagues is that of maintaining discipline with individual pupils" (Jordell, 1983, p. 188). This finding makes one question the validity of the conclusion that beginning teachers face special and unique problems.

### Changes in attitude and behavior

Not only are new teachers portrayed as confronting innumerable problems, but they are also described as undergoing a series of changes in their attitudes and behavior during the first years of teaching. Some claim that novices shift from liberal attitudes and behavior toward a more traditional and custodial concern with pupil control (Hoy, 1968; McArthur, 1980); and their teaching perspective shifts from progressive to more conventional (Hanson and Herrington, 1976; Wells, 1984).

Other researchers perceive the attitudes and behavior of the beginning teacher as changing from less assured to increasingly confident (Johnston, 1981; 1982; Griffin, 1983). Still another group of researchers who challenge these positions and claim that changes in the attitudes and behavior of beginning teachers are idiosyncratic and not so easily influenced by the school system and the induction period (Power, 1981; Zeichner and Tabachnick, 1983, 1985; Hogben and Lawson, 1984).

Under this category, related to the changes in attitudes and behavior of the neophyte, one can also find studies claiming that teacher behavior is shaped by the social system of the school (O'Rourke, 1983) and that teacher training has little influence on teacher behavior and attitudes. Factors such as the school's formal and informal power structures, the instructional system with its curriculum requirements and restraints, and the nature of the pupil population with its variety of pupil attitudes and abilities are directly seen as affecting the teachers' behavior. The school experience is perceived as "washing out" the impact of teacher training (Veerman, 1984).

From these findings we cannot automatically draw conclusions, implications, or even blame the teacher training programs for being incapable of successfully preparing teachers. Although the findings are being shaped somewhat by the mirror one uses to look at the experience. One also needs to consider that most of these studies have used quantitative methods, that there are some weaknesses in the methodology used (Veerman, 1984), and that many of the investigations have looked at different parts of the experience without trying to describe the first years of teaching from a holistic perspective.

### Narratives of personal accounts

This category contains fewer works but the findings point to similar conclusions as those discussed in the previous categories. A unique aspect that the narratives add to the literature is their contribution to our understanding of the new teachers' experience. For example, Ryan (1979, 1980) tries to look at the new teacher's experience from a different, more holistic point of view. The detailed accounts presented in his book communicates the richness of the teacher's experience, giving the reader an opportunity to savor the complexity of the

inductive period. His conclusion is disappointing, however, because once again a long list of the new teacher's difficulties is produced and very little attention is given to the learning that is happening.

The merits of these accounts lie in the realism they present, capturing the excitement and woes of the first years of teaching. The wide variety of experiences among the different teachers studied support the fact that the research done up to now is inconclusive. Besides, the focus of the investigations has centralized on "the typical American teacher" as the object of study. Very little attention has been placed on the experience of teachers in other cultural settings or on teaching as the subject of study. Thus, one sees the need for more ethnographic research in the United States mainland and other cultural settings in order to understand the experience.

#### Other writings related to the experience of the first years of teaching

The writings that fall under this last category take for granted that the first years of teaching are problematic. The main concern is offering advice and possible solutions to innumerable problems faced by teachers. They speak of ways in which beginning teachers can cope with the difficulties they face (Gray, 1968) and promote different ways in which the student teacher can prepare for the years of induction. Among these are books that present a recollection of anecdotes with questions to help the teacher reflect upon the experience (Krajewski, 1979). Suggestions are also given on how to plan a better induction period, alleviating the problems that characterize the first years of teaching.

Such alternatives range from extending the years of study to incorporating special programs that would provide orientation and support to new teachers in their first

years of teaching (Bents and Howey, 1979; National Education Association of the United States, 1966).

The advice and the solutions are sometimes contradictory, but most importantly, in various ways they all attribute the training as failing to give a complete professional preparation. Interestingly, the solution of expanding the years of training is suggested more often than integrating real teaching experiences into the programs. I believe that the reason for these contradictions and the limited alternatives presented lies in the researchers' tendency to treat the symptoms rather than the real cause of the problem.

Reviewing the literature, one is left with the dreadful picture of the novice as being a powerless figure. The neophyte is slowly transformed from a person full of ideals, eager to learn, and engaged in the act of teaching to a teacher who has lost all of the personal power to control his or her destiny. This view of the teacher implies, in turn, that during the first years of teaching the individual slowly submits and succumbs to the invisible forces of the school system; contributing nothing to the field of education.

If one accepts this position, one also accepts that teacher training has failed to educate individuals as leaders who can be agents of change in our society. This position denies that education can liberate and empower individuals. It fails to recognize that although teachers are responsible to pass on what is known in order to preserve the culture, they also contribute to the transformation of society by improving the principles and ideals basic to our civilization. Israel Scheffler (1973) best justifies the function of education in our society, and thus the role of the teacher:

To recognize, ..., that the responsibility of education is not only to serve but also to criticize, enlighten, and create--that its job is not only to provide persons with techniques but, more importantly, to provide techniques with critical, informed and humane persons--is to realize that it has its own dignity and its own direction to follow. Its primary task is not to be relevant but to help form a society in which its ideals of free inquiry and rationality shall themselves have become chief touchstones of relevance. (Scheffler, 1973, p. 135)

The question now is how one best portrays the reality of the new teacher, retaining the important functions of such individuals in the process of education. In order to do justice to those teachers who have embarked on the mission of preserving and advancing the beliefs and principles of our culture, I studied the phenomenon of the beginning teacher from the perspective of their learning rather than from their difficulties. This perspective, will contribute to a better understanding of the first years of teaching, the role that this experience plays in the development of the teacher, and to infer possible implications for teacher training and further research.

### **Research Question**

As a neophyte myself in the area of research I began my study with a vague focus. I wanted to know how teachers develop their understanding of teaching, what they learn when immersed in practice, and what they make out of these discoveries. By asking these questions I expected to look at the experience of the new teachers from their own point of view. It gave me the opportunity to test the idea that the first years of teaching are characterized by discovery and learning, rather than focusing only on the traditional view that characterize those years as problem years for the teacher as well as for the schools.



My understanding about learning is based on Duckworth's (1983, 1986) beliefs about teaching and learning. Her ideas, based on Piaget's theories, propose first, that "people must construct their own knowledge and must assimilate experience in ways that make sense to them" (1986, p. 481). Second, she proposes, as a prerequisite to constructing one's own knowledge, providing a setting which suggests unexpected ideas and engages the learner in such a way that he/she continues to think and seek more knowledge about the area being studied. The key concept here is experiencing rather than learning from conventional methods of teaching. Third, Duckworth (1979) states that in order to pass to a new level of understanding the individual must be able to recognize and acknowledge the inadequacies of his or her own thoughts.

In terms of my understanding of learning, and from this perspective, I see experience, reflection, and conflict as three important elements in the acquisition of knowledge. Experience allows the individual to live or go through new and different situations than those known. Reflection is the mechanism that helps the individual analyze the new situation and perceive the elements that do not fit with the ideas one has about the phenomena. Conflict is the product of the contraposition of our ideas and the new situations. Acknowledging that certain elements do not fit with one's own present ideas, and accepting that our ideas run into conflict with what is being experienced, leads the individual to experiment. Thus, as one explores possible solutions, the situation is perceived from a new perspective, where other people's ideas become useful in the search for possible solutions. In this way one begins to connect ideas and elements in ways that one had not thought of before. Thus, in this manner ideas are transformed and a deeper understanding of the phenomena is reached.

When learning is viewed from this perspective, it is considered a constructive process, one which follows an evolutionary path. It is a process that does not occur in a vacuum, it requires prior knowledge. Ideas are perceived as transforming elements. Experiencing new situations, reflecting, and the desire to resolve the conflict created by contraposing the prior knowledge and the new situations are the catalysts that promote the transformation of our understanding.

These ideas about learning, although not completely clear to me, were the reasons why I began to look at the experience of the novice from the learning perspective. It appeared to me, being once a beginning teacher myself, that the problems that researchers so much discussed in the literature could be explained from another point of view. These problems seemed to be more like the symptoms of learning, the result of a struggle everyone goes through when trying to make sense out of a new situation. If this were so, I thought, why not ask the teachers what they learn in the first years of teaching? The answer to this question would not only help me understand what the experience of the novice is all about, but it would also provide evidence to sustain the idea that learning does happen in the first years of teaching. In search for an answer to the question, what do teachers learn during the first years of teaching, I interviewed and observed a group of teachers following the procedures which will be discussed in the next section.

### **Research Procedures**

The research question, although broad and general, provided certain parameters that were helpful in defining the characteristics of the participants. I looked for both male and female teachers who work in the private and public school system in Puerto Rico in different grade levels, who teach different subject matters; and who were considered, if possible, good teachers by their university supervisor. In the literature on beginning teachers the term 'beginning' is used

when speaking about teachers in the first, second, and third year of teaching, each of which I decided to include in the group of participant teachers. Since information on what they had learned could be missed by those teachers who were immersed in their first months of teaching, additional insight was provided by those who had completed the first and second years.

I contacted a colleague, who supervises student teachers at the University of Puerto Rico (UPR) and asked her help in finding possible candidates for the project. After many telephone conversations and an exchange of letters, she prepared a list of twenty possible participants. The list was prepared taking into consideration the criteria specified above. Due to the geographical distance between Boston and Puerto Rico, I had a UPR professor explain the project to the teachers and their school principals, and negotiate my entry into the schools. Out of the list of twenty candidates only ten teachers volunteered to be interviewed and observed while working in their classrooms. The main reason given by those who did not participate in the project was that they thought the school in which they worked would not agree to have outside visitors or videotaping (a data collection measure I thought I could possibly use, but later decided not to use as part of this exploratory project) in their classroom. Only one male teacher was contacted, but this did not worry me, for it accurately reflects the ratio of male to female teachers in a country where teaching is seen as a profession for women. In order to formalize the project I wrote to the teachers and their school principals explaining the project, and set dates for the observation and interview sessions, prior to my arrival in Puerto Rico.

This type of coordination not only facilitated a smooth entry to the site, but also created an atmosphere of cooperation among the participants. Although most of the teachers did not know me personally, they were friendly and eager to talk

about their experiences. I had not expected this kind of rapport between the participants and the researcher. I perceived that they saw in me a voice, an intermediary who would express their beliefs and worries, and most importantly, someone to whom they could openly express their opinions about their teacher training and the reality of the school system. I felt a sense of pride and sharing among the participants in the project. One of the teachers sent me a note after the interview which said:

Thank you for having selected me with others for your project. I am very happy to have been able to help you. I too have learned much from you and all this investigation... It is a very interesting and beneficial theme for the future teachers (Elementary Teacher G).

Two qualitative methods were used to collect the data, observations and interviews. The classroom observations lasted from one hour to an hour and a half. Although no observation coding scheme was used to record the observations, I took notes of those aspects of interest to me. The main goal of the observations was to create a mental picture of what kind of person the teacher was, how he/she worked in the classroom, and to have information about the kind of environment in which the teacher worked. This would facilitate the communication between myself and the teacher during the interview period. Thus during the conversation I could refer to specific incidents I had observed in the classroom, requesting the teacher to speak about them from her own perspective. Before I entered the classroom I explained the purpose of the visit and assured them that I would not be evaluating their teaching.

Directly following the observation period two hours were allocated for the interview. A set of guiding questions were used during the interview, which was

audio-tape recorded. In preparing this guide I considered the following criteria: the experience I gained in prior exploratory project with three beginning teachers, my personal knowledge about teaching, and the problems related to the first years of teaching that appeared in the literature reviewed.

I took notes whenever possible during both the observation and interview sessions. At the end of each meeting with a teacher, I wrote notes that summarized the most salient points of the session and the way I perceived the situation. This data collection period lasted ten days and produced approximately 300 single spaced typed pages. Since the interviews were conducted in Spanish, the teachers' native language, the audio-tape recordings were transcribed in Spanish and only those parts that are being used in this paper were translated into English.

The transcribed interviews and notes were coded and analyzed following the Miles and Huberman (1984) methods for analyzing qualitative data. I allowed the categories to emerge from the data. The coded material was then displayed in various tables, which facilitated placing them in order and looking at two or three variables at the same time. The summarizing tables consisted of matrices, charts, and checklists which made it easier to group short blocks of text, quotes, and phrases. This kind of analysis not only helped simplify the handling of a great amount of data, but it also provided a way to make explicit and systematic the process I followed to draw the conclusions that will be discussed in this paper.

Thus, it might be possible for others to replicate the process and test the conclusions.

## **The University of Puerto Rico Teachers Training Program: A Brief Description**

The teachers who participated in this project graduated from the University of Puerto Rico, the state university and the most prestigious higher education institution on the island. Nine finished their degrees at the School of Education and one at the Faculty of Natural Sciences. The university has a long tradition of teacher training. It originated in 1902 with the objective of educating and training public school teachers. Today, the School of Education still keeps the strong commitment toward the preparation of "teachers capable of contributing to the achievements of an educational system that meets the needs and aspirations of the Puerto Rican society" and which can "exercise leadership in the island's education" (University of Puerto Rico, College Catalog, 1983-84, p. 59).

Since the university needs to limit its enrollment, due to high demand, those who are admitted have the highest scores on the General Admissions Test, and thus come from the best private and public schools on the island. The socio-economic background of the students is varied, but the great majority come from the middle and working class, living in the metropolitan area of San Juan and its suburban areas. Although requirements for admission to the School of Education are high when compared to the requirements of other schools of education on the island, they are highly competitive. Thus, those students who enter the program represent the top of the Rican intellect.

The teacher training program is characterized as rigorous with great emphasis on field work. Student teachers from the elementary program become involved in the classroom environment as early as in their first year of study. More than 96 hours during the semester are dedicated to classroom observations and active participation. This has made the program, in the eyes of the students, very demanding. Field work takes a great amount of working time, in addition to the

required average of six to eight courses per semester. Moreover, these field work hours do not count as course work, and usually the student teachers must allocate in their study schedule an hour or so of traveling time to the school settings.

The student teachers in the secondary program are required to spend less time in the field. In their third year they spend around 21 hours in laboratory experiences, besides taking six to eight courses per semester. Both the elementary and secondary student teachers usually volunteer extra time in the schools, and early indicator of how valuable practice teaching is for them. Another aspect that differentiates the secondary from the elementary program is that courses in their specialized subject matter are taken outside the Faculty of Education. The secondary teachers who participated in this project are all in the field of language arts, and thus part of their course work was done in the Faculty of Humanities. These two characteristics that differentiate the secondary from the elementary program did not seem to influence the teachers' responses. Both groups had similar opinions on the significance of the first year of teaching.

For both programs practice teaching lasts one whole semester, and teachers spend around 240 hours doing supervised teaching. Despite the demands of the program, eight of the nine teachers who graduated from the School of Education and were interviewed expressed satisfaction with their academic preparation. This gratifying feeling stems out of the fact that the program "offers many opportunities that when you go out, you find that you can work well, you are not lost, and you know what to do" (Elementary Teacher F).

The teachers at the secondary level, who have less time in the field, all recommended that field work be extended. Even the one secondary teacher who is not satisfied with the program did not consider the issue of practical knowledge to be her basic complain, rather she was critical of the way in which the academic courses (not the field experiences) are offered.

I have learned many things at the university, but it is up to you to learn them or not. I think that 75% of what one learns depends on one's effort and interest. Because I will be honest with you, sometimes I entered a classroom and what was taught there, was of no help to me. What I learned from the class was what I read in the books (Secondary Teacher E).

These statements place high value on training that quickly reveals the realities of the working world. They also affirm that in the eyes of the teachers, field work is an important component in an effective teacher training program.

The reasons why field work is important become obvious when these nine teachers speak about the strengths of the programs. In their eyes, some of the benefits of the field work experience are: a) the opportunity to build confidence, and to be in the classroom from the beginning; b) to actually be a teacher; c) to know what to expect; d) to learn teaching in the classroom with the children; e) to discover whether this is the profession one really wants; f) to see how theory works; and g) to try out things gradually. In other words, not being a total stranger to teaching, but someone who has been there before is a great advantage for the beginning teacher.

Another benefit, though not mentioned explicitly, may well be inferred. This is the opportunity to see different teaching environments and learn early on what kind of school setting one would like to work in. For example, when I asked one of the teachers to explain how she had acquired her present job, she replied:

I originally went to do some observations for Teaching English as a Second Language course. I went there because it [the school] was near my house and it turned out that I liked the school a lot... So when I started to fill out applications at schools near my house that was the first one I went to (Elementary Teacher G).



At the other extreme is the teacher who explained how once she got to do field work and practice teaching, she became disillusioned with the traditional educational system. Looking for other alternatives, within the same field experiences she discovered the Montessori method, a philosophy that she finds closer to her own way of thinking.

Obviously, for these teachers the apprenticeship period is not reduced to a one semester experience, as is the case in most traditional teacher training programs. During this period, learning experiences have been structured systematically from simple to complex. The student teachers, during their training, are able to combine their "book knowledge" with the practical knowledge of those who are more experienced. In this apprenticeship period, the student teacher makes a clear distinction between field work and practice teaching. The field work experience is perceived as the place to feel out things and to learn informally from practitioners and colleagues. Practice teaching is the "culminating point" of being prepared as a professional "because there, is where I picked up whatever I was missing" (Elementary Teacher F).

This brief description of the background of these teachers' experience in teaching will contribute to understanding the role that the first year of teaching plays in the development of a teacher. I believe this is important, since many of the studies I reviewed did not discuss this aspect or even take it into consideration. Rather, they seemed to take for granted that all teacher trainings are similar or equal, and that this variable has no impact on the experience of the beginning teacher. By considering and explaining some of the aspects that shape the prior knowledge of these teachers, one is able to sense how much practical experience

has not only influenced the intellectual growth of these teachers, but also the perspective they have of the first years of teaching.

This discussion brings us to the questions of how these teachers describe the first years of teaching and what these years contribute to their knowledge about teaching. The next section of this paper will examine these two aspects.

## **Descriptions of the first year**

### **The first impression**

Question: If I were a student teacher who was going to graduate in a couple of months and I asked you to tell me what is it like to go into teaching, how would you describe the experience to me?

Teacher: I believe the experience is very personal, and it is very different from the experience of others, you have to live it... It's an experience that each one must live, because it's a learning experience.

Question: Why do you see it [the first year of teaching] as a learning experience?

Teacher: Because there [through the first year] one will set the guiding principles for the future; maybe these will be that I will not be able to continue doing this.

Question: Then, would you say this is a year of learning?

Teacher: Of knowing.

Question: Of knowing...yourself, whether you will be able to continue doing this or not?

Teacher: Yeah. I think this is your decision [period], the culminating point of everything. It will give you the guiding principles to continue or not.

Question: Has this experience been shocking to you?

Teacher: I think there have been moments that yes, it gives you a shock because it's learning and everything that requires learning as one would say "te mueve el tapete" (shakes the ground one stand on).

Question: Did this experience paralyze you?

Teacher: I don't think so. I think that "te paraliza a pensar" (it makes one stop and think) about what is happening, about what is happening with you. It is like little lights that are lighting up so you can analyze what is going on around you. (Elementary Teacher J).

To this teacher, as well as to the other nine, the first years of work are characterized by learning. This word alone, however, is not sufficient to grasp the underlying meaning. For learning is a complicated process in which the "little lights" form part of the web of feelings and ideas, that will be woven as a product of the long journey into the understanding of teaching. These feelings might seem contradictory, but they are the waves that move the ship of the explorer deeper and deeper into knowing:

I felt anxious and at the same time excited. I was enthusiastic about the beginning of the academic year, but at the same time I was afraid. Because I would say to myself, how will these children be, how will they respond? ...Will I be able to use the time well? How will the parents be? How will these parents respond to me? (Elementary Teacher G).

The journey of understanding teaching begins with real questions on how one will perform and on how well one will teach. These questions come from being absorbed by something that has captured one's interest in such a way, that one is compelled to strive and seek its meaning. These teachers have read about teaching, watched others teach, and practiced teaching, but they have not done real teaching. "I knew what I had, I knew what I could give, and now I needed to demonstrate it. Not for a supervisor or for a grade. But I had to demonstrate it to myself, that I could perform in another environment outside the university, in a

totally different environment" (Elementary Teacher F). Real teaching requires that the novice examine his/her ideas about teaching, that is, construct hypotheses and test them out. It requires paying attention to see how these ideas unfold, to perceive what works and what doesn't work, to see how the ideas hold up in the eyes of others, in their own eyes and in the light of the phenomena they are trying to understand (Duckworth, 1986).

But doing real teaching is not an easy task. On the contrary, as five out of the ten teachers interviewed commented, it is a difficult one. Confronting this process is like opening a "surprise box," (Secondary Teacher B) never knowing what will come out of it. For those teachers who already have some experience in the field, the first years open up to a world of infinite possibilities. One may enter an educational system with an archaic curriculum, an oppressive environment, a group of unmotivated students, or a vandalized classroom, or one may well get the opportunity to be in an ideal environment. One never knows until one is inside. No matter how much experience one brings from the training program, there is always a surprise element. "Despite the practice in teaching one has had, and the knowledge, and theories, everything I found was new. From the moment in which I entered the classroom until the last day of school in May I had a series of completely new experiences..." (Secondary Teacher B).

The surprise element is the starting point of the teacher's process of developing ideas about teaching, for it forces the teacher to test and question prior knowledge. This uncertainty will guide the teacher's intellectual search. Without these kinds of questions, these teachers, trained in a program with emphasis in methods, would become mindless practitioners, teaching mechanically. They would be viewed not as creators, but as receivers and transmitters of institutional norms (Giroux, 1983, p. 414). Teaching guided by curiosity, however, is a creative process, for in the mind of these teachers there is an internal purpose, a reason to

act and a goal to achieve. The constant search, and the inner desire to know the answers to their own questions, make the teachers' own actions a source of knowledge. In order for the teacher to answer the questions about how to perform or how to do teaching, the teacher must accumulate a series of experiences. These experiences will contribute to the formation of a set of principles and beliefs that will evolve into a system. In the process of constructing this system the teachers begin to understand the finer points of teaching. Thus, the more experiences accumulated, the more elaborate the system, and the more possibilities are available for the teacher to predict or solve problems faced in the classroom.

This confrontation with an unknown reality is like a "prueba de fuego" (trial by fire). The teachers' ability to accept and deal with the challenge of learning in the first year of teaching will in turn determine his or her ability to develop the guiding principles and elaborate a system that will make teaching a thing that one understands. For eight of the ten teachers interviewed, accepting the challenge seems to have a prerequisite, an inner call or "vocation". As one teacher said, "To be a teacher one must first want it and love it because one works hard" (Elementary Teacher G.). Implied in the words "want" and "love" is a need, desire and commitment that engrosses the teacher in teaching, even before their training. Gender does not seem to affect this reason in the case of the only male teacher in the group who explained, "I always thought since I was very young, since I was five or six years old, that I liked to teach. I liked to take a notebook and write and write" (Secondary Teacher D).

This strong interest in teaching may well arise from a desire to be in contact with others, for six out of the ten teachers mentioned this as another reason why they had been attracted to teaching. Considerations regarding salary, security, or the impression that teaching is "easy" work are not in these teachers' minds. These teachers' main interest consists in a real commitment to teaching. They have

probably become aware of the difficulties teaching presents through their training, which has given them the opportunity to participate in the schools early in their education. As one of the teachers expressed, "In the field experiences one is given some foundations... One is confronted by possible situations that one may later encounter" (Secondary Teacher C). They are aware that in order to understand teaching they need to experiment, to accumulate experiences, and build practical knowledge. They have realized that this is how they will develop guiding principles that will enable them to solve future problems. The following statement is a good example of how the idea of constructing knowledge from the teachers' own experiences is present in the novice's mind during the first years of teaching:

For me, this year is like practice teaching. It is my whole year of experimentation. When I begin to work next year, if I start to work in the kindergarten, I will be quite sure of the sequence and order in which things should be taught. And I am letting myself be guided by a person who has already passed through this experience and I conform on one side, because I have seen the results. But on the other hand, I am not so sure, because I have not experimented and maybe what is good for her, maybe it's not so for me, or it might not have the same results. But I will know that in May, when I have gone through all this experiencing I can say what I have learned up to now, but what is coming next. I can not [say]. [Until] Then I am constantly trying out new ideas" (Elementary Teacher H).

Acknowledgement of the first year of teaching as a creative period remains in the mind of the novice through subsequent years. A teacher in her second year of teaching confirms this point:

Of course one learns and not only in the first year, but I think that every year one learns because each group one has is different. One learns a lot with the children and one has to try out which things will work with this group, which things will not. Maybe what I use with one group now will not work [with another group] and other things will work. One has to experiment with different strategies, activities, and ways to reach them (Elementary Teacher G).

A third year teacher reinforces this point by saying that, "the three years have been different, but the three have been very positive" (Elementary Teacher I). In summary, these new teachers have thus described their first years of teaching as an enriching learning experience, a unique moment to discover the body of knowledge encompassed by teaching. I therefore conclude that for them, the first years were difficult and demanding but a positive rather than a traumatic or negative experience.

### **Discoveries**

What challenges do these teachers face? What surprises confront them and what do they make out of them? To speak of all the discoveries made by each teacher would be impossible in this paper. This is a very personal process; what is important for one teacher, might not be for another. Since each teacher concentrates on a different aspect of teaching, it is almost impossible to speak about each discovery. My point, however, is not to describe what each teacher discover, but to provide evidence through examples that these teachers engage in a true learning process. For this reason I have decided to speak about one teacher and some of her most salient discoveries, trying to relate them to those of other teachers interviewed. To keep her true identity confidential I have decided to call



this teacher Margo. In order to give a clear understanding of the possible reasons why this teacher has discovered such things I will begin by describing the environment in which she works.

The school setting where Margo works is different from that of the other teachers. She is teaching the kindergarten level at a private Catholic School. A friend recommended this job to her. This is apparently a common practice among teachers, since six out of the ten teachers indicated that this was how they had found their jobs. The school is in a typical middle class neighborhood, and from the cleanliness of its grounds one understands that discipline is rigorous. Margo dresses like most of the teachers interviewed (only one dressed more casually). Wearing long pants, a long sleeve striped silk shirt, a jacket, high heeled shoes, makeup, and a nice sharp haircut, she reminded me of an executive. Her physical appearance matched the atmosphere of the school, where value is placed on details.

Though the classroom is uncomfortable, since "they have built a kinder[garden] where it was impossible to have one" (Elementary Teacher H) and the room does not provide enough space for all the children, Margo is satisfied with the job. With it she has gained economic independence from her parents and is able to attend graduate school after work. Although the room is small, with 26 students crowded around four long tables with hardly any space to walk, she is able to keep it organized and attractive. The children's work is neatly displayed on the walls, along with very artistic charts made by Margo. After spending an hour in this room I could understand why she would describe her first year of teaching as being difficult. Though aware of the fact that her classroom does not represent her ideal, she explains that the experience is not a negative one, rather "It is a positive shock because I have discovered many things about myself and about the children" (Elementary Teacher H).

Another thing troubles Margo about her present job. She is pressured by the school director to keep strict discipline in her classroom. The director uses measures such as listening through the intercom system and watching almost everything she does, without her knowing. Although Margo resents these repressive measures, she understands that she must mold herself to the school rules, from when she accepted the job she knew about this situation and the school cannot possibly adjust to the different views of every single teacher. Still, Margo hopes that some day she will be able to open a school based on her own ideas. In a way, she is taking advantage of this situation. In spite of the circumstances, she knows she will gain something from the experience. It is as if she would say that if the experience is bad, she will have learned what not to do and if the experience is good, she will know what works.

There is something deeper involved in this view that Margo has of the first year: she is beginning to show an inner desire for more freedom in teaching. In the next section I will explain further this theme and give an example of how Margo has discovered that freedom is essential to effective teaching.

### **Freedom and Effective Teaching**

The desire for freedom is a prevalent theme throughout the interviews, especially in the context of curriculum and teaching style. Whether the environment was repressive or a more liberal one, the teachers soon discovered that freedom is essential to effective teaching. Their prior knowledge about teaching did not include this certainty. They came to the schools expecting to find the latest and most sophisticated text books, as well as an administration informed of the latest innovations in teaching. Once in the classroom, however, they were confronted with the reality of having to teach a watered-down curriculum that was not responsive to the students' needs, and in some circumstances having to work

with a faculty, as six of the ten teachers described them, "who do things in an old-fashioned manner...that dislike those of us that come with new ideas" (Elementary Teacher G) and that make them "look like exploited women" (Secondary Teacher E).

This reality comes into conflict with the teachers' prior knowledge. As the teachers assimilate the fact that schools are not the world they thought they would be, they see the need to modify their prior knowledge. Their understanding about schools takes on a different point of view. They realize that schools depend on the teachers' knowledge to be informed of the latest issues in curriculum and teaching. Maybe fearing that they too may become like those old-fashioned and exploited teachers, they see that their responsibility as teachers is not to be followers of institutionalized policies, but rather that they are a resource to the school in matters of curriculum and teaching:

Teacher: I have discovered that here in the school they are quite up to date about texts. But what happened when they gave me the list of books [for the academic year], that I would have wanted to change several books that I considered that, well there are others that are more advanced, more interesting. But what happened was that I couldn't change them because the students had already bought them and I could not ask them to buy other books. But for example in the advanced class I have been able to suggest the books they should buy, etc.

Questions: That is, they have given you that sort of freedom?

Teacher: Yes, in that aspect yes. I have the freedom to ask the students to read the books that I want.

Question: Did you know this?

Teacher: No, I did not know.

Question: What did you expect?

Teacher: Well, you have to teach this and you have to teach it like this. I did not know that they would let me be. That I could do in the classroom what I wanted to; that is, if it's within the norms. And this surprised me, and you see in that aspect I like to be free. (Secondary Teacher C)

This freedom delegates to the new teachers a kind of authority that increases their decision making power. These new teachers are being asked not only to make decisions within the established curriculum, but they are being asked to evaluate it and suggest what changes could and should be present in the curriculum. Thus, the underlying task of evaluation is delegating to the new teacher an authority that allows him/her to carve out an intellectual space where one feels free to create and contribute with ones' own ideas to the established curriculum. In the following section, I will explain how these new teachers use this freedom, discovering at the same time the limits of their decision making power.

### **Decision Making Power**

These new teachers have also discovered that their freedom and success as influential persons in the school depends on their decision making power, a power they begin to use, when they need to transform those aspects of their training that are not useful in the schools. A power they must use carefully when they need to make the school aware that their ideas are more valuable than those in actual use.

Planning is an example of how the new teacher uses the decision making power in order to transform prior knowledge. The schools where these teachers work provide them with the liberty to plan in different ways. Understanding that

she can do planning in the school the way that best suits her, Margo bitterly complains about the hours she spent during her training writing long lesson plans that had to follow a certain format. Eight of the ten teachers indicated that they now do planning very differently from the way they were taught. Their work experience has made them realize how useless and unrealistic this kind of planning was.

I have realized that [planning as taught in teacher training] has nothing to do with ones' actual reality. And I say that "uno tanto amargarse la vida" (so much slaving away) when life is not like that. And I also realized that one cannot think that today I am going to do this and that. No, because one has to work depending on how the children arrive to the classroom. There are times when I come in and the children do not accept the lesson, they are not receptive to it. This could be due to...maybe because they are sick, they feel tired, they don't want to work (Elementary Teacher H).

A secondary teacher expressed a similar feeling about planning by saying:

But for me, the subject and what the students have to say about it is more important, so sometimes I prepare a plan and I am very flexible with it. If an issue is raised [by the students], I improvise. From anything the students say, I improvise questions and activities that do not appear in the plan...This I didn't learn during "la práctica" (practice teaching). They taught me in practice teaching that the plan had to be put in practice in its totality. Not here, here I have learned to be more flexible with the plans that I write (Secondary Teacher É).

Obviously these teachers have constructed reasons to justify not only the transformation of the prior knowledge, but also those guiding principles they will use in the future. Now they know that realistic planning is brief, flexible, personal,

that it's helpful in structuring the sequence of the activities, and in the evaluation. This is consistent with research done about teacher thinking and planning. These studies have shown that prescriptive models of how instructional design should proceed frequently do not match the reality of the planning done in practice (Kerr, 1981). Margo, as well as the other new teachers, understands that they must do things efficiently for the students' sake and that in the schools, planning as it was taught to them, is not important. What is important for the school is that the teacher keep the students orderly and working. What is important for Margo and the other new teachers is that their students learn.

When Margo believes that she can contribute an idea to the school, she is very cautious about presenting it. Her strategy is simple: she talks to the principal and shows her the available options. She does not take a strong stance or desire to challenge the school. Acting more like a consultant, she expresses the reasons why they should change their current practice and gives them options for change, hoping to show through persuasion that her ideas are valuable.

Right now what we have to show the parents is a report card "que da pena" (that is shameful) and for a child in kindergarten, the parents won't understand it. So I go with other evaluation cards from other schools, writing a copy in pencil, and I have told her: Sister [referring to the school principal] this is a little better for kinder[garten]. It is new information that the parents may obtain, that will help the parents and the new teacher in the first grade. It will help her know the children better, in relation to their skills. And to try and struggle that she [the school principal] will accept the need to implement it (Elementary Teacher H).

It is clear that the way to take advantage of any new working situation is to be careful about the kinds of decisions one makes. These beginning teachers know they are at a disadvantage when compared to the more experienced teachers, but at the same time, they know there is some space for experimentation. The new teachers push authority to the limit in order to test how far they can take their own ideas. Thus, when the possibility emerges, to take a decision that might challenge the established norms of the school, the new teacher will also experiment with the limits of the authority discovering how far his/her freedom and decision making power goes. The following statement from a secondary teacher, working at a military academy, is a good example of how a teacher would challenge the limits of authority:

You asked me if I changed in any way or did not obey the norms of the academy. Well, these students that arrive very tired at two or three thirty in the afternoon, after their lunch break. Maybe a lunch hour that they are not used to, because lunch hour for the intermediate grades here is from one to two in the afternoon. My students arrive with a "cara derretida" (sweating face) and many feel more comfortable by just untying their shoe laces. This is something they are not supposed to do, even if they feel their feet will get gangrene. I "me hago la chiva loca" (I ignore them) and let them take the heel out of that heavy shoe. Did you see them? And you see they are comfortable in my class, paying attention to my class. I don't care if I am not observing a rule which for the moment is irrelevant, and I let them loosen up their shoes and pay attention to my class. What is important to me is that they pay attention to the class (Secondary Teacher E).

In summary, as these teachers try to resolve the conflict which they perceive between prior knowledge and the classroom reality, they soon discover that a certain amount of freedom is needed in order to be effective. This freedom is essential in order for the beginning teachers to exert their decision making power and experiment with their ideas. Experimenting requires acting as a consultant in some situations, and in other cases challenging the established norms of the school. In either case, these teachers are not only trying to discover how prior knowledge works, but also finding possible ways in which they might transform and change it.

It is my belief that in the process of finding possible ways to transform prior knowledge, they will notice connections between ideas they had not perceived before. They also find new ways on how to link these ideas; consequently, teaching is looked at from a different perspective than the one used during the training period. As a result of viewing teaching from a new and different point of view, the transformation of the prior knowledge occurs.

### **Discovering how ideas are related**

In the teacher training courses, one often finds that teaching and learning are taught following an atomistic approach. Concepts are separated from practice and studied as disjointed entities. One finds courses or units that concentrate on areas such as sociology, philosophy, assessment, learning theories, behavior modification, curriculum, teaching methods, evaluation, and so forth. It is expected that the student teacher will integrate all these ideas, but this does not seem to happen until the first years of work. Specialists will usually concentrate on transmitting the body of knowledge of their field, rarely spending time on relating such things to the complex act of teaching. Because the ideas are removed from the experience of teaching, they are meaningless to the new teacher until the first years of work. During this period, the beginning teachers, searching for



answers to their question about how to do teaching, begin to see how these ideas are relevant to the context of teaching, perceiving also the existing relations among different concepts.

Teacher: When one begins teaching, and I have confirmed that this is a common sensation, one arrives and the first thing that one says is that I don't know anything. And now what? And I don't know anything. I have been five years at the university and I don't know anything. And then one says, but I do know about this and about this other thing, but I cannot put it all together. One gets a feeling that one is in pieces.

Question: Has practice offered you the opportunity to put everything together?

Teacher: Everything together and then you realize that one can be a teacher, that one can teach, one can evaluate, one can diagnose, one can be a little bit like a mother, one can participate with the child in other aspects, and that one can do everything. (Elementary Teacher F)

Teacher: You come with many ideas and then one needs to change those "lucecitas" (little lights) into "lumberas" (headlights), broaden the horizons. They tell you that the horizon ends here in this course, but beyond it there are many things to discover. And then in the first year, that is when one begins to search for those other horizons (Secondary Teacher A).

Using another example from Margo, one can also see how she has begun to find the relations among different ideas. When she speaks of assessment, observation, planning, and evaluation one can see how the connections among these concepts are becoming evident for her.

Teacher: Many times the professor would say that one had to work hard in order to prepare a very elaborate test so that one could know (the child), (pause)...The assessment for me is everything, it is the daily living with the child, it is observing his notebook, and his work. This function as a diagnosis for the teacher, and it tells one how the child is doing, and in what things he is failing so that one may better improve them.

Question: Are you saying that for the teacher, observation is a form of assessment?

Teacher: It's part of the assessment, it helps, it is of great help. That is, I have realized that one does not need to prepare an elaborate test, but that within the same work that one has prepared for the day, it can help one as an assessment tool...

Question: You have learned that if you look, observe, correct the children's daily work, that you know the children and in that manner you are doing assessment?

Teacher: Up to now that is what I have used, because I have not prepared a rigorous assessment test like I was taught to do.

Question: But you say you know the children?

Teacher: Exactly. I can tell you more or less. Look, let's say that you would come with me into my classroom. I could say to you, this child and this one need help in such and such skills. And you would ask, how do you know? Professor, I have discovered it through their work, when I correct, when I speak to them... [Later in the interview she says the following]...It is important to correct the work of the children. Not like many teachers do that they file it, and then correct it when it's time to give out grades. I am against that. If a teacher makes a habit of correcting the work daily, and it's true that one has to take work home, one will know how much better these children are working and it will help one to plan for something [to remedy it] tomorrow. (Elementary Teacher H).

As Margo uncovers relationships and is able to connect different ideas, she has also transformed the reasons that guide her actions. She no longer expects that what she had planned will always work, but is aware that anything she plans will be modified in the classroom. For Margo, planning depends on the student's learning, her expectations about what she should teach and what her students should learn are constantly transformed in practice.

As the new teachers integrate and relate ideas they begin to notice things that they had not seen before. The phenomenon of teaching is no longer looked at from just one point of view like during the teacher training courses, where it was viewed from the perspective of a subject matter, for example, from a sociological or a methodological point of view. But instead, the act of teaching is looked at from different points of view, at the same time. These points of views converge in the mind of the teacher as he/she acts, allowing the teacher to perceive things from a new and different perspective. Thus, as a consequence the prior knowledge and expectations one had are modified and adjusted.

In the following section I will explain how these teachers discover that their training is far removed from their reality, and how they turn their own experiences into a source of knowledge, creating their "own little book" about teaching. Thus, the beginning teachers are able to produce the guiding principles that take into account those aspects of reality that could not be explained by prior knowledge.

### **The Need to Adjust Theory to Practice**

Many of the theories studied during teacher training are too general and these new teachers once confronted with the classroom reality discover the need to adjust such theories. This probably is in part a result of being taught during the course of study, theories which are based on the typical child, classroom, and

school. The beginning teachers, on the other hand, are confronted with particular children and situations that differ from those studied.

In Puerto Rico this is probably a more dramatic issue because many of the textbooks used in most of the courses at the university come from the United States. The theories they study are based on the typical child and circumstances that have originated in another culture. So while the case in the United States is that these theories about teaching and learning respond to a cultural reality, for the Puerto Rican beginning teachers these theories seem distant. My point is not that these theories are not valid, but that by presenting these as the only theories the opportunity to question the Puerto Rican reality is obscured. Some of the professors do bring into their courses the reality of the Puerto Rican schools. Sometimes, however, these experiences are limited. One may find that university professors have very little teaching experience in the schools, or that it is so far removed in time, that their reality is very different from what the beginning teachers will encounter. Thus, prior knowledge about schools is seen as too general or ideal. The following statement from a secondary teacher will explain why she believes the curriculum at the teacher training level should reflect better the contemporary reality of Puerto Rican children and their schools.

The students at the School of Education are taught certain skills, the characteristics of the ideal teacher, the functions of the teacher and other details that enrich each area [of study], however the problems and dilemmas of the Puerto Rican student,...it is not presented "a la luz del momento" (in its reality)...They talk to us about the normal students, about the students that have some type of problem at home, but very superficially. Nevertheless I found that students in the public school, arrived into my classroom with drug problems...and a number of other problems, not only drugs. The problem of lesbianism,

the problems of prostitution and other problems that I didn't know of and that as time passed and I worked with these kind of students, I learned [about their problem] (Secondary Teacher B).

Not only the theories are distant from the culture of these teachers, but there are no concrete examples that can illustrate some aspects of it. For example, eight out of the ten new teachers expressed they knew the meaning of individualized education; however, they had not seen nor had worked in an environment where this concept was present as described in theory. "I have discovered that it's not easy to work with individualization. When one comes out of the university one knows that individualized education exists in reality, however, I didn't know how to work with individual differences" (Elementary Teacher F). When Margo talked about individualized education, she expressed the difficulty she finds when trying to implement it.

They [university professors] tell you that you are supposed to individualize when teaching, that one has to prepare work for each students, and so forth. Everything is described as ideal, but in practice it is very different.. Sometimes one does not have the time, one has to take into account different circumstances, Sometimes, that is, not having a photocopying machine...Ok one has the methods, but one also need to have certain manual instruments, certain physical facilities that sometimes one does not have, and even if one wanted to provide them one can't do it..this costs money but the physical environment does not help, you saw my classroom" (Elementary Teacher H).

As a result of finding how limited theory can be, when contraposed with the reality of the classroom, the new teachers look for other alternative reasons for their actions. They become aware that textbooks are not the only source of

knowledge, and that experience can be a vital tool to the understanding of teaching. "No theory book that I had read in the School of Education had taught me how to work with that situation [confronted in the public school]. As time passed, I myself constructed my own book of ideas to be able to confront those situations" (Secondary Teacher B).

It is no coincidence that when these teachers spoke about the changes they would recommend to the teacher training program, five suggested more visits to schools and more practice teaching in order to integrate theory and practice. "If one take the two things more or less at the same level, the theory from the books, that is the methodology and the practice, then one would be able to integrate one thing with the other and this would be more effective" (Elementary Teacher F). Seven out of ten teachers expressed their desire to see the curriculum broadened, in order to provide space for other courses which would give them the opportunity to study different curriculum alternatives. Eight teachers recommended changes in courses in ways that these could reflect more the classroom reality.

These new teachers aware of the existing gap between prior knowledge and classroom reality, see themselves as the person who must adjust theory to practice. They comprehend that their training, the basis of their understanding of teaching, is limited. It has failed to provide them with functional guiding principles and possible alternatives to change; that is, with the skills to be critical and constructive.

I believe that the courses should be oriented toward cultivating in the teacher, a critical mind, an independent [mind]. So that I won't have to be the way I was taught to be, if I don't believe in it. I believe that I have to find the best ways that will work with my students, independent of whatever I have been taught [in teacher training] (Secondary Teacher A).

In summary, these teachers have discovered that prior knowledge cannot solve all the problems the practice presents. They have found that in many respects, their training has not given them the conceptual tools to adjust and transform prior knowledge. Because of this, they turn to their own experiences as a source of knowledge, and as they reflect upon them they become critical of their practical knowledge. They begin to see possibilities for change.

### **Learning from their own actions and reflection**

How is the new teacher able to find new ways of action? It's my position that new actions are the product of the teachers' capacity to reflect upon their own experiences. For example, one teacher expressed she had created a new system to teach her students to read, in view of the fact that "When I started to use the system [suggested by the teacher's guide], the students were not learning, they were not reading, they didn't understand anything of what I was teaching them" (Elementary Teacher G). This teacher, instead of blaming the students for not learning decided that her practice ought to change. She began by using ideas derived from her prior knowledge as the point of departure to solve the problem. By observing how these ideas worked with her students, she modified and made the necessary changes to the system.

What I did consisted of using a system based on what we were taught here [at the teacher training]. I used the system, then I would change certain things or when I observed that the children were tired [of it] I changed the activities... I would invent stories with the words of the lesson... I would try to make these funny, so that they would laugh... Then I asked them comprehension questions...and played games with the syllables...sometimes we played "debate" [a word

game]... They liked to play "debate" and then they would read the words (Elementary Teacher G).

Reflection contributed to eliminating the discrepancies found when contrasting prior knowledge with reality. The new teachers when confronted with a conflict, thought out the situation they had lived and through a process of making sense of how they have handled it, tried to find what helped and what hindered, and made plans on how to deal with it in the future. A new theory, or ways of action that will take into account the reality they are living must be constructed. When these new teachers constructed new ways of actions, besides using their reflections as a point of departure, they also used what they knew about their students, and in some cases requested help from the more experienced teachers or peers.

I didn't believe in assessment, for example, when I graduated I thought of it as unnecessary. Then when I had to think about what I had to teach to my students, I asked myself, what am I supposed to teach? I went to some friends and they helped me prepare an outline...but still I asked myself what if I teach [the students] this skill and they know it. If I teach them this other one, and they don't know the skills that form the base to understand this one? Then I realized that I needed to prepare a assessment test...I went to one of my colleagues and asked her to let me use one of her tests, and administered it...Then, I talked with the students in the school yard... I learned how they were, what they liked to do, and what their interests were (Secondary Teacher A).

Once a new way of action is conceived, the teachers test it out. If the teachers' new theory or way of action fails to solve the problem, a new solution is thought out. On the other hand, if the teachers are successful in solving the problem, the way of action is adopted as a guiding principle. The adoption of this guiding principle will last until it is confronted with another problem that cannot be



solved by it. Then the cycle of developing a new solution will begin anew. As a result, beginning teachers become practitioners who learn to construct knowledge from their own experiences. Thus, prior knowledge is seen as the point of departure for the long journey into understanding teaching.

## **Conclusions and implications**

### **Conclusions**

In this paper I have tried to provide evidence that the first years of teaching, for these Puerto Rican beginning teachers, are years of learning. Thought out the first years, they seem to have discovered the gaps between the reality of the classroom and what they were taught in their training. As they contrapose theory and practice, they became aware of the distance that separates them. Focusing on their own experiences, they try to bring theory and practice together. In this process the theory is transformed by the teacher's capacity to experiment and reflect upon their own experiences. But at the same time, they are transforming the theory, their practice is also changing. This process of construction never ends, because built within it is the mechanism of feedback. The actions are done because there are reasons; and reasons exist because there are actions.

After listening to these teachers it has become obvious to me that student teachers not only learn to teach during their training, but that their beliefs about teaching are also formed. This goal is accomplished in the training by putting an emphasis on transmitting "the right methods" of teaching a subject. The different methods courses and the working experiences accumulated through the teacher education program accentuate this aspect, producing, as one of the interviewed teacher expressed:

A curriculum that is quite static, that is very little open to opinions, suggestions, ...and other alternatives that other people could bring that are known to be real, necessary, and that are not present [in the curriculum] and should exist (Elementary Teacher I).

This view of the curriculum as the vehicle to transmit techniques and methods is reinforced by the teachers' comments on how they perceive their training program. Eight out of the ten teachers interviewed characterized it as being more methods oriented.

The program is oriented greatly to [teaching] methods. Here in all the courses that I have taken, one gets a lot of methods, a lot of techniques, about what one should do...but how one could give [a lesson] from a humanistic orientation, that is hardly present. Really here they don't show us how to do it like that. It's like a computer of knowledge that one slowly has to adapt to a humanistic orientation and then put into practice. But it's a lot of knowledge, they load us with many things that one [later] does not use (Elementary Teacher H).

Out of these eight teachers, five come from the secondary program where the curriculum is a shared responsibility of the School of Education and the Faculty of Humanities. Four out of these five secondary teachers expressed that out the program had both orientations more or less. Three teachers perceived that the professors in the School of Education brought the humanistic aspect more or less into their courses, while only two teachers see the program as having more of the humanistic orientation. The following teacher described the existing balance between the humanistic and the methods orientation in the teacher training.

Well because we are developed in two faculties, in the Faculty of Humanities like the name indicates, one is developed toward the humanities, to search for truth...In the Faculty of Education they prepare us for [teaching] skills, to cover certain skills and when we get to practice teaching this is what is most emphasized (Secondary Teacher D).

Therefore one may conclude that the training years, with an emphasis on methodology, shape the philosophy and the convictions that will guide the actions of the new teacher. The student teachers derive from their training the reasons that justify their later behavior in the practice. This is what constitutes the beginning teacher's prior knowledge about teaching.

It is also possible that although the beginning teachers come into the classroom with prior knowledge about teaching, they lack the "real" experience that will help them decide for themselves whether this newly obtained information is valuable or useful. One could argue that the student teachers have had opportunities to practice their prior knowledge of teaching, if they have taken courses that require field work and have done practice teaching. But it should be recognized that field work and practice teaching are limited experiences. They are restricted in time and restrained by a setting that is somewhat unrealistic, if not artificial.

Thus, when the new teachers begin their first years of work, they are not fully aware of the implications and consequences of the beliefs and actions they bring with them into the classroom. Because of this, they enter the professional world ignorant of its reality, its functioning, its real limitations, and what is expected of them as professionals. This is so because the "real" classroom environment presents innumerable unanticipated situations and problems. So vast are the possible problems, that I believe no conventional method of teacher training (especially those that focus on trying to transmit the "right methods" or teaching) is

too successful in helping teachers to fully understand the reality of the classroom. It is my opinion that if one could educate teachers with the "conceptual tools they need to view knowledge as problematic, as historically conditioned and socially constructed phenomena," (Giroux, 1983, p. 416) they could leave their training better prepared to face the complexity of the classroom and contribute to the process of social change.

But since the new teacher is trained with the idea that prior knowledge of these methods is sufficient, it is in the first years of teaching that the novice counterposes the limited repertoire of actions brought from prior knowledge of teaching, with the unlimited perplexities posed by the classroom. Thus, the first years of teaching offer the opportunity to discover that teaching is complex and that there is much to learn and discover in practice. These years provide a new, complex, and realistic setting, giving the new teachers the opportunity and the possibility of constructing their own knowledge about teaching.

The apprehension of knowledge is not acquired but comes with practice...Practice makes possible the apprehension [of knowledge], that is, it becomes a part of yourself...They can say it to you many times,...[but] it's not until you see it with your own students, look you won't apprehend it, it has not become part of your knowledge (Secondary Teacher A).

The prior knowledge about teaching acquired in the training program acts, in certain cases, as "la base", (Secondary Teacher B) the foundation on which the new teachers will develop their hypotheses about teaching. The first years of teaching become the experimental ground, where teachers will test and develop their presuppositions about teaching. In the words of a teacher:

The first year of work is like "la prueba de fuego" (trial by fire). I knew what I had, I knew what I could give and

now I needed to demonstrate it. Not for a supervisor or for a grade. But I had to demonstrate it to myself, that I could perform in another environment outside the university, another totally different environment (Elementary Teacher C).

One can interpret the phrase "I had to demonstrate it to myself" as meaning that even though others have said it before, that she can perform as a teacher, she still has many things to figure out by herself in order to really acknowledge that she knows how to perform. Being told by others does not totally convince the learner, for he/she must discover it by him/herself. Thus in order to find out what teaching is, the novice needs to experience through experimentation.

As a consequence of this experimentation, in the first years of teaching, the neophyte becomes aware of the contradictions between theory and practice. Thus, as the novice puts into practice the prior knowledge and this leads to a surprising, pleasing or unwanted response, the teacher tries to make explicit for him/herself what actually happened and why it happened. This is the moment where the teacher becomes aware that prior knowledge, in some situations, is limited and has failed to explain or solve the "real" problems confronted in the classroom.

Feedback from the pupils, coupled with the teacher's capacity to reflect upon the situation, are the mechanisms that trigger the teacher's discovery of the inconsistencies between his or her thoughts and reality. The new teacher, observing how the students react to his/her behavior, reflects upon the experience. Searching for an explanation of the unexpected results, the teacher becomes aware of how his/her ideas run into conflict. At this moment the teacher discovers the gap between prior knowledge and current classroom experience. Thus in order to produce a solution to the existing conflict, the novice transforms and modifies prior theories about teaching. Through this process, the teacher constructs an

explanation that will take into account the results of the experience. In the words of one teacher, this is when each teacher constructs his/her "own little book".

In this struggle to find new explanations and solutions to the conflicts experienced in the classroom, the novice will talk with others, especially with more experienced teachers. In this exchange of ideas the new teacher establishes connections and finds ways in which to modify prior knowledge. Thus, with the transformation of prior knowledge, new ideas and beliefs are formed and tried out. The important issue that I would like to emphasize is that in this trying out of ideas, the new teacher is constantly constructing his or her own knowledge. Answering the question as to why one cannot teach what is learned through practice, one teacher said, "They can say to you try this or that, try with this certain thing, but you develop your own system by experiencing and living it" (Elementary Teacher F).

It is my belief that the struggle of these teachers to understand what teaching is all about is characterized by experimentation. As the teachers' experiment and explore teaching, the prior knowledge is transformed and the understanding about teaching becomes deeper. The novice begins to perceive teaching as a complex act that cannot be easily taught by formulas, books or lectures. Thus the experience of teaching becomes the major learning source for the new teacher.

### **Implications**

Based on the findings of this exploratory project, several recommendations may seem plausible to teacher education programs. First, there is a need to recognize the first years of teaching as a learning period. One cannot assume that this is going to be a traumatic year where teachers should continue to be looked after, since this would restrict their creative power. Instead, the new teachers' constructive power should be observed with great attention and respect, for they, as

novices in the profession will probably be able to perceive the things that those with more experience might have lost sight of. As Dewey (1904) stated when describing how the practice work should look like for teachers,

[Teachers] should not be too closely supervised, nor too minutely and immediately criticized upon either the matter or the method of their teaching. Students should be given to understand that they not only are permitted to act upon their intellectual initiative, but that they are expected to do so, and that their ability to take hold of situations for themselves would be a more important factor in judging them than their following any particular set method or scheme. (Dewey, 1904, p. 27).

Second, if those who are in charge of teacher education programs really believe that the role of the teachers is not only to transmit a body of knowledge, but to be leaders and agents of social change, then they should incorporate conceptual tools to promote such attitudes in the teachers. Such tools may include: an atmosphere of freedom to let each teacher focus on the different aspects of their reality; an acceptance that experimentation and experience are requirements for the teachers' true learning and understanding of teaching; and the assumption that teaching cannot be taught in a prescriptive way, but that it needs to use techniques that will encourage the teacher to question the established norms and beliefs so as to promote in them the search for the truth.

Such programs would depart from the teachers' own experiences, instead of from pre-conceived ideas and doctrines. Through their own experiences student teachers would be able to uncover, confirm, and disprove the theories that make up the body of knowledge about teaching. They would also see themselves as being able to contribute to that knowledge with their ideas and beliefs. By assuming this

position they would also affect the classroom atmosphere, since at the same time they would become more sensitive to the student's learning.

Teacher education programs are apt to produce far more effective teachers if they view knowledge as something that can be questioned, and teaching as something that needs to be examined in the context of history and society. As teachers become aware that teaching is not based in doctrines, but in questions; they will see teaching not as something one does to someone, but rather as something one does with someone. The student becomes the subject of study and so does the act of teaching. Thus, the difficulties in teaching and learning are not seen as "problems" but as the point of departure for the search of their understanding.

At another level, this kind of program would recognize the position that teachers occupy in a democratic system. It would recognize that a critical and conscientious citizen can only be a product of a system that allows the freedom to question the principles in which its policies are rooted. It would acknowledge the need for educators to actively work toward the development of a critical consciousness among teachers and students. It would accept that schools and teachers exist to promote a dialogue about what society is, and will be, with the intention of understanding it and producing alternatives that will promote a more just society, that will empower us all to become liberated human beings and free thinkers.



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