

DOCUMENT RESUME

ED 477 499

SP 041 586

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TITLE Novice Teacher Development in Residential Environmental Education Settings.
PUB DATE 2003-04-00
NOTE 14p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, April 21-25, 2003).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS *Beginning Teachers; *Environmental Education; *Faculty Development; Outdoor Education ; *Residential Schools
IDENTIFIERS New York

ABSTRACT

This paper explores the first year development of three novice residential environmental educators in the Catskill region of New York State. The goal of the study was to reveal patterns in the participants' professional development over time and to better understand the factors that shaped these changes. Data gathering included three semi-structured interviews spaced throughout the year and weekly reflective journals. Results indicate that these novices moved through eight phases of development during their first year of teaching. These phases are introduced, discussed, and drawn upon for recommendations focused on seasonally oriented training programs. This study has implications for directors of residential environmental education centers and for researchers of novice classroom teachers. (Contains 10 references.) (Author/SM)

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Novice teacher development in residential environmental education settings

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Prepared for the 2003 AERA gathering in Chicago IL. Ecological and Environmental
Education Special Interest Group

Abstract

This paper explores the first year development of thirteen novice residential environmental educators in the Catskill region of New York State. The goal of the study was to reveal patterns in the participants' professional development over time and to better understand the factors that shaped these changes. Data gathering included three semi-structured interviews spaced throughout the year and weekly reflective journals. Results indicate that these novices moved through eight phases of development during their first year of teaching. These phases are introduced, discussed and drawn upon for recommendations focused on seasonally oriented training programs. This study has implications for directors of residential environmental education centers and for researchers of novice classroom teachers.

Overview

The purpose of environmental education has historically been to "develop informed attitudes of concern for environmental quality" (Swan, 1969, p.28) that will encourage people to engage in more "proenvironmental behaviors" (Zelezny 1999, p. 5). Today, this formidable task confronting environmental educators includes both the advancement of knowledge and awareness of the environment, and the creation of

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concern and motivation that will stimulate action for the environment. Implicit in these educational objectives is the challenge of training and preparing effective environmental educators. Recent UN reports have lamented, “the most frequent cause of curriculum failure [in environmental education] is inadequate teacher training” (cited in Knapp 2000, p. 33). Given the ambitious and important goals of environmental education and the expressed concern regarding the professional abilities of environmental educators, one would expect to find a significant amount of research exploring these issues. Unfortunately, very little exists. The present study is an attempt to address this lack of research through the investigation of the professional development of novice teachers in residential environmental education settings.

Background

Environmental education, like all education, is predicated on instructors’ beliefs (Pajares, 1992) and assumptions (Bruner 1996) of what people need to know and how they are best able to grasp this knowledge. These beliefs and assumptions emerge from past experience, and mature as a result of evolving personal skill, knowledge and experience (Lindley 1993; Lortie 1975). The typical residential environmental educator possesses a baccalaureate degree in outdoor recreation or natural science; teaching credentials are usually not a requirement. In practice, residential environmental education instructors must continually distill vast quantities of information, i.e., forest ecology, into “one-shot” lessons that will be meaningful and interesting for visiting students. This is done while managing the complex social reality of 12 – 16 students in an outdoor classroom.

Methods

This qualitative study describes the experience of 13 novice teachers in three different residential environmental education centers in New York State during the 2000-2001 school year. I identified a novice as an individual with less than 30 days of residential environmental education instructional experience. Between these three centers there were over fifty full-time instructors – thirteen of whom fit my profile. All who met the established criteria were invited and subsequently agreed to participate as volunteers in the study. The participants all had completed bachelor's degrees. The average age was 23 and nine of the 13 were women.

Data gathering included three open-ended interviews: the first took place before the teaching year began, the second in mid winter, and the last interview in late spring. Novices read and commented on the transcripts of their interviews at the halfway point between the autumn-winter and winter-spring interviews. I was able to gather additional data through weekly reflective journals and informal interactions.

To understand the novices' experiences from another perspective, and in an attempt to project development into the future, I also interviewed six experienced instructors who had been in residential environmental education for 2 to 8 years. These 40-60 minute semi-structured interviews were also tape-recorded and transcribed.

Analysis

Analysis involved cross-participant, cross-interview review of transcripts and field notes that eventually yielded a coded framework. In order to interpret this framework I engaged in the process of narrative description, that is, the telling of stories. Through these stories, important themes began to emerge. I sorted and

prioritized themes that represented both common and exceptional experiences. That is to say, I sought to give voice to those factors or experiences that nearly everyone mentioned, as well as those factors and experiences that were outside the norm.

To visualize the themes, I structured the novices' years into phases of professional development that I came to think of as chapters in a story, or scenes in a play. These developmental scenes varied in length from two-weeks to several months and became the contextual backdrop for their emerging identities as teachers.

Results

The analysis revealed an enhanced understanding of how these novices viewed their own professional development and emerging instructional identity (Britzman, 1992) throughout their first year of teaching. The novices' experiences charted a path that included dramatic plunges in confidence and attitude, as well as peaks of skills and confidence, and periods of stasis. The eight phases are presented here in chronological order.

The preseason plunge

The preseason plunge took place before the beginning of the teaching year during the training period. During this time, the novices all received basic information and instructional examples through intensive 10-12-day trainings. Novices reported that they arrived confident, particularly those novices with previous experience working in camp settings. However, as they were exposed to a new complex vocabulary of skills in a compressed period of time, most of the novices reported that they were soon overwhelmed. In order to train their novices, each of the participating centers used mimicry as the approach for learning content and method. Experienced

instructors, typically the novices' supervisors, presented the lesson models during the training weeks.

Despite their initial plunge of confidence, by the end of the training period the novices reported that they felt enthusiastic and prepared for their upcoming roles as environmental educators.

The praxis fracture

The novices spent the training weeks learning basic teaching skills and information. Lacking practical experience as teachers, they possessed only the observed models presented during training, along with the assumptions they held about teaching. Once the season began, these assumptions collided with reality. Researchers of novice classroom educators (Moir, 1999; Lindley, 1993; Ryan, 1984) have referred to this period of development as a time of *survival*. For the novices in the present study, this was the most difficult period of the year, as they struggled on many different levels in relation to skills and confidence. Ironically, despite these difficulties, the novices remained highly motivated during this phase. The period of fracture varied among the participants from a few days to a few weeks before the next phase emerged.

The punctuated assembly of pedagogical skills

Following the time of fracture in the early autumn was the phase of skill assembly that lasted through the second month of the program year. Two factors were consistently reported as influential during this phase. First was the repetition of lessons. The novices reported that the opportunity to repeat the same lesson with different students in different settings, coupled with the limited repertoire of lessons, provided them with essential practical experience as they learned to teach.

The second significant factor that was identified was the professional sharing that took place within the peer community. The peer community in each center was made up of both novice and experienced instructors, although the average tenure that separated these instructors was only one-two years. Professional sharing of instructional difficulties and successes seemed to spontaneously (and informally) develop in two of the three locations.

The complacency slope

As autumn advanced and instructional confidence grew, the novices became comfortable with the basic instructional knowledge and skills required for the daily tasks of teaching. During this time their early season enthusiasm for increasing personal knowledge and pedagogical skills tapered off. The novices had reached a point where they could get through the day without scrambling to prepare, and with this newfound comfort, there was resistance toward adopting new approaches. The focus of the peer community shifted from instructional development (assembly of basic skills) to the development of the social dimensions of the peer community. Also, as December began, the number of school programs declined and there was a shifting of attention toward the upcoming holiday break when all the instructors would leave for an extended break of two – four weeks.

The winter pulse of enthusiasm

The novices reported a high personal confidence and excitement after the holiday break. This confidence was fueled by the factor that each center had hired new instructors to join the staff in January. In their early weeks, these new novices¹ needed support, the same manner that the participating novices had required in

¹ This study focused on the development of the thirteen novices that began their teaching in August. Novices who began later in the year, including these January novices, were not part of the data pool.

September. By virtue of their four months of experience, the participating novices had something to offer these newcomers in knowledge and skills. Three participants mentioned that helping to train the January novices was one of the most important and memorable experiences of their year.

The season of discontent

The enthusiasm of early winter diminished by the end of January. Through February and March, the novices came to view the repeating cycle of lessons, especially winter recreation programs, as negative experiences. In addition, teaching outdoors for extended periods in winter weather was a challenge. Colds and flu became more common and a sense of isolation became prevalent among the community of instructors. The seclusion of winter, coupled with the repetition of classes, bred a discontentment that was directed toward peers, visiting teachers, students and the structure of the centers. This was a time of questioning purpose. Unlike the plunges and fractures of early fall, this period was not balanced with enthusiasm. However, during the spring, the novices reflected that the challenges of adapting to ever-changing weather situations during the winter months likely contributed to the development of their instructional skills and confidence.

Renewal of enthusiasm toward teaching

As the spring advanced, there was a change of program emphasis from winter recreation back to more ecology related programs. The field ecology classes of the fall returned, and like having an old friend revisit, these classes were welcomed enthusiastically. All the novices reported that spring programs allowed them to renew and build upon the skills they had developed in the autumn; skills they felt had lain dormant during the winter.

Reflection and redirection

Toward the end of the year, the instructors had deepened their practical understanding of outdoor teaching. For some instructors this fueled confidence; in others, an awareness of how much they had yet to learn about teaching and environmental education. During the last few weeks of the program year, the instructional community began to disband; instructors' attentions had shifted toward the end of the program season and closure with their experiences. These final weeks were a time of self-reflection and anxiety, as novices sought to make future vocational choices. For some this was to sign-on for another year of teaching at the center, for others, it was to move on toward new experiences.

Although the development path that the novices followed throughout the year was more challenging than they would have anticipated, every novice expressed job satisfaction and the belief that they had succeeded in developing instructional skills and identities as teachers.

Discussion and Recommendations

This paper has explored the professional development of residential environmental educators, principally describing how novice teachers gain skills and confidence as a result of their work in these settings. My desire to understand and describe the experiences of these novices was ultimately to improve the training and development experience of future novices, and the subsequent quality of environmental education programs in general. Because administrators of residential environmental education centers are as pragmatic as their instructors, I have dedicated these closing thoughts toward outlining suggestions of how the findings of this study could influence and

potentially improve the professional development of instructors in residential settings.

There are common issues that all teachers, classroom or residential, must address as they construct their instructional identities. These issues include learning to manage the content of their lessons, the tasks of teaching, as well as becoming comfortable in front of students. Nearly every new teacher is uncomfortable with the duties of teaching and feels overwhelmed by the multiple tasks required to run an effective lesson (Lortie, 1976). Through daily practice, lesson after lesson, day after day, most teachers become comfortable juggling multiple tasks in front of children; and most classroom teachers accomplish this in isolation from peers. It is here, in the crucible of community, where the residential setting has an advantage in the development of novice teachers. I have organized these ideas by season because, as I have explained, each season offers different challenges and opportunities.

Autumn

During the early weeks of the year, all of the novices² reported a fear that their knowledge base was insufficient for the task ahead of them. Lacking sustained preparation in content and methods for their lessons the novices learned by watching others teach and through informal collaboration with peers. Therefore, supervisors should:

- Provide the best possible instructional role models during these early weeks of the year. Help novices become students of teaching, by taking time to discuss the process of teaching, as well as presenting the content and technical aspects of the classes. Following training programs, ask novices to identify the content and techniques they have just observed.
- Encourage the use of journals as a way of sorting out the problems of practice. Provide writing prompts that help the novices focus on their observations.

² I use 'novice' here to maintain consistency with the rest of the text, although these ideas are appropriate for experienced instructors as well.

- Encourage peer collaboration when multiple novices are present. Honor the time before and after classes as peer development time. Encourage mentoring relationships, especially when only one novice is present.
- Membership in the peer community is paid through time spent together and the sharing of ideas and vulnerabilities. Supervisors can become allies to this community, and thus potentially be viewed as resources by the novices. In order to accomplish this, supervisors should be present for the novices. They should be in the staff office at break time, attend the on-site training programs so novices see them as learners, join-in and help with the non-teaching tasks and chores.

Winter

During the winter months the novice instructors were struggling to stay motivated. They had reached a level of comfort in their role and expressed a desire for new growth and challenge. During this season of the year, supervisors should:

- Host an open meeting to provide instructors with an official platform to share their struggles and ideas about program design. If taskforces emerge from this meeting, make sure they have time and resources to accomplish their work.
- Provide opportunities for novices to lead in-service training programs for peers and administrators.
- Bring in outside speakers for trainings on specific issues, such as teaching children with special needs or natural history topics.
- If there are other residential centers nearby, coordinate a staff exchange so novices are exposed to new ideas and people.
- Provide an in-school program for a local school, so the novices are challenged to work in a new setting for a day.

Spring

During this time the novices expressed both a renewed sense of purpose in their teaching and an anxiety about their future career direction. Supervisors should:

- Host a year-end reflection roundtable to discuss the ideas and skills the novices have developed, as well as explore their next professional steps.

- Be attentive to the acclimation of instructors who arrive late in the year, as the instructors who are preparing for departure may not readily accept them.

Throughout the year

The novices reported that the influences on their professional development changed as the year progressed. As every group will likely be different, supervisors should encourage diverse reflective strategies throughout the entire year. Such strategies could include:

- Schedule a weekly roundtable discussion introducing or exploring one topic or skill. The key to these experiences is that they occur on a regular basis, and are kept short to avoid scheduling conflicts.
- Provide time during the weekly staff meetings to discuss instructional anecdotes. This focus should be on the instructional experience rather than student performance.
- Encourage each novice to develop a system to record his or her ideas and insights regarding their teaching. Jotting ideas in a notebook or on cards may provide a powerful resource when unexpected changes arise.

The implications for this study extend beyond understanding the development of residential environmental educators and into exploring the sequential relationship between theory and practice in learning to teach. Through the voices and experiences of the participants I have shown that, for these novices, instructional confidence came about largely without theoretical or pedagogical underpinning. Additionally, by the end of their teaching year, these novices reported a high degree of job satisfaction and a belief that they were effective in their roles.

As I have explained, there are several complex factors that contributed to these beliefs, including the limited and repeating curriculum, the ever-changing student population and supportive peer environments. Simply stated, these novices had direct and sustained hands-on experiences working with many different children in many different educationally focused situations throughout their teaching year. I

believe that this study has illustrated that the *practice before theory* approach prevalent in these residential environmental education centers is a reasonable and potentially effective means of developing pedagogical skills. The novice teachers in this study received extensive experience in front of, and presenting to, children. Through this practical experience they developed practical theories of how students learn. I believe that if these same novices were to take educational theory courses during or following their residential environmental education experience, they would demonstrate a greater capacity for understanding theories than would those students who lack previous practical experiences. Concerns regarding teacher shortages and high attrition rates for classroom teachers make these recommendations even more important. Future research should explore this sequential relationship between theory and practice in greater detail.

Lastly, I return to the concerns expressed the United Nations regarding inadequate teacher training. The experiential manner in which the novices in this study were expected to learn to teach may have resulted in less than satisfactory instructional performances, particularly early in the year. Although the instructional experience of the participating students was outside the scope of this study, it is a question that must be raised. There are hundreds of residential outdoor/environmental education programs around the country serving thousands of students annually. For many of these students, these residential experiences will be their sole field-based environmental learning experience. Therefore, those of us who direct residential environmental education programs have a responsibility to provide these students with the best possible instruction. We achieve this through the instructors. Through the creation of deliberate sequentially structured training experiences, we guide our

novice teachers toward more effective instructional practices and, subsequently, more influential environmental education programs.

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