Professional Development of Preservice Teachers: Teaching in the Super Saturday Program

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General classroom teachers are being called upon to meet the needs of an increasingly diverse population of students. Although abundant research documents the specific needs of gifted students, too little is being done at the preservice teacher level to prepare our teachers to recognize and meet these needs (e.g., Feldhusen & Kolloff, 1986; VanTassel-Baska, 2003). This study examined the change in beliefs by one cohort of preservice teachers after participation in a gifted education course and practicum. Interviews with the participants following the intervention period were used to assess the participants' perceptions of the effect the course and practicum had on their understanding of gifted students' needs and their ability to meet those needs. Interview data were triangulated with classroom observations and lesson plans created by the participants for use during the practicum. Findings indicated the participants perceived an increase in their overall level of professional development, as well as an increase in their level of understanding of the characteristics and needs of gifted students.

Research in education for the gifted has documented the need for learning activities that are challenging, involve greater depths of inquiry, and incorporate opportunities for students to develop advanced products grounded in real-world issues (e.g., Feldhusen, 1991; Feldhusen & Ruckman, 1988; Howell & Bressler, 1988; VanTassel-Baska, 1988, 2003). It is further acknowledged that these needs can be addressed if teachers of gifted students are given proper training (Feldhusen, 1997; Hanninen, 1988; Hansen & Feldhusen, 1994).

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Traditionally, specialized training in education for the gifted has been provided through advanced instruction at the graduate level. Although graduate training may prove to be effective, too few in the field of elementary education elect this route, leaving the majority of educators who receive training in education for the gifted to do so through in-service workshops. Although in-service opportunities have been found to result in an increase in knowledge on the part of the educators who participate, they often produce a minimal change in the participants' classroom strategies (Reis & Westberg, 1994). In order to prepare all teachers more thoroughly to meet the needs of gifted students in the regular classroom, instruction is needed at the preservice teacher level (Tomlinson, Tomchin, & Callahan, 1994). The purpose of this study was to examine preservice teachers' perceptions of the effectiveness of two training strategies in increasing their understanding of gifted students.

Literature Review

Competencies of Teachers of the Gifted

Studies concerned with the essential competencies of teachers of the gifted are relatively consistent in their assessment of which competencies should be found in educators working with gifted students (Cross & Dobbs, 1987; Feldhusen & Hansen, 1988; Nelson & Prindle, 1992; Sisk, 1975; Whitlock & DuCette, 1989). The most essential among them are knowledge of the educational needs of the gifted, skill in promoting high-level thinking, ability to develop creative problem solving, ability to develop appropriate curricular units for the gifted, ability to facilitate independent research, and knowledge of gifted students' affective needs. Whitlock and DuCette and Feldhusen (1985, 1997) found that these competencies can be taught and concluded that the opportunity to practice them should be incorporated into practica.

Teacher Training in Education for the Gifted

Authorities in the field of gifted education maintain that all educators working with gifted students should receive adequate training in the characteristics and needs of this special population in order to meet their specific needs (Copenhaver & McIntyre, 1992; Cramer, 1991; Cross & Dobbs, 1987; Feldhusen, 1997; Gallagher, 2000; Hansen & Feldhusen, 1990; Parke, 1989; Toll, 2000). In National Excellence: A Case for Developing America's Talent, Ross (1993) reported that staff development is recognized as one of the seven main directives for gifted education. However, Archambault et al. (1993) found in their study of almost 4,000 third- and fourth-grade teachers across the United States that 61% reported receiving no staff development in education for the gifted. With the majority of gifted students spending most, if not all, of their academic career in standard classrooms, it appears the students' needs are not being met, presumably due to a lack of appropriate teacher training (Archambault et al.; Westberg, Archambault, Dobyns, & Salvin, 1993; Westberg & Daoust, 2003).

Training Undergraduates

Although the presence of gifted students in almost every classroom indicates the need for teacher preparation programs to include content on gifted students, typical preservice teacher programs do little to prepare teachers to meet the needs of gifted learners (Hansen & Feldhusen, 1994; Moon & Rosselli, 2000; Parke, 1989; Tomlinson, Tomchin, Callahan, et al., 1994). In interviews with preservice teachers, Tomlinson, Tomchin, Callahan, et al. found that, even with the best of intentions, the preservice teachers held to the belief in "onesize-fits-all" lesson plans and that differentiation was generally done at a student's request. The preservice teachers believed that although the gifted students were not challenged, they were not hurt either. The preservice teachers' lack of instruction often resulted in their equating "gifted" with compliance and completing school tasks successfully. Without appropriate instruction coupled with an adequate practicum, preservice teachers may not receive needed professional development opportunities.

Kagan (1992) further noted that student teachers come into teacher education programs with a critical lack of knowledge about pupils and stressed that the only way to acquire this knowledge is through direct interaction with pupils. It is this critical knowledge of pupils that Kagan believes is needed to challenge and change prior beliefs student teachers bring to their professional experiences. Copenhaver and McIntyre (1992), Dettmer (1993), Feldhusen and Huffman (1988), and Sisk (1975) echo the belief that for teachers to be effective, they need course work *and* involvement with gifted and talented students prior to teaching them. As Westberg et al. (1993) stressed, it is not sufficient or effective to *tell* someone what they should be doing; it is much more effective to *show* them how it should be done.

Starko and Schack (1989) examined factors that influence the implementation of teaching strategies in the classroom and found that self-efficacy determines whether a behavior will be initiated and continued. Of the four principal sources of self-efficacy noted (performance accomplishment, vicarious experiences, verbal persuasion, and low physiological arousal), performance accomplishment was found to be the most potent source of self-efficacy. In the training of teachers to work with gifted students, this translates into teaching opportunities. As noted by Jones (1991), offering training at the preservice teacher level that includes teaching experiences with gifted students can offer the supportive environment that is necessary if the preservice teacher is to take risks and explore areas not traditionally attempted. In addition, successful completion of the desired teaching strategy will most likely enhance self-efficacy further and increase the likelihood of the preservice teacher repeating the use of the strategy. The current study evaluated the effectiveness of just such a teaching opportunity in gifted education.

Purpose of the Study

The purpose of this study was to examine two training strategies for increasing participants' understanding of gifted students. The participants were undergraduates in an elementary education program who were teaching in a Saturday enrichment program for the first time. The training strategies were (a) an online course specifically designed to introduce concepts in education for the gifted to preservice teachers and (b) a practicum within the Saturday program.

The following research questions guided the study:

- Do preservice teachers in elementary education perceive an increase in their understanding of the needs and characteristics of gifted children through their participation in an online gifted education course?
- 2. Do preservice teachers in elementary education perceive an increase in their understanding of the needs and characteristics of gifted children through their participation in a practicum in gifted education?

Methods

A constructivist theoretical framework was chosen to examine how the participants perceived their experiences in an introductory course and practicum in education for the gifted and how they constructed their perceptions and beliefs about gifted students (Patton, 2002). The perceptions of the participants were interpreted from data gathered through semistructured interviews, lesson plans, their performance in the classroom as assessed by specialists in the field of gifted education, as well as self-evaluation of their teaching through the use of videotapes.

Site and Context

This study was conducted at a large land grant institution located in the Midwest. Preservice teachers in the elementary education program at the university were placed in a structured program with specific curriculum content and field experiences offered each semester. The participants in this study had completed the first four to six semesters of this program including a course entitled "The Inclusive Classroom," which included a three-lecture series in gifted education.

They had also experienced several early field experiences, although they had not yet participated in the final semester of in-depth student teaching. For more information concerning this teacher preparation program, see Bangel (2004).

The Saturday enrichment program in which the participants taught was designed to provide accelerated and enriched learning opportunities to talented youth in preschool through grade 8. The students participating in the Saturday program had demonstrated a national percentile ranking of 90% or higher on a nationally normed achievement test, an IQ test score of 120 or above, or had been recommended by a parent and/or teacher based upon behavioral characteristic checklists. The program involved 37 multiage classes that were 2 hours in length on nine consecutive Saturday mornings. Instructors for the Saturday program included experts in their fields, licensed classroom instructors, and preservice teachers in both elementary and secondary education.

Curriculum for the courses was written by the instructors with the guidance of the Saturday program staff. Instructors were coached to write curriculum at least two grade levels above the current level of their Super Saturday students and to pace their instruction two to three times faster than in a standard classroom. The Purdue Three Stage Model (Feldhusen & Kolloff, 1986, 1988; Moon, Feldhusen, & Dillon, 1994) was the foundation for curriculum development. Classes began with Stage I activities, which involved the introduction of core content materials, as well as relatively short activities selected and directed by the teacher that focused on the development of divergent and convergent thinking abilities. Stage I activities were also to be utilized throughout the 9-week session for warm-ups and reinforcement of thinking skills. Classes quickly progressed to Stage II activities, which involved more complex creative and problem-solving activities requiring more student involvement and less teacher control. In addition, throughout the 9-week session, students were facilitated by the instructors in Stage III independent learning processes. The Saturday program culminated with students making a presentation of their independent (or small group) research activity.

Selection of Participants

Preservice teachers who taught in the Saturday program were initially self-selected through the application process for teaching positions within the program. Due to the demographic makeup of the university's teacher education program, the majority of preservice teachers who worked as instructors in the Saturday program at the time of the study were White females between the ages of 19 and 24.

The current study examined five elementary preservice teachers who participated as both instructors in the Saturday program and students in an online course on education for the gifted. All five participants in the current study were females between the ages of 20 and 22. Four were Caucasian and one was Indian. To protect the identity of the participants, all names were changed. Two of the participants, Emily and Rahini, had previously participated as course assistants with the Saturday program and were juniors in the university's elementary education system. The remaining three, Regina, Jennifer, and Samantha, had no prior experience with the program and were seniors in the elementary education program.

Emily was the instructor for kindergarten and first-grade students taking a course in sign language. Samantha taught Sea Creatures to first and second graders. Rahini, Regina, and Jennifer taught third and fourth graders Egyptology, Mysteries, and Mini-Med, respectively. Purposeful sampling was used in the selection of participants utilizing three criteria (Patton, 2002). First, all participants were firsttime instructors in the Saturday program. Second, the participants were enrolled in the online introduction to gifted education course. The third criterion was that the participants be undergraduates in the elementary education program. Although both the practicum and the course had members who were involved with education at the secondary level or were graduate students, the current study was designed to focus specifically on elementary education undergraduates. Of the 37 instructors for this session of the Saturday program, 5 instructors met all of the criteria and agreed to participate in the study.

Interventions

Course: Introduction to Gifted Education. Participants were part of a 15-week online course based upon National Association for Gifted Children (NAGC) program standards, as well as Council for Exceptional Children (CEC) standards for teachers of students with gifts and talents. They were required to complete (a) readings covering major aspects of education for the gifted, (b) nine 2-hour sessions instructing high-ability learners in the Saturday enrichment program, (c) online discussions and reflections, and (d) two videotapes of their teaching for discussion by class members. Topics addressed in the online course included characteristics, needs, and myths; social and emotional needs; tools for designing curriculum; strategies for differentiating curriculum; twice-exceptional students; active questioning techniques; resources for the teacher; assessment techniques; and methods of identification.

Practicum. As instructors in the Saturday enrichment program, the participants were responsible for developing the curriculum for their course. Curriculum was reviewed by the instructor for the online course. In addition, the participants established classroom management and parental involvement strategies for their classrooms.

Data Collection

Observations. Specialists in gifted education observed the participants for two 30-minute periods during the 9-week experience. Observers recorded their evaluations of the instructors' use of curriculum and teaching practices appropriate for gifted students on the Teacher Observation Form (TOF) developed and evaluated by John Feldhusen and Jan Hansen (Hansen, 1988).

Lesson Plans. The 9-week outlines for the courses, as well as full, detailed lesson plans created by the participating instructors, were evaluated for content appropriateness, flow, and pace.

Interviews. Forty-five minute interviews were conducted with each participant during the 2 weeks following the practicum to assess their postintervention perspectives on their growth in understanding gifted students. An interview guide was used to ensure that the same basic lines of inquiry were pursued with each participant

(Patton, 2002) while at the same time providing freedom to expand within the predetermined subject areas or topics. Each interview was audiotaped with the respective participant's knowledge for later transcription.

Role of the Researcher. As the Saturday program coordinator, the researcher's prior exposure to the program provided background data that were useful in developing this study. However, this same prior exposure was a potential source of bias that could distort the data collection and interpretation processes. To counteract these potential biases, special caution was used when interviewing participants to remain open to the findings as they emerged and not let preconceptions influence the process.

Data Analyses

Data clips were collected from three sources: (1) five interviews (I-1 through I-5); (2) the qualitative portion of 19 TOFs (O-1 through O-19), two per participant completed by specialists in the field of gifted education and two per participant done by each participant (except Jennifer, who completed only one); and (3) lesson plans created by the participants for use in their Saturday class.

Interviews, Lesson Plans, and TOFs

The interviews were audiotaped and transcribed by the researcher. The transcripts were first read through completely and then read again beginning with open coding with a line-by-line analysis of the transcripts and concepts being generated. These concepts were then grouped into categories, whose properties facilitated naming the categories and labeling their dimensions. This was followed by the process of axial coding (Strauss & Corbin, 1998). In addition to the interview transcripts, comments on the TOFs were coded and analyzed in the same manner. The final stage of the analysis was the development of six assertions that were well supported by all data sources. These assertions and the evidence for them are reported in the findings.

Trustworthiness and Credibility

To address the issue of trustworthiness, or reliability, in the current study, a second person coded small sections of data. A high level of intercoder agreement was reached on many concepts and categories. Variance was treated by reading the contested transcripts together and discussing them to uncover the concepts found.

To increase the level of credibility, data were triangulated through the use of multiple sources. Observations by specialists and the participants, as well as evaluations of the participants' lesson plans were compared to interview responses to determine the participants' understanding of gifted students. An audit trail detailing the source and location of qualitative data clips from the interviews, TOFs from both specialists and participants, and lesson plans was used throughout the data analysis to facilitate their review.

Findings

Assertion #1: Although some participants were involved in gifted education programming during their own elementary through high school experience, prior experience with gifted education programming did not have a major impact on their desire to teach in the Saturday enrichment program.

Results of the interviews indicated that three of the five participants, Regina, Jennifer and Samantha, had experienced gifted education in elementary school while Emily and Rahini did not report receiving any special programming. Regina and Samantha both experienced pull-out programming. Regina noted her experience was similar to "camp busy work" (I-5, line 27) and did not influence her decision. Jennifer recalled receiving "different instruction" (I-2, line 15) and getting "skipped a grade for math" (I-2, line 13), but did not attribute teaching in the Saturday program to this experience either. However, Samantha stated "... one of the reasons why I did this is because I remember how much fun [gifted education programming] was for me" (I-4, line 9). Hence, only one of the five participants reported that prior experiences with gifted education programming motivated her to teach gifted students.

Assertion #2: Preservice teachers perceived that they were told in their teacher preparation program to accommodate for students with special needs but were given little or no instruction as to how to do this, particularly as it applies to gifted students.

When asked to recall what professional training they had received to adjust their lesson plans to accommodate differing student needs prior to their experience with the Saturday program, the participants voiced that the instruction was negligible to nonexistent, in spite of the fact that all had taken "The Inclusive Classroom" during the second semester of their preparation program, which was focused specifically on special-needs students. Jennifer noted that "they pretty much tell you to, but they don't really show you how to" (I-2, line 30), and Emily stated, "Nothing. They just said accommodate them ... A lot of people would give [gifted students] extra work" (I-3, line 452). During follow-up probes, the participants also voiced that few opportunities existed during their field experiences to explore strategies involving the principles of gifted education. Overall, the preservice teachers perceived that the concept of adapting instruction for individual students was introduced at a very basic level during the participants' teacher education program, with an emphasis on "the kids that had more problems . . . they focused mostly on . . . special ed" (Regina, I-4, line 11).

Assertion #3: Participation as an instructor in the Saturday enrichment program was perceived by the participants as an authentic professional experience that was different from the field experiences in their standard teacher education program.

Authentic learning is a powerful teaching strategy based upon the premise that students' experiences in school should resemble the experiences they will encounter in real life (Cronin, 1993). Participation as an instructor in the Saturday program required the participants to develop curriculum, manage a classroom, and negotiate parent/teacher relationships, just as would be expected from professionals in a standard classroom. For the participants in this study, it was their first experience with a classroom of their own. Although standard field experiences are intended to give preservice teachers an "authentic classroom experience," they were perceived by the par-

ticipants as taking place in someone else's classroom, with someone else's curriculum, students, and parents. As Jennifer put it, "Running your own classroom's a lot different than going in and helping out for an hour" (I-2, line 77).

The participants made comparisons between their preservice classroom experiences and the Saturday teaching experience. Regarding such areas as time commitment and the level of instructor responsibility, the participants perceived the Saturday experience as more closely related to what they believed they would encounter in their own classrooms. "It's a lot different . . . than going in somebody's classroom and doing exactly what they want you to do and then having to plan an entire class by yourself and writing a syllabus and all of that" (Jennifer, I-2, line 428). Regina commented on the uniqueness of the program and its overall value as compared to her previous field experiences and added that she thought "teaching [in the Saturday program] should be a requirement of the education program" (I-5, line 183). Samantha felt "like . . . we had experience teaching in our ... field experiences, but nothing compared to this" (I-4, line 320), and Emily noted that "it gives you an experience, a classroom experience before you're a teacher. And this is the only opportunity that pre-service teachers have" (I-3, line 442).

As parent/teacher relationships are also a vital part of a normal classroom experience, it was interesting to note that the participants viewed one of the benefits of the Saturday program as an opportunity to develop their skills with these relationships. "I think that the parental aspect is one of the greatest things about this experience, too" (Regina, I-5, line 561), "... and I think that this experience has just taught me a lot about parent communication.... I've had a lot of experience with kids but I've never had to have any experience with dealing with kids' parents" (Regina, I-5, line 590).

Assertion #4: Participants perceived an increase in their awareness of gifted students' characteristics and needs through the online course.

Four of the five participants commented on their increased understanding of gifted students gained through the online course. The fifth, Rahini, admitted that she "didn't give much time to the course" (I-1, line 236). Jennifer commented that she thought "the

articles really helped that [understanding] a lot, and the discussions, and . . . especially the teaching videos; seeing the other people teach and watching myself" (I-2, line 140). Regina noted that the course

guides your knowledge in gifted.... Had I not taken the class I think I'd be in a much...less [professional] position than I am now (I-5, line 785). I definitely recommend it, just the whole [course] (I-5, line 802). I think before anybody graduates [from this university], they should have to watch themselves teaching in a practicum experience (I-5, line 842).

Emily felt

more aware of gifted students and . . . their needs and how to meet their needs (I-3, line 137). . . . [The online course] is really the only . . . class . . . that we could take to get that background knowledge on how to teach gifted students and how to accommodate them and how to meet their needs (I-3, line 444). I think it needs to be a requirement because there are gifted kids in classrooms and they do need to have their needs met (I-3, line 463). . . . I think it needs to be a required class in education programs (I-3, line 477).

Although a full awareness and understanding of gifted students would not be expected in such a short period of time, observations by the specialists indicated an increase from the first observation to the second in the use of appropriate strategies in almost all categories for three of the five participants, Jessica (O-5 and O-6), Regina (O-8 and O-9), and Samantha (O-16 and O-17). Emily (O-1 and O-2) also improved in two categories, subject matter coverage and emphasis on creativity, but did not improve on pace of instruction and student involvement. Rahini was rated average or lower on most categories on the first observation (O-12) and was rated average or lower on motivational techniques and pace of instruction on the second observation (O-13). With her admitted lack of participation in the online course, Rahini had limited exposure to appropriate instructional methods for gifted students.

Assertion #5: The teaching in the Saturday program and the online components of the course were perceived as complementing each other.

Regina noted

that the [Saturday program] and [the online course], for me anyway, are complementary of each other. I think that without [the course]... [teaching in the Saturday program] might have been a little less beneficial to me. And then obviously without the actual practicum experience of teaching in [the Saturday program], [the online course] might not have been ... as helpful to me. I think they definitely go hand-in-hand (I-5, line 619).

Emily also commented on the value of the structure of this experience. She felt she was "more prepared and aware of what [gifted students] need based on my [online course] and teaching (I-3, line 130). I think teaching it and doing the class . . . allowed me to read about it, . . . process it, and then actually do it (I-3, line 155)." Rahini noted that taking a course directly tied to the classroom experience allowed her to "compare and contrast" her teaching to the content of the class and felt they went "hand-in-hand" (I-1, line 276).

Assertion #6: Most participants perceived an increase in their understanding of gifted students through participation in the course, although their knowledge and skills remained at the novice level.

The primary goal of the online and practicum programs were to raise the awareness of preservice teachers concerning the characteristics and needs of gifted students. It appeared, through the responses of the five participants, that this goal was at least partially fulfilled. For example, Regina believed the following:

I'm a lot more prepared to take on [gifted students].... But until now,... if I would've had to just go straight into teaching, if I had a gifted student, I would've probably been more like the whole pullout and go do fun activities 'cause you already know, rather than challenging... them to go farther with... differentiating their instruction within the regular classroom (I-5, line 106).... These kids want more.... You can see it in their eyes when they come into the class,... they

really do just want to learn something new. . . . They thrive on it. So I think it changed my view of them because now, when I go into my regular education classroom . . . I won't just . . . be thinking that I'm supposed to have . . . these kids teach my other students. I'm going to try to challenge them (I-5, line 161). . . . I can honestly say that if I wouldn't of (sic) . . . done this at all and went into my student teaching or whatever next year, I probably would have been another one of the teachers that said 'alright (sic), well you help teach this person this or you get to go to the pullout program and I'm not gonna (sic) do anything extra for you (I-5, line 480). . . . It's definitely appropriate for expanding my knowledge on teaching in gifted education and then I think that . . . in having that knowledge makes me a better teacher (I-5, line 618).

Jennifer also indicated a change in her view of gifted students. She commented, "I feel I have grown since watching the video [from the online course]. The kids continue to improve my teaching style. I am trying to focus more on how to push them now that I have a better grasp of their abilities" (O-7, line 13).

The majority of observations recorded by the participants after viewing their videotapes indicated a strong awareness of the needs of their students for higher levels of thinking. In noting areas in which they would like to see their teaching strategies improve, the participants noted they "need to ask more open-ended questions" (Samantha, O-18, line 8), "use more higher level thinking questions" (Emily, O-3, line 7), and "provide a longer wait time for students to develop answers to their own questions or classmates' questions" (Regina, O-10, line 7).

It should be noted that, although four of the participants perceived an increase in their understanding of gifted education due to participation in the online course, as well as the practicum experience, several responses to further probes indicate that their knowledge of what constituted effective gifted education was not complete. For example, Jennifer, in discussing differentiating through stations, noted that her students "were working on things

at different times but everybody got to do the same activities" (I-2, line 239).

In evaluating the participants' lesson plans, it was determined that three of the participants illustrated an increased awareness of their students' needs as they progressed through the program. Regina, Jennifer, and Samantha began the 9-week course with multiple activities to occupy the students' time. However, as the participants progressed through the program, they reduced the number of activities and increased the depth and complexity of the activities for the students. For example, Regina began the semester with lecture and whole group, short-term activities (L-28), but progressed to crime scene analysis and open-ended questioning by week 5 (L-32). Samantha started the semester with 8 short-term activities in week 1 (L-37) and 15 short-term activities in week 2 (L-38), but by week 5 had reduced the number of activities to 2 and used the classroom time for discussion and problem solving (L-41). Jennifer, as well, introduced many topics through shortterm, hands-on activities during the first 3 weeks of the course but had adjusted her lessons to allow for investigation, analysis, and real-life applications when discussing bacteria and the immune system (L-24) in week 6.

On the other hand, Emily stated that "whenever I made lesson plans, I always . . . referenced Bloom's taxonomy" (I-3, line 85), but her lesson plans indicated a strong tendency for rote memorization and content mastery. According to Emily's lesson plans, she progressed from reviewing numbers and alphabet signs in week 2 (I-11) to reviewing 19 categories of signs by week 9 (L-18). Emily utilized "fun" activities each week with her students (e.g., singing songs (L-1) and matching games (L-2 and L-4)), but there was no indication that her students were introduced to higher levels of thinking. Although Emily noted the "need to use higher level thinking questions" (O-3, line 7), no such adjustment to her lesson plans was evidenced. Both observations by specialists (O-1 and O-2) also noted an average level of emphasis on higher level thinking skills in Emily's class.

Rahini failed to provide lesson plans adequate enough to evaluate her procedures, but both her own observations (O-12 and O-13) and those by the specialists (O-14 and O-15) indicated a need for

improvement in most areas considered appropriate for gifted students.

Discussion

As Tomlinson, Tomchin, Callahan, et al. (1994) have noted, the standard field experiences that preservice teachers are exposed to perpetuate attitudes and practices that are not desirable for teachers of gifted students and are "dubious in . . . value even for the typical learner for whom schools are designed" (p. 113). The participants in this study unanimously voiced a similar lack of high-quality training in gifted education in their teacher education program. The gifted education community acknowledges that specialized training in gifted education is necessary to provide appropriate academic opportunities to gifted students (Copenhaver & McIntyre, 1992; Cramer, 1991; Cross & Dobbs, 1987; Feldhusen, 1997; Gallagher, 2000; Hansen & Feldhusen, 1990). It is further noted by many in the field (e.g., Copenhaver & McIntyre; Dettmer, 1993; Feldhusen & Huffman, 1988; Kagan, 1992: Starko & Schack, 1989; Tomlinson et al., 1997) that direct interaction with gifted students is needed to develop an adequate understanding of their needs. With the inclusive environments prevalent in schools today, it seems logical that this training and interaction needs to occur during teacher preparation programs. This study was undertaken to determine the effectiveness of a specific practicum and online course in providing this knowledge base to undergraduate preservice teachers. Although a complete understanding of the students' needs could not be expected in such a short period of time, the participants did indicate an increase in their awareness of gifted students' needs and appropriate curricular adjustments required to meet those needs. Participants perceived that the information concerning the characteristics and needs of gifted students offered during the course provided the scaffolding necessary for them to prepare, in the short term, for their practicum experience, and, in the long term, for their future classrooms. Their awareness that such differences exist for their gifted students is a vital first step in making appropriate adjustments for these students.

In addition, the participants related this practicum to a "real" experience where they were the teacher, fully responsible for their students, their classroom, and their relationships with the students' parents. Kagan (1992) has noted that preservice teachers have a series of stages they must progress through before becoming a professional. The first stage is to convert their thinking from being a student to being a teacher. One of the most critical findings of this study was that this type of "authentic experience," coupled with a strong support system, provided a very successful environment for preservice teachers to grow as professionals. The participants agreed that this experience, more than most standard field experiences, provided the opportunity to utilize more fully the skills the participants had been trained to use in their teacher education program. As noted by the participants, this experience, dedicated solely to introducing preservice teachers to gifted education, is seen as a valuable, effective strategy that is not encountered elsewhere in their educational program.

Limitations

In examining the limitations of this study, three key areas emerge. First, with the strict criteria of being first-time instructors in the Saturday program, elementary preservice teachers, and participants in the online course, participants in the current study were limited by type and number available. Second, these selection criteria limited the ability to generalize the results to a larger population. Third, the use of one interview per participant may have limited the depth and richness of the results. Additional research should be done with interviews of participants prior to and throughout the experience to evaluate the progression of their growth.

Conclusion

Teacher education programs strive to prepare novices to become high-quality teachers for our youth. Among those youth will be a number of gifted students who desire to have appropriate educational opportunities but have not had them, due to a lack of training for their teachers. It is the responsibility of teacher training programs to make preservice teachers aware of the needs and characteristics of gifted students. This has never been more critical than today, in the age of the inclusive classroom. A program such as the one examined in this study could be the format for future opportunities to match preservice teachers with gifted students (or other special populations of students) to give them first-hand knowledge of their needs and characteristics to take forward with them into their classrooms.

This program, as perceived by the participants, has been effective in increasing their understanding of gifted students and necessary for their growth as professionals. Duplication of this model should be considered in additional teacher education programs. It is theorized that this same style of instruction could be transferred to other specific populations or content areas such as special education, specialized reading or science programs, or students who are hearing impaired. Teacher trainers and researchers need to explore other areas where similar opportunities could be made available that would more fully utilize the skills in which the candidates have been trained. Research of this type should add to our knowledge about effective training programs for preservice teachers. Incorporating into instruction a practicum experience that is very closely related to the instructional area and more intensive than standard field experiences has been shown in this study to be an effective means of instruction for preservice teachers. This study suggests teacher education programs need to provide more intensive undergraduate education experiences in gifted education that combine authentic teaching with didactic instruction in order to change preservice teachers' attitudes and build the knowledge and skills needed to challenge and support gifted and talented youth.

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