1997

Meeting the needs of gifted students through teacher inservicing

Amy M. Akers

University of Northern Iowa

Copyright ©1997 Amy M. Akers
Follow this and additional works at: https://scholarworks.uni.edu/grp

Part of the Curriculum and Instruction Commons, and the Gifted Education Commons

Let us know how access to this document benefits you

Recommended Citation
https://scholarworks.uni.edu/grp/260

This Open Access Graduate Research Paper is brought to you for free and open access by the Graduate College at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.
Meeting the needs of gifted students through teacher inservicing

Abstract
Inservicing classroom teachers in compacting, independent study, and mentoring may help them become more effective in meeting the instructional needs of talented and gifted students. It is easier for teachers to apply learning if it is easily applicable to their own classroom instruction, and if the learning seems manageable for the teacher. This project includes an inservice model that contains applicable teaching strategies and an inservice plan for teachers. Teaching talented and gifted students through appropriate teaching strategies and becoming aware of these students’ needs in the classroom can assure that students are challenged to realize their full learning potential. This project presents research to support examples of inservice teaching strategies for the instruction of the talented and gifted. It also offers suggestions for conducting effective teacher inservices on meeting the special needs of the talented and gifted student in the regular classroom.
Meeting the Needs of Gifted Students Through Teacher Inservicing

A Graduate Project
Submitted to the Division of Talented and Gifted Education
Department of Curriculum and Instruction
in Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education

UNIVERSITY OF NORTHERN IOWA

by
Amy M. Akers
July, 1997
This Project by: Amy M. Akers

Titled: Meeting the Needs of Gifted Students Through Teacher Inservicing

has been approved as meeting the research requirement for the
Degree of Master of Arts.

July 22, 1997
Date Approved

William Waack
Graduate Faculty Reader

July 22, 1997
Date Approved

Mary J. Selke
Graduate Faculty Reader

July 24, 1997
Date Approved

Greg P. Stefanich
Head, Department of Curriculum and Instruction
Abstract

Inservicing classroom teachers in compacting, independent study, and mentoring may help them become more effective in meeting the instructional needs of talented and gifted students. As it is easier for teachers to apply learning if it is easily applicable to their own classroom instruction and if the learning seems manageable for the teacher. This project includes an inservice model that contains applicable teaching strategies and an inservice plan for teachers. Teaching talented and gifted students through appropriate teaching strategies and becoming aware of these students’ needs in the classroom can assure that students are challenged to realize their full learning potential. This project presents research to support examples of inservices of teaching strategies for the instruction of the talented and gifted. It also offers suggestions for conducting effective teacher inservices on meeting the special needs of the talented and gifted student in the regular classroom.
# Table of Contents

<table>
<thead>
<tr>
<th>Section Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Contextual Background/Rationale</td>
<td>4</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td>7</td>
</tr>
<tr>
<td>Purpose of the Project</td>
<td>7</td>
</tr>
<tr>
<td>Methodology</td>
<td>8</td>
</tr>
<tr>
<td>Procedure</td>
<td>8</td>
</tr>
<tr>
<td>Review of the Literature</td>
<td>10</td>
</tr>
<tr>
<td>Professional Development</td>
<td>11</td>
</tr>
<tr>
<td>Teaching Strategies</td>
<td>14</td>
</tr>
<tr>
<td>Compacting</td>
<td>14</td>
</tr>
<tr>
<td>Independent Study</td>
<td>19</td>
</tr>
<tr>
<td>Mentoring</td>
<td>23</td>
</tr>
<tr>
<td>The Project</td>
<td>28</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>32</td>
</tr>
<tr>
<td>Conclusions</td>
<td>32</td>
</tr>
<tr>
<td>Recommendations</td>
<td>33</td>
</tr>
</tbody>
</table>

i. 
Berger (1991) and Maker (1995) write that “appropriate instruction for the talented and gifted is often defined as instruction that has been differentiated in its content, process, product, and learning environment.” Appropriate instruction needs to be offered to talented and gifted students throughout their learning experience, not only when they are pulled out of their classrooms for special programs or are in a resource room. Maker (1986) notes that there is a special need to work with general classroom teachers to help them develop specific skills needed to work with their gifted students, including appropriate individualized instruction practices.

This project was designed to help general classroom teachers better meet the needs of talented and gifted students in their classrooms through professional development experiences and is composed of professional development inservices for general classroom teachers. The inservices are based on a model developed by Dettmer, Thurston, and Dyck (1993) and are developed to meet the needs of adult learners as explained in the research base of this project. Inservices outlined in this paper also were designed to offer general classroom teachers experience with teaching strategies that are conducive to meeting the needs of talented and gifted students.

This project includes the objectives and desired outcomes of the professional development inservices, as well as a needs assessment questionnaire and evaluation instrument. In addition, the events and projected calendar of inservices for the three teaching strategies are discussed. These inservices were developed to be implemented in
Ankeny, IA, Community School District to assist teachers in meeting the needs of talented and gifted students in their classrooms.

Contextual Background/Rationale

All students deserve to be challenged in school. Talented and gifted students often are not challenged and instead spend their school days reviewing concepts that they already have mastered, as "peer instructors" of students who do not understand the concepts covered, or as professional day dreamers. Their teachers may realize this; but, unfortunately, many of them may not have the appropriate training or knowledge to challenge talented and gifted students. In order for these students to achieve their fullest potential, their teachers need to know how to help them work to achieve the talents they have. Professional development for general classroom teachers can help these teachers better meet the needs of the talented and gifted students in their classrooms.

Davis and Rimm (1994) point to the need of professional development for general classroom teachers. They hypothesize that tens of thousands of talented and gifted children and adolescents are sitting in their classrooms with their abilities unrecognized; their needs are unmet. Some students are bored, patiently waiting for their peers to learn skills and concepts that they mastered two years earlier. Some students find school intolerable, feigning illness or creating other excuses to avoid the trivia. Some feel pressured to hide their keen talents and skills from uninterested and unsympathetic peers.
Not all talented and gifted students react so negatively. Davis and Rimm (1994) also write that some tolerate school by satisfying their intellectual, creative, or artistic needs outside of school. Some gifted students do enjoy school and find ways to challenge themselves on their own while they are there. These researchers remind us that gifted children have rights, too. Talented and gifted students have the right to be challenged to reach their fullest potential.

Van-Tassel-Baska (1986) in Comprehensive Curriculum for Gifted Learners, notes that, in order for talented and gifted students to realize and attain their potential through optimum levels of learning, teachers must approach their instruction differently from the way they instruct the general population of students. She writes that gifted learners have different learning needs compared with typical learners. These needs of talented and gifted learners cut across cognitive, affective, social, and aesthetic areas of curriculum experience. Freeman, Span, and Wagner (1995) indicate that often many teachers feel inadequate when faced with pupils who read voraciously, reason and absorb information rapidly, ask questions, invent problems, provide creative solutions, and cope with concepts and abstract ideas at a young age. These researchers go on to say that teaching talented and gifted students does not require teachers to be super-knowledgeable and gifted themselves, but that it does require teachers to be interested and keen to learn along with their pupils. They suggest teacher inservice as a means to develop these needed skills and attitudes:
There are many ways of improving teachers' ability to deal effectively with their talented pupils, either during first-level training, or as inservice courses. For talented pupils, the curriculum is often based on an inadequate model of knowledge, and needs to be enriched with more stimulating and complex cognitive demands. To do this, teachers require a sound knowledge of cognitive development and a familiarity with individual schemes of study and lessons (p.181).

Wood, Killian, McQuarrie, and Thompson (1993) point out that the purpose of inservice training is to conduct learning experiences that will enable the staff to improve current practice and achieve the school improvement goals identified prior to the inservice. One might conclude from this that inservice training can be an effective way for teachers to improve their current practice and achieve the goal of better meeting the needs of talented and gifted students in their classrooms.

It appears, then, that there exists a need to improve the teaching of talented and gifted students in the general classroom. It is also clear that inservice training is one strategy by which this improvement can occur. This project was created to meet that need. There is also a personal professional need for development of this inservice model. The writer will be an instructor of the talented and gifted in the Ankeny, IA, Community School District during the 1997-1998 school year, and in that position she will be assisting general classroom teachers in meeting the needs of talented and gifted students.
in their classrooms. This will be accomplished in part through the implementation of the inservice models and the activities detailed in this project.

**Definition of Terms**

In order to provide a common understanding, the following definitions are provided:

**Differentiation**: Adapting the school curriculum to meet the unique needs of learners by making modifications in complexity, depth, and pacing (California Association of the Gifted, 1992).

**General Classroom**: The heterogeneous grouping of students in classrooms, usually grouped by similar age or grade level taught by a professional trained in standard elementary or secondary education.

**Professional Development**: Teacher training experiences designed to be growth activities that work to improve teaching practice. In this project professional development refers to inservice workshops and ongoing training in strategies to meet the needs of talented and gifted students.

**Purpose of the Project**

As more school districts implement inclusion into their organizational structures, assisting general education classroom teachers in the instruction of special populations is growing as a focus. Because of this trend, the need to assure that teachers can meet the needs of these special populations becomes increasingly important.
The major purpose of this project is to prepare a model of professional development inservices for implementation for general classroom teachers. These inservices were developed to help teachers better meet the needs of talented and gifted students in their general education classrooms. During a discussion with Dr. Ann Johnson, Ankeny Community School District, on May 1, 1997, she reported that the greatest need in Ankeny Schools and the most prominent role of the talented and gifted teachers and coordinators in the district is to be a resource in assisting general classroom teachers with the instruction of talented and gifted students in their classrooms. The completed model will be implemented to meet the personal professional needs of the writer as a talented and gifted instructor in the Ankeny Community School District during the 1997-1998 school year.

Methodology

Procedure

The procedures for the development of this project included a review of literature, determination of the design of inservices to be implemented, determination of the activities planned for the inservices, development of inservice plans for each of the three teaching strategies for general classroom teachers, and the development of assessment instruments. The developed assessment items will be used to evaluate inservice effectiveness and document school improvement.
The review of the literature was organized under the following topics: talented and gifted students; adult learners; the needs of teachers of the talented and gifted; and teaching strategies that are conducive to meeting the needs of talented and gifted students in the general classroom setting. The search process included library searches on ERIC under the topics of talented and gifted students, adult learners, needs of teachers of talented and gifted, professional development, and the teaching strategies that are conducive to meeting the needs of talented and gifted students in the general classroom. Reviewed materials also included those resources available from the University of Northern Iowa Rod Library, the University of Northern Iowa Curriculum Laboratory, and the Area Educational Agency 7. The obtained resources were read and interpreted, notes were taken, and information was organized around topics of the project.

As a part of the literature review, the writer carefully examined the inservice model created by Dettmer, Thurston, and Dyck (1993). This model was developed specifically for general education classroom teachers and fit well with the researched and perceived needs of classroom teachers as adult learners. Therefore, it was selected as the model around which activities of this project were organized. The selected inservice activities were based on the research related to adult learners and their unique needs in professional development. This included research of the specific needs of teachers in the Ankeny, IA, Community School District and manageable teaching strategies that would work well to introduce general education classroom teachers to meet the needs of talented and gifted students in their classrooms.
With the perceived needs of talented and gifted students and teachers of the talented and gifted in mind, the next step was to develop the inservice topics that could be implemented into a school’s professional development plan. The reviewed literature on professional development related to talented and gifted education seemed to indicate that curriculum compacting, independent study, and mentoring were appropriate methods for meeting the needs of talented and gifted students. They also appeared to be easily implemented into the curriculum of a general classroom, and they were strategies with which the writer had practical classroom experience. They were, therefore, selected to be the topics of the inservices included in the project.

Finally, to assess the effectiveness of the inservices, evaluation instruments were developed to be completed by the participants involved in the inservices. A planned follow-up also was included to help presenters assess the effectiveness of the inservices and assess the application of the learning from the inservices.

Review of the Literature

The literature reviewed has been divided into the categories of professional development and teaching strategies. The section on professional development contains the reviewed literature detailing the need for professional development, characteristics of adult learners, and effective professional development procedures. The teaching strategies reviewed are curriculum compacting, independent study, and mentoring.
Professional Development

The Association for the Gifted in the *Standards for Programs Involving the Gifted and Talented*, (1989) points out that the success of a talented and gifted program is closely tied to the personnel involved in program planning and delivery. The Standards state, furthermore that:

continued professional development in the area of gifted child education and content areas is critical, since it is through this process that persons involved in the program remain current and can bring new expertise to the delivery and content of the program (p. 9).

The Standards also continues indicate that professional development opportunities in gifted child education need to be available on a regular basis to all staff members. These opportunities may include workshops, inservices, lectures, newsletters, visitations, and demonstration teaching.

Rosenholtz and Simpson (1990) have found that novice teachers are concerned with management tasks and organization. They noted that these teachers often are overwhelmed with rules, duties, and responsibilities that seem to have little relationship to teaching. They also found that mid life teachers want empowerment and autonomy. This group tends to feel confident in their professional abilities, has mastered management skills, and wants to explore different teaching techniques. Veteran teachers,
on the other hand, want support for instructional tasks. They have worked through earlier
issues, and now strive to become master teachers.

According to the literature, the point at which an individual finds him or herself
in his or her career is not the only consideration to take into account when planning
professional development inservice experiences. Participants involved in these
experiences also demonstrate several basic characteristics as adult learners that influence
their learning. Knowles (1978) notes that adult learners exhibit a desire to be
self-directed in their learning, a wide experience base upon which to draw, a time
perspective for the learning that is oriented to the here and now, and a problem-centered
focus on learning. Knowing these items about adult learners can help presenters in
preparing professional development experiences that work to meet the unique needs of
adult learners. Dettmer, Thurston and Dyck (1993) state that professional development
presenters must arrange for participant comfort, provide participants with options and
choices, arrange participants’ time, deliver practical focused help, and follow up on
effectiveness of the experience. They note that adult learners value inservice and staff
development activities in which they work toward realistic, job-related, useful goals.
Teachers need to see results for their efforts with follow-through and feedback
experiences. Most of all, they need time to work on activities within their own context.

Wood, Killian, McQuarrie, and Thompson (1993) offer generalizations about
teachers as adult learners. They write that teachers learn what is professionally
relevant to them and that they want no one implying that they are incompetent or in need of improvement. According to these researchers, adult learners also need a time and a place set aside to practice the skills being taught, need feedback, learn best in small groups, want control over their learning, and need structure for putting the learning into place within the curricula.

Presenting an inservice or staff development to adult learners might be compared to giving presents (Garmston, 1988). She states that the “present” should be something the participants (presentees) want or can utilize, personalized to individual taste as much as possible, attractively wrapped, and a bit suspenseful. With this in mind, the presenter should be sure to know the audience needs and interests; conduct the inservice staff development in an interesting, efficient, pleasant manner; package the inservice staff development material attractively; provide an element of surprise or intrigue; and deliver follow-up help, support or general information.

Dettmer, Thurston, and Dyck (1993) offer another effective approach to professional development. They write about one enterprising group of teachers that organized a series of sessions called “THT - Teachers Helping Teachers” in which teachers took turns delivering short sessions on topics in their areas of expertise or would invite other teachers come into their classrooms and watch them in action. Soon this idea became popular with other teachers. A teacher who had a school-related skill to share was excused, with the endorsement of the administration, for one-half day to prepare and
present to other teachers. Teachers truly collaborated and consulted to help each other learn more effective ways to meet the needs of all students in their classrooms.

Teaching Strategies

Cutts and Mosely (1957) dispute the common conception that gifted students will succeed without special attention to their needs. General classroom teachers work with talented and gifted students in their classrooms every day. As much of the literature revealed, teachers learn what is applicable to their classrooms and relevant to their daily practice. There are many teaching strategies that would meet the needs of talented and gifted students in the general classroom and would be applicable in teachers’ current practice. Curriculum compacting, independent study and mentoring are three teaching strategies that have been proven to be effective in meeting the needs of talented and gifted students in the general classroom and also are easily manageable for teachers to implement into their classrooms (Winebrenner, 1992, Gallagher, 1985, & Haeger and Feldhusen, 1989).

Compacting

Curriculum compacting is a research-supported instructional technique that allows high-ability students to test out of work that they already have mastered and substitute more challenging content. Since talented and gifted students really have no need for extra credit, it is important for students to have an opportunity to demonstrate prior knowledge and to have opportunities to use class time to do real work that
represents true learning for them (Winebrenner, 1992). Reis, Westberg, Kulikowich, Caillard, Herbert, Purcell, Rogers, and Smist (1992) note that when teachers eliminate as much as 50% of the grade level curriculum for gifted students, there is no difference in achievement test results. With minimal training, teachers can effectively identify and eliminate material already mastered by children. Davis and Rimm (1994) write that in curriculum compacting:

The regular teacher assists Talent Pool students in compacting learning activities both to provide a more challenging curriculum and to ‘buy time’ for the Talent Pool enrichment activities. Curriculum typically is compacted in basic skills areas, particularly math, but also language arts, science, and social studies. Areas of strength can be identified in students’ records, standardized test scores, classwork, or teacher observations (Renzulli and Reis, 1991). One compacting strategy is using pretests or end-of-unit tests to evaluate whether students already know the material. Another strategy is to accelerate the pace of instruction in an efficient and economical matter (p. 152).

Colangelo and Davis (1991) indicate that curriculum compacting is designed to adapt to the regular curriculum to meet the needs of above-average students by either eliminating work that has been previously mastered or streamlining work that may be mastered at a pace commensurate with the student’s ability. These researchers point to
three major objectives of curriculum compacting: a) to create a more challenging learning environment, b) to guarantee proficiency in the basic curriculum, and c) to provide time for more appropriate enrichment and/or acceleration activities.

Many bright students spend most of their time in school doing things they already know. With curriculum compacting, we can remedy this situation by increasing the challenge level of the work while also providing enrichment experiences and opportunities for independent and small group work commensurate with their abilities. If we can clearly demonstrate that a bright student has mastered a great deal of the curriculum, then we can argue that this student is therefore eligible for a different curricular experience (p. 124).

Colangelo and Davis also note that it is important for students to be provided with an orientation to the compacting process to enable them to realize that doing their best work in school may earn them time to work on something in which they have a keen interest. For example, if a youngster can demonstrate proficiency in grammar, he or she may then earn the opportunity to select a novel to read, view filmstrips about famous authors, write original short stories, compose poetry, or focus on an area of interest in language arts.

Curriculum compacting is designed around a form called The Compactor (Renzulli & Smith, 1978) and consists of three major phases. The first phase consists of
defining the goals and outcomes of a given unit or segment of instruction. It is suggested that teachers examine their objectives to determine which represent the acquisition of new content or thinking skills as opposed to reviews or practice of previously taught material. In this phase, teachers make individual programming decisions about what is important for students to learn and do.

The next phase is the identification of students who have already mastered the objectives of a unit that is about to be taught. This may involve reviewing scores from previous tests, completed assignments, and classroom participation. Unit pretests or even end-of-unit tests can be administered as pretests to assess students' knowledge. After the teacher has decided who will be the candidates for compacting, he or she should discuss it with the student to ascertain if he or she has a thorough grasp of the goals and procedures of compacting. Next, the teacher should specify how the student will demonstrate mastery of the material at a high level. In the third phase, the student and teacher should discuss the amount of time required to complete the unit and should agree on procedures to do so. Using a matrix of learning objectives, teachers can fill in test results and establish small, flexible, and temporary groups for skill instruction and replacement activities as desired.

The final phase of curriculum compacting, as described by Renzulli and Smith, is providing the alternative acceleration and enrichment activity options. This requires cooperative decision making and creativity on the part of teachers and the students.
Teachers can obtain enrichment activities from other teachers, from media specialists, from content area specialists, or from gifted education specialists. These activities may include self-directed learning activities, instructional materials that focus on particular thinking skills, and a variety of project-oriented activities designed to promote hands-on research or investigative skills.

Susan Winebrenner (1992) writes that students may need some reassurance from teachers that they are not expected to pass every pretest. It may happen that they pass a test one week and not the next, whereas another student may fail one week and pass the next. She suggests that teachers may want to explain that it is natural that people have different strengths. Students can be doing activities similar to those in the regular curriculum, but with content that is more challenging to them. For example, she says that if a class is working on a particular spelling rule or spelling pattern, students involved in compacting can do activities with more challenging words that demonstrate that rule.

Winebrenner also writes that curriculum for a gifted student should be compacted in those areas that represent the student's strengths. She suggests that we must guard against the practice of taking gifted students and making them earn free time to improve their performance in weaker areas. Instead, when students buy time for enrichment or alternate activities in a particular subject, they should be given opportunities to capitalize on those strengths through activities that enrich and extend their abilities. Winebrenner
believes that teachers should pay as much attention to students' strengths as to their learning weaknesses. Compacting, she feels, can provide for this.

Finally, curriculum compacting encourages teachers to question their own practice and challenge all students. Colangelo and Davis (1991) write that teachers must ask themselves: "Why am I teaching this? What are my goals? Do any of my students already know this material? How will I evaluate whether my students have mastered this material?" (p. 126). Reis et. al. (1992) reported no lowering of achievement when content and instruction were reduced (compacted); in fact, achievement increased with compacting. Furthermore, students' school attitudes improved: both students and teachers benefited from compacting.

Independent Study.

Another teaching strategy that is conducive to meeting talented and gifted students' needs in the general classroom is independent study. Davis and Rimm (1994) describe independent study as projects in which students may work on library research, scientific research, art, drama, journalism, and photography. They suggest that students may work alone, in pairs, or in small groups. They also state that for bright and energetic students, the possibilities for independent study and independent projects are without limits. James J. Gallagher (1985) believes that independent study is one of the most acceptable patterns for providing for gifted students. He points out that the term "independent study" is unfortunate because it can imply a limited role for the teacher. He
also notes the commentary of Kaplan (1979) that independent study fails for the gifted when it is perceived as a process independent of teaching. When the concept of independent study as an instructional mode is confused with the concept of independence, independent study is likely to fail, according to these researchers.

Leroux and McMillan (1993) describe independent study as providing competent students with the opportunity to pursue in-depth areas of special interest. It can also serve as a means for talented and gifted students to study independently advanced work under the guidance of a teacher or mentor. These researchers state that:

Independent study can allow students to practice real world skills in the way of experts. It's a powerful motivator and supplement to the regular classroom curriculum because students develop skills in a number of areas such as time management, interpersonal relations, interviewing and research abilities, and product development reporting. Opportunities for research are limited only by school and community resource personnel (pp. 24-25).

Susan Winebrenner (1992) points to worries that teachers may have in the implementation of independent study strategies. She has found that teachers worry that students may choose topics that are too broad, so we steer them toward narrower topics—those that can be turned into good reports. Given how rapidly information is growing and changing, Winebrenner suggests that we should be encouraging gifted students to explore a topic in depth before requiring formal feedback on a small part of it.
Winebrenner also offers an approach to independent study she calls the Topic Browser. She suggests that the first step is helping students select a topic to investigate. Winebrenner notes that topics do not necessarily have to be related to the curriculum. Next, teachers should provide students with a place for the student to store accumulated resource materials. Third, teachers should explain to the students involved how to fill out their planners, detailing their topic, subtopics, procedures involved in collecting information, professionals that could be interviewed and experiments or surveys that might be included in the project. Fourth, teachers should meet with the students and help them select a subtopic to research and present. Finally, teachers should make sure that students understand that they must choose one subtopic to study in depth for every three browsing experiences.

Starr Cline (1986) also offers an approach to independent study. She lists twelve steps to conducting independent study project that were detailed by Smutny and Blocksom (1990). The process she details begins with the student selecting the topic, teachers guiding students in the design of study, students then learning appropriate skills for carrying out the design, and teachers monitoring the outline of study prepared by students. The next step includes students and teachers working together and locating appropriate skills resources. Next, students conduct research on topics narrowing or expanding topics as necessary, and then teachers allow for sufficient time for students to research and work. During this phase, students seek teacher assistance if
needed and will need to select a presentation method, such as slide/sound show, videotape program, or dramatization. Then students and teachers seek appropriate audiences for completed project, (peers, parents, professionals, publications). Finally, students will need to evaluate their performance.

In a sense, once students have completed their independent study, they have become experts on their specific topic or area study. Colangelo and Davis (1991) state that providing students with opportunities to explore their interests, expand their knowledge and develop their own theories and creations is a requirement for effective talented and gifted instruction. They also note that independent study offers talented and gifted students opportunities to develop their task commitment, their self confidence, their feelings of accomplishment, and their own authentic products.

Mentoring.

Haeger and Feldhusen (1989) describe mentoring as a chance for teachers of the gifted to model behavior associated with high-level, creative production and provide information to students with the intention of fulfilling their intellectual potential and satisfying some students' curiosity. Davis and Rimm (1994) remind readers that the concept of mentoring is hardly new. In ancient Greece, Mentor himself tutored Telemachus, son of Odysseus. Socrates was mentor to Plato, Plato to Aristotle, and Aristotle to Alexander the Great. Leroux and McMillan (1993) believe that mentorships offer opportunities for gifted students to interact with selected members of the
community for an extended period of time on a topic of special interest to the student. They write that, like independent study, mentoring allows students to be active producers of knowledge under the guidance of an expert in their field of interest. Mentors can help to move students into areas of exploration that are not feasible in the busy classroom. These researchers also remind teachers of the importance of finding mentors. They emphasize that teachers need to work to make the best fit, psychologically and academically, between student and mentors. Scheduling student release time to work with an outside expert also can be a limitation. The final point that Leroux and McMillan make is that staff and administrative involvement and support are essential to the success of the program.

Davis and Rimm (1994) point out that a mentorship includes an extended relationship between a community professional and a student over a period of time. They continue by saying that the student visits the mentor at the job site on a scheduled basis to learn first-hand the activities, responsibilities, problems, and lifestyle associated with the practical business, art, or profession.

Prillaman and Richardson (1989) describe a unique program at William and Mary College in which college students served as mentors for gifted students after school and weekends for 12 weeks. Area students identified as gifted selected an area of interest to explore (e.g., marine science, geology, photography, French culture, and archaeology); college student mentors were then recruited based on their expertise in that area. The
program was a unique effort that linked the college, public schools, parents, and children. Edlind and Haensly (1985) summarized the main benefits of mentorships: as a) aiding career planning, b) increasing knowledge, skills, and talents far beyond book learning, c) establishing contacts with influential and knowledgeable persons, d) building self-esteem and confidence, e) developing personal ethics and sets of standards, f) enhancing creativity, and g) establishing a valuable and deep long-term friendship. Cox and Daniel (1983) noted that mentorship presumes a commitment on the part of the student and mentor and has as its goal the shaping of the student’s life outlook.

There are many characteristics that mentors should possess to assure a successful mentorship experience. A mentor, as described by Davis and Rimm (1994), is someone who possesses expertise in his or her specialized field. The mentor also should be high in personal integrity and have a strong interest in teaching young people. He or she should possess enthusiasm, optimism, tact, flexibility, and humor, all of which contribute to a desirable “acceptance of foolishness and errors.” They write that tolerance and patience contribute to a safe and experimentally oriented environment.

In planning a mentorship program, Cox and Daniel detail many helpful guidelines. Some of their recommendations follow. First of all, teachers should elicit the support of the district superintendent, the school board, and community leaders. Second, they should specify the purpose of each mentorship and the role of the student, teachers and students should develop a clear, defensible academic credit policy. Third, they
should prepare written criteria for student selection. These researchers continue by stating that teachers should try to achieve the best mentor/student match possible. Mentors should be creative producers who will not treat the students as "go-fers." They suggest that orientation seminars should be planned to acquaint students with the professional and business environments in which they will work, and students should also be prepared for the mentorship with related course work prior to the experience. In addition, Cox and Daniel write that students should be helped to develop individual goals, and finally, that the program should meet the academic needs of the students involved in the program.

Gilda Berger (1980) writes that mentor programs provide enrichment opportunities for talented and gifted students. She also details successful programs such as the program in the state of New York in which top high school students work twice a week with gifted students in an elementary school. For example, one high school mentor who was an expert in computer programming, taught computer science to four bright third-grade students. Another program Berger discusses is a program at George Washington University Reading Center in Washington, D.C., which has an after-school mentorship program for talented and gifted students in grades three through eight. The after-school program provides for these students without isolating them during the school day. Some of the subjects covered in this program were a study of Shakespeare's plays, architecture, and poetry. Berger states:
At best enrichment programs add breadth and depth to gifted children’s understanding of basic subjects. They go beyond routine memorization of facts. This approach takes advantage of special characteristics of the gifted, such as the ability to draw generalizations, to pursue topics in depth, and to use initiation, imagination, and originality (p. 70).

Berger concludes by stating that, at their worst, these programs merely offer the gifted child busywork, such as copying pages out of a book or doing large numbers of similar math problems. This sort of thing kills, rather than encourages, initiative and creativity.

James J. Gallagher writes that the use of mentors can be used to supplement the instruction for gifted students. He points out that mentors usually are people with long experience and expertise in given areas and that they provide content sophistication that would be impossible for a local school system to provide. After all, not many school systems could provide in-depth knowledge on topics such as early Egyptian architecture, the status of white whales, black holes in space, or other exotic topics that may be of possible interest to students.

A variation on the mentor concept has been presented by Gray (1982). Gray suggests that teachers and students follow a four-phase enrichment model for planning, conducting, completing, and presenting in a mentor-assisted enrichment project. Phase
One includes the mentor planning a proposed enrichment project for students. In Phase Two the mentors and pupils agree on the actual project. Next, they do the project, and finally, they complete and present the project. Smutny and Blocksom (1990) write that Lester Jipp, Executive Director of Learning Juncture, maintains that the mentor relationship have lasting benefits for students. They also note that mentors frequently write letters of recommendations for students that were involved in mentorships.

James J. Gallagher writes that the use of mentors can be used to supplement the instruction for gifted students. He points out that mentors usually are people with long experience and expertise in given areas and that they provide content sophistication that would be impossible for a local school system to provide. After all, not many school systems could provide in-depth knowledge on topics such as early Egyptian architecture, the status of white whales, black holes in space, or other exotic topics that may be of possible interest to students.

A variation on the mentor concept has been presented by Gray (1982). Gray suggests that teachers and students follow a four-phase enrichment model for planning, conducting, completing, and presenting in a mentor-assisted enrichment project. Phase One includes the mentor planning a proposed enrichment project for students. In phase Two the mentors and pupils agree on the actual project. Next, they do the project, and finally, they complete and present the project. Smutny and Blocksom (1990) also write that Lester Jipp, executive director of Learning Juncture, maintains that the mentor
relationship has lasting benefits for the student. They also note that mentors frequently write letters of recommendation for the students that were involved in mentorships.

The Project

Designing professional development inservices was the goal of this project. The process began with a literature review focusing on adult learners, followed by a similar review on the topics of professional development and inservicing. The review of literature concluded with an examination of research related to the teaching strategies selected as inservice topics. Based on the findings in the literature, the writer wrote objectives and desired outcomes for each inservice and developed activities that would assist teachers in understanding the teaching strategies discussed and that would meet the needs of these adult learners. These objectives and activities were designed to fit into the Dettmer, Thurston, and Dyck model of inservicing which was designed specifically for general classroom teachers. This project focuses on the major components of needs sensing and assessing; the inservice topics, titles and content; and the inservice evaluation and follow-up procedures.

The first step in this inservice process is needs sensing and assessing. Needs sensing involves gaining information about teachers’ needs through visits in their classrooms and informal interviews. Needs assessment is more concrete. One type of
3) General classroom teachers will practice compacting, independent study, and mentoring.

4) General classroom teachers will plan to implement the teaching strategies that fit best into their classrooms.

It is the desired outcome of the planned inservices that teachers will implement the teaching strategies discussed. Through this implementation, these teachers will be working to meet the needs of talented and gifted students in their general education classrooms.

A very important step in the planning of inservices is the selection of content and activities which will accomplish the developed objectives and desired outcomes. The content of the inservices should include time for participants to share personal and teaching experiences and get acquainted with one another. Knowles (1978) writes that adult learners have a wide experience from which to draw and that inservice presenters should use this wonderful experience to build the inservice. In addition, Wood et. al. (1993) state that most adult learners learn best in small groups. The tentative schedule for the developed inservices for this project were designed with these findings in mind and can be found in the Appendix C (p. 45). They include opportunities for teachers to share their experiences with students, time to work in small groups, time to plan for implementation of their learning in their own classrooms, and time to practice each teaching strategy introduced.
needs assessment instrument requests that teachers check major areas of interest for professional development. A sample of the needs assessment which was created for these inservices is included in Appendix B (p. 42). By sensing and assessing the needs of general classroom teachers, presenters can be sure to tailor these inservice activities to meet the specific needs of the participants.

Compacting, independent study and mentoring are the selected topics for the inservices. Each was given a title to motivate interest: “Challenging Children to Challenge Themselves” (Compacting) “Celebrating Learning Freedom: Independent Study” (Independent Study) and “Memorable Moments: Mentorship Maturation”(Mentoring).

Once teachers' needs are sensed and assessed and inservice topics are selected, specific objectives and desired outcomes designed to meet the identified needs can be developed. However, outcomes based on the perceived needs of general classroom teachers in meeting the needs of talented and gifted students are necessary to begin the general planning of the inservices. The objectives selected for this project are as follows:

1. General classroom teachers will explore the unique needs of talented and gifted students.

2. General classroom teachers will explore compacting, independent study, and mentoring as methods of meeting the needs of talented and gifted students in their classrooms.
3. General classroom teachers will practice compacting, independent study, and mentoring.

4. General classroom teachers will plan to implement the teaching strategies that fit best into their classrooms.

It is the desired outcome of the planned inservices that teachers will implement the teaching strategies discussed. Through this implementation, these teachers will be working to meet the needs of talented and gifted students in their general education classrooms.

A very important step in the planning of inservices is the selection of content and activities which will accomplish the developed objectives and desired outcomes. The content of the inservices should include time for participants to share personal and teaching experiences and get acquainted with one another. Knowles (1978) writes that adult learners have a wide experience from which to draw and that inservice presenters should use this wonderful experience to build the inservice. In addition, Wood et. al. (1993) state that most adult learners learn best in small groups The tentative schedule for the developed inservices for this project were designed with these findings in mind and can be found in the Appendix C (p. 45). They include opportunities for teachers to share their experiences with students, time to work in small groups, time to plan for implementation of their learning in their own classrooms, and time to practice each teaching strategy introduced.
Evaluation of the experience is initiated upon the completion of the inservices. There are many evaluation models. For this project participants will be asked to take turns sharing their feeling and learnings from the day. They also will be asked to complete the evaluation instrument included in Appendix D (p. 52). Finally, Dettmer, Thurston and Dyck (1993), Garmston (1988) and Wood et. al (1993) all point to the need for follow-up and feedback for adult learners. The follow-up planned for this project include individual interviews with participants approximately one week after the presentation of the inservices. Following this, informal interviews related to implementation of techniques, clarification of strategies, and general informational questions will be conducted approximately six weeks after the inservice. If teachers are not available for interviews or would prefer to write about their feelings and learnings, surveys will be distributed for them to complete. These experiences will help presenters plan for future professional development events, will provide feedback for school improvement teams, and will give teachers an opportunity to ask questions and clarify their thinking on the information gained at the inservices. It is planned that presenters will continue to communicate with participants through informal conversations, electronic mail and through observations, to encourage and assure the continuous application and refinement of the material learned at the inservices.

To conclude, this project has been organized according to the Dettmer, Thurston, and Dyck Model of teacher inservicing. The appendices contain an outline of this model.
that includes the components of the planned inservices, information about needs sensing
and a sample needs assessment instrumental the tentative schedule and objectives for
each inservice, and a sample evaluation questionnaire.

Conclusions and Recommendations

Conclusions

The following conclusions were reached by the writer during the course of work
on this project:

1. As inclusion of all students in general education classrooms becomes a norm,
professional development for the teachers in these classrooms becomes increasingly
important. The writer is convinced that effective teacher inservices are effective ways to
help teachers learn how to teach to meet the needs of all students in their classrooms,
including the talented and gifted.

2. The reviewed literature states that teachers learn what is relevant to their
current situation. Therefore, in order to assure that teachers will implement information
presented at inservices, inservice content must be applicable and useful for the teachers
involved.

3. On the basis of the reviewed literature and personal experience, compacting,
independent study, and mentoring appear to be the most manageable teaching strategies
to use when attempting to meet the needs of talented and gifted students in the general classroom.

4. The completion of this project has affirmed for the writer that the Dettmer, Thurston, and Dyck model for teaching inservicing provides a practical, complete format for meeting teachers' needs and for presenting teaching strategies that meet the needs of talented and gifted students in the general education classroom.

Recommendations

As a result of the completion of this project, the writer would make the following recommendations.

1. School districts with talented and gifted programs should, if need assessments so indicate, initiate professional development for general education classroom teachers so that they may better meet the needs of the identified talented and gifted children whom they teach.

2. In order to meet the specific needs of the general education classroom teacher, any professional development plan must include experiences that are relevant and applicable to their current practice. To ensure this relevance and applicability, any inservice plan must utilize the need sensing/needs assessing components of the Dettmer, Thurston, and Dyck model.
3. The most important result of any teacher inservice experience is proof that participants improved their current practice. In order to accomplish this, the writer recommends for all teacher inservices evaluation strategies that are long term. Such long term procedures should include authentic approaches such as interviews, observations, and continued electronic communications between presenters and participants. In this way, the presenters can encourage and be assured that the participants are continually applying and refining the knowledge and skills attained from the inservice experiences.
References


Johnston, A. (1997). Interview with the executive director of instructional services. Ankeny Community Schools, Ankeny, IA.


Appendices
Appendix A

Inservice Model Outline

Inservices and staff developments can be classified from simple to deluxe. There is no single format that is appropriate for every context. In the case of this project, the writer used the Dettmer, Thurston, and Dyck model which is outlined in this appendix according to the 16 major components. After each component are listed the sample applications related to this project.

Needs Sensing: Information gained during regularly scheduled observations in classrooms and through informal teacher interviews are involved in sensing the needs of participants.

Needs Assessment: Questionnaires asking teachers to check major areas of interest and add others if they wish are administered.

Topic: Meeting the Needs of Talented and Gifted Students.

Audience: Elementary and Middle School level classroom teachers.

Title: “Challenging Children to Challenge Themselves.”

Presenters: Elementary and Middle School Talented and Gifted Teachers/Coordinators are presenters of the inservices.

Incentives: Refreshments, teaching materials, handouts, and credit on professional growth plan (if applicable) are available for participants.
Publicity: Teacher newsletter, personal invitations put into teachers' school mailboxes, and posters in faculty room publicize inservices.

Format: One full day inservice and two 1/2 day sessions during planned teacher inservice days are scheduled.

Equipment: Overhead and screen, handouts, table for refreshments, refreshments, tables for teachers to sit at, to meet and to work at are available.

Content: Information to help teachers understand the unique needs of talented and gifted students and ways to meet these needs in the regular classroom are part of the inservices. Major elements include the following: a) teacher sharing of personal experiences with talented and gifted students and talented and gifted education, b) rationale for differentiated approach to teaching talented and gifted students, c) examples of teaching strategies for meeting the needs of talented and gifted students in the general education classroom, d) research basis for strategies introduced, e) principles for strategies introduced, and f) time for group work to practice and plan the implementation of strategies into practice.

Handouts: There are color coded informational handouts to accompany each teaching strategy. Included in packets are descriptions of strategies, rationales for strategies, and steps and ideas for strategies.

Visuals: Transparencies, examples of lesson plans from implementation of the teaching strategies introduced, examples of student work will be part of the presentation.
Rehearsal: All presenters will meet once a month before the inservice, two-four times the week before the inservice, and then one-two times the week of the inservice.

Evaluation: Teacher "go around," in which teachers take turns sharing their feelings and learning to assess learning, and teachers complete the evaluation instrument.

Follow-up: Individual interviews with presenters are conducted one week and then six weeks after the inservice. If teachers are not available for interviews or would prefer to write follow-up responses, surveys could be completed by teachers instead.
Appendix B

Needs Sensing/Needs Assessment

This appendix presents the planned approach to needs sensing. It also includes a suggested needs assessment form.

Needs Sensing

The first step to inserving and staff development is to discover what the participants want and need. This can be done through what Dettmer, Thurston, and Dyck call Needs-Sensing. Needs-sensing allows planners to design inservices to address the true needs of those teachers involved. The presenters or organizers could ask teachers what they would like to explore or experience in an inservice, "sensing" where teachers' needs lie. These needs can be sensed through classroom observations; visits to successful programs, followed by a comparative analysis; dialogues and interviews with students, parents, support personnel, and others in the community; task force investigations; and buzz group outcomes.

In this project the writer will follow the process as outlined. School personnel will be interviewed in order to obtain information related to the following concerns: a) What do we need to know to help students in our schools feel good about themselves? b) How important are test formats, designs, and reporting procedures in helping students learn to the best of their ability? c) Do we use ancillary and support personnel to the greatest advantage for our students?
d) Does our current material develop critical thinking, or do we need more effort in this area? f) Do we have the resources for adapting materials to the needs of low-achieving students?

**Needs Assessment**

After needs sensing has been conducted, needs assessment instruments and procedures should be developed from the data. According to Dettmer, Thurston, and Dyck (1993), formats for needs assessments may include checklists, questionnaires and surveys, open-ended surveys of areas of concern, interviews, and brainstorm session records. The writer has selected a survey which consists of primarily of open-ended questions. A sample copy of the instrument is found on Page 44.
Name ____________________ Teaching Area and Level __________________
( optional )

1. Please rank the following according to your interest. Rank from 1 to 3 with 1 indicating that topic of greatest interest and 3 the topic of least interest.

_____ Curriculum compacting as a means of accelerating gifted students.
_____ The implementation of independent study in your classroom.
_____ Ideas and methods for using mentoring in your classroom.

2. After you have ranked the topics according to your interest, answer the following questions:

With which of the above strategies are you familiar? Please explain.

With which strategies have you used in your classroom? Please explain.

3. In the space provided, list any other topics related to the education of talented and gifted children about which you would like to learn more.
Appendix C

Inservice Schedule

This appendix contains outlines of the inservice schedules as envisioned by the writer. The inservice objectives and desired outcomes are also included in this schedule.

Challenging Children to Challenge Themselves Through Curriculum Compacting

Inservice Objectives:

a) General classroom teachers will explore the unique needs of talented and gifted students.

b) General classroom teachers will explore compacting as a method of meeting the needs of talented and gifted students in their classrooms.

c) General classroom teachers will practice compacting in the inservice setting.

d) General classroom teachers will plan the implementation of compacting into their current teaching practice.

Desired Outcome:

Teachers will implement compacting into their current curriculum.
Challenging Children to Challenge Themselves
Through Curriculum Compacting

8:00 -- Coffee, Juice, Donuts, Bagels and Getting Settled.
Teachers choose and sit at the table with the shape that best fits
their personality type.

8:15 -- “Table talk” and sharing of why each group sat where they sat.
Introduction of Presenters. Presenters begin by “compacting”
garbage into a smaller space, making more efficient use of
space.

8:45 -- Introduction to rationale and the process of compacting.
Overheads/Handouts.
Research and literature explored.

9:30 -- Teachers practice compacting with each other in teaching
“How to Tie a Tie.” Teachers are given a contract to complete,
and alternate activities to complete if they compact out of
“How to Tie a Tie.”

10:15 -- Discussion of learning and discussion of strengths and
weaknesses seen or experienced.
-- Discussion and handouts of alternate activities and
learning contracts. “What to do now?”

11:00 -- Teachers meet in subject area or grade level groups to
brainstorm and plan how they could use compacting in
their classrooms.
-- Examples of student work, contracts, and etc. are out for
exploration.
12:00 -- Closure. Compacting "go around," for teachers to share learnings and feelings. Teachers are to write two ways that they will apply something they learned from the morning in their own teaching practice.

12:00 - 1:00 -- lunch

1:00 -- Teachers will be given a choice of activities. Research on and examples of teaching strategies put into use will be available for reading. Presenters will be available for assistance and to answer questions. Teachers may work alone or in groups during this time.

Teachers will be expected to plan for implementation of compacting into their own classrooms during this time.

2:30 -- Closure discussion. Review of rationale for implementing compacting into general classrooms, phases of compacting and assessment ideas. Teachers will have an opportunity to share how they plan to implement compacting and their learning from the day. Feedback and question answering will provide closure for the day. Presenters will end with quotes for pondering and the evaluation instrument.

3:00 -- Dismissal
Independent Study: Celebrating Learning Freedom

Inservice Objectives:

a) General classroom teachers will practice independent study.

b) General classroom teachers will share understanding of independent study and gain information about the implementation of independent study as a means to meet the needs of talented and gifted students in their classrooms.

Desired Outcome:

Participants will implement independent study into their teaching practice to meet the needs of talented and gifted students in their classrooms.
Independent Study
Celebrating Learning Freedom

8:00 — Coffee, Juice, Donuts, Bagels, Fruit and Getting Settled. Teachers choose where to sit according to individual area of interest.

8:15 — Participants talk at their tables about their experiences with the topic that is listed on the table at which they are sitting. Participants also discuss their cause for this particular interest.

8:45 — Participants spend time examining topics of their interests, with those at their table, with the help of inservice presenters.

9:30 — Teachers regroup to discuss experience. Feedback/Discussion.

10:00 — Introduction to rationale and principles of independent study as a means of meeting the needs of talented and gifted students in the general classroom setting.

10:30 — Stretch break / teachers may choose to look at sample lessons implementing independent study, the literature basis for implementing independent study, review their handouts, or discuss experiences with other teachers.

10:50 — Teachers meet with a presenter or expert in the field of their choice to discuss independent study implementation possibilities. Teachers plan the implementation of independent study and design assessment options for students involved in independent study.

11:45 — Closure. “Go-around,” sharing of feelings, ideas, and plans. Evaluation instrument will be completed by teachers and teachers write on their handouts two items that they will apply from the inservice.
Memorable Moments: Mentorship Maturation

Inservice Objectives:

a) General classroom teachers will practice learning with the assistance of a mentor.

b) General classroom teachers will share understanding of mentoring and gain information about the implementation of mentoring as a means to meet the needs of talented and gifted students in their classrooms.

Desired Outcome:

Participants will implement mentoring into their teach practice to meet the needs of talented and gifted students in their classrooms.
Memorable Moments: Mentorship Maturation

8:00 – Coffee, Juice, Donuts, Bagels, Fruit and Getting Settled. Teachers choose where to sit according to individual area of interest.

8:15 – Participants talk at their tables about their experiences with the topic that is listed on the table at which they are sitting. Participants also discuss their cause for this particular interest.

8:45 – Participants spend time examining topics of their interests, with those at their table, with the help of inservice presenters.

9:30 – Teachers regroup to discuss experience. Feedback/Discussion.

10:00 – Introduction to rationale and principles of the use of mentoring as a means of meeting the needs of talented and gifted students in the general classroom setting.

10:30 – Stretch break / teachers may choose to look at sample lessons implementing mentors, the literature basis for implementing mentoring, review their handouts, or discuss experiences with other teachers.

10:50 – Teachers meet with a presenter or expert in the field of their choice to discuss mentorship implementation possibilities. Teachers plan the implementation of mentoring and design assessment options for students involved in mentoring.

11:45 – Closure. “Go-around,” sharing of feelings, ideas, and plans. Evaluation instrument will be completed and teachers write on their handouts two items that they will apply from the inservice.
Appendix D
Inservice Evaluation

Name ___________________________ Teaching Area and Level ________________________
(optional)

Site of Inservice ___________________ Date of Inservice ____________________

Topic of Inservice ________________________

1. Rate the following from 1 to 5 using the following values:
   1 = None  2 = A little  3 = Somewhat  4 = Considerably  5 = Much
   ______ a. The inservice increased my understanding of the topic.
   ______ b. The goals and objectives of the inservice addressed needs I had identified on the needs assessment.
   ______ c. The content was well developed and well organized.
   ______ d. The material was presented effectively.
   ______ e. I gained ideas to use in my own classroom.
   ______ f. I will use at least one idea from this inservice.

2. The strengths of the inservice were: ________________________________

   ________________________________________________________________

3. Some ways in which the inservice could have been improved are: _______

   ________________________________________________________________

4. I would like to know more about: ________________________________