

Four teachers' beliefs and strategies in teaching gifted students: A multiple case study

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Abstract

This multiple case study was conducted to explore how four regular classroom teachers, who have a reputation for implementing differentiated practices to meet the needs of gifted students, describe their educational experiences with gifted students in their regular classrooms at an elementary school in the Midwestern USA. The four teachers' beliefs and strategies for instructing gifted students and differentiating instruction, their willingness and readiness to embrace change, collaboration, and their advanced training and knowledge were discussed under the themes of the study. By illustrating the non-linear, complex, context-specific reality of the four teachers' teaching experience, this small case study tried to offer insight into the actual classroom and strategies in developing schema for future practice for our gifted minds. The findings of this study contribute to our understanding of the practices that teachers use to accommodate the needs of gifted students in regular classrooms

Key words: gifted education, gifted teachers, curriculum differentiation, case study

I. Introduction

Can you name a teacher who has a reputation for meeting the individual needs of students, and specifically, the needs of high ability students? If you can name one, are you able to describe the classroom practices or explain why and how they occur to this particular teacher? These are critical questions that are rarely addressed in the field of gifted education, though responding to the proposed questions will be rewarding to better understand and serve our gifted children.

Research tells us that a large majority of gifted and talented students spend most of their day in regular classroom settings (Cox, Daniel, & Boston, 1985). Unfortunately, instruction in the regular classroom setting is generally nontailored to meet their unique needs (Archambault, Westberg, Brown, & Hallmark, 1993; Cox, Daniel, & Boston, 1985). According to the Classroom Practice Survey Study (Archambault et al., 1993) and The

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Classroom Practice Observation Study (Westberg et al., 1993), gifted students received a limited amount of differentiation in reading, language, mathematics, science, and social studies instruction, and received no differentiated experiences in 84 percent activities in which they were involved. This situation is putting gifted students at risk of failing to achieve their potential. Achievement scores below what might be expected from our brightest population may provide the evidence. Educators recognize that students learn in different ways as well as that they should be taught in different ways for their optimal growth. For example, Wang and Walberg (1985) have indicated:

Every class contains students with different interests, problems, and talents; and most educators realize that whole-group instruction lessons geared to the "average" student are bound to be too difficult for some learners in the class and too easy for others(p. 325).

Despite this recognition, several studies indicate that "one size fits all" instructional method is the predominant practice in the majority of classrooms (Archambault et al., 1993). Teachers focus their planning on the class as a whole, and they generally believe that instructional differentiation tailored for individual students' intellectual, social and emotional differences are beyond their boundaries. Emmerson, Everston, and Anderson (1980) investigated the instructional strategies that distinguish effective elementary teachers from ineffective elementary teachers. They found that the effective teachers adapted and differentiated their instructions to students' interests, skill levels, and attention spans.

Adapting instruction to accommodate differences demonstrated by students whose skills and capabilities are more advanced is particularly difficult and challenging. Unfortunately, most classroom teachers have had little, if any, professional preparation for differentiating instruction to meet the needs of capable students and for managing the classrooms in which these students learn (Archambault et al., 1993).

Throughout the past thirty to forty years, advocates have called for a differentiated education for high ability students. The earliest definition of differentiated education for the gifted was offered by Virgil Ward who stated that gifted students comprise "...a potential for recognizably different experiences-some say categorically different" (1961, p.79). Ward called for differentiated curriculum in the areas of humanities, mathematics, social sciences, natural science, dance, drama, music, and painting. Marland Report (1971) stated that gifted and talented children "require differentiated educational programs and/or services beyond those normally provided by the regular school programs." Passow (1982) stated, "the philosophy which underlie differentiated education is one which asserts that gifted individuals, like all other, possess unique needs which can only be addressed through appropriately designed curricula" (p. 5). Like all students gifted students need learning experiences appropriate to their "individual abilities, interests, and learning styles. Individual uniqueness should be respected and provided for, and every effort should be made to adapt learning experiences to the wide variety of student needs" (p. 5).

Some literature informs us about what could and should be done to accommodate

students' advanced needs; however in-depth qualitative case studies with thick, rich description that explore how individual regular classroom teachers implement differentiated curriculums, how they interact with gifted children in their regular classrooms, and what factors influence their practices have been absent. Describing master teachers' knowledge and practice has been challenging because much of it can not be easily translated into specific steps, procedures or even words.

Thus, this small case study was conducted to learn more about specific ways in which regular classroom teachers make accommodations for high ability students and the factors that influence them. Because case study method illustrates the non-linear, complex, context-specific reality of teaching (Miller, 1997), this can offer insight into the actual classroom and strategies for developing schema for future practice.

Specifically, this study explores how four regular classroom teachers, who have a reputation for implementing differentiated practices to meet the needs of gifted students, describe their educational experiences with gifted students in their regular classrooms at a Midwestern elementary school. The questions posed in this study include:

1. How do the regular classroom teachers describe their beliefs and strategies in educating gifted students in their regular classrooms?
2. How do the regular classroom teachers describe their beliefs and strategies in differentiating curricular and instructional practices for gifted students in their regular classrooms?
3. What factors contribute to the regular classroom teachers' effective use of differentiated teaching strategies?
4. How do the regular classroom teachers describe the ways they can better serve gifted students in their regular classrooms?

II. Procedures

A. Selection of Participants

Four regular classroom teachers, who were recommended by the facilitators of education program for the gifted, for their reputation in implementing differentiated curriculum to meet the needs of high ability students, at a Midwestern elementary school participated in the present study. The particular elementary school also has reputation for its gifted education programs. Brief descriptions about the four participants follow:

Joy is a first grade teacher in her late 40s. She has taught at this elementary school for 24 years. She does quite a lot of teaching around theme and centers. She considers herself as a whole language teacher and uses a literature-based approach to teaching reading. She took part in every inservice training and workshop on gifted education.

She has three gifted students in her classroom at this semester. Currently she is concerned with how she can modify curriculum to a gifted child with severe emotional problems in her classroom.

Chris, a woman in her late forties, has been a teacher in this elementary school for 23 years. She earned her Master's degree in Educational Psychology five years ago, and included lots of gifted education courses in her course work. She has a plan to work on her Doctorate program in the near future. She teaches second graders, and has eight gifted children in her classroom. She is very experienced in her teaching and exceptionally innovative with her ideas.

Li is a third grade teacher in her middle of 30s. She has a very bright son who always reminds her of the eight gifted students in her classroom. She wrote the "Differentiated Curriculum for Literature" for the school district two years ago. She finished her endorsement in gifted education seven years ago. She does a lot of reading and talking with others about how to work with children.

Rachel teaches fourth grade students. She has a Master's degree in Curriculum and Instruction. Student-centered and interest-based teaching is her philosophy in working with her students, including the seven gifted students in her classroom.

B. Rationale for Qualitative Design

Qualitative research is well-suited to inquiry when researchers need to retain the characteristics of real-life events, when they deal with problems of educational practice and extending the knowledge base about various facets of educational practice, when the boundaries between the phenomenon investigated and the context in which it is investigated are not clear, when multiple sources of evidence are used, and when the desired end product is a description (Miller, 1997). Each of these traits is descriptive of the current case study.

C. Data Collection and Analysis

The four regular classroom teachers were give semi-structured interviews and observed. Before the actual interviews, the teachers got copies of the questions. Interviews lasted for approximately 40 - 50 minutes long for each participant, and observation also took for one day for each teacher. Following the interview and observation for each teacher, I expanded my field notes to reflect thoughts about the observation and interview separately, as well as relationship between them. Interviews were audio-taped and transcribed. Verbatim transcription of audio interviews, using pseudonyms instead of participants names, were transcribed. Tesch's eight steps suggestions and Yin's "pattern" method were used to sort, code, and analyze the data (Miller, 1997). Internal validity was checked by clarification of researcher's bias, and external validity was established by including thick rich quotes by participants and detailed descriptions of the participants and observer comments by the researcher.

Naturalistic observation was conducted in the four teachers' classrooms. The observation

had no specific structure. The researcher's purpose was to approach the site as one who was new to the setting, "an interested stranger." Hand-written, detailed accounts of classroom events or incidents, teacher and student dialogues, and descriptions of practices and settings were made during each observation. While the classroom was the primary focus of observation, information gained through interviews led the researcher to further data collection.

III. Findings

A. A Peek Inside of Their Classrooms

1) Joy

Joy's first grade class is located in a large, windowless room at the rear of the school building. In Joy's first grade class, students were busy with center work in language arts for a period of time each morning. There were two "choice boards" in the classroom one called "Teacher Choice" and the other called "Student Choice." Each student has at least two days a week of student choice selections and at least two of teacher choice selections. For example, on days when John, who is a highly gifted student in Joy's classroom, is assigned to Teacher Choice, Joy will select centers and materials at his level of language readiness and ensure that he works at centers which include those materials. On his student choice days, John may select from any of 8-12 "pocket" on the student choice board. Those offered a wide range of choices from listening to computer work to writing and drawing, to model-making. All of the options encouraged students to use language in ways which they could find pleasurable. Joy explained that "if I elect to do so, I can guide even the students choice work by color coding rows of pockets on the student choice chart, and for example, telling John he may pick any choice from the red and yellow rows (but not blue row)." She also staggered center work so that some students worked at centers while others worked with her in direct reading activities or individual conferences, and others worked with desk work on math or language. My impression of Joy's classroom is that it is clearly not a teaching space but a learning space.

2) Chris

Chris pretests each student in every single area of his or her strength. She uses Compactor for each student. Whenever Chris does a lesson plan, whether it's one-period lesson plan, a day long lesson plan, or unit of study lesson plan, she does a budget. She estimates the amount of time she thinks it will take the average student to complete the activity. So when she finds someone who needs less time, instead of frantically rushing to copy something to give him to fill the time he just got, she actually allows him to buy back that time to do things that are closely related to his

choice activities. For example, she said that "if I budget 30 minutes for an activity and this youngster finishes in 17, I don't own that remaining 13 minutes. They belong to him. By finishing early, he has bought back time to do whatever he wants and needs." During my observation, I could see how well she managed her class time and her bright students to buy back times from her.

3) Li

Li has a bright son, Billy. Billy is a very smart 1st grader. Li told me an interesting story about her son. "Often he came home with a very sad face. One day he was crying under his blanket. I asked him why he was crying. He didn't answer. I asked again and again, and he finally said 'Mom, I lied to John.' John is his younger brother. 'You said I was going to learn new things at school, but I am not. But I didn't want to make John upset, so I lied to him.' 'I told John that he would learn new things at school. I lied to him that school is fun'."

Li's bright son always reminds Li to prepare new and exciting things for her students, especially for her gifted students, in her classroom. On the wall of her classroom, there was a frame with an impressive poem. To me the poem was felt like Li's teaching philosophy.

"We build good ships
At a profit if we can
At a loss if we must
But we build always good ships."

I observed her reading class. They were reading *Charlotte's Web*. To help students organize what they read, Li developed 4 story maps according to the abilities of her students. Her idea was quite amazing! She asked regular students to work on a more easy-to-follow and detailed story map, and gifted students to do a more open-ended, abstract, and complicated map, which requires more high-level thinking skills. Of course, all students in her classroom can work on all 4 story maps, if they finish what they are assigned to do.

Books were everywhere in her classroom. Shelves were filled with reference materials, children's literature, and advanced reading materials from the school district. The haphazard arrangement of the materials seemed to indicate that these materials were used frequently. Li describes her classroom thus:

"We live in a democracy and the class needs to be as democratic as possible. The students need the choices and the freedom to perform their best. They need to be comfortable in their environment."

4) Rachel

I rarely observed Rachel at her desk since she was constantly circling the room to help

groups and individual students with their work. Rachel understood the individual needs of the students. Rachel individualized the curriculum as much as possible. Rachel said, "...I individualize the instruction totally....I don't even order textbooks for reading." In her classroom, students read from trade books they chose themselves.

Another way to meet student's individual needs was through the use of centers; the teachers used them extensively. Rachel mentioned, "I let students go to whatever center they wanted to...they go at their own pace." In addition, Rachel said that it was important for the children to have the ownership of their work.

B. Themes

While some of the findings are unique to individual teachers, the following themes emerged across the four teachers.

Teachers' Beliefs and Strategies for Instructing Gifted Students - They were explorers, artists, judges, warriors,and above all they were CHALLENGERS and GIFTED themselves!

The interviews and observation data indicate that the four teachers have strong personal beliefs in meeting the learning needs of all their students, including gifted students. They were explores in their roles of searchers for information, artists in their roles of transformers of information into new ideas, judges in their roles of evaluators of idea and decision makers who disposed of them, warriors in their roles of putting ideas into practice...but above all, they were challengers for the high ability students in their regular classrooms and they were gifted themselves in their ability, creativity and task commitment. They believed that it was their job to meet the individual students' needs, whether they were gifted or not. They mentioned that it was their responsibility as teachers to challenge them, to struggle with them, and be happy with them.

All four teachers believe that there are many more gifted children in their classrooms other than those identified by test scores and checklists supplied by the school district, and that it is up to them to develop talents among those potentially able students, as well as the obviously gifted students on their own. For example,

I try to stretch them a little further...I believe that this is teacher's responsibility to help every kid to develop more than they possibly can, including the gifted. They should get out of their comfort zone, they should get problems and activities that can help them to use their possible maximum abilities and creativity. (Chris)

They want more and they start to make connections. And we really need to honor what they do and ask things so that they can make more and deeper connections. That's why we are here as teachers....some of them really want to keep working on it

even though it is a recess time. I think we need to value the fact that they want to find out information and want to learn...for example, I had a second grader who was reading "Julius and Caesar" and wanted to put the story on a play and act out. Not a clue most second graders really don't care about "Julius and Caesar," they never read it and never understood it....So it is interesting to see how we work that out so her needs are met and it doesn't become an unhappy experience for her as she works with other kids who don't have same intensity about it as she does....Someone really doesn't understand, but they just need it. We spend a lot of time how we are alike and different..... We are not all the same, we don't learn at the same pace, we don't learn the same kind of things in the same way, and we don't have same ability to learn things. I think it's my job to help children to figure that out. Often I tell the children that "our similarities make us human, but our differences make us individuals" and for me it works well with my children. (Chris)

With any group of children, we should concern whether they learn interesting materials, whether they are challenged, whether they develop independence. People think it is an easy job, because I have sixteen gifted kids. People think that they are all the same and there are not very much work to do, but it is not an easy job. There are big range of abilities and levels of motivation to make sure everybody living up to their potential and doing what they can do, and make sure no one is bored...I tend to over plan, I tend to have many things to do because my children really work hard... (Li)

I have taught for 23 years, and people might think I may be boring. But I never do the things in the same way. I may do the same activity, but it never comes out the same way it did before because it is different group of kids. I modify things and make changes constantly. And it is much harder than you might think.... It is really hard to balance highly able students who are really smart while you have children who struggle with basic stuff at the same time. Challenging all kids within the time limit I have is out of my ability. But I try every day every minute I work with my students. (Li)

I always ask myself 'Are you challenging enough?' 'Are you providing enough?' If the challenge is high enough, there may even be a little bit of frustration from the students. I think gifted students need that kinds of challenge and frustration. Differentiating all subject areas for individual students, including gifted ones, and challenging the kids to the maximum, especially for the gifted, is impossible. But I try to overcome the impossibility, because that is my job....I do think gifted students really need strong challenge. Their challenge needs to be at higher level than others. Some of the things I provide for the gifted kids, the other kids may do the same unit or activity. But I think the differentiation comes in with expectation. You might expect more or at different level for the gifted than you might do for the nongifted. I truly think thinking and doing things at higher level is really important for them. I try to set the expectation and

goal high for them, and encourage gifted kids to set goals at higher level. And I try not to evaluate always and everything, because in that way kids can do what they really want to do without worrying about evaluation.... If you treat them as they are, they will stay as they are, but if you treat them as if they ought to be and as if they could be, they will become what they ought to be and could be. (Rachel)

....as teachers we need to figure out what our kids' strengths are first of all and what their level of learning is, and then my responsibility is to move them from whatever they are right now ahead at a pace challenging for them.... really like the fact that kids have the opportunity to learn what they want to learn at a challenging pace for them...they also need to know that teacher is going to value where they are already. Often a very bright kid tells to the teacher "I already know how to do it" and the teacher's response is "I know, but we are going to do it again anyway." If it is the answer the student always encounters, he will stop telling the teacher and stop being challenged. (Joy)

Whether the students of the four teachers' classrooms meet the criteria for the gifted program or not, the teachers expected students to achieve high academic standards and work with them, both individually and in groups, to achieve such standards. The teachers believed in students even when the students didn't believe in themselves. The four challengers really had strong commitment in their job and strong belief that people should and could learn differently. They had openness and willingness in recognizing that some gifted students may know all or more about a subject than they intend to teach. They set high expectation for each individual student, whether they are gifted or not. They were organized, demanding, enthusiastic, and creative. They had willingness to talk less and listen more from students.

Teachers' Beliefs and Strategies for Differentiating Instruction - One Size Just Won't Fit Them All

The four regular classroom teachers described a variety of strategies used by them to differentiate instruction for gifted students (Table 1). Although differentiation can be defined in many different ways in this case study, it generally refers to the various approaches that teachers use for accommodating students' academic differences by determining what students will learn, how students will learn, and how students will demonstrate what they have learned (Tomlinson, 1995).

Table 1. Various strategies used by the four regular classroom teachers to differentiate instruction for gifted students

	Joy	Chris	Li	Rachel
LPS DifferentiatedCurri.	x	x	x	x
Research	x	x	x	x
Project	x	x	x	x
Mentor		x	x	x
ThemeTeaching	x	x	x	x
High-levelThinking	x	x	x	x
Open-endedteaching&Learning	x	x	x	x
Pre-testing		x	x	
Compacting		x	x	
IndependentProject	x	x	x	x
Choice	x	x	x	x
AbilityGrouping	x	x	x	x
HeterogeneousGrouping	x	x	x	
Multipleintelligences		x		
VariedComputerPrograms			x	
Interest&LearningCenters	x	x		x
Contract				x

All four teachers had an awareness of students' academic differences. They did not view students in their classrooms as a large mass; rather they saw students as individuals with different skills, interests, styles, and talents. They were aware of students' strengths, not just weaknesses. They believed in the "one size won't fit them all" principle. For example, I think every gifted child is very different. They are all so unique. We should try to look at all sides of the kids and see what their needs are. One of the concerns is truly knowing what their ability is. There are some students who is very difficult to even know they are gifted, because they are so quiet. There are also some who are quite evident in their high level thinking. We have real spectrum of abilities in our classroom, it makes just difficult to make sure you are providing something for everybody to keep them challenged. (Rachel)

Many people just think that all gifted kids look alike. They believe if they are very bright, they should also be very good students and very well behaved. But we should keep in mind that they are children first, they just happen to be very bright children, they are not just very little adult. Second of all, giftedness manifests itself in many different ways. When we have a student who can't read, but their thinking, music or athletic talent are way out of this world, then we should give him an opportunity to use it. (Joy)

Because the four teachers had an awareness of the academic diversity among students, they tailored their instruction to meet the students' individual needs. They did not expect all of their students to complete all of the same pages in a textbook, at exactly the same pace through out the year, with the same readiness, and with the same outcomes. They did not believe it was important to "keep them all together." Instead the

teachers established high standards, made curriculum modifications, found mentors, encouraged independent investigations and projects, or created flexible instructional groups to develop the talents of their individual high ability students. Like the U.S. Army motto, they wanted their students to "be all they could be." And they knew how to select appropriate strategies for meeting individual students' unique needs.

In describing what differentiation is and is not, Tomlinson (1995) states that a paradigm shift is necessary to understand the role of a teacher in a differentiated classroom. In this paradigm, teachers are not dispensers of knowledge, but "organizers of learning opportunities." This is an appropriate description in this case study. All four teachers have strong beliefs and needs in differentiating curriculums for gifted students, and they also have strong confidence in what they are doing and organizing learning opportunities for their gifted children in their classrooms. Those four teachers' remarks follow:

We try a lot of open-ended things, a lot of research projects, so they formulate their own research, and move through the research by using library media center. That helps a lot, because no matter what their abilities are, it can challenge themselves and each other to move forward and to use higher level thinking...One thing I do often is pre-testing and compacting...if they know it, you do a little review but you don't spend a lot of time labeling over it. Because I knew a lot of the time students already had that knowledge, it was easier for me to teach a concept, to pretest the concept, and to pull the materials as needed for that student.... And I think kids need to know first of all, I expect them to master the material but I don't expect them to sit there and do page after page, page after page, page after page of this if they already know. (Chris)

...first I ask questions - what does the child already know? Often I find out this information through pre-testing. And I try to combine pre-testing results with the child's interest. Then I use the information as the basis for his independent study. (Li)

I try to teach students based on "themes." I present material to all students, but students are allowed to choose the way they want to study and share the material. I encourage students to dig deeper for the information and share it through the project presentation.... I really work hard to push them deep enough in the way of thinking and processing information... And ask "should, could, would" questions. Should everybody do this? Could everybody do this? If these two are true, it is not differentiated enough. Then you get into would, 'would everybody do this?' and that sounds like a magic word but it isn't because we have very bright kids who would be doing this, but won't. (Rachel)

Although the teachers used various strategies to organize learning opportunities in meeting individual students' needs, they provide "challenges and choices" to each and

every student. Teachers, especially Rachel and Chris, discussed their high expectations for gifted students and their attempts to provide challenging materials. All four teachers provided opportunities for students to pursue individual projects on topics of their choice. Challenges and choices may sound succinct, but they are clear explanation of differentiation. By providing choices to students, the teachers stimulated students' interests and recognized the influence of interests on students' learning. Although educators have long advocated accommodating students' interests, it is not often put into practice in classrooms (Westberg, Archambault, Dobyms, & Salvin, 1993). Phenix (1964), an expert in curriculum development, said: "Students learn best what they most profoundly want to know. Their learning efficacy is in direct relation to their motivation. Hence, the materials of instruction should be selected in the light of students' real interest" (pp. 345-346). All four teachers in this study strived to provide instruction and curriculum to accommodate students' interests, which is a major strategy for differentiating curriculum for gifted learners. For example, they rarely said to students that "you should write a story about certain topic." Rather they gave the kids opportunity to choose, because when the students were writing something they like and care about, then they were more motivated.

Teachers' Willingness and Readiness to Embrace Change - Revisiting to Explorer

One of the main themes is that the teachers were willing to make changes in their practices. They did not teach as they were taught when they were students. Chris and Li mentioned that when experimenting with new strategies, they realized that they would not be successful every time. "I knew it might not work, and actually it often turned out that way, I mean it didn't work out well, but still I learn from the process and from the failure..." "The teachers might not be risk-takers by nature, however, they felt comfortable experimenting with new techniques, strategies, and materials.

As I mentioned in the beginning, they were explorers in searching, looking, and probing. One teacher mentioned "I venture off the beaten path, look in outside fields, and pay attention to a variety of different kinds of information." According to Oech (1992), there are several reasons why some people do not go exploring. For one thing, it is easy to get stuck in the routines of daily life. To be sure, it takes energy to break out of routines, but the four teachers in this study really believe that if they don't do it, they will get locked into where they've been and won't find anything new and anyway to go out. In order to survive in the work place, many people are having to become experts on narrower and narrower subjects. Psychologist Abraham Maslow recognized the danger of this phenomenon when he said people who are only good with hammers see every problem as a nail. As a result, they are reluctant to look outside the square of what they know. But the teachers in this study often left their own turf to look in outside fields, disciplines, strategies, and ideas, broke their routine, and shifted their focus to pay attention to a variety of information. They were quite explorers who have flexibility, courage, and openness in their practices. Willingness to

go into the areas that teachers don't know the answer either and not feeling uncomfortable with that is it intellectual adventurousness?.....Being able to abandon what she was doing and doing something else based on students' needs and interests at that time was critical in her classroom.... she often stopped in the middle of what she was doing and switched to something else if the students had interest in something else. She let them go from there, if a student said that "Oh, I know those things!"...she was able to let them share what he knew.

C. Collaboration

There were collaborative efforts among regular classroom teachers, coordinators of the education program for the gifted, and principal of the school. All four teachers in the study recognized that collaboration among teachers and with coordinators of the gifted education program has a major impact on their practices. For example, Li mentioned "I work with Ann Walden, the coordinator of gifted education programs, who helped me with a project about weather." Rachel said, "Ann is a real helper. She is willing to help me and my children. Our system quite works well." Joy, "I go to Ann when I do want a brainstorming regarding designing higher order thinking skill activities, curriculum compacting, counseling about gifted LD or BD children,... she helps me so often and so much." The four teachers also spent many extra hours planning voluntarily with their colleagues and preparing instructional lessons and materials. Joy mentioned, "I often visit Chris's classroom and talk with her because she has so much wonderful ideas and her classroom has so much nice things going on...Actually, for me that is far more valuable learning experience than reading an article on the enrichment for the gifted." But, having the time for collaboration is often a barrier. The teachers did not have sufficient time during the school day to plan with their colleagues. The teachers agreed that time for teacher collaboration is significant enough to be included in the school schedule. It should be noted that collaboration among these teachers were self-initiated and voluntary.

Collaboration with and support from the principal of the school and the administrators of the school district were very important too. The teachers enjoy the principal's support in meeting the learning needs of gifted students. Oneteacher mentioned that "...he gives us support and materials. He suggests to try new things. He created an atmosphere." Another teacher also said that "our principal is very supportive with ideas and materials. He gives us opportunity to experiment."

D. Teachers' Advanced Training and Knowledge

What I felt after the interview with the four teachers is that they really do know a lot about gifted students and instructional strategies for them. Two of them have graduate degrees in education areas, one of them finished endorsement in gifted education, and the other teacher took part in all inservice training and workshops provided by school

district. Specifically, the four teachers have received three types of gifted education training through university classes, through a regional education agency (Educational Service Unit), and through workshops and conferences.

Three teachers have taken classes in gifted education from an university in the area. The Educational Service Unit has provided inservice workshops on compacting and other gifted education topics. All four teacher and other staff and teachers of the elementary school received training through the service unit. A booklet entitled "Differentiating Your Curriculum for the Gifted and Talented" listing the components of compacting, was provided by the Service Unit consultant. During the interview all four teachers indicated that they attended several workshops on gifted education throughout their careers. The teachers in the study continued to learn and grow.

V. Discussion

A. How do the regular classroom teachers describe their beliefs and strategies in educating gifted children in their regular classrooms?

A lot of good things happen for gifted students in the four teachers' classrooms, and they do not happen by accident. The teachers intentionally create effective educational practices. They have a strong desire to discover the strengths of students and to develop those strengths. They believe that the classroom is a place where challenges are the norm and where one can progress as far as possible. They really hope that their students will be excited and enthusiastic about the school as a place of learning. High abilities and talents were recognized and celebrated in their classrooms. There was no doubt in their minds that different children learn differently and that the responsibility of the teacher is to adjust as best as they can to those differences.

They provided challenges in the classroom and allowed children to choose their own projects at their own pace. All teachers had student - centered classrooms, not curriculum - centered ones. If students already knew the content or how to do it, they modified the curriculum, had the students learn new material, and tried to challenge them one step further. They made changes constantly in their teaching strategies and classroom practices, even when it meant experimenting with new techniques. They were not afraid of taking risks and new challenges. All of the teachers also believed that it is important to make special efforts for meeting the needs of capable students. While their actions demonstrate a concern about the development of talent in all students, they did not expect the high ability students to learn on their own. They acknowledged that differentiation for bright students in the regular classroom is not easy, but they believed it is worth of the effort.

Above all the teachers were so willing to make changes in their practices. The teachers were willing to spend extra time and effort to make changes in their practices. They seemed to have the requisite readiness to make it happen. Fullan (1993) says, "If there is one cardinal rule of change in human condition, it is that you cannot make people

change" (p.23). The teachers' psychological and intellectual readiness for making changes appears to have influenced their practices.

B. How do the regular classroom teachers differentiate curricular and instructional practices for gifted children in their regular classrooms?

Although differentiation can be defined in many different ways, it generally refers to various approaches that teachers use for accommodating students's academic differences by determining what students will learn, how students will learn, and how students will demonstrate what they have learned (Tomlinson, 1995). In these four teachers' classrooms, many classroom activities for gifted students were based on the principles of curriculum differentiation for the gifted. They provided enrichment opportunities that involve research, project, mentor, theme teaching, high-level thinking skills, compacting, student choice, flexible groupings, multiple intelligence assignments, and interest / learning centers based on students' interests and strengths. They did not believe that it was not important to "keep them all together." When whole group instruction took place, variety of open-ended options were offered to students. For example, in Chris's classroom, there was a display wall. No two papers on the wall were the same. Each student has written or drawn something according to his/her ability and interest. Students were often encouraged to pursue their own interest by planning their own projects or learning activities. The teachers also urged students to explore new areas of interest by providing lots of diverse enriched experiences. Students in these four teachers' classrooms had opportunities to share their areas of expertise and to be recognized for their capabilities and talents.

C. What factors contribute to the regular classroom teachers' effective use of differentiated teaching strategies?

While the four teachers' successful practices may be largely attributable to their own unique teaching style and personality, their professional development experiences seem to have had a significant influence on their classroom practices. All four teachers had dedication to learn more about the needs of gifted students. The teachers were knowledgeable in the area of education of the gifted. They had opportunities to be exposed to a variety of instructional strategies through several different inservice opportunities over the years. The school district provided service units and workshops on the gifted education. In addition, some of them pursued advanced graduate level training in several areas. They spent lots of time for additional training, but they said they were not doing enough. They were interested in learning new techniques and practices, but more importantly, "they applied this training!"

In recent years, educational leaders and reformers have been proposing that the improvement of education depends on teachers' professional growth (Lewis, 1996). In

discussing why professional growth is so essential, Barth (1990) have mentioned that "When teachers observe, examine, question, and reflect on their ideas and develop new practices that lead toward their ideals, students are alive. When teachers stop growing, so do their students" (p. 50).

In addition, their expertise was recognized by other teachers or each other, and they were encouraged to use and share that knowledge with others. Collaboration and support among teachers, gifted facilitators, and principals were essential components in meeting the needs of gifted children. The literature indicates that collaboration among teachers probably has a major influence on teachers' willingness to change their practices (Dantonio, 1995). Dantonio (1995) have mentioned that time for teacher collaboration must be important enough to be included in the school schedule. Students benefit academically when their teachers share ideas, cooperate in activities and assist one another's intellectual growth.

D. How do the regular classroom teachers describe the ways they can better serve gifted children in their regular classrooms?

Building a classroom climate that tolerates and appreciates individual differences is important. The findings of this study suggest teacher should make sure that everybody has what he or she needs to fully develop their abilities and interests without losing their sense of membership as part of the class. The usual remedy for this has been to segregate the high ability students into small homogeneous groups or to assign individual projects. While both of these strategies have their places, neither is sufficient to accomplish the goal. Therefore, the four teachers suggest that teachers must look beyond the conventional, consider the overall dynamics of the classroom, and plan for a working environment in which all the students can fully develop their abilities and interests. Li mentioned, "please find out what children already know, and provide some opportunity for them to be engaged in alternate activities. And strike the word "extra credit" out from your vocabulary forever when talking to high ability kids. This is not extra, it's instead of." Chris suggested that learning about students' learning styles is helpful. According to Chris, there is just no way we can survive with diversities without knowing about diverse learning styles. She says, we must stop saying things like, "I don't know how many times I have to tell you and why you cannot understand this. . ." Instead we need to be saying, "Oh, I see you're not easily understanding this way, let's find another way for you to feel and learn better."

VI. Implications

In this case study, I presented four regular classroom teachers who have reputation for implementing differentiated practices to meet the needs of gifted students, and made efforts to describe their views and experiences with gifted students in their regular

classrooms. I discussed their beliefs and strategies for instructing gifted students, their belief and strategies for differentiating instruction, their willingness and readiness to embrace change, collaboration, and their advanced training and knowledge under the themes of the study. Those of us in the field of gifted education would like to see more services provided on a regular classroom basis. The teachers indicate, however, that the ideal amount of direct service cannot be provided solely by classroom teachers. They need support and collaboration from lots of personnel, including other regular classroom teachers, coordinators of gifted education programs, principal, administrators, parents, and community members, in providing extensions to students' learning. Through the combined efforts of all the staff members, students can be seen as individual with unique needs. The four teachers accommodate the diverse learning needs of students by selecting wide range of curricular materials, and adopting practices that allow for instructing students with similar abilities and interest.

This study permitted a peek into four successful teachers' classrooms to describe their educational experiences with gifted students in their regular classrooms, even though the peek was limited to the time and scope. The findings of this study contribute to our understanding of the practices that teachers use to accommodate the needs of gifted students in regular classrooms. Typical teachers tailor instruction to students' similarities; but these four effective teachers tailor instruction to students' differences as well as similarities. Concluding this study, one teacher's remarks still echo in my ears ".....providing differentiated education for gifted children is not matter of fair, but it indeed is a matter of NEED!"

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