

Peer coaching to improve classroom differentiation: perspectives from project CLUE

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As traditional pull-out programs for students who are identified as gifted and talented (GT) decrease in number (Landrum, 2001), classroom differentiation is becoming more essential for general-education teachers at the elementary level. In addition, a typical public-school classroom contains 27 students whose academic performance spans five grade levels; therefore, teachers can no longer "teach to the middle" and effectively reach their students (Hertberg-Davis & Brighton, 2006; Tieso, 2004). Classroom differentiation is necessary to enable all students to maximize their gains.

Despite the importance of differentiation, teachers are still not implementing it on a regular basis. One study found that in core academic areas, high-ability students received no differentiated instruction in 84% of the classroom activities (Westberg, Archambault, Dobyms, & Salvin, 1993). One strategy that may help teachers become more adept at differentiating content is mentoring or peer coaching. The literature is replete with studies examining both classroom differentiation and collegial peer coaching; however, few studies have examined how peer coaching may facilitate teachers' abilities to effectively differentiate instruction. The present study sought to understand how a peer coach for teachers may influence teachers' understandings and abilities to facilitate differentiated lessons for high-ability students.

REVIEW OF LITERATURE

Differentiated Instruction and Teacher Issues

In order to effectively integrate differentiation into the classroom, teachers must first embrace the concept. Many teachers are resistant to differentiation because (a) they do not receive administrative support (Hertberg-Davis & Brighton, 2006); (b) they fear that straying from the mandated curriculum may result in lower standardized test scores (VanTassel-Baska, 2006; VanTassel-Baska & Stambaugh, 2005); (c) they have classroom management or student behavioral problems (Hertberg-Davis & Brighton; Knopper & Fertig, 2005; Westberg et al., 1993); (d) they are resistant to long-term changes in teaching style (Tieso, 2004); (e) they do not have time to plan for differentiation (Hertberg-Davis & Brighton, 2004; Knopper & Fertig; Westberg et al); or (f) they fear that students' parents may not agree with the practice (Knopper & Fertig).

The current literature addresses these teacher perceptions. Administrative support is a very real issue in teachers' usage of classroom differentiation. Principals play an enormous role in teachers' willingness to use differentiation, and teacher attitudes reflect the attitudes of the administration (Hertberg-Davis & Brighton, 2006). Therefore, in order to implement the practice, school administrators must be supportive. Next, despite what teachers may perceive, classroom differentiation actually benefits all learners and lowers classroom behavioral problems since students are more engaged in subject matter

(Cooper, 1998; Knopper & Fertig, 2005; Landrum, 2001; Page, 2000). Further, because of the dissipation of traditional pull-out model GT programs and legislation mandating schools to accommodate students who are GT, more and more general-education teachers have students who are GT in their classes and require accommodations (Landrum). Teachers have no choice but to bend, stretch, and modify their traditional teaching styles to meet student needs. Differentiation, while very time consuming at first, can become a time saver as students often learn to be self-directed through anchoring activities such as independent reading or research on a student-selected topic (Cooper; Knopper & Fertig) after successfully completing a compacted lesson (McGrail, 2005). Finally, to address teachers' concerns about parent attitudes, in a recent case study it was noted that parents usually prefer to have their children in differentiated classrooms (Knopper & Fertig).

Differentiation means different work, not more work (Cooper, 1998; VanTassel-Baska & Stambaugh, 2005). Using the mastery model approach to GT education (Matthews & Foster, 2006), it is imperative to provide students the opportunity not only to do different work but work that is learner-directed (Betts, 2004), work that they are passionate about (Cooper, 1998), and work that is adapted to their specific aptitudes (VanTassel-Baska, 2006). The key to integrating this is establishing a flexible and fluid environment in the classroom (Matthews & Foster, 2005b). The mastery model of gifted education allows students to participate in curriculum development. Betts (2004) asserted that there are three levels of curriculum and instruction: (a) prescribed curriculum and instruction; (b) teacher-differentiated curriculum; and (c) learner-differentiated curriculum. If students are able, with the support of educators, to construct their own knowledge, thus participating in curriculum development and differentiation, rather than acting as passive consumers of information, they have reached the pinnacle of learning.

Peer Coaching and Mentoring

Current research shows that little differentiation is occurring in classrooms across the country (VanTassel-Baska, 2006; Westberg et al., 1993). In order to provide educators with the necessary tools to implement differentiation techniques in their classrooms, peer coaching (teacher-teacher, teacher-consultant, and teacher-GT specialist) can play an integral part in the professional development of teachers. Peer coaching is a nonevaluative, nonthreatening, and confidence-building training method for educators. This method is highly effective in positively impacting teachers (Bowman & McCormick, 2001; Brandt, 1987; Page, 2000; Showers & Joyce, 1996; Slater & Simmons, 2001; Sparks & Bruder, 1987; Swafford, 1998).

Robbins defined peer coaching as "a confidential process through which two or more professional colleagues work together to reflect on current practices; expand, refine, and build new skills; share ideas; teach one another ... or solve problems in the workplace" (as cited in Slater & Simmons, 2001, p. 68). Since 1982, many studies have been conducted to gauge its effectiveness. Studies have asserted that peer coaching, or mentoring, is more powerful, with regard to transfer of learning in the realm of teacher (both GT and non-GT) professional development, than any other training component (Gingiss, 1993; Showers & Joyce, 1987, as cited in Swafford, 1998). Teachers emerge from a peer-coaching experience with a heightened sense of confidence. They garner

new ideas and have feelings of nonisolation. Teachers may also develop a lasting collegial relationship with their peer coach. (Bowman & McCormick, 2001; Brandt, 1987; Page, 2000; Showers & Joyce, 1996; Slater & Simmons; Sparks & Bruder, 1987; Swafford, 1998). This type of professional development can be intimidating to teachers at times because they are accustomed to being isolated in their classrooms (Brandt); however, the positive outcomes of the peer coaching experience outweigh all initial hesitation.

In order for a peer coaching initiative to be successful, teachers need ongoing support and follow-up meetings (Matthews & Foster, 2005a; Showers & Joyce, 1996; Swafford, 1998). Support should take the form of ample planning and collaboration time between the mentor, mentee, and/or GT consultant (Kane & Henning, 2004; Landrum, 2001; Raywid, 1993). Procedural, affective, and reflective support is given through peer coaching (Swafford). Collaboration efforts between general education teachers and GT/special education specialists have been proven successful in meeting the needs of a diverse classroom of students (Gately & Gately, 2001; Keefe, Moore, & Duff, 2004).

In the current study, the researchers sought to explore the feasibility of a peer-coaching program, with the aim of enabling teachers to enhance their knowledge and application of differentiation in a mixed ability classroom. Specifically, the research questions guiding the study were (1) "What were the mentors' perceptions of their participation in a peer coaching program design to enhance teacher understanding of differentiation in a mixed ability classroom?" and (2) "What were the teachers' perceptions of their participation?" From gaining access to these two perspectives, the researchers hoped to form an understanding of the feasibility and usefulness of such a program.

METHODS

Project CLUE

Project CLUE (Clustering Learners Unlocks Equity) is a Javits Grant partnership between Ball State University's (BSU) Center for Gifted Studies and Talent Development (Center) and Indianapolis Public Schools (IPS). The purpose of this partnership is multifaceted and includes five goals: (a) to ensure that the number of students from underrepresented populations in GT programs is equivalent to the number of such students within the total population, (b) to provide a model program for GT students within underrepresented populations, (c) to provide teachers with a knowledge base with regards to best instructional practices for GT students and differentiation strategies, (d) to provide opportunities for enhanced parental involvement, and (e) to disseminate information and results from the project to outside, but similar, school corporations (Pierce et al., 2007).

The Center is composed of 20 educators who have a primary passion for and commitment to assisting young people to reach their academic and intellectual potential. A secondary passion is to enable teachers and parents to identify, understand, and nurture students with exceptional cognitive talents, which ultimately benefits GT students. IPS was targeted for the initiative because of the historical negative perceptions that plague urban school districts and are detrimental to student success: negative perceptions of student potential, the implications of poverty, cultural and ethnic bias, and lack of parent involvement in the process of education (Pierce et al., 2007).

Mentoring in Project CLUE

In order to meet the objectives of goal three, to provide teachers with a knowledge base with regards to best instructional practices for GT students and differentiation strategies, mentoring relationships were created between IPS teachers and qualified peer coaches. During the spring terms of 2004, 2005, and 2006, mentors conducted in-class observations with third-, fourth-, and fifth-grade teachers on three separate occasions each year. Each IPS school and its teachers were categorized into one of four groups: curriculum and cluster, cluster only, curriculum only, and no curriculum or cluster. Groups receiving the CLUE curriculum were provided lesson plans and training on curriculum implementation. Cluster groups had GT student cohorts in their classrooms ranging in number between 3 and 10.

Mentors were assigned a small number of teachers from a particular group. The mentors served not only as observers but also as colleagues or peer coaches. Each mentor/teacher duo kept in touch via phone or e-mail in order to schedule visits and discuss ideas, strategies, or differentiation techniques. Teacher professional development was the primary mission of the mentoring program. The fact that the program was nonevaluative in nature was made clear to all mentors and mentored teachers. A total of 46 IPS teachers were mentored for 1 to 3 years by nine mentors. Mentors served several teachers simultaneously.

Teachers' and Mentors' Characteristics

Caucasian women represented 95.2% of teachers participating, all teachers had at least 1 year of teaching experience, and many expressed interest in pursuing a GT endorsement. Mentors were recruited and selected based on affiliation with IPS schools, GT consulting experience, BSU affiliations, and geographic proximity. All mentors had at least 15 years of teaching experience, ranging from 15 to 33 years. Each mentor received a stipend as well as travel reimbursement. Caucasian women represented 78% of mentors. As with the teachers, mentors varied minimally in terms of gender, ethnicity, and background: three served as GT coordinators within IPS schools, two were BSU affiliates, and four were outside consultants (see Tables 1 and 2 for complete demographics). Over time, the number of mentors declined due to other time commitments, increased travel, and other personal circumstances.

Procedure

During the spring terms of 2004, 2005, and 2006, mentors conducted three in-class observations per term with each of their assigned teachers. Observations were recorded using an instrument designed specifically for this purpose: The Project CLUE Mentor Log ([CML] Adams & Pierce, 2004; see Appendix A). In addition, each pair used e-mail as a primary communication tool. Communication was necessary to schedule visits, provide feedback, and answer questions. A content analysis of the CML and e-mail correspondence between teachers and mentors was conducted. In addition, the nine mentors and the 46 mentored teachers were provided surveys in the spring of 2007 regarding their impressions of the program (see Appendixes B and C). Seven of nine mentors returned a survey for a response rate of 78%. Of the 46 teachers given surveys,

30 were returned for a response rate of 65%. A content analysis was also conducted on these data.

Grounded theory (Charmaz, 2005) was the basis for analysis. During the spring of 2007 all three data sources were analyzed. First, mentor logs and e-mails were analyzed inductively for emerging themes. Thomas (2003) stated, "The primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (p. 2). This method was particularly useful due to the extensive amount of data. Furthermore, clear links were established between the data and the research objectives (Thomas, 2003). Five overarching themes with multiple levels surfaced: scheduling and logistics, motivation, communication, relationships and correlations, and ethnicity. Each theme was assigned a number, one through five respectively. Each subtheme was given a letter. An outside note packet was generated in order to code data accordingly. For example, a quotation that fell under the second subtheme of the first major theme would be coded, 1B. Written note taking was used to initially code data within the note packet. Nonapplicable data (e.g., "Good morning! I hope you are doing well!") were disregarded. After the coding was complete, coded data were transcribed into an electronic format and organized into thematic categories. The process of coding was integrated into the analysis of the data (Coffey & Atkinson, 1996).

Following the analysis of the e-mail correspondence and the CML, it was determined that a third data source was required for triangulation. Two surveys were developed: one for mentors and one for mentored teachers (see Appendices B and C). These data were coded based on themes and transcribed into an electronic form in a single step. Data were coded based on a primary heading, mentor (M) or teacher (T), and multiple numbered secondary headings. For example, if a mentor commented on his or her motivation to participate, this quotation was transcribed under the category, M1.

From this point, similarities among themes from the mentor logs and e-mails and the surveys were determined, and applicable data were further collapsed. Five new categorical themes were created after examining all data: scheduling and logistics, communication, teacher and mentor motivation, and differentiation usage. The most rich and salient data were selected for verbatim inclusion in this article. Meaning was generated through noting patterns within the logs, e-mail dialogue, and survey responses. Counting was used in order to verify the most pertinent themes while determining discrepancies (Miles & Huberman, 1994). All respondents were assigned pseudonyms in order to protect anonymity (see Tables 1 and 2).

RESULTS

Pertinent themes pulled from the data were organized into four categories: scheduling and logistics, communication, teacher and mentor motivation, and differentiation usage. Within each category there are multiple subcategories.

Scheduling and Logistics

Scheduling in-class observations and juggling the schedules of both the mentors and the mentored teachers were sometimes burdensome. Many teachers were hesitant to respond to initial e-mails sent by mentors regarding the program and establishing

observation times. Nikki, a teacher, stated, "Sorry to be so late in responding. Things have been difficult this past week. I am feeling very overwhelmed at this point, but I will talk to the other teachers and see what we can work out, OK?" (e-mail to mentor; personal communication, February 4, 2004).

Meetings, pressure from principals to meet benchmarks, and preparation for standardized testing kept teachers in a constant battle to find time for mentor observation. Winnie, a teacher, stated,

This week I have a doctor's appointment, a field trip, grade level picnic, Honors Day, Junior Achievement, and two volunteers coming to my classroom. We will be getting extra students at the end of this week also so other teachers can go on field trips. I feel like there's too much going on right now. (e-mail to mentor; personal communication, May 24, 2004)

Shana's comments were similar: "I apologize for taking so long to reply. We have had programs, workshops, and have been under so much pressure to complete tons of statistical reports on benchmark tests, writing, NWEA tests, fluency tests, etc. for the principals who have to complete and send to the state" (e-mail to mentor; personal communication, February 25, 2005). One teacher stated anonymously, "In previous years it has been 'business as usual.' This year I have been so confined by required scheduling and benchmark 'musts,' I have not been able to teach as I have in years past" (survey). Winnie stated, "During the past 3 weeks, my principal has asked all of our teachers to spend the rest of the year preparing students for the ISTEP test. It is very difficult for us to complete the lessons we want to teach from our own lesson plans" (e-mail to mentor; personal communication, March 1, 2004). Another teacher commented anonymously in a survey response, "Because of so much emphasis being placed on our low-performing students being given extra time and service and having only one or two GT students, I have felt robbed of the time needed to provide for the few GT students in my class. This is a problem a mentor cannot fix." The data show evidence of teacher stress as a result of all the administrative pressures imposed on them as noted above. One of the mentors anonymously summed up this pressing issue well, "With the emphasis on benchmarks, constant meetings, and dictated times for subject areas, little time is left to inspire the joys of teaching" (survey).

The ever-changing and increasing demands on teachers' time was another contributing factor hindering the scheduling of mentor observations. Charlene, a mentor, stated, "The teachers in our school district multitask like crazy! During the school day, with students in need of their attention, most teachers are reluctant to spend very much time with a mentor" (survey). In some instances, unplanned events and spur of the moment meetings conflicted with scheduled observation times as Maria's e-mail to her mentor indicated: "I am so sorry about the canceling. [A colleague] arranged the Indiana History field trip and that was the only available date. I am not sure about the rest of the week. I know this puts you in a bind, but we will let you know" (personal communication, March 30, 2004). Whitney e-mailed her mentor, "Sorry, I meant to write to you yesterday, but things got hectic. Then I had a doctor's appointment that was unexpected. My student teacher will have his supervisor here on Thursday. We will also be doing a formal evaluation through the school day" (personal communication, May 26, 2005).

Other limiting factors regarding scheduling were absenteeism and additional in-class visitors or observers such as student teachers. Michelle, a mentor, noted on her logs, "Kelly was absent and not available for observation on April 18," and "Naejla was absent and no observation was possible." Sidney, a mentor, also stated in her log, "[Observation] canceled--daughter had doctor appointment." Some observations were canceled prior to the on-site arrival of the mentors, but some mentors arrived at their mentees' schools only to find a substitute teacher, making observation impossible and tarnishing the trustworthiness of the teacher. This became increasingly problematic since some mentors traveled a great distance to carry out the observations. The presence of student teachers also hindered observation. Sidney, a mentor, noted in her log, "Whitney called me--she's just received a surprise student teacher" Winnie wrote to her mentor, "I have a student teacher this semester, and this is her final week to be with me. She is doing all of the instruction this week so I am out of the classroom most of the time" (e-mail to mentor; personal communication, April 20, 2006).

Meeting increasing teacher demands in order to create accountability for school administrators, synchronizing schedules, and finding spare time were major limiting factors with the Project CLUE mentoring program. Since many teachers were initially hesitant to respond to mentor correspondence, many observations were not scheduled until late in the school year. This made scheduling observations even more challenging. Despite this, teacher observations did take place three times per spring term each year, as intended. However, surmounting the issues of scheduling and managing logistics is essential to the success of such a program.

Communication

As noted above, scheduling observations was often hindered by a lack of communication on the part of the teachers. Communication surfaced as being problematic on a number of other levels as well. Upon commencing the mentoring program, mentors were given an instructional handout regarding how to complete the mentor logs. Noted in this handout was a Frequently Asked Questions section. One bullet asks the question, "Am I evaluating the teacher?" The answer reads, "No! You are merely collecting other forms of data for us, assisting the teacher when you notice some places where implementation could be taken to a higher level, and being a critical friend." The Project CLUE mentoring program was designed to be nonevaluative in order to effectively reach teachers in a nonthreatening way. For some teachers, it was not clear as to whether or not they received or believed this message. Nina reported, "Although Bernadette is very pleasant, I still feel like I am being judged and evaluated. We did not meet with the mentor at other times, so it's more like an evaluation" (survey). Casse noted on her survey, "Yikes! It [the thought of being observed] feels sort of uncomfortable. It seems more 'evaluational' than 'mentoring.' I wasn't sure what her [mentor's] role was. It would help to have more frequent visits that have an instructional focus." Nikita noted in her mentor log, "Teachers wanted to know WHY I was to observe and whether ALL IPS teachers were doing this" (CML). Two additional teachers made anonymous comments, "[I felt] worried and apprehensive," and "I really didn't want to do it [be involved in the program]" (survey). However, some teachers noted the ease felt when the nonevaluative nature of the observations was explained. One teacher stated anonymously, "Once it was made clear that the mentor's role was to be supportive and not evaluative, I was eager to get some

suggestions" (survey). Delta noted, "At first I was reluctant, but it worked out very well" (survey).

For the question regarding deterrence from teaching as teachers normally would during the observations, the mentors ($n = 7$; $M = 1.5$, $SD = .76$) and teachers ($n = 25$; $M = 1.48$, $SD = 1.12$) responded similarly, $t(32) = .04$, $p = .97$ (two-tailed), $d = -.02$. There was no statistically significant difference in either group's perceptions, and it appears that teachers tended to teach as they normally would while being observed.

Almost all teachers were fully aware of the ability levels among their students and most schools were successful in communicating, among personnel, about student GT status. Nikita, a mentor, noted an experience where one particular teacher was unaware of her GT student population. She wrote in her log,

I did not see any teaching, but instead she gave me a group of students, some GT math materials, and told me to take them in the hall and work with them. She had packets made for each child with fractions strips, but DID NOT EVEN KNOW HOW MANY GT KIDS SHE HAD, as she did not have packets for everyone. Anyway, I worked with these six students for about half an hour and it was time for them to go to specials. I don't know a lot about the ability levels, as the majority of our time was spent cutting strips of paper for the activity (CML).

Charlene, a mentor, noted in her log, "It is apparent that there is a real lack of communication between GT teachers at [this present location]" (CML).

Motivation

Six out of seven mentors who returned surveys were willing to participate in the mentoring program as a result of being motivated to assist teachers in meeting the needs of their GT students. Charlene stated, "I felt that my experience with the Project CLUE program and classroom management techniques could be helpful to others" (survey). Another mentor commented anonymously, "I thought it would be nice to help other teachers" (survey). Nikita said, "[I opted to participate] to help GT teachers in IPS" (survey).

The mentoring program proved to be motivational to both the mentors and the mentored teachers. This was most apparent in the surveys administered during the spring of 2007, after 3 years of the program had passed and both parties involved reflected on their experiences. Bernadette, a mentor, wrote, "I have thoroughly enjoyed my mentor[ed] teachers. We have developed great rapport as colleagues. This has been as enriching for me as [it has been] for them [teachers]" (survey). In the same vein, Nikita said, "I've enjoyed CLUE. It was nice to see the teachers' progress" (survey). Kyle, a teacher, commented, "I felt that my observations were very helpful. I received excellent feedback. My mentor even taught a few lessons to help me. My mentor was extremely helpful. Her zest for teaching encouraged me to try new and innovative ways to teach" (survey). Cierra echoed these sentiments, "I believe in the mentoring/coaching process. When there is a trust level, this process can be a powerful tool for change and improvement. Classrooms are becoming more open and public. A mentor is a great help in guiding purposeful instruction" (survey). Only three teachers reported negative feelings toward the mentoring program in their surveys. One teacher was resentful of having a mentor

because she holds a GT endorsement. She stated, "It [mentoring program] wasn't necessary. You should offer this program to new teachers for the gifted. It would be helpful to them. It isn't necessary for teachers with GT endorsements" (survey). Winnie wrote, "I'm not seeing any professional development, personally" (survey).

While the mentoring program proved to be motivational overall, two mentors noted some discrepancies. Since at the time Indiana did not require that schools provide services for their GT student population, some teachers were not motivated to, or felt that they could not, meet the needs of their GT students. Michelle, a mentor, wrote,

I observed no attempt to differentiate content, process, or product for this student. Reference was made to spelling activities as being differentiated, however, I did not observe this. During the hour I spent in this classroom, the teacher's attention was primarily focused on the classroom management, student behavioral expectations, and review of mathematic operations. At the conclusion of the class period, [teacher] shared her frustrations at having to spend most of her time on issues of behavioral and emotional needs of several other students. She acknowledged she had not focused on the needs of the GT student as much as was needed this year, however, still strongly supported the need to address this learner's needs. "I can do better and will." (CML)

Charlene commented, "Delta is the GT coordinator for [school]. She has not tested any new students for the program this year. As her mentor, I offered to do testing of five possible candidates on my next visit in March" (CML). She continued, "Lastly, Maybelle informed me that she plans to drop the GT training after this year" (letter to CLUE manager).

For the question regarding whether or not the mentoring program was a positive professional development experience for teachers, the mentors ($n = 6$; $M = 3.83$, $SD = .98$) and teachers ($n = 24$; $M = 3.54$, $SD = 1.28$) responded similarly, $t(28) = .52$, $p = .61$ (two-tailed), $d = .26$. There was no statistically significant difference in either group's perceptions and it can be assumed that both mentors and teachers felt that the mentoring program was moderately beneficial in terms of overall professional development.

Differentiation Usage

Differentiation usage is key in reaching and engaging students of mixed ability levels in a traditional classroom (Tieso, 2004). Since IPS GT students are included in traditional classrooms, one task of the mentors was to gauge the amount of differentiation that the teachers used during the mentor observations. Mentors were encouraged to share ideas with teachers about differentiation strategies such as anchoring activities, classroom management techniques, and grouping, in order to enhance the teachers' educational practices.

Six of the nine mentors involved in the program reported too little differentiation happening in the classrooms they observed. Bernadette noted in her mentor log, "Megan has some degree of differentiation going on. She realized the need to get anchoring materials as a daily part of the classroom" (CML). She continued, "Paula is not doing

much differentiation on her own" (CML). Nikita also noted, "I saw no strategies of differentiation in today's lesson. (And yes, she knew I was coming today!!)" (CML).

Some teachers were novices with differentiation. Furthermore, some teachers were aware of what differentiation was but did not know how, or have the confidence, to implement it in their everyday teaching practice. Merna, a mentor, wrote, "[Annette, a teacher] expressed some trepidation about using differentiated instruction. [Annette] is still learning. [She is] a great teacher!" (CML). Beth, a teacher, e-mailed her mentor, "I'm still a novice at differentiation although I've worked with it in relationship to the special education students" (e-mail; personal communication, April 20, 2004). Bernadette noted, "Nina has expressed her lack of confidence in differentiation. She has improved since the onset of CLUE" (CML).

Despite the lack of differentiation usage noted by mentors, in the surveys returned, 9 teachers reported positive impacts from the mentoring program with regard to differentiation practices. Jayda said, "Chloe offered suggestions in grouping and management. It helped me to see what I needed to do to help ALL of my students" (survey). Ciera noted, "Mentor's suggestions came from her own experiences, and were usually applicable to my class. Time management suggestions addressed my most pressing problem" (survey). Some mentors were able to refer teachers to resources so that they could have additional ideas and sample lessons. Megan, a teacher, wrote, "She provided me with books and activities to help differentiate" (survey).

For the question regarding whether or not the mentoring program was a positive experience for teachers in the context of developing differentiation practices, the mentors ($n = 7$; $M = 4.14$, $SD = .69$) and teachers ($n = 24$; $M = 3.58$, $SD = 1.41$) responded similarly, $t(29) = 1.0$, $p = .32$ (two-tailed), $d = .5$. There was no statistically significant difference in either group's perceptions, although there was a moderate practical difference. Mentors and teachers both felt that the mentoring program was beneficial within the context of developing differentiation practices. The results also suggest that the mentors felt as though the program was more beneficial than the teachers did in developing differentiation practices.

DISCUSSION

The results highlight a number of crucial issues related to teacher attitudes about mentoring and curriculum differentiation which will be examined in the context of current literature. As the findings of the present study indicate, differentiation is occurring infrequently in the regular classroom. While many educators are versed in what differentiation is, few are putting it into practice. For teachers, the implementation of a nonevaluative mentoring program has potential to bridge the gap between differentiation knowledge and practice; however, the results illustrate a number of logistical and conceptual issues that may influence the effectiveness of such a program.

Scheduling and Logistics

Scheduling observations and juggling increasingly busy schedules were the most cumbersome obstacles for the mentoring program. With all of the non-teaching duties of teachers on the rise, many teachers expressed serious concerns about fitting in another meeting. These findings are congruent with that of current research that highlights the

need for administrative support in order for a mentoring program to be successful (e.g., Hertberg-Davis & Brighton, 2006). Teachers were wary of taking time out of their schedules to be observed because they had experienced outside pressure from principals to focus on benchmark testing. It is certainly understandable that teachers heed the directions of their supervisors. If school administrators are not aware and/ or not supportive of the mentoring program, teachers cannot be expected to participate in it. School administrators' support is vital to the success of such a program.

Consistent with the findings of VanTassel-Baska (2006) and VanTassel-Baska and Stambaugh (2005), this study revealed consternation among teachers with regards to straying from the mandated curriculum in fear of lower student standardized test scores. With so much pressure placed on teachers to prepare their students for standardized testing, there is little focus on differentiation or any other teaching method that does not focus on teaching to the standardized tests. School funding, professional advancement, and teacher reputations were on the line and certainly teachers wanted their students to perform optimally. However, teaching to the tests can drain teachers of their passion and result in superficial student learning.

Communication

One of the major challenges of a mentoring program is presenting the mentors' observations in a nonevaluative manner. This is crucial to ensure the success of such a program (Kallick & Costa, 1993; Showers & Joyce, 1996; Slater & Simmons, 2001; Sparks & Bruder, 1987). Some teachers reported strong feelings of being evaluated during the process even though they were repeatedly told otherwise. However, others reported feeling initially reluctant about the observations and later being encouraged through their mentors' insistence on relaying the nonevaluative purpose of the program. This discrepancy may be a result of differing levels of rapport built between teacher/mentor duos. Analyses of the data show a strong need for a relationship between the mentor and teacher. One teacher remarked that she would have liked additional nonobservational meetings with her mentor in order to build upon pedagogy. Informal subsequent meetings could have enhanced the trust and comfort levels within the pair, thus making a more open and comfortable learning environment. Other research findings support these recommendations (Kane & Henning, 2004; Landrum, 2001; Raywid, 1993).

Motivation

The literature has shown that teachers become invigorated, confident, empowered, and motivated after being involved in a mentoring experience with a constructively critical friend (Bowman & McCormick, 2001; Brandt, 1987; Page, 2000; Showers & Joyce, 1996; Slater & Simmons, 2001; Sparks & Bruder, 1987; Swafford, 1998). Data from the current study uphold these findings. Only 3 teachers reported negative sentiments regarding the mentoring initiative. Perhaps these 3 teachers harbored these opinions due to factors outside of the actual program such as already having a GT endorsement or approaching retirement. For the large majority of teachers, many positive comments were made regarding the program as a whole.

Three of the seven mentors with returned surveys noted their enjoyment of and benefit from the mentoring encounter. However, minimal literature is available regarding the professional development experienced by mentors in such a program. It appears that both mentors and mentees can grow and expand teaching practices as a result of the partnership. More research is needed that explores the mentors' growth throughout the program.

Differentiation Usage

Too little differentiation is occurring in schools across the country (VanTassel-Baska, 2006; Westberg et al., 1993). This was affirmed by the current study as six of the nine mentors reported minimal differentiation being used by their mentored teachers. Some teachers were not familiar with differentiation practices. Others were familiar and knowledgeable about it but did not know how to implement it in their teaching. However, 9 teachers (36%) noted heightened confidence with differentiation as a result of the mentoring program. Baum, Cooper, and Neu (2001) have found that peer coaching is a powerful tool in teacher professional development. The findings of the current study support this and suggest that peer coaching can be effective in helping teachers understand how to implement differentiated instruction. More research is needed, however, that examines how other variables within the mentoring experience, such as age of mentor, length of program, and frequency and types of interaction between mentor and mentee, may also be influential.

Practical Applications

Crafting a mentoring program must be done deliberately and vigilantly to ensure success. In order for the mentoring program to be a success, ample time must be given to the process of correspondence, observations, and meetings. Furthermore, the mentoring program must be high on the list of priorities for both teachers and school administrators. One of the most cumbersome obstacles of the current program is lack of time to devote to it. Most teachers are constantly bombarded with outside pressures and activities that make focusing on the mentoring program nearly impossible. Eliminating or reducing these stressors can only help the learning process. In addition, school administrators must be kept abreast of the mentoring program and its professional development mission. Constructing positive partnerships between mentors, teachers, and school administrators is essential because school bureaucracies have current vested interests in teacher accountability. Standardized test results and completion of benchmarks serve as markers for teacher success. However, school principals should be urged to embrace other beneficial methods for teacher development such as mentoring programs.

Mentors must have previous GT experience and be well versed in differentiation practices. They need to constantly reiterate the nonevaluative nature of their presence in the classroom. Otherwise, teachers will feel threatened and be unwelcoming. Positive communication skills are imperative. For mentors to succeed, collegial rapport must be established between mentor and teacher as early as possible. That rapport will build trust within the dyad, enabling idea sharing and collaborative learning.

Since many GT students find themselves in mixed-ability classrooms, teachers must rethink and redefine their teaching methods in order to meet the needs of all students, regardless of ability level, ethnic and socioeconomic background, or multiple exceptionalities. In an era of heightened teacher accountability, teachers are swamped with extraneous tasks that fall outside of their primary task of teaching. Often these additional burdens keep teachers from experiencing the joys of teaching. The current study illustrates these issues.

Limitations and Additional Areas for Future Research

The current study has limitations in terms of participant survey response rate and participant mortality. Additionally, the study used a relatively small group of mentors and only third-, fourth-, and fifth-grade teachers in the IPS system. Further research is necessary and should be conducted in other urban areas and at other grade levels.

CONCLUSION

Through the development and implementation of additional mentoring programs similar to the one used in Project CLUE, more teachers will prosper despite today's increasing demands on teachers to meet the needs of a diverse group of learners. Perhaps more mentors will be able to make comments such as Sidney as she e-mails her teachers, "I so enjoyed the time I spent in your classrooms a week or so ago! Your children are lively and engaged actively in learning and it is so clear that you are committed to the work you do as teachers" (e-mail; personal communication, May 23, 2004).

APPENDIX A

Project CLUE Mentor Log

Mentor -- Mentee --

Date of Contact -- Mode of Contact --

Briefly describe the interaction:

(Complete for face-to-face contact, not E.mail or phone contacts)

1. In general, this teacher differentiates instruction for the cluster

Not at all -- To a great extent

1 2 3 4 5

Evidence:

2. With respect to differentiation, I would categorize this teacher as Novice --

Distinguished

1 2 3 4 5

Evidence:

My teacher is a Curriculum Group Teacher. Yes -- No --

My teacher is using Project CLUE materials with the cluster only. Yes -- No --

APPENDIX B

Survey of IPS Mentored Teachers

Name (optional) --

Teaching Experience -- (number of years)

Teaching Experience with Gifted and Talented Students -- (number of years)

Involvement with CLUE Mentoring Program -- (number of years)

1. What feelings best describe your initial reactions to being observed and mentored?
Please include comments.

2. Upon being contacted by your mentor, describe how classroom visits were scheduled.

3. Did you encounter any adversity when scheduling visits, meetings, etc. with your mentor? (check one)

-- Yes -- No

If yes, please describe the adversity you faced.

4. Describe your reactions to having your mentor observe you during class.

5. Were you at all deterred from teaching as you normally would during the observations? (circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

6. Did you consult with your mentor before the observations? (check one)

Yes -- No --

If yes, please explain the consultation:

7. Did you debrief with your mentor following the observations? (check one)

-- Yes -- No

If yes, please explain the debriefing:

8. Was your mentor helpful in developing your differentiation practices? (circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

9. Have you found the mentoring program to be helpful in your professional development as related to differentiation and educating gifted and talented students? (circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

10. Any final thoughts? Please provide any final comments you may have regarding the mentoring program.

APPENDIX C

Survey of IPS Teacher Mentors

Name (optional) --

Teaching Experience -- (number of years)

Teaching Experience with Gifted and Talented Students -- (number of years)

Involvement with CLUE Mentoring Program -- (number of years)

1. Describe why you opted to participate in the Project CLUE mentoring program as a mentor.

2. Before initiating contact with your mentees, did you have any reservations? (check one)

-- Yes -- No

If yes, please describe those reservations.

3. Upon contacting your teachers, describe how classroom visits were scheduled.

4. Did you and/or your teacher encounter any adversity when arranging visits, meetings, etc.? (check one)

-- Yes -- No

If yes, please describe the adversity you faced.

5. Did you feel that your teachers were at all deterred from teaching as they normally would in the presence of an observer? (circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

6. Did you consult with your teachers before the observations? (check one)

-- Yes -- No

If yes, please explain the consultation:

7. Did you debrief with your teachers following the observations? (check one)

-- Yes -- No

If yes, please explain the debriefing:

8. Was(were) your teacher(s) receptive in developing their differentiation practices?
(circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

9. Have you found the mentoring program to be helpful in your teachers' professional development as related to differentiation and educating gifted and talented students?
(circle one)

1 2 3 4 5

Not at all Slightly Very much so

Please provide comments:

10. Any final thoughts? Please provide any final comments you may have regarding the mentoring program.

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TABLE 1

Mentor Pseudonyms and Demographics

Pseudonym	Teachi ng Exp.	GT Teachi ng Exp.	CLUE Exp.
El i zabeth	31	21	3
Merna	33	15	2
Ni ki ta	20	7	3
Bryson	15	0	2
Bernadet te	17	6	3
Chl oe	16	13	3
Mi chel l e	24	20	2
Charl ene	15	14	2
Si dney	17	1	2

Pseudonym	Ethni ci ty	Gender	GT Endorsement
El i zabeth	W	F	No
Merna	W	F	Yes
Ni ki ta	W	F	Uni v. l evel
Bryson	W	M	No
Bernadet te	W	F	No
Chl oe	AA	F	Uni v. l evel
Mi chel l e	W	F	No
Charl ene	W	F	No
Si dney	W	F	Uni v. l evel

Note. Exp. = Experience; W = Whi te; AA = Afri can Ameri can;
F = Femal e; M = Mal e.

TABLE 2
Teacher Pseudonyms and Demographi cs

Pseudonym	Teachi ng exp.	GT teachi ng exp.	CLUE exp.
Carol	19	10	3
Ol i vi a	35	8	3

Madel i ne	*	*	2
Mari a	*	*	2
Kayl ee	15	5	3
Marci a	*	*	1
Megan	14	7	3
Shana	23	8	3
Beth	14	2	1
Darl ene	*	*	1
Bobbi	21	17	2
Del ta	*	3	3
Sara	10	6	3
Jayda	8	3	3
Di va	*	*	2
Kel l y	9	6	3
El ke	*	*	2
Andrew	*	*	2
Beverl y	*	*	2
Whi tney	24. 5	17	3
Meg	5	3	3
Peg	*	*	2
Naej l a	7	4	3
Kyl e	4	2	2
Jasmi n	*	*	2
Shane	27	7	2
Ci ndy	*	*	3
Steph	13	5	3
Ni na	15	3	3
Laura	34	4	3
DaShawn	11	10	2
Katheri ne	*	*	1
Veroni ca	*	*	2
Penel ope	6	1	3
Wi nni e	27	4	3
Casse	18	2	2
Devon	20	5	3
Mavi s	17	6	3
Annette	20	4	1

Ci era	38	9	3
Vera	*	*	1
Tabi tha	20	10	1
Ni kki	*	*	1
Paul a	*	*	1
Di ana	*	*	1
Maybel I e	*	*	*

Pseudonym endorsement	Ethni ci ty	Gender	GT
Carol	W	F	No
Ol i vi a	W	F	*
Madel i ne	W	F	*
Mari a	W	F	*
Kayl ee	W	F	No
Marci a	W	F	*
Megan	W	F	No
Shana compl ete	W	F	Soon to
Beth	W	F	*
Darl ene	W	F	*
Bobbi cl asses	W	F	Had GT
Del ta	AA	F	*
Sara	W	F	NO
Jayda	W	F	NO
Di va	W	F	*
Kel l y	W	F	*
El ke	W	F	*
Andrew	AA	M	*
Beverl y	W	F	*
Whi tney	W	F	Yes
Meg	W	F	*
Peg	W	F	*
Naej l a	W	F	*
Kyl e	W	M	*
Jasmi n	W	F	*

Shane	W	F	*
Ci ndy	W	F	*
Steph	W	F	*
Ni na	W	F	No
Laura	W	F	*
DaShawn	W	F	*
Katheri ne	W	F	*
Veroni ca	AA	F	*
Penel ope	W	F	Yes
Wi nni e	W	F	*
Casse	W	F	*
Devon	W	F	No
Mavi s	W	F	No
Annette	W	F	*
Ci era	W	F	No
Vera	AA	F	*
Tabi tha	W	F	*
Ni kki	W	F	*
Paul a	W	F	*
Di ana	W	F	*
Maybel I e	W	F	*

Note. An asterisk indicates unknown data. Exp. = Experience;
W = White; AA = African American; F = Female; M = Male.

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