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ABSTRACT

This manual is designed to help Idaho school districts establish or improve programs for gifted and talented (G/T) high school students. It describes specific program options and administrative issues relating to gifted education. Chapter 1, "Starting and Administering a G/T High School Program," answers common questions about G/T high school programs, provides a seven-step plan for program implementation, and provides practical recommendations that will help G/T high school programs run smoothly. Chapter 2, "Program Options," describes various program options available in G/T high school programs, including: advanced placement courses, the International Baccalaureate Program, mentorship programs, independent study, and leadership program options. The following chapter, "Teaching Strategies," describes various teaching strategies that enhance learning for G/T high school students, including: curriculum compacting, teaching creative and critical thinking, creative problem solving, Socratic questioning, shared inquiry, teaching G/T students in the regular classroom, real-world tasks, curriculum differentiation, and a multiple intelligence approach. The final chapter, "Models," provides a brief summary of two G/T high school models: the Purdue Secondary Model for Gifted Education and the Autonomous Learner Model. The appendix provides information on funding sources, assessment instruments, early college entrance programs, competitions, and miscellaneous opportunities for G/T high school students; forms and examples are also included. (CR)

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Gifted *and* Talented High School Programs

— program options
— teaching strategies
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September 1999

This manual is a supplement to
The Best Practices Manual for Gifted and Talented Programs in Idaho

Dr. Marilyn Howard
Superintendent of Public Instruction
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Contents

Foreword

Dear Colleagues:

As of September 1999, only one-quarter of the high schools in Idaho have gifted and talented (G/T) programs. The purpose of this manual is to help districts establish or improve programs for G/T high school students. Districts should keep in mind that this manual supplements *The Best Practices Manual for Gifted and Talented Programs in Idaho,* and references to the latter are periodically made.

Although the 1993 Gifted and Talented Mandate *requires* identified students to be served from ages 5 through 18, the number of G/T high school students *actually* identified and served is significantly low. For example, according to the 1996-97 Child Count, 1,146 identified students were 11 years old, and only 215 identified students were 16 years old. Yet even with limited resources, districts *can* plan and implement programs that meet the needs of G/T high school students. This manual describes specific program options and administrative issues that can help districts establish or improve G/T high school programs.

We hope this manual will help increase the number of G/T high school programs in Idaho.

Marilyn Howard

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—Gary Marx, State Specialist for Gifted and Talented Education

Overview

The purpose of this manual serves a twofold function: to assist districts in establishing or improving their G/T high school programs, and to increase the total number of G/T high school programs in Idaho.

- **Chapter 1: Starting and Administering a G/T High School Program**—Answers common questions about G/T high school programs; provides a seven-step plan for implementing a G/T high school program; and provides practical recommendations that will help G/T high school programs run smoothly.

- **Chapter 2: Program Options**—Describes various program options available in G/T high school programs.

- **Chapter 3: Teaching Strategies**—Describes various teaching strategies that enhance learning for G/T high school students.

- **Chapter 4: Models**—Provides a brief summary of two G/T high school models: the Purdue Secondary Model for Gifted Education and the Autonomous Learner Model.

Additionally, the **appendix** provides information on funding sources, assessment instruments, early college entrance programs, summer residential programs, competitions and miscellaneous opportunities for G/T high school students.

Districts should keep in mind that this manual supplements *The Best Practices Manual for Gifted and Talented Programs in Idaho,* and references to the latter are periodically made.

Chapter 1
Starting and Administering a G/T High School Program

Section 1. Reasons for Starting or Continuing G/T High School Programs

Unfortunately, the attitude that bright students can make it on their own too often prevails over the legitimate needs of G/T high school students. Not only do such students have specific educational needs, they also frequently need special help with social and emotional issues, career planning, scholarship information and program options. A well-planned G/T high school program can help meet the diverse needs of G/T high school students and provide benefits for other students and teachers.

Advanced Placement courses—important, but not enough

In Idaho most G/T high school programs offer only Advanced Placement (AP) courses. Advanced Placement courses are college-level courses characterized by (1) a faster pace, (2) greater depth and breadth of content and (3) the use of higher-level thinking skills. While AP courses are appropriate for some G/T high school students, such courses rarely meet the needs of students talented in the state-mandated areas of creativity, leadership and the visual and performing arts.

The need for differentiated program options

The G/T high school programs that excel in meeting students' needs offer *differentiated* program options. Yet despite this, some high schools have not moved in this direction. In her book *Growing Up Gifted,* Barbara Clark (1997), a professor from California State University, states that "Many high schools do not individualize their instruction to the degree that students with special needs can receive an appropriate educational experience. Unless specially planned, school experiences seldom challenge bright students" (p. 305).

Gifted and talented high school programs are excellent vehicles for providing the differentiated program options G/T students need, which may involve the following:

- programs that develop skills in problem solving, higher-level thinking, independent study and creativity
- flexible educational environments that allow students to pursue areas of interest
- accelerated curricula to accommodate high degrees of content mastery

Preparing students for competitive careers

Gifted and talented high school programs can help prepare students to succeed in some of the most complex and competitive fields worldwide—technology, science, engineering—as well as in traditional liberal arts areas. Such programs can also help students gain confidence, use their energy productively and take responsibility for their future.

Appropriate counseling services

In addition to providing for the *academic* needs of students, G/T high school programs provide important services that may otherwise be unavailable or insufficient. For example, a trained advocate working on behalf of the G/T program can help students with social and emotional needs, addressing such issues as perfectionism and underachievement—issues that can undermine the most gifted of students if not properly addressed. Additionally, advocates can provide information on scholarships, scheduling and appropriate program options.

Benefits for more than just the gifted

Gifted and talented high school programs are good for all advanced learners (not just the gifted), as well as for teachers and schools. First, G/T program options are available for G/T students and *other* interested and motivated students. Second, G/T programs encourage educators to become more flexible by allowing them to address different talent areas within a variety of program options; additionally, educators may feel encouraged and invigorated by working closely with students whom they share a particular talent or a strong academic interest. And third, G/T high school programs help raise educational standards school-wide.

Failure to meet the needs of G/T high school students

Without adequate G/T high school programs, students and communities often pay a high price. When gifted students are not sufficiently challenged, they may exhibit inappropriate behavior and, at the extreme, drop out. According to Nyquist (1973), G/T students make up 10-20 percent of the national dropout population. Well-structured G/T high school programs help students use and develop talents that might otherwise be ignored or discounted by the students themselves.

Conclusion

Idaho law (Idaho Code §33-2003) requires that G/T students be identified and served from the ages of 5 through 18 in five mandated talent areas. However, with planning and flexibility Idaho high schools can do more than simply meet a basic legal requirement: They can create G/T programs that meet students' needs in a genuine and exciting manner. This manual can help high schools implement or improve that process.

References

Clark, B. (1997). *Growing up gifted.* Columbus, OH: Prentice-Hall, Inc.

Nyquist, E. (1973). *The gifted: The invisibly handicapped, or there is no heavier burden than a great potential.* Paper presented at the meeting of the National Conference on the Gifted, Albany, NY.

Section 2. Two Essential Elements of G/T High School Programs

A successful G/T high school program includes two essential elements: a G/T district plan and a variety of program options. Both of these elements are discussed below.

The first essential element: a G/T district plan

The first element in starting or improving a G/T high school program is a G/T district plan. The plan should include these components:

- philosophy and definition of gifted
- program goals and objectives
- program development (curriculum and instruction)
- identification procedures
- program evaluation

Chapter 2 in *The Best Practices Manual for Gifted and Talented Programs in Idaho* gives detailed instructions on how to develop a G/T district plan.

When developing or revising a G/T district plan, districts should keep in mind that G/T programs are not "cookie cutter" programs. The philosophy, definitions, goals and identification procedures the district *chooses* will shape the entire K-12 gifted and talented program in each of the five talent areas: academic, leadership, creativity, intellectual and the visual and performing arts. For example, if the goals in the G/T district plan emphasize independent research and problem solving, then the G/T high school program should include independent research and problem solving, even though the expectations and results will vary compared to the elementary and middle school levels.

A G/T district plan encompasses these important functions:

- provides direction and focus for the entire K-12 gifted and talented program in terms that educators and parents can understand;
- makes it clear what the goals and expectations are for G/T students;
- provides the foundation that enables the K-12 faculty to plan for the logical progression of content and/or processes in each of the talent areas;

- specifies important components of the program, including identification procedures and program evaluation;

- demonstrates that the district is serious about identifying and serving G/T students from ages 5 through 18, as required by law.

The district is responsible for developing a G/T district plan; however, if the district does not have a plan, the high school should develop its own plan rather than delay starting a G/T high school program.

The second essential element: a variety of program options

Gifted and talented high school programs must have a *variety* of program options. Examples of program options include Advanced Placement (AP) courses, independent study, seminar and mentorships—to name a few. A variety of program options are needed to meet the individual needs of students within all five talent areas. Chapter 2 of this manual discusses various program options.

Section 3. Expanding a G/T Program to Include the High School

Gifted and talented programs have typically been implemented in the elementary grades. The following seven steps describe how to expand the G/T program to include the high school.

Step 1: Revise the G/T district plan to include a K-12 focus. Review the G/T district plan, which includes the following elements:

- philosophy and definition of gifted
- program goals and objectives
- program development (curriculum and instruction)
- identification procedures
- program evaluation

After this review, revise the G/T district plan to ensure that it addresses the elementary, middle *and* high school levels. Keep in mind that the philosophy, definitions and goals in the G/T district plan provide the direction and focus for the entire K-12 program. For example, if the goals in the G/T district plan emphasize independent research and problem solving, then the G/T high school program should include independent research and problem solving, even though the expectations and results will vary compared to the elementary and middle school levels.

A committee representing different levels (elementary, middle and high school) and different positions may be formed to review and revise the G/T district plan. The committee may include administrators, teachers, parents, counselors and other individuals. All committee members should have, or should be willing to have, some training in gifted education. (For information on writing a G/T district plan see chapter 2 from *The Best Practices Manual for Gifted and Talented Programs in Idaho.*)

Step 2: Identify *existing* program options and align them with the G/T district plan. Identify high school program options already in place and align them with the philosophy, definitions and goals in the G/T district plan. High school program options may include Advanced Placement, mentorships, independent study, competitions and other options (see p. 24 for a list of options).

Step 3: Develop and implement *new* program options and align them with the G/T district plan. Develop and implement new program options that would meet the needs of G/T high school students in one or more of the five mandated talent areas. Make sure that the new program options align with the philosophy, definitions and goals identified in the G/T district plan.

Step 4: Implement a system that identifies G/T high school students. The system used to identify G/T high school students should align with the G/T district plan and the G/T high school program options. For example, identifying students who are talented in leadership requires different assessment instruments than identifying students talented in specific academic areas. (For information on identification and assessment see chapter 4 from *The Best Practices Manual for Gifted and Talented Programs in Idaho.)*

Step 5: Identify a trained advocate for G/T high school students. The district should identify a trained advocate to help G/T high school students with (1) scholarship information, (2) career awareness and (3) matching specific student needs with appropriate program options. The advocate could be a counselor or someone who assumes similar responsibilities.

Step 6: Provide training in gifted education for all personnel involved with the G/T high school program. Training in gifted education should be provided for all personnel involved with the G/T high school program, which may include Advanced Placement (AP) teachers, honors teachers, general education teachers, counselors and administrators.

Step 7: Ensure articulation occurs in the different talent areas in grades K-12. The district G/T program should ensure that elementary, middle and high school levels work together. Cooperation among the K-12 faculty of the G/T program will help ensure that the logical progression of specific talent areas occurs for G/T students. For example, students talented in math will have a challenging curriculum from 1st through 12th grade; students talented in creativity will have their talents developed from 1st through 12th grade.

A summary of the seven steps needed to start a G/T high school program

1. Revise the G/T district plan to include a K-12 focus.
2. Identify existing program options and align them with the G/T district plan.
3. Develop and implement new program options and align them with the G/T district plan.
4. Implement a system that identifies G/T high school students.
5. Identify a trained advocate for G/T high school students.
6. Provide training in gifted education for all personnel involved with the G/T high school program.
7. Ensure articulation occurs in the different talent areas in grades K-12.

Section 4. Six Frequently Asked Questions

The following questions pertaining to G/T high school programs are frequently asked by school personnel. (Page numbers refer to sections in this manual unless stated otherwise.)

1. Why should the district identify and serve G/T high school students when many program options are currently available for advanced learners at the high school level?

First, while some program options are typically available in high school, the degree of *differentiated* instruction for advanced learners is often insufficient to meet their needs. Differentiating instruction for advanced learners may include organizing and developing lessons around concepts, themes and/or issues; integrating critical and creative thinking with content; and providing opportunities for accelerated and in-depth study. Barbara Clark (1997), a professor at California State University, Los Angeles, states:

> Many high schools do not individualize their instruction to the degree that students with special needs can receive an appropriate educational experience. Unless specially planned, school experiences seldom challenge bright students. In many cases, identifying students with special needs is the only way to insure that these needs are met (p. 305).

Second, Idaho's G/T mandate dictates that districts must identify students in five talent areas and provide services for all identified G/T students from ages 5 through 18 (Idaho Code §33-2003).

2. The district's high school students are too busy to take more classes, let alone G/T courses. What do you recommend?

The key to successful G/T high school programs is flexibility. For example, allowing students to challenge courses and to compact content could free time for independent study or advanced courses. (See sections scheduling (p. 19), challenging a course (p. 21) and curriculum compacting (p. 56).)

3. How can the district implement a G/T high school program when it can't afford to hire another staff person?

While hiring another faculty person would be the ideal, program options can be implemented using existing staff:

- Present faculty can teach Advanced Placement (AP) courses, honors classes and seminar.
- Specific faculty members can meet periodically with students involved in mentorships (p. 31) and independent study (p. 40).

- Counselors can help gifted students select appropriate classes, set future goals and identify scholarships to colleges and universities.

Implementing program options may require a creative approach. For example, distance learning may be used to teach an AP course; school psychologists may administer tests; and community members may facilitate competitions.

Though the district may not be able to hire another staff person, it is still essential that someone oversee the district's K-12 gifted and talented program. Also, all staff members who work with gifted students should receive training in gifted education.

4. What money is available to fund inservice training to prepare school personnel to better meet the needs of the gifted?

Several possible funding sources are listed below. However, because funding sources change, please contact the G/T specialist or the state G/T homepage for updated funding sources: http://www.sde.state.id.us:2500/GiftedTalented/. (Also, see funding sources on p. 82.)

Federal level

- Eisenhower Grant (Title 2) may be used to fund inservice training. (Title 6 may be used for G/T programming.)

- The Science/Math Consortium for NW Schools (Title 2) is a matching grant that may be used to fund inservice training in science and math. This may include funding training for Advanced Placement classes, honors classes and technology instruction pertaining to G/T students and science or math.

State level

- In 1999, the legislature allocated $500,000 to fund training for general education teachers, G/T teachers, parents and administrators. Every district will receive money based on half its total enrollment and number of gifted students identified and served.

- The Experiments in Creative/Innovation Programs is a grant that may fund gifted programs. Districts may receive up to $10,000 to fund new and creative programs.

5. Who may teach or facilitate the different program options at the high school level?

Teachers who have the appropriate content certification and expertise, and training in gifted education may teach or facilitate different program options. In some cases teachers are required to have a G/T endorsement. Specific examples follow:

- *Advanced Placement teachers*: Instructors teaching Advanced Placement (AP) courses are encouraged (but not required) to have training in the needs and characteristics of gifted students, differentiating curriculum, and integrating critical and creative thinking skills in the curriculum. Because Advanced Placement courses are usually offered for all students, not just G/T students, an AP instructor is not required to obtain a G/T endorsement.

- *Direct services providers*: A G/T endorsement is recommended for instructors who provide "direct services" to gifted students. Direct services include teaching, facilitating and/or consulting. The G/T endorsement requires 20 semester hours in G/T education—15 required credits and 5 elective credits. Direct services providers will be *required* to have a G/T endorsement by July 1, 2004.

- *K-8 teachers, facilitators and others*: An elementary or middle school G/T facilitator or a community member can facilitate a competition or an independent study at the high school level, but is not qualified to teach in a specific content area unless appropriately certificated.

6. How does state law and local policy affect G/T high school programs?

As of September 1999, Idaho law requires all students, including the gifted, to complete 42 credit hours with a set number of credits per content area. Typically, most districts in Idaho require more credit hours. Local policy is established by the district's board of trustees and may affect the G/T program. For example, local policy can allow gifted students to challenge courses and to receive credit for program options that are part of the gifted program, e.g., mentorships or independent study.

The implementation of exiting standards may change this pattern. According to Tom Farley, Chief, Bureau of Curriculum and Accountability, exiting standards *may* allow students, including G/T students, to challenge courses by demonstrating mastery of specific competencies.

Reference

Clark, B. (1997). *Growing up gifted.* Columbus, OH: Prentice-Hall, Inc.

Section 5. Grade Weighting

Some school districts in Idaho use grade weighting to encourage students to take advanced courses by minimizing the worry about grade point average (GPA). The grade-weighting systems of Boise High School and the Des Moines Public Schools system (Iowa) are described below:

Boise High School grade-weighting system

In a straight 4.0 system, some students opt to take less rigorous courses in an attempt to preserve their GPA. The Boise High School grade-weighting system encourages students to take Advanced Placement (AP) courses by minimizing the risk to their GPA.

Boise High School awards an incentive weight of +1 for all high school courses that are designated and taught as Advanced Placement courses under the College Board AP Program. Under this system, a student who takes AP courses may earn a cumulative GPA of greater than 4.0 when AP courses are averaged with general education courses. If a student fails a grade-weighted course, no credit is granted. On the student's transcript, the grades are listed as AP courses:

AP Biology	B	4.0
AP Literature	A	5.0

College and university admission forms often ask about the rigor of high school courses. While most colleges and universities use their own weighting system for high school courses for purposes of *admission,* some *scholarships* are based on grade point alone.

Des Moines Public Schools' grade-weighting system

The Des Moines Public Schools elicit input from all disciplines in deciding which courses to weight. The Des Moines Public Schools use the following system:

1. Advanced Placement courses under the auspices of the College Board AP Program are given an incentive weight of +1 when calculating a student's GPA.

2. All courses taught as part of the International Baccalaureate Program are given an incentive weight of +1.

3. All courses taken for dual enrollment credit (high school and college) are given an incentive weight of +1.

4. Specified courses from each discipline that are considered advanced or honors courses are given an incentive weight of +0.5. These courses are initially recommended by department heads, in consultation with their department members and the district supervisor for their discipline. The supervisor for high school education makes the final recommendations, with ultimate approval by the superintendent and the board of education.

Weighting the most difficult courses in each discipline involves all departments in the grade-weighting process—regardless of whether a particular department mainly serves college-bound or vocational students.

Reference

Des Moines Public Schools. (1993). *A recommendation to the teaching and learning cabinet.* Des Moines, IA: Des Moines Public Schools, District Committee to Study Weighted Grades.

Section 6. Scheduling

Planning and flexibility in scheduling classes can help high schools improve their G/T programs—even schools with very limited resources and program options.

Encouraging flexibility and accountability in scheduling

The following ideas encourage flexibility and accountability in scheduling:

- Establish simple guidelines, criteria and procedures.
- Implement zero hour (a class period before the regular school day that may be used to schedule G/T program options).
- Implement block scheduling (block scheduling makes it easier to provide 90-minute classes, necessary for the in-depth and independent study for G/T students).
- Develop contracts with students to encourage understanding and accountability. Include scheduling waivers in the contract as appropriate. For example, the contract might permit a student to skip homeroom to attend an Advanced Placement (AP) class scheduled for the same period. The student, the student's parents, the counselor and the principal should sign the contract.

Pitfalls to avoid

The following scheduling pitfalls should be avoided:

- scheduling two AP courses during the same period
- scheduling AP courses and electives popular with G/T students during the same period
- strictly enforcing prerequisites for required courses
- scheduling courses based solely on grade-level requirements
- operating middle schools and high schools in the same district on different schedules (G/T middle school students sometimes take courses at the high school)
- restricting early admission for middle school students into high school classes
- rigidly applying attendance requirements and tardy limits for G/T students, which may restrict off-campus opportunities such as mentorships

- being inflexible in any scheduling practice

(For more information on scheduling see "Counseling the Gifted High School Student" on p. 44.)

Section 7. Challenging a Course

Gifted high school students often require much less review and repetition than their classmates. For example, Sally Reis et al. (1993) found that many G/T students fail to learn anything new in a course until January. Instructors spend a significant amount of time reviewing basic course content, and gifted students, who do not require lengthy periods of review, must wait until the new material is presented.

Allowing a student to challenge a course meets two important goals: (1) it ensures that the student has mastered course content; and (2) it frees the student's schedule so that he or she has more time for advanced classes, independent study, mentorship opportunities or other G/T program options. Currently, students may challenge courses *only* if district policy permits; however, the implementation of exiting standards may change this pattern (see p. 16, item 6). If the district does not permit challenging a course, teachers may consider implementing curriculum compacting (p. 56) as an alternative.

Authority to determine mastery

The responsibility to determine mastery typically rests either with the class instructor alone or with the department as a whole. More than one method of assessment may be used in determining proficiency. A score of at least 80 percent on the testing criteria is an example of a guideline for meeting course mastery. A student who masters the district's competencies for a particular course is awarded credit for the course.

When may a student challenge a course?

District policy may specify that students can challenge a course (1) at any time, (2) during the regular school year, (3) during the first week of the course or (4) some other period. Policy may permit students to challenge a course regardless of whether they have enrolled in or attended the course. Challenging a course before it begins, or soon after it starts, allows a G/T student time to enroll in an advanced course or some other program option. The teacher should inform students at the beginning of the semester of time lines, if any, for challenging the course. If a student has successfully challenged a course late in the semester, independent study or mentorship options may still be available.

Suggested guidelines for challenging a course

One or more of the following assessments may be used to determine mastery:

- state- or district-developed competencies relevant to the course
- the final test that will be given to students who choose not to challenge the course

- district or department standardized test
- a student portfolio detailing what the student has previously completed relating to the course
- pre- or post-tests developed by textbook authors or the class instructor
- a written report or summary by the student of key concepts or ideas
- an oral conference or interview with the student over key concepts or ideas
- endorsement by an expert or mentor that the student has mastered the course
- other assessment instruments appropriate to the course, such as auditions for fine arts courses

Reference

Reis, S., Westberg, K. L., Kulikowich, J., Caillard, F., Hebert, T., Plucker, J., Purcell, J. H., Rogers, J. B., & Smist, J. M. (1993). *Why not let high ability students start school in January? The curriculum compacting study.* (Research Monograph No. 93106). Storrs: University of Connecticut.

Chapter 2
Program Options

Section 1. An Overview of Program Options

Gifted and talented programs at all levels—elementary, middle and high school—need to offer differentiated instruction; however some program options are best suited, or *only* suited, to G/T high school programs. The following program options may be implemented in a G/T high school program. Program options must align with the philosophy, definitions, goals and identification procedures in the district G/T plan. Local board policy will determine whether required or elective credits will be awarded for a particular program option.

Advanced Placement (AP) Courses—College-level courses provided at the high school level for which students may receive college credit by examination (p. 27). These courses are typically taught by high school teachers; however, companies like Vulcan NW Incorporated offer AP courses through the Internet, 1-800-453-1454.

Competitions—Organized opportunities for students to enter local, regional, state or national contests in a variety of talent areas (p. 93 and p. 99).

Computer Courses—Advanced courses accessed over the Internet, e.g., Stanford's Education Program for Gifted Youth (EPGY), 650-329-9920; Vulcan NW Incorporated, 1-800-453-1454. For more information see the G/T state homepage at http://www.sde.state.id.us:2500/GiftedTalented/.

Correspondence Courses—High school courses taken by correspondence through an approved university.

Distance Learning—Advanced courses telecast from different locations in the state or nation.

Dual Enrollment—An opportunity to take college courses while in high school and receive both college and high school credit (Idaho Code §33-203) (p. 47).

Early College Entrance Programs—Programs that provide gifted high school students with the opportunity to simultaneously earn college credits and credits required for high school graduation. Students in Early College Entrance Programs take courses at the college, instead of the high school (p. 87).

Enrichment Classes—A group organized from one or more classrooms that meets on a regular basis to provide experiences beyond the established curriculum.

Guidance and Counseling—Planned activities, sessions and policies that assist G/T students in planning their academic career before, during and after high school, and that also address specific social-emotional needs of G/T students (p. 44).

Honors Class—Differentiated curriculum and accelerated content designed for able students. Honors classes may be designed for specific content areas (English and chemistry) or the visual/performing arts (art and choir).

Independent Study—Individually contracted in-depth study of a topic, which may include solving real-life problems. High school students may meet periodically with a faculty advisor who provides guidance (p. 40).

Interdisciplinary Studies—Classes that provide opportunities for the acquisition of a broad base of knowledge through the study of a wide range of subjects. Often, content is organized around problems, themes and/or broad-based issues.

Interest Groups—Any group organized from one or more classrooms on the basis of interest in a topic. Interest groups are usually short term in duration.

International Baccalaureate Diploma Program—A rigorous pre-university course of studies leading to examination. Suitable for highly motivated high school students ages 16 through 19 years. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems (p. 29).

Leadership Activities—Leadership activities may include community service, debate, public speaking, peer mediation, facilitating meetings and increasing awareness of leadership styles. Leadership activities may be in-school or extracurricular, may constitute a class or part of a class, and may be for credit or not for credit (p. 48).

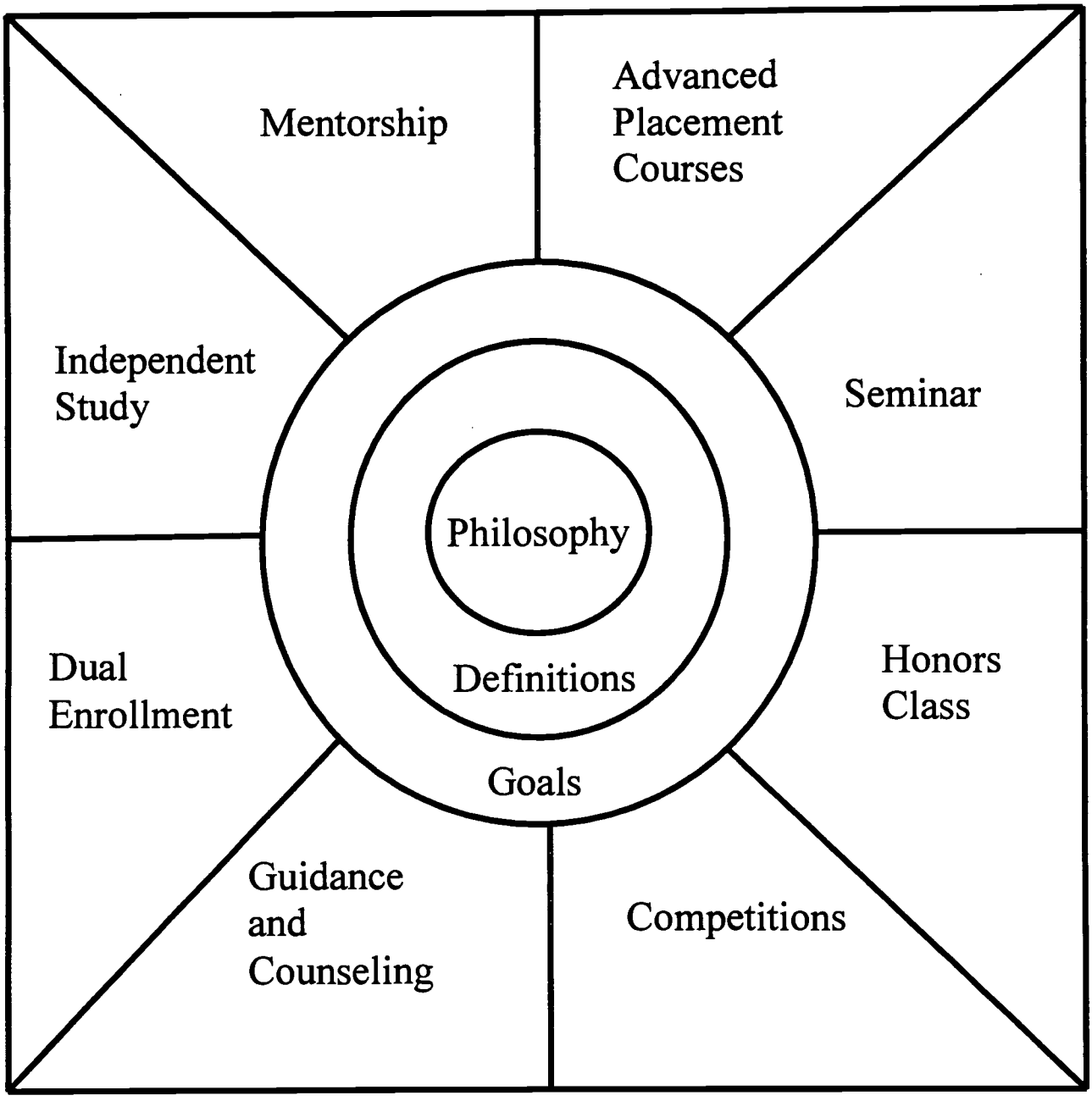
Mentorships—A program that pairs individual students with someone who has advanced skills and experience in a particular discipline and can serve as an advisor, a counselor and a role model (p. 31).

Seminar—Special courses where students focus on one area of study. Students research, discuss and debate specific topics related to the area of study (p. 42).

Summer Programs—Enrichment and accelerated courses offered at various universities around the country. Students typically live on campus and benefit from interacting with others of similar ability (p. 88).

District G/T Program (K-12)

The philosophy, definitions and goals contained in the G/T district plan help direct the specific program options that may be implemented in grades K-12 (see p. 24 for a list of program options).



Section 2. Teaching Advanced Placement Courses

Advanced Placement (AP) courses are college-level courses appropriate for G/T students and other motivated students. The goal of AP courses is not only to prepare students for the AP exam (highly recommended for all students enrolled in the AP courses), but also to facilitate independent investigation and lifelong learning. Therefore, AP instructors should expect students to strive for content mastery and should facilitate a process-oriented approach to learning. The ideal AP instructor balances content presentation with students learning at their own pace.

In addition to a faster pace, AP courses are characterized by (1) greater depth of content, (2) greater breadth of content and (3) the use of higher-level thinking skills. Students not only learn specific facts, they learn the tools of scholarship, enabling them to ask relevant questions about specific topics and to research answers to those questions.

Specific techniques

The following 10 techniques should be incorporated into an AP course:

1. Use a thematic rather than a chronological approach to teaching history classes.
2. Incorporate questioning strategies at Bloom's higher levels of thinking (analysis, synthesis and evaluation).
3. Integrate multiple disciplines into the area of study.
4. Strengthen inquiry skills, e.g., use Socratic questioning (p. 62).
5. Use logic and reasoning exercises.
6. Encourage creative problem-solving skills (p. 61).
7. Use supplementary texts in addition to the main text.
8. Encourage independent research skills and the use of a variety of sources.
9. Focus on open-ended tasks, e.g., a project in which the student is free to draw his or her own conclusions.
10. Encourage a variety of products to demonstrate mastery of the content.

Selecting and training AP teachers

Teachers selected to teach AP courses should not only be content experts and have an interest in the courses they are teaching; they should also have an interest in teaching able learners. Teachers should be willing to spend more time and effort preparing for AP courses than for regular classes.

It is highly recommended that AP teachers attend Saturday workshops and summer institutes sponsored by the College Board. For information on workshops and summer institutes, contact the State Specialist for Gifted and Talented Education at 208-332-6920 or the College Board at 212-713-8000.

Section 3. The International Baccalaureate Program

The International Baccalaureate (IB) Diploma Program offers a pre-university course of studies leading to examinations. Highly motivated 11th- and 12th- grade students ages 16 through 19 are eligible to participate in the IB program.

The IB program is designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems. The IB diploma model is based on the pattern of no single country but incorporates the best elements of many. The program is interdisciplinary and international in scope. Course examiners are graded by trained supervisors using the same criteria worldwide.

The IB program curriculum

The IB program is one of the most rigorous and comprehensive curricula available for G/T high school students. Instead of taking only one or more advanced courses (such as Advanced Placement courses), students in the IB program take courses in the following six subject areas:

1. Language A (usually English, including world literature)
2. Language B (usually a foreign language)
3. Individuals and Societies (social sciences)
4. Experimental Sciences (biological and physical sciences)
5. Mathematics
6. Electives (usually fine arts)

In addition, the following three components are required:

1. An extended essay (4,000 words) consisting of independent research
2. A Theory of Knowledge course (100 hours) exploring relationships among the various disciplines
3. Creativity, Action and Service (40 hours minimum)

Students successfully completing the above requirements are awarded an IB diploma, assisting them in (1) gaining admission to selective colleges worldwide and/or (2) receiving college credit for IB courses. Many IB students enter college as sophomores.

Restrictions and fees

Only schools officially approved by the IB Organization (IBO) are authorized to offer the curriculum and to present candidates for examination. Further, the program carries some substantial fees: $2,500 application fee; $7,300 annual subscription fee; various registration and examination fees.

For more information

For more information about the IB program and future workshops, contact the International Baccalaureate North American office at 212-696-4464.

Section 4A. Mentorship Programs

Mentorship programs provide G/T high school students and other motivated students with an opportunity to apply problem-solving skills to real-life situations and to explore career options. Students are paired with professionals in the community and, with their guidance, complete specific tasks or projects. Mentorship programs often use student contracts to define specific expectations. Mentorship programs may be organized as a class or administered individually. To succeed, a mentorship program must have a coordinator or a faculty advisor.

Mentorship program goals

High school mentorship programs meet one or more of the following student goals:

- career explorations
- research beyond the scope of the regular classroom
- opportunity to study topics not available in the regular curriculum
- development of specific skills
- opportunity to work with experts in fields of interest

An alternative to "testing out" and curriculum compacting

Mentorship programs may be used to allow G/T students to accelerate the regular curriculum of a particular class, with the teacher serving as mentor. This may be useful when testing out of a class is not practical and curriculum compacting is not practiced.

Examples of mentorship programs

Both the Mountain Home and Moscow High Schools have successfully operated mentorship programs for many years. The Mountain Home mentorship program is described on p. 32, the Moscow program on p. 36.

Section 4B. The Mountain Home High School Mentorship Program

The Mountain Home mentorship program provides selected juniors and seniors with a one- or two-semester internship in a field of their choice. Students work with a professional from the community and earn elective credits.

Scheduling and transportation

The internship usually takes place during the school day, often first or last period to accommodate travel time. To facilitate out-of-town internships, students may *schedule* the internship for one period per day but *attend* one full day a week. Such students make up missed class work during the period the internship is scheduled. Most internships take place away from school, and students are responsible for their own transportation.

What do interns do?

The program facilitator works with the student and the mentor before the internship begins to determine the content. Most internships involve job shadowing, but students also complete projects in which they have responsibilities beyond menial tasks. For example, a student interning with a veterinarian could observe the doctor and/or spend some time cleaning cages. The student could also learn something more substantial, such as sterilizing instruments, running the centrifuge or preparing a simulated diagnostic questionnaire.

Internship contracts

Before an internship begins, all individuals involved meet to discuss and sign a detailed contract covering content, grading, liability, transportation, etc. Participants may include the intern, the intern's parents, the mentor, the school principal, the counselor and the staff member who coordinates the mentorship program. Parents must give specific permission for activities in the internship. The facilitator monitors and administers the internship throughout all of the activities.

Identifying real work

One of the keys to a successful internship is creating or identifying "real" work that the student can do in addition to observing the mentor. Often, significant restraints exist due to issues of liability and the student's lack of experience and knowledge in the field. However, after brief on-the-job training, there are usually meaningful projects the student can complete. An internship is more likely to include meaningful activities if the mentor, facilitator and student brainstorm possibilities ahead of time. Examples of internships completed by Mountain Home High School students include the following:

- Mountain Home Air Force Base environmental quality section—developed a plan for disposing of unused paint and household pesticides
- Mountain Home News—researched and wrote newspaper articles for a local paper
- State Office of U.S. Senator Larry Craig—responded to simple political constituent requests and routed complex requests to proper staff; attended and took notes at a legislative committee meeting when the legislator was at another meeting
- Air Force Base Hospital—job shadowed a radiologist and observed surgical procedures
- County Extension Agent—conducted agricultural research; learned to use a new computer program for agricultural budgets and taught the program to office staff; monitored agricultural test plots and gathered data for research grants
- Dentist—researched a specific topic; observed the hygienists use equipment; became acquainted with the business aspect of the practice
- Musician—wrote original music compositions, and transposed music written for one instrument to another instrument
- School District Computer Network Manager—set up new computers; instructed teachers on how to use computers; identified network problems

A step-by-step approach to the Mountain Home mentorship program

There are 13 steps that must be implemented to set up and administer the type of mentorship program used at Mountain Home High School:

1. Set criteria for student eligibility, for example:
    - good academic background in chosen field
    - maturity
    - year in school
    - measures of academic ability and achievement
    - responsibility
    - clear goals for the mentorship
    - evidence of sustained interest in the field
    - willingness to adhere to the structure of the workplace
    - access to transportation
    - support of parents
    - people skills

2. Determine who will administer the mentorship program, e.g., counselor, teacher, G/T facilitator or a team of teachers and parents. (At Mountain Home High School the G/T facilitator administers the program.)

3. Set up the administrative framework:

   - write a description of the mentorship program and include a course description in the registration catalog
   - decide if students need to register for a specific period to allow for travel time
   - decide what type of credit will be awarded

4. Develop curriculum for brief intern training, which may include the following activities:

   - setting goals
   - taking responsibility for one's own learning
   - time management and organization skills
   - due dates
   - grading
   - expectations
   - safety
   - courtesy
   - confidentiality

5. Inform students that a mentorship program is available. Inform eligible students of possible internships.

6. Develop necessary forms for keeping in contact, e.g., class schedules, relevant phone numbers and mentor/intern feedback.

7. Locate mentors for each intern by calling professionals and organizations, and by networking.

8. Write a contract for each intern that includes the following:

   - academic content and process
   - administrative concerns such as parental waiver for student transportation
   - frequency and location of meetings
   - grading procedures and criteria (see p. 106)
   - policies regarding liability and background checks

9. Meet to review each contract, revise as needed and obtain participants' signatures. Participants may include the intern, the intern's parents, the mentor, the school principal, the counselor and the staff member who coordinates the mentorship program.

10. Implement the intern training that was developed earlier (see item 4).

11. Develop and, if necessary, implement a contingency plan for the rare occasion when the mentor may not complete the internship.

12. Interview intern, mentor and parents periodically to troubleshoot problems.

13. Interview intern and mentor to determine grade.

For examples of forms used in Mountain Home's mentorship program see pp. 103-110.

For more information

For more information about the Mountain Home High School mentorship program, please contact Rita Hoffman, Gifted/Talented Facilitator at Mountain Home High School, 208-587-2500.

Section 4C. The Moscow High School Extended Learning Internship

Moscow High School Extended Learning Internships (ELIs) allow for the practical experimentation and practice of skills and provide a format to enhance natural abilities and talents. They are similar to college-level directed studies. By design, an ELI allows the independent learner flexibility of study—a key element in meeting the special needs of both the student and the selected subject. The student also learns college/business survival skills and advanced research skills.

Internships may be taken as often as the student's schedule will allow. Each internship may be on a different subject, or the student may work on a progressive project over a number of semesters; however, all students must meet the general requirements of the class every semester they are in the program.

The main components of ELI

In addition to meeting with mentors at least once every two weeks, students spend three days each week doing project research, one day meeting with the ELI coordinator and one day in ELI class. As part of the program, students are also expected to do the following:

- maintain a detailed journal documenting progress, problems and meetings
- develop and complete six goals related to the student's area of study
- write five reviews of articles in the selected area of study
- read a book related to the area of study, prepare a formal book review, and make an oral presentation to the ELI class
- conduct two interviews related to the area of study
- write a formal research paper related to the area of study
- prepare visual aids related to the student's research
- make an oral presentation to the ELI committee, parents, mentors and peers

Based on the ELI committee's evaluation of the student's final paper and oral presentation, and on the other components of the internship, the ELI coordinator awards the grade earned for the semester.

General arrangement of the semester

The following gives a month-by-month account of Moscow High School's mentorship program for one semester. See p. 113 for a copy of the syllabus.

Month 1—Coordinator arranges for a mentor and begins weekly meetings with the student. Student attends ELI class and learns basic research skills, develops six semester goals related to the selected area of study, writes five reviews of articles in the selected area of study, journals progress and meetings, and begins meeting with the mentor midway during the first month.

The six goals are written in a joint effort among the student, his or her mentor and the ELI coordinator. Each goal consists of four parts: What, How, When and Proof. The sixth goal is usually a modification of one of the preceding goals and is considered an extra goal; many students do not complete their sixth goal. (See p. 111 for an example of an ELI goal.)

Month 2—Student researches and refines goals, attends ELI class, meets with mentor and with ELI coordinator, and maintains journal. Student finalizes goals and reads a book in the selected field of study.

Month 3—Student researches goals, attends ELI class, meets with mentor and with coordinator, and maintains journal. Student writes a formal book review and presents an oral book review to the class. Student completes the two required interviews. Student begins to write the rough draft summaries of research.

Month 4—Student works on finishing goals, attends ELI class, meets with mentor and with coordinator, and maintains journal. Student begins writing a paper about the entire study and research, frustrations and successes, and the new knowledge acquired. This is a formal, documented paper.

Month 5—Student finishes all goals, attends ELI class, meets with mentor and with coordinator, maintains journal and completes paper. Student creates one or more visuals to illustrate part of the oral presentation (slides, video, overheads, charts, models, demonstrations). Student makes a formal presentation to the ELI committee (one representative from each department in the school, one administrator and one counselor), mentors and parents covering the directed study research.

Descriptions of ELI components

Mentors: Mentors are volunteers from within the community. Volunteers are required (1) to be experts in their field and (2) to be able to give at least a half-hour of dedicated time to the student every two weeks (weekly meetings are best, if possible).

Journal: Each ELI student keeps a detailed journal of his or her work during the semester and takes it to all mentor and weekly ELI coordinator meetings. The journal serves as a log to track the student's hours. A total of 90 or more justified hours are required to receive credit (justified hours include, time spent meeting with mentor and coordinator, developing and researching goals, writing the research paper and documenting the journal, as well as ELI class time and practice time.). Each time the student has a formal meeting or work session with the mentor, he or she must obtain the mentor's signature and date in the journal.

Research: Students are encouraged to use as much variety in their research methods as their subjects allow. All research methods must be approved by the coordinator and may include comparisons/contrasts, statistics and surveys. Students may also go on field trips with mentors if the plans are registered with the attendance office and parent permission is obtained.

ELI Class Time: Once each week the students meet for classroom instruction in the following areas:

Journal writing
Goal writing
Library research methods
Interview techniques
Article review methods
Procrastination prevention
Communication skills
Decision making/teamwork
Term paper styles
Stress management
College/school/apprenticeship applications
Formal writing exercises
Research techniques
Time management skills
Resume preparation
Documentation/citation
Problem solving techniques
Conflict management
Speech/presentation techniques
Creative presentation techniques
Strategies of highly successful people

If time allows, the following areas are also included: scholarship applications, living on your own tips, job interview skills, finances and budgets and how to handle college advantages and disadvantages.

ELI Weekly Check-In with Coordinator: Once each week the student meets individually with the ELI coordinator. The journal entries are reviewed, and the student discusses progress on goals and presents any problems that may be occurring. Together the coordinator and the student problem solve these issues and create a game plan for the next seven days. This is a sharing time for the student and allows the coordinator to customize the instruction for the individual student's strengths and weaknesses.

Oral and Written Presentations: The ELI committee reads and evaluates the students' final papers before the presentation day. Presentations are made in the auditorium before the ELI committee (one representative from each department in the school, one administrator, and one counselor) and invited parents, mentors and a limited number of peers. Each student makes a ten-minute presentation of the semester study and then accepts questions from the audience for five additional minutes. The ELI committee evaluates each presentation separately. The ELI coordinator summarizes the committee's evaluations for each student.

For more information

For more information about Extended Learning Internships at Moscow High School, please contact Connie Hall or Sue Hovey at Moscow High School, 208-882-2591.

Section 5. Independent Study: the SDC Model

Independent study permits G/T students and other motivated students to expand their understanding of specific disciplines through self-directed inquiry. Independent study is conducted under the guidance of adults with similar interests. Independent study allows for differentiated curricula at an advanced level and is suitable for a variety of talent areas. Generally, independent study provides minimum interruption in the high school schedule and can be easily implemented in both small and large high school settings. The independent study model presented here—the SDC Model—is based on student-developed courses (SDC) and incorporates elements of Renzulli's Triad Model and Betts's Autonomous Learner Model.

As gifted students enter high school, they demonstrate more understanding and depth in specific content areas. Fortunately, their teachers are more subject oriented and better equipped to delve in-depth into specific disciplines. Thus, despite limited school resources and tight student schedules, independent study is often a viable option for G/T high school students. Within the SDC Model of independent study, students (1) take a one-semester preparatory class, (2) develop outlines of independent projects they design, and (3) register for a one-semester independent study. Although students are not required to enroll for independent study, they are encouraged to do so.

Preparatory class

Students are required to complete a one-semester preparatory class before registering for an independent study. In this class, students learn about their talents, weaknesses and learning styles. Students also learn how to design and execute an independent study based on personal strengths and interests. For example:

- A student interested in photography might elect to document historic homes in the community and publish a web site featuring his or her work.
- A student interested in creative writing might choose to write and produce a play.
- A student interested in science might build a laser or study the effects of radiation on tissue development.

After completing the preparatory class, students are encouraged to register for a one-semester independent study that they design.

Proposal outlines for independent study

After completing the preparatory class and before registering for independent study, students develop proposal outlines for their studies. The outlines include learning objectives, a list of proposed activities, a time line, a list of resources needed to complete the project, a description

of the final product and audience, and a description of how the project will be evaluated (see the example of an independent study contract on p. 115). Once the proposal is complete, the student asks a high school teacher to mentor him or her through the project.

The faculty's role in independent study

While one staff member is responsible for teaching the preparatory course, each member of the faculty is available to guide specific students through their projects. This serves three purposes: (1) it capitalizes on faculty interests and expertise; (2) it prevents burdening a single faculty member; and (3) it creates broad ownership for educating G/T students.

A specific teacher will monitor a student's progress during an independent study. Initially, the teacher will assist the student in finding a place to work. Once the project begins, the teacher and student might meet briefly once a week, or less frequently, to discuss the student's progress and to resolve any roadblocks. At the completion of the project, the teacher and student jointly review the student's progress and final product. This evaluation is based on the goals the student developed before beginning the study.

Credit for independent study

Students receive one semester credit for their projects. They register for this credit as they would register for any regularly scheduled class and work on their projects during a scheduled time just as they would other courses. Traditionally, independent study credits serve as elective credits within the content area that the student has chosen to investigate. For example, the photography project previously mentioned would count as an art elective, while the laser project would count as a science elective.

Section 6. Facilitating a Seminar

The traditional definition of seminar refers to a small group of students engaged in advanced study and original research under the guidance of a faculty member. Students meet regularly to exchange information and hold discussions. In a high school setting, seminars often focus on specific themes or topics and encourage students to conduct research using a variety of sources.

A traditional high school seminar, for example, may focus on the similarities and differences between the revolutionary wars in Russia and the United States. Students may read selected fiction and/or nonfiction books with different viewpoints, e.g., Democratic and Socialistic perspectives. During class, students would discuss and debate specific topics or themes concerning the revolutionary wars, supporting their opinions with facts from research.

Both John Feldhusen, creator of the Purdue Secondary Model for Gifted and Talented Youth (p. 77), and George Betts, creator of the Autonomous Learner Model for the Gifted and Talented (p. 79), have developed other approaches to seminar. These are discussed below.

Feldhusen's approach to career seminars

Feldhusen's approach to career seminars involves career education, whereby students are introduced to a variety of occupations and careers. Students could relate their skills and abilities to selected careers and to the educational preparation such careers demand. Professionals could discuss their careers with students and, as a follow-up activity, students could shadow various professionals for a day.

Feldhusen's approach to academic seminars

Feldhusen's approach to academic seminars involves library, computer or empirical investigation of a topic, question or hypothesis. For example, in a gifted history class students investigated the following hypothesis: *The majority of Presidents of the United States have been elected on the basis of personal appeal rather than political philosophy.* After the teacher provided the students with background information and fact sheets to guide their inquiry, the students shared their findings in small groups. This investigation lasted one month, culminating in an oral or written presentation of research results that supported or refuted the hypothesis.

Betts's approach to seminars

In Betts's approach to seminars, students in groups of three to five brainstorm possible topics in one of the following areas:

- futuristic, e.g., robotics, colonizing the moon

- controversial, e.g., role of government, capital punishment, prayer in the schools
- problematic (real problems faced on the local, state, national or international level), e.g., pollution, violence in the schools, terrorism
- general interest, e.g., healthy lifestyles, careers
- advanced knowledge, e.g., chaos theory, quarks, quantum physics

Following the brainstorming session, the seminar is divided into the following three parts:

1. Presentation of factual information through the use of lectures, films, guest speakers or other formats for five to seven days
2. Student-led discussion and/or group activity that involves an audience in the learning process (students advertise their presentation ahead of time)
3. Closure, which involves facilitating a discussion of what has been learned

See p. 117 for a seminar worksheet.

Scheduling, credits and the role of the teacher

Seminar will fit into the regular high school schedule. It could meet every day for 45 minutes, or, for schools using the block plan, every other day for 90 minutes. An ideal class size is 12-15 students. Typically, elective credits are granted for seminar.

The role of the teacher is one of a facilitator—assisting students in finding resources and providing guidelines for research projects. To ensure accountability, the facilitator should provide a product design worksheet, a form for planning student presentations and a form for keeping a daily log of student work. The facilitator may also develop teacher-, peer- and self-evaluation forms.

Section 7. Counseling the Gifted High School Student

The Idaho Guidance Model (the model used by Idaho school counselors to design guidance programs and curricula) divides counseling into three general categories: social/emotional, educational and career. This section addresses issues faced by counselors of G/T students within the context of the Idaho Guidance Model.

Social and emotional issues

Linda Kreger Silverman (1993), an authority on counseling gifted students, defines "giftedness" as "*asynchronous development,*" which "means that gifted children develop in an *uneven* manner, that they are more complex and intense than their agemates, [and] that they feel out-of-sync with age peers." Asynchronous development creates concerns for counselors in the social/emotional area. Peer approval, important to all adolescents, can be especially difficult to maintain for the G/T student. Sometimes G/T high school students find that qualities other than academic finesse or achievement define what is considered "cool." They can get more approval from their peers when they don't work to potential. They are ridiculed for increasing the breadth and depth of assignments, asking questions or doing related projects.

As G/T high school students choose accelerated courses, the classes themselves begin to define their peer groups. From this "ability grouping," another social issue emerges: the academically elite. The same students are grouped together in accelerated math, science, history, English, and sometimes orchestra, band and debate. Competition and comparison cause students to feel increased stress as they compete in college-level courses in every discipline. They also compete for leadership positions in clubs, organizations and sports to attract the cherished college admission letter or scholarship. But the stress continues to build for many students, and counselors are in a better position than teachers to help reduce it.

Perfectionism and underachievement are issues that often affect the self-esteem of gifted high school students. Perfectionism is sometimes maligned and treated as a personality flaw or a bad habit. However, according to Silverman (1989), "the root of excellence is perfectionism. There is a strong correlation between perfectionism and giftedness." Even underachieving gifted students who refuse to do their work or turn in sloppy work often behave this way because they can't meet their own high standards. Sometimes they give up in frustration. But asking them to lower their standards and self-expectations is not the solution. It is better to help them build confidence so they are motivated to work toward their ideals. Counselors can facilitate confidence building through individual and/or group counseling for G/T students, with emphasis on setting priorities, planning and organization. Other interventions that are effective with perfectionism and underachievement include journaling, humor and stress reduction exercises. Further, G/T training can help teachers and parents deal more effectively with the social and emotional needs of G/T students.

Educational planning

Gifted and talented students have very definite needs for flexibility in the area of educational planning. Often, G/T students choose a rigorous course of study semester after semester. For example, a G/T student may take four years of orchestra, science, math, and French while beginning each day with early morning debate class. To accommodate this, the student crams his or her schedule with correspondence courses and summer school to fill the mandatory graduation requirements such as reading, health, speech and economics. These are important areas of study, but districts should consider allowing some flexibility in these requirements. The past few years have brought increased choices for students—home school, dual enrollment and high school credit for college courses. Educational planning can help match individual needs with appropriate educational options.

Career planning

Career counseling for G/T high school students begins early, and counseling them about careers can be complicated. Some of their issues are different from other students' concerns. Gifted and talented students sometimes need information for early preparation and planning. They are often the students who have many talents and choices. This makes early decision making very difficult. In the Boise school district, for example, a full-time career counselor is located at each high school. Although a full range of services is provided for every student—including testing, interest inventories, resume writing, career and college searches, and job shadowing—G/T students seem to need the help earlier. The college application process and scholarship search can involve a huge time commitment and can cause extreme anxiety. This process takes up much of the senior year for many G/T students, as they are the most likely to apply for selective colleges and competitive scholarship programs.

Counselors should include parents in the education program of G/T students as much as possible—this includes career and educational planning. For example, counselors can present information to parents on scholarships and how to apply for colleges. Informed parents can help guide their children in decisions concerning education and occupations.

Summary

Overall, there are many issues unique to the G/T student and the high school counselor. In some areas counselors are very experienced and well trained (college admissions and career preparation), but in other areas (underachievement and perfectionism) training and workshops could be beneficial. With better understanding of the special concerns of G/T high school students, counselors can be instrumental in guiding and supporting them as they experience high school and prepare for the transition to higher education and careers.

References

Silverman, L. (1993). Asynchrony. *Understanding Our Gifted, 6*(2), 15. Boulder, CO: Open Space Communication.

Silverman, L. (1989). Perfectionism. *Understanding Our Gifted, 1*(3), 11. Boulder, CO: Open Space Communication.

Section 8. Dual Enrollment

Idaho high school students who wish to attend post-secondary institutions can take advantage of dual enrollment and receive both high school and college credit, provided that the courses have been pre-approved by the high school. Idaho Code §33-203 states that "Dual enrollment shall include the option of enrollment in a post-secondary institution. Any credits earned from an accredited post-secondary institution shall be credited toward state board of education high school graduation requirements."

Tuition and transportation

Typically, students participating in dual enrollment pay the college tuition and supply their own transportation, but districts may make other arrangements. Caldwell High School, for example, has made special arrangements with Albertson College of Idaho: the district and the student each pay one-quarter of the cost of the pre-approved course, and the college pays the remaining half.

Scheduling and credit

A student interested in dual enrollment should contact the appropriate high school staff member, often a school counselor. The staff member decides if dual enrollment is appropriate for the student. Students must either obtain release time to attend courses taught during the day or attend night school. To receive high school credit for a post-secondary course, the student must pass the course and present an official transcript to the high school administration.

Section 9. Leadership Program Options and Activities

Leadership is one of the five talent areas defined by Idaho's G/T mandate. Students talented in the area of leadership may display superior abilities regarding taking responsibility, rapid insight into cause-effect relationships, interpersonal intuition and motivating others.

The precision nature of a G/T leadership program will depend on how "leadership" is defined in the G/T district plan. For example, a district may choose to define leadership in terms of *group* leadership, *counseling* leadership or some *other* type of leadership. The high school should use a definition of leadership that reflects the philosophy of the G/T district plan, which encompasses grades K-12.

The district's definition of leadership will provide direction for the leadership program. Specifically, the chosen definition of leadership will help clarify (1) who will participate, (2) what identification instruments will be used, (3) what the curriculum will consist of and (4) the specific program options that will be employed. In some cases, program options that fit the definition of leadership may already be in place at the high school; however, new program options should be developed as appropriate.

Program options

Some of the leadership program options include the following:

- leadership activities (see below)
- mentorships (p. 31), e.g., working for a politician, an environmental group
- summer programs (p. 102), e.g., Junior Statesman, Syringa Girls' State

Leadership activities

Leadership activities may include the following:

- debate
- leading a meeting
- peer mediation and counseling
- conflict resolution
- service component
- decision making and planning
- exploration of famous people
- self-diagnosis (identifying one's leadership style)
- written and speech communication
- group dynamics, e.g., problem solving
- simulations and role playing

- research skills
- fundamentals of leadership
- moral development

Assessment instruments

Identifying students for leadership programs may involve the following assessment instruments:

- behavioral rating scales
- student activities and offices held
- writing samples
- academic records
- structured interviews
- sociograms
- nominations
- simulation activities
- personality tests and observational interaction ratings

For the names of several publishers of leadership assessment instruments see p. 84.

Section 10. Visual and Performing Arts Program Options

The visual and performing arts is one of five talent areas defined by Idaho's G/T mandate. Students talented in the visual and performing arts demonstrate—typically through exhibition or performance—a superior aptitude for aesthetic, critical, historical and production aspects of dance, music, theater or the visual arts.

Visual and performing arts programs for G/T high school students have much in common with programs in other talent areas. Specifically, visual and performing arts programs (1) offer program options that fit individual student needs, (2) encourage students to strive for mastery and (3) guide talented students concerning their artistic needs, as well as provide information on scholarships and career planning. And, like all other G/T programs, visual and performing arts programs must align with the philosophy, definitions and goals outlined in the G/T district plan.

Typically, G/T visual and performing arts programs are interdisciplinary. For example, a musician may be required to take courses in music as well as other artistic fields. Programs may vary in their emphasis on process and product, e.g., improving technique versus creating products and performing. Program options may occur during or after school.

Visual arts

Programs for students talented in visual arts usually offer a variety of program options, including Advanced Placement art courses, dual enrollment, competitions and independent study. Program options may incorporate visits to museums, study under a master teacher-artist and exhibitions of work. Students are usually identified for a visual arts program by submitting a portfolio of work for review by a panel of experts. The panel selects the most promising works based on specific criteria. Other forms of identification may include interviews, supervised sketches, art exhibited in other content areas and referrals.

Music

Programs for students talented in music are usually extensions of the regular music program, but there is a greater student focus, and standards align with university or professional levels. Music programs for talented students usually include a combination of performance and theory. Program options may include mentorships, competitions, seminar, independent study and honor classes (such as honors band, choir and orchestra). Program options may incorporate visiting musicians at work, composing, conducting, performing and exploring career opportunities. Contracts are sometimes used to identify appropriate components of program options, such as the compositions students will study and perform. Identification usually consists of auditions and referrals.

Section 11: Academic Program Options

Implementing a variety of program options within a well-focused G/T program will create challenging and meaningful opportunities for G/T high school students. This section lists program options for academically gifted high school students.

Academic

Academically gifted high school students demonstrate a superior ability in mastering skills and concepts in one or more curriculum areas. Some of the program options that can challenge academically gifted high school students include the following:

- Advanced Placement courses (p. 27)
- International Baccalaureate Diploma Program (p. 29)
- seminar (p. 42)
- honors classes
- dual enrollment (p. 47)
- correspondence courses
- distance learning
- early college entrance programs (p. 87)
- interdisciplinary studies
- summer programs (p. 88)
- competitions (p. 93)

Teaching strategies such as curriculum compacting (p. 56) can also be implemented to challenge academically gifted high school students.

Section 12: Two Neglected Talent Areas in G/T High School Programs: Intellectual and Creativity

A major difference between high school and elementary schools is the emphasis placed on content (in contrast to process) at the high school level. Similarly, most G/T high school programs emphasize content over process. The state-mandated talent areas of intellectual and creativity, however, require that process skills be intertwined with content.

Developing such programs for intellectually gifted and creatively talented students involves the following:

- implementing process skills within particular courses or activities of interest, e.g., Advanced Placement (AP) courses, honors courses, seminar, leadership activities
- identifying appropriate program options, courses, activities and teachers for individual students
- providing guidance and counseling, not only in terms of identifying appropriate program choices, but also in terms of career counseling and social-emotional issues

Guidance and counseling

Intellectually gifted and creatively talented high school students need an advisor, particularly since program options, activities and choices may not be easily apparent to students. An advisor should (1) identify strengths, interests, and career aspirations of intellectually gifted and creatively talented students and (2) match student needs with appropriate program choices. For example:

- Creatively talented students should be placed with teachers who encourage creative thinking, creative problem solving and the production of original or unique products.
- Intellectually gifted students should be placed with teachers who encourage reasoning, questioning and higher-level thinking (analysis, synthesis and evaluation) in the classroom.
- Many intellectually gifted and creatively talented students are at-risk of dropping out or behaving inappropriately; guidance and counseling can help these students by addressing their interests and keeping them engaged.

Intellectual: program options, activities and teaching strategies

Intellectually talented high school students often have a superior aptitude for understanding facts, concepts, generalizations and their relationship; identifying patterns; verbal and nonverbal reasons; spatial perceptions; and developing and evaluating ideas. The following program options can be implemented to challenge intellectually talented high school students:

- mentorships (p. 31), e.g., programming and trouble shooting for a computer system in a business
- independent study (p. 40), e.g., creating and marketing a game that requires logical and analytical thinking
- competitions (p. 93), e.g., Stock Market Game, Intel Science Talent Search

Appropriate activities for intellectually gifted high school students may include debate, chess and law. Teaching strategies such as critical thinking (p. 59), Socratic questioning (p. 62) and shared inquiry (Junior Great Books, p. 64) can also be used to challenge intellectually gifted high school students.

Creativity: program options and teaching strategies

High school students talented in the area of creativity often demonstrate superior abilities in fluency, flexibility, originality, elaboration; divergent thinking skills; and problem solving strategies. Competitions like Future Problem Solving (p. 94) are one type of program option that can be implemented to challenge high school students talented creativity. Teaching strategies such as creative thinking (p. 59) and creative problem solving (p. 61) incorporated in specific program options, e.g., AP and honors courses, can also be used to challenge high school students talented in creativity.

Chapter 3
Teaching Strategies

Section 1. An Overview of Teaching Strategies

The following teaching strategies are essential for keeping G/T high school students challenged:

Curriculum Compacting—A method of matching the content and pace of instruction to students' abilities and needs. A pre-assessment determines what students already know; students then move ahead based on mastery or work on independent research or projects while the class finishes a unit (p. 56).

Creative and Critical Thinking—Strategies that encourage students to think deeply about specific content. Questions that encourage analysis, synthesis, evaluation and the generation of unique ideas are frequently used to promote creative and critical thinking (p. 59).

Creative Problem Solving—Strategies that encourage students to generate solutions to problems by following a specific format, such as the Osborn model of creative problem solving (p. 61).

Socratic Questioning—A method of questioning developed by the Greek philosopher Socrates that puts the responsibility for thinking and learning on the student (p. 62).

Shared Inquiry (Junior Great Books)—A method of teaching based on the idea that the search for meaning is a genuine investigation shared by everyone in the classroom, including the adult leader. The Junior Great Books Program is a supplemental language arts program that combines the shared inquiry method with outstanding literature to help students learn to read for meaning, think critically, engage in dynamic discussions and write more effectively (p. 64).

Teaching G/T Students in the Regular Classroom—A set of practical suggestions for teaching G/T students in the regular classroom (p. 66).

Real-World Tasks—The creation of an authentic product or the performance of a real service for a real audience (p. 69).

Curriculum Differentiation—A process of adjusting content, process, product and learning environment to facilitate high-end learning (p. 72).

Multiple Intelligences—A method of teaching based on providing activities geared toward a particular type of intelligence, such as linguistic intelligence or spatial intelligence (p. 75).

Section 2. Curriculum Compacting

Each year many high school students are asked to academically coast as they repeat material they have already mastered or that they *could* master much more quickly than other students. Such students often become disenchanted and mentally dropout, often failing to complete even the simplest of assignments. Curriculum compacting can help academically gifted high school students and other advanced learners stay engaged and challenged in the regular classroom. Both basic skills and course content can be compacted.

Basic skills compacting

Basic skills compacting is usually easier for teachers to learn than content compacting. Basic skills compacting involves determining what basic skills students have mastered and eliminating the practice or repetition of those skills. For example, beginning chemistry students who have demonstrated mastery of the periodic table would have little need for further drill and practice in its use and would be better served by advancing to more complex course content.

Content compacting

Content compacting is more common than basic skills compacting in high school. Content compacting involves determining what students already know and what they still need to learn, and then replacing it with more challenging material. Generally, two basic guidelines apply to compacting:

1. Base grades on the material compacted (what the student has mastered), rather than the replacement material. Students may be reluctant to tackle more challenging material if they risk receiving lower grades that may reduce their chances for academic scholarships. This is not to say that the replacement activities should not be evaluated.

2. Base replacement material on students' interests. Since the replacement material will require greater effort by the student, the commitment and responsibility necessary to work independently (which is often, but not always, the learning situation) mandates that the student has a genuine interest in the content.

Students who are capable of mastering course content more quickly

Sometimes, academically gifted students may not have mastered course content, but they are capable of doing so at an accelerated pace. They may have some understanding of the content and may require minimal time or instruction for mastery. In these cases, content compacting is useful. For example, say a freshman class is reading *To Kill a Mockingbird* and reflecting on the societal ramifications of racial prejudice. Content compacting may be appropriate for those students who (1) read at a faster rate and are able to cover the novel more quickly than other

students or (2) are able to demonstrate mastery of the objectives associated with the novel more quickly than other students. The following section describes a real-life situation where content compacting may have been appropriate.

The student who wanted more

Josh loved to read and was excited when his sophomore literature teacher distributed *To Kill a Mockingbird* on Friday afternoon. She assigned the first few chapters for weekend reading. Josh happened to be headed to play a basketball game that evening, and he took the book with him on the bus trip. He became engrossed in the story and stayed up that evening after returning from the trip to finish the novel. Monday morning he mentioned to his literature teacher what a great book it was. The ensuing conversation went something like this:

> "You didn't finish it already?" she asked. After a short conversation she was convinced he had.
>
> "What are we reading next?" he asked. She gave him the next novel. He finished it in a couple of days and asked for the next one.
>
> She hesitated, "I don't want you mixing up the stories when we discuss them in class, so I'm not going to give you the next one."
>
> "Mrs. Jones, I'm not going to mix up *To Kill a Mockingbird* with . . . ," he began. Josh explained that he enjoyed the class discussion and didn't want to miss it. He simply wanted to continue reading interesting literature.

This young man would have been a good candidate for content compacting.

An example of curriculum compacting

Mrs. Johnson, a mathematics teacher, noticed that Stephanie was scoring high on all mathematics tests this school year. Mrs. Johnson decided to administer a pretest before the next unit to determine the degree to which Stephanie had mastered the material. The pretest results revealed that Stephanie had mastered 90 percent of the material. Mrs. Johnson had a conference with Stephanie, and together they determined that Stephanie would progress to the next unit and proceed through the curriculum this year at her own pace. Mrs. Johnson would administer a pretest before each unit, and Stephanie would either work on the unit or progress to the next unit if she had mastered the material.

Curriculum compacting: eight basic steps

There are eight basic steps to curriculum compacting:

1. Determine the learning objectives for the material.

2. Find an appropriate way to assess those objectives.

3. Identify students who may have already mastered the objectives (or could master them more quickly).

4. Assess those students to determine their mastery level.

5. Streamline practice or instruction for students who demonstrate mastery of the objectives.

6. Provide small group or individual instruction for students who have not yet mastered all of the objectives, but are capable of doing so more quickly than their classmates.

7. Offer more challenging academic alternatives based on student interest.

8. Maintain a record of the compacting process and instructional options provided.

For educators new to the process

Educators new to the process should consider the following recommendations:

- Start with one or two responsible students.
- Select content with which you feel comfortable.
- Try a variety of methods to determine student mastery of the material (a brief conversation with a student may be just as effective as a written pretest).
- Compact by topic rather than time.
- Define proficiency based on a consensus with administrators and parents.
- Don't be afraid to request help from available sources such as community volunteers.

Compacting as a regular part of teaching

Curriculum compacting works best when adopted by a school district as a regular part of good teaching practices. When superintendents, principals and other administrators support and encourage the process, it is certainly much easier. Academically gifted students, like other students, are entitled to an education in which instruction is geared to their needs, interests and developmental levels.

Section 3. Teaching Creative and Critical Thinking

Can teachers *really* teach students to think creatively and critically? Traditional arguments often echo the opinion that creative talents—including creative thinking—are inherited at birth. While there is truth in that opinion, it is not the whole story. Creative thinking *can* be taught and improved with systematic instruction and activities. Similarly, students with an aptitude for solving problems, thinking logically or arguing critically *can* learn and improve critical thinking skills through instruction and planned activities. Teaching creative and critical thinking can take place in the regular classroom or in various program options, such as Advanced Placement (AP) classes, honors classes and seminar. The strategies mentioned in this section are appropriate for G/T high school students and other advanced learners.

Identifying creative and critical thinkers

It is easy to spot creative and critical thinkers among students. Creative thinkers are more apt than other students to draw well, write with fresh ideas, respond to questions with unusual answers or develop unique solutions to problems. They generate ideas fluently, elaborate, think flexibly and produce original products. Students with strong critical thinking skills often see flaws in arguments, point out teachers' and other students' mistakes, enjoy debate, quickly draw inductive conclusions from observations or deduce solutions from previous inductions. Further, both creative and critical thinkers may unwittingly intimidate students and teachers by their special talents.

It is just as easy to spot those students who have had their creativity and thinking squelched. These are the students who claim they cannot draw, write, sing, act or come up with any kind of creative idea. These are the students who claim they cannot do word problems in math, cannot follow the logic of a geometry proof, cannot counter an argument in debate, or cannot organize their thoughts while writing an essay or an outline for a paper.

Suggestions for developing critical and creative thinking skills

So, what can teachers do for the "can do" and the "can't do" high school students with regard to creative and critical thinking? Here are several suggestions:

- Recognize and acknowledge creative and critical thinking in class discussions and in student work when correcting it. Let it be known that you value creative and critical thinking. But, be sure to set the standards so that creative expression does not lead to uncomfortable or questionable presentations of student works. Be a vigilant monitor.

- Give specific assignments in which students can be creative or critical in their thinking. For example, ask students to write a poem, design a pattern, act out a Shakespeare play with modern English language and idioms, develop an experiment or prepare survey questions to gather data to answer a question.

- Encourage critical thinking by asking students to analyze a newspaper article for facts versus opinions, solve logic puzzles and riddles, work crossword puzzles and acrostics, pick out the important points in a chapter to be included on the upcoming test or critique a political debate. Use questioning strategies that encourage analysis, synthesis, evaluation and the generation of unique ideas.

- Provide real-world examples of creative and critical thinking, or the lack of it. Provide opportunities for students to discover evidence of new ideas in the news, false arguments and assumptions in advertising and unsupported claims in TV commercials.

- Creative thinking and critical thinking often cross boundaries. Point out how inventions often start with creativity, but include much logical and critical thinking in the improvement and actual production of the final product. The space shuttle is a great example of an idea that passed through several stages and continues to be improved through experience.

- Use one of the commercially available units or courses on creative or critical thinking; the G/T State Department of Education library carries a variety of these materials, including those prepared by Dale Seymour Productions. The company Critical Thinking Books and Software also carries material related to critical thinking, 1-800-458-4849, http://www.criticalthinking.com/. Check with the district or the State Specialist for Gifted and Talented Education for more information on materials and resources.

- Refer students who are exceptionally advanced or remedial in their skills to specially trained staff who can help them develop their creative or critical thinking skills.

- Admit that you may not be as creative or critical in your thinking as some of your students. Imagine what it was like to have Albert Einstein, Whoopie Goldberg or Leonard Bernstein in the classroom. Remind your students that it is okay to be different, but that being different is no excuse not to try or not to expand the aptitudes they have. Acknowledge your own strengths and weaknesses in creative and critical thinking, and share with your students how you are working to improve your talents or bolster your weak areas.

- Don't do nothing! Doing nothing means it is all right to remain where you are in your thinking skills. Learning is about changing—your knowledge, your skills, your attitudes. Challenge yourself and challenge your students to stretch your creative and critical thinking abilities.

- Take a class at the university or a workshop in creative and critical thinking. Expand your own skills and learn how to teach these skills to your students.

Section 4. Creative Problem Solving

Creative problem solving encourages G/T students to generate solutions to problems by following a specific format. The creative problem-solving strategy discussed here was developed by Alex Osborn in 1963 and was adapted from the business world to education.

Osborn's creative problem solving strategy incorporates convergent and divergent questions (single- and multi-answer questions). The five steps listed below should be followed sequentially, but participants may return to previous steps and work through the progression as often as necessary. The strategy can be used in the classroom or in competitions like Future Problem Solving (p. 94).

The following is an overview of Osborn's creative problem-solving strategy:

1. **Fact finding**: List everything you know about the problem or challenge using *who, what, when, where, why* and *how* questions. For example: Why do students write graffiti on school buildings?

2. **Problem finding**: Generate a list of questions that capture the central core of the problem. Begin each question using the following stem: "In what ways might we . . . " For example: In what ways might we provide students with the opportunity to use graffiti in a constructive manner?

3. **Idea finding**: Generate ideas to solve the problem. This is the divergent-thinking, brainstorming stage. Ideas should be listed without criticism or evaluation. Unusual and way-out ideas are to be encouraged. For example: Allow students to create a mural on the west side of the school building.

4. **Solution finding**: List criteria for evaluating the ideas, evaluate the ideas and select one or more of the best ideas. For example, the criteria for evaluating the various ideas might include these questions: Will it work? What is the possibility of success?

5. **Acceptance finding**: Incorporate the best ideas into an action plan. Use *what, who, when, where* and *how* questions to help generate the plan. For example: Who will oversee work on the mural? When will it occur? What is the timeframe for completing the work?

Reference

Davis, G. (1992). *Creativity is forever*. Dubuque, IA: Kendall/Hunt Publishing Co.

Section 5. Socratic Questioning

Socratic questioning, often used by debate teams and lawyers, puts the responsibility for thinking and learning on the student. The teacher acts as the facilitator for thinking about and discussing the topic at hand. Divergent thinking (thinking that generates different ideas) can be encouraged using the Socratic method when questions focus students' thinking on intuitive thinking, generating hypotheses and changing perspectives. The teacher must be careful not to pose only convergent questions (single-answer questions) or to ask manipulative questions that lead to a forgone conclusion. Socratic questioning is appropriate for G/T high school students and other advanced learners. The levels of Socratic questioning below are listed from easiest to hardest.

- Level one: clarification. The purpose of this type of question is to solicit information and help the questioner better understand the previous statement of the previous speaker. The questioner may be the teacher who is asking a student to clarify his or her position or the use of a word or phrase. Or, the questioner may be a student asking the teacher or another student for clarification. Examples:

  What did you mean by _____?
  What is your main point?

- Level two: probing assumptions. The purpose of these questions is to explore the beliefs, values, perspectives and philosophies that led the speaker to make the statement that is in question. Examples:

  What are you assuming?
  Is that always the case?

- Level three: asking for reasons, evidence or causes. The purpose is self-evident. Examples:

  What would be an example of that?
  Is there evidence for believing that?

- Level four: probing perspectives. The purpose of these questions is to solicit other ways of looking at the topic under discussion. Examples:

  What is an alternative?
  What would an opponent say?

- Level five: exploring implications and consequences. The purpose of these questions is to help the person being questioned focus on future results of holding to the current position. Examples:

  What effect would that have?
  If this is the case, what else must be true?

- Level six: questions about the question. These questions are metacognitive in nature. They focus on whether a particular question is the right question for the current discussion, or they focus the question for better discussion. Examples:

  Do we all agree that this is the most essential question?
  How can we find out?

Socratic questioning takes practice, but it has great potential to engage and motivate students. For more information on Socratic questioning, contact the Center for Critical Thinking at 1-800-833-3645 or www.criticalthinking.org.

Section 6. Shared Inquiry (Junior Great Books)

Shared Inquiry is based on the idea that the search for the meaning in a story is a genuine investigation shared by everyone in the classroom, including the adult leader. Participants learn to formulate and ask open-ended interpretive questions that students answer by referring to material they have previously read.

The Junior Great Books Program

The Junior Great Books Program (JGB) is a supplemental language arts program that combines the shared inquiry method of learning with outstanding literature. The program is designed to help students learn to read for meaning, think critically, engage in dynamic discussions and write more effectively. The JGB program is appropriate for G/T high school students and other advanced learners.

The JGB materials are designed for students who read at grade level or above. Materials are sequenced by series, corresponding to grade levels from grades 2-12. These selections are authentic literature, composed of complete, unaltered works or selections from larger works that can stand on their own. The stories are complex and multifaceted, designed to be thought provoking.

For each story students complete the following seven activities:

1. Text opener (initial discussion or "hook")—students connect their own experiences with story themes

2. First reading of the story, e.g., *Heart of Darkness*

3. Sharing questions—students ask questions about anything in the story they wonder about or don't understand

4. Second reading with directed notes—students develop personal responses through guided note taking

5. Interpreting words—students investigate the meaning of significant vocabulary

6. Shared inquiry discussion—students express their own thoughts, backing them up with evidence from the text

7. Writing after discussion—students elaborate on their own ideas, or incorporate other ideas they have heard, through essays and creative writing

To use these materials, which include a teacher's edition and student activity books, teachers must complete a Basic Leader Training Course. This training is usually available in Idaho throughout the year. For more information on training, or to order preview copies, call 1-800-222-5870 and ask for the program coordinator for Idaho or contact www.greatbooks.org.

Section 7. Teaching G/T Students in the Regular Classroom

Advanced Placement (AP) and honors classes help meet the needs of academically gifted students and other advanced learners; however, not all schools offer AP and honors classes, and some schools offer only a small number of such classes. Further, AP and honors classes typically do not address the needs of students talented in the areas of creativity, leadership, and the visual and performing arts.

With the limitations of AP and honors classes in mind, teaching G/T high school students in the *regular* classroom takes on added importance. Even schools with tight budgets and limited staff can incorporate the following suggestions for teaching G/T students in the regular classroom:

- Listen to the students. Find out what interests them and incorporate those interests within the regular curriculum. Use examples that draw from students' comments, hobbies and interests. Allow assignments that meet stated objectives but that also allow for student choice. Include assessment questions or projects that appeal to student interests.

- Invite outside speakers whose professions link the content area with a career, hobby or avocation. Demonstrate to the students the links between academic learning and the nonacademic world.

- Provide G/T students with the opportunity to display their knowledge by having them develop sophisticated products and performances, e.g., presentations, models and displays. Encourage students to create unique products that challenge existing ideas and produce new ideas.

- Integrate critical and creative thinking skills into the curriculum. Include reasoning, logic, creative thinking and higher-level thinking skills. G/T students need the opportunity to think abstractly and to be challenged (see p. 59).

- Develop and implement curriculum that is related to broad-based issues, themes or problems. Include interdisciplinary studies that require the integration of both concepts and methodology from various disciplines. Thematic and interdisciplinary curriculum encourages G/T students to think more deeply about an issue and generalize to other fields of study.

- Encourage interested students to pursue a real-world problem. This may include applying specific knowledge and skills to identified community problems, e.g., reducing water pollution, creating a bicycle path (see pp. 67 and 69).

- Encourage various types of research, including interviews, surveys and the use of the Internet.

Section 8A. Real-World Tasks

Real-world tasks involve creating an authentic product or performing a real service for a real audience. Using real-world tasks as part of the curriculum increases both motivation and achievement of all students. Gifted students in particular enjoy the realism, challenge and complexity of real-world tasks as part of their curriculum.

Characteristics of a real problem

Real-world tasks typically grow out of real problems. Joseph Renzulli, an authority on gifted education, defines the characteristics of a real problem as follows:

- Calling something a problem does not necessarily make it a real problem for a given person or group. A real problem must have a personal frame of reference, since it involves an emotional or affective commitment as well as an intellectual or cognitive one.
- A real problem does not have an existing or a unique solution.
- The purpose of pursuing a real problem is to bring about some form of change and/or to contribute something new to the sciences, the arts, or the humanities.

Examples of real-world tasks

Real-world tasks can take a variety of forms, as the following examples indicate:

- A high school student interested in history created a "computer walking tour" for a local museum. The student researched the history of homes in the area and selected the ones he considered unique. He photographed and wrote descriptions and histories of these homes, and created a multimedia presentation with the information. The presentation was stored on a computer at the local museum where patrons could take an electronic walking tour of the town's historic homes. This example shows how the student created an original product—a computer-driven museum display for a real audience (visitors to the museum).
- A high school student organized other high school students to conduct storytelling sessions for preschoolers at the local library. The students researched and compiled stories from different sources, including the community. With the help of a professional storyteller, the students developed and refined their stories, incorporating specific techniques. In this case, a real service was provided—storytelling for children in the community.

- After visiting several cities, a high school student decided that her town needed a bicycle path. The student researched the proper channels to pursue and developed a plan. She made presentations to the city council and different organizations, and wrote to and talked with influential officials. Periodically, she obtained advice from a local urban planner. In time, the town examined her proposal and decided to create a bicycle path. The real services provided were the student's presentations to the city council and different organizations.

- A high school musician decided to study and learn composition from a local composer who was nationally recognized. The composer's technique and style were unique and required some effort to replicate. The high school musician decided to write a composition commemorating the one hundred-year anniversary of her town in the style of the local composer. A local orchestra played her composition during the one hundred-year ceremony. The student provided a real service (a composition honoring her town) to a real audience (participants of the one hundred-year ceremony).

Reference

Renzulli, J. S. (1982). What makes a problem real: Stalking the illusive meaning of qualitative differences in gifted education. *Gifted Child Quarterly, 24*, 147-156.

Section 8B. Scoring Guides for Real-World Tasks

Scoring guides, also known as rubrics, help clarify the expectations for specific projects, products and performances. Scoring guides can be used for traditional or real-world tasks, in regular or advanced classes, and for individual or group assignments. Because of their flexibility, scoring guides are well suited to evaluating G/T students within a variety of program options.

Scoring guides and real-world tasks

Grading real-world tasks, particularly if they are group tasks, may pose challenges: Does *every* team member get an "A" if the problem is solved? Does *every* team member get an "F" if the problem is not solved, regardless of whether some or all of the team members learned much about the process, problem solving and the related data needed for the problem-solving attempt? How can teachers evaluate an authentic task reliably and validly?

Scoring guides are useful in evaluating real-world tasks. A scoring guide is a set of standards by which the final project, product or performance will be evaluated. The standards are often created by the teacher with the help of an outside expert or mentor familiar with the task to be evaluated. Students may also generate standards. In addition to evaluation standards, a scoring guide may contain (1) checklists that indicate successful completion of prerequisite tasks or criteria and (2) rating scales to help assess the degree of competence in or completion of a real-world task. All evaluation standards and expected outcomes are shared with the students so that they understand the goals of the real-world task and the criteria associated with successful completion of a task.

Example of using a scoring guide for a real-world task

Scenario: The local paper reported incidences of contaminated ground water discovered by random testing of private wells. The high school biology teacher presented the article to the class and engaged the students in a discussion about the possible sources of the contamination and how the contamination could be prevented.

During this discussion, the students brought up a variety of issues: the effects of the contamination on the community drinking water; the effects of the contamination on fish and other wildlife downstream of the contamination sources; and laws that were intended to prevent this kind of accident. One student recommended that class members take further water tests, analyze data, interview specialists and community members, and prepare and make presentations to specific audiences sharing what they found.

The class chose to divide into small groups and collect data. After this was accomplished, the teacher and students prepared scoring guides so that the students would understand what was expected of them and how they would be graded. Groups of three students prepared presentations and created one or more visuals to support a specific viewpoint.

Scoring guides: The teacher created a scoring guide related to content, issue analysis and action proposal/position of the presentation. Students would be assessed individually and on group presentations. An example of the scoring guide is presented on the next page.

A Scoring Guide for High School Students: Public Presentations

	Content	Issue Analysis	Action Proposal/Position
6			
5	• You show a solid, in-depth understanding of concepts, viewpoints, facts, and examples related to the issue. • You provide a broad range of content. • You apply content carefully and effectively to develop your argument. • The content you provide is accurate and relates directly to the points you are making.	• You provide a clear, thorough, and well-developed analysis of the issue. • You state the issue, examine different viewpoints, and evaluate alternative positions from several perspectives (for example, cultural, economic, health/safety, environmental, and political perspectives).	• You take, defend, and communicate a stand on the issue in an effective and persuasive manner. Your action proposal or position is well-supported with evidence and contains a thoughtful examination of long-term consequences. • You show that you understand how to match your communication style to a particular audience or setting. • Your visual supports the position taken in the presentation.
4			
3	• You show only a partial understanding of concepts, facts and other content related to the issue. The content you offer is somewhat narrow in scope; important ideas or information may be left out. • Some of the content may lack relevance to the points you are making, and some may contain errors or inaccuracies that take away from overall quality.	• Your work shows that you have thought about the issue, but your analysis remains incomplete and only partially effective. For example, you may not have clearly stated the issue, or you may have considered the issue from only one or two perspectives (for example, only an economic perspective or a political one).	• You present an action proposal/position, but it needs more development. Your overall conclusion may be clear, but your supporting evidence and reasoning may not be. • You need to show more attention to long-term consequences and explain more carefully why your proposal should be accepted over others. The forum for expression you have chosen and the communication style you have used may need to be more closely matched. • Your visual partially supports the position taken in the presentation.
2			
1	• Your work contains very little content, or content that seems highly sketchy, shallow, or unrelated to points you are making. • Your response may contain many serious errors or inaccuracies.	• You may have made a beginning attempt to analyze the issue, but your analysis is minimal and may be very hard to follow. • You may consider only one side of the issue or one possible position, or you may have confused bias with fact.	• You have started a proposal, but not done much with it. • Your response is skimpy or confusing. It's hard to tell what your position is and why you hold it. • Your visual fails to support the position taken in the presentation.

Adapted from a document produced by the Office of Assessment and Technology, Oregon Department of Education, August 1994.

Section 9. Curriculum Differentiation: Content, Process, Product, Learning Environment

A common complaint from G/T high school students is the emphasis placed on rote learning and the limited opportunities for creative and critical thinking. By modifying (1) content, (2) process, (3) product and (4) learning environment, high school teachers *can* provide an intellectually stimulating environment for G/T high school students and advanced learners—either in a regular class or in an advanced class. These four components form the basis of curriculum differentiation, which is used to promote high-end learning.

Teachers who use curriculum differentiation begin by recognizing students' interests and strengths. Next, teachers adjust one or more of the four curricular options—content, process, product, learning environment—to promote an optimal match between learner capacity and level of educational experiences. Each of the four curricular options is discussed below.

Content

Compacting: Because G/T high school students often learn at a faster rate than their peers, course content should be compacted and/or accelerated for them. In curriculum compacting, the teacher eliminates previously mastered material and replaces it with more challenging material. (See curriculum compacting on p. 56.)

Interdisciplinary study: G/T high school students benefit from interdisciplinary experiences. The teacher should interact with teachers from other disciplines to explore occasions when integrating the curriculum might be appropriate. The teacher should also help students make interdisciplinary connections on their own by providing primary source material.

In-depth study: Because many G/T high school students possess a powerful ability to concentrate, they should be allowed to go into more depth on topics that interest them. In-depth study is possible when students are willing to apply and are capable of applying the necessary time and energy to the task. Student interest in a topic is a key determinant of whether a student will be willing to explore a topic in more depth.

Process

Developing thinking skills: Adjusting the learning processes can help students develop their skills in investigating problems. Specifically, G/T high school students need opportunities to increase their analytical, organizational, critical and creative thinking skills. The teacher can provide direct instruction of these thinking skills or can embed them in the subject content. Thinking skills can also be developed through the appropriate use of questioning techniques.

Seeing relationships within and across disciplines: To make connections and to see relationships within and across disciplines, students need higher-order thinking skills, especially in the areas of analysis, synthesis, application and evaluation as identified in Bloom's Taxonomy. Students are ready to learn on a higher level when they have the skills to do the following:

- break down an idea or concept into its essential parts
- rearrange facts, concepts and ideas into new combinations
- apply what they have learned in new and creative ways
- pass judgment on the value of an idea

Again, the teacher can provide direct instruction of these skills or can embed them in the subject content. Thinking skills can also be developed through the appropriate use of questioning techniques.

Independent study: Students should be allowed to pursue their interests through independent study (see independent study on p. 40). Class time, school resources and teacher guidance can help students explore their interests in depth. Teachers can provide for independent study by grouping students with similar interests. For example, in English class students could be divided into groups based on interests in different forms of literature or literature from different periods. If a particular student wished to pursue a topic further, then an independent study contract could be established (see independent study contract on p. 115). Sometimes, the teacher may need to contact a specialist in the student's area of interest to act as a mentor (see mentorships on p. 31).

Product

Products based on "doing": Education is more than accumulating knowledge. It is about doing. The products that teachers request from their students offer opportunities for high-end learning. For example, rather than just increasing the number of pages for a unit report, the teacher could structure the assignment for students to synthesize the acquired knowledge or create new knowledge through authentic research ("authentic research" means research conducted as a professional would conduct research). Allowing each student to *choose* his or her project capitalizes on multiple interests and abilities. For example, a student who was talented in math and music chose to study mathematical patterns by investigating the relationship between musical tones associated with different lengths of pipe.

Products involving real-world problems: Students should have the opportunity to investigate real-world problems and to present their solutions to an authentic audience. For example, students studying pollution in a science class should be encouraged to find and investigate a *local* problem relating to pollution, such as how much acid rain is in a local pond. Their results could be presented to the local parks and recreation department. When students produce products for real audiences, the quality of their products increases dramatically.

Generating ideas and evaluating a product: The teacher can suggest possible problems or topics to investigate or can facilitate a brainstorming session with students. Typically, brainstorming produces many possible problems to investigate. The teacher can also help students become aware of the steps necessary for completing the investigation. In addition, the teacher should arrange to have the finished product evaluated by someone else, such as an expert in the area of the student's investigation. Finally, the teacher should assist the student in conducting a self-evaluation of his or her product.

Learning Environment

Appropriate and positive attitudes: Classroom climate is a major concern in any teaching situation because it has a direct influence on the learning styles and interests of the students. Teachers need to develop an appropriate and positive attitude toward interacting with G/T high school students. It is the teacher's attitude that determines the classroom climate. An appropriate learning environment may include the following:

- freedom of choice within a discipline
- opportunities to practice creativity
- group interaction
- independence in learning
- complexity of thought
- openness to ideas
- mobility of movement
- acceptance of opinions
- extending learning beyond classroom walls

By keeping these learning-environment ideals in mind, the teacher will be able to make appropriate choices about what to teach, how to teach, what materials and resources to have available and how to assess students' academic growth.

Section 10. Multiple Intelligences

David Lazear, an education writer, has developed strategies for assessing and teaching in each of the first seven "intelligences" listed below, originally identified by Howard Gardner, a professor at Harvard University. Lazear believes that content can be taught by providing activities geared to the intelligences in which students are dominant.

Logical-Mathematical—the ability to discern logical or numerical patterns and to handle long chains of reasoning. This type of intelligence is seen in scientists and mathematicians.

Linguistic—the ability to identify sounds, rhythms and meanings of words, and different functions of language. This type of intelligence is seen in authors and journalists.

Musical—the ability to produce and appreciate rhythm, pitch and timbre and to appreciate the forms of musical expressiveness. This type of intelligence is seen in composers and musicians.

Spatial—the capacity to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions. This type of intelligence is seen in navigators and sculptors.

Bodily-Kinesthetic—the ability to control one's body movements and to handle objects skillfully. This type of intelligence is seen in dancers and athletes.

Interpersonal—the capacity to discern and respond appropriately to the moods, temperaments, motivations and desires of other people. This type of intelligence is seen in therapists and salespersons.

Intrapersonal—the ability to assess one's own feelings and the ability to discriminate among them to guide behavior, as well as knowing one's own strengths, weaknesses, desires and intelligence. This type of intelligence is seen in poets and philosophers.

Naturalist—the ability to be aware of the environment and conservation. This type of intelligence is seen in botanists, zoologists and environmentalists.

References

Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basicbooks.

Lazear, D. (1994). *Seven ways of knowing: Teaching for multiple intelligences*. Tucson, AZ: Zephyr Press.

Chapter 4
Models

Section 1. The Purdue Secondary Model

The Purdue Secondary Model (PSM) for Gifted Education is based on the premise that a *comprehensive* structure is needed for adequate educational programming. The Purdue Secondary Model, developed by John Feldhusen of Purdue University, is one of several models applicable to G/T high school students. (See p. 79 for a discussion of the Autonomous Learner Model.)

The components of the PSM are as follows:

- Counseling services to include:
  talent identification
  education counseling
  career counseling
  personal counseling

- Seminar (central to the model) providing the opportunity for:
  in-depth study
  self-selected topics
  career education
  affective education
  thinking, research and library skills
  presentations

- Advanced Placement (AP) classes in all subject areas

- Honors classes in the following areas:
  English
  social studies
  biology
  language
  humanities

- Math-Science acceleration, including:
  starting algebra in seventh grade
  continuing acceleration and fast-paced math
  opening science courses to earlier admission

- Foreign languages in the following areas:
  Latin or Greek
  French or Spanish
  German or Oriental
  Russian

- The Arts in the following areas:
  art
  drama
  music
  dance

- Cultural experiences consisting of:
  concerts, plays and exhibits
  field trips
  tours abroad
  museum programs

- Career education, including:
  use of mentors
  seminars to study careers, yourself and educational planning

- Vocational programs in the following areas:
  home economics
  agriculture
  business
  industrial arts

- Extra-school instruction consisting of
  Saturday school
  summer classes
  correspondence study
  college classes

The first step in implementing this model is to assess the present curriculum. Many of the classes or activities identified in the model may already be in place at the high school and would require little or no modification to meet the needs of G/T students. For example, many high schools already offer honors classes and AP classes. The second step is to incorporate components of the model that are missing from the high school setting. Offering a seminar class—a key component of the model—would be an excellent step for those high schools that currently exclude seminar from the curriculum (see p. 42 for information on conducting a seminar).

Reference

Renzulli, J. S. (Ed.). (1986). *Systems and models for developing programs for the gifted and talented.* Mansfield Center, CT: Creative Learning Press, Inc.

Section 2. The Autonomous Learner Model

The Autonomous Learner Model (ALM), developed by George Betts of the University of Northern Colorado, is designed to meet both the affective and the cognitive needs of G/T high school students. The ALM is one of several models applicable to G/T high school students. (See p. 77 for a discussion of the Purdue Secondary Model.)

The major goal of the ALM is to facilitate the total growth of the individual by using his or her own knowledge and skills to learn independently. The successful student becomes an "autonomous learner" who (1) solves problems or develops new ideas through a combination of divergent and convergent thinking and (2) functions with minimal external guidance in selected fields of endeavor. The teacher becomes a "facilitator of the learning process," guiding students through the five dimensions of the model. The ALM emphasizes the process of becoming a lifelong learner rather than only prescribed content.

The five dimensions of the ALM are as follows:

1. Orientation—the affective component which is foundational and includes the following areas:
   understanding giftedness
   group-building exercises
   self-understanding program
   understanding program opportunities and responsibilities

2. Individual Development—provides the skills, concepts and attitudes for lifelong learning in the following areas:
   learning skills
   personal understanding
   interpersonal skills
   career involvement

3. Enrichment Activities—the student takes more responsibility for his or her learning by selecting from the following activities:
   explorations—finding out what resources are available
   investigations—a mini in-depth study
   cultural activities—"going behind the scenes"
   service activities—such as working with the Red Cross
   adventure trips—such as a trip to San Francisco to study cultural aspects of the city

4. Seminars—student-produced ideas and topics in the following categories:
   futuristic
   controversial
   problematic
   of general interest, or
   require advanced knowledge

5. In-depth study—individual (or small group) independent study in a student's "passion area" using a variety of resources and mentors

This model can take students three to six years to master. Therefore, a student can take the ALM as a regular class with credit throughout high school, and not repeat the dimensions learned. (See p. 117 for a seminar worksheet associated with the ALM.)

References

Betts, G. T. (1985). *Autonomous learner model.* Greeley, CO: Autonomous Learning Publications and Specialists.

Renzulli, J. S. (Ed). (1986). *Systems and models for developing programs for the gifted and talented.* Mansfield Center, CT: Creative Learning Press, Inc.

Appendix

Section 1. Funding Sources

The following information provides a brief description of grants available for G/T high school programs. (For a current list of grants and funding sources, access the state G/T homepage at: http://www.sde.state.id.us:2500/GiftedTalented/.)

Federal

- Title 6: Innovative Education Programs

  Purpose: To fund innovative education programs. Gifted and talented is one of eight categories that could be funded. (Examples of other categories include technology, literacy and materials.) Title 6 is part of the Elementary and Secondary Act.
  District allocated money: Based on formula.
  Grant completed: Grant applications are completed when writing the consolidated plans in the spring.

- Title 2: Eisenhower Grant

  Purpose: To fund professional development in mathematics and science. However, once the funding threshold is met, districts may fund other forms of professional development. For example, in 1999, 75 percent of district funding was for professional development in mathematics and science, and 25 percent was for other professional development. The latter could have been used to fund training in gifted education.
  Grant applications: Eisenhower Grant applications are completed when the consolidated plans are written in the spring.

- Title 2: The Science and Mathematics Consortium for NW Schools (SMCNWS)

  Purpose: To fund training in science or mathematics. This may include, but is not limited to, staff development, technology applications, equity issues, assessment in science and mathematics and/or interagency communication and collaboration.
  District allocated money: Matching grant.
  Funding examples: Training Advanced Placement science and mathematics teachers; training "honors" science or mathematics teachers; and training mathematics or science teachers to implement interventions that would benefit all students including advanced learners.
  Grant applications: Contact the State Department of Education.

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State

- Gifted and Talented Training Grant

  Purpose: To fund the training of general education teachers, G/T facilitators, parents and administrators to better meet the needs of G/T students. As of September 1999, the legislature has allocated $500,000 for this purpose.
  District allocated money: Based on half of each district's total enrollment and number of gifted students identified.
  Funding examples: Training general education teachers to implement strategies that meet the needs of G/T students; improving identification in different talent areas; and/or presenting information meetings to parents and administrators.
  Grant applications: Contact the State Department of Education.

- Experiments in Creative and/or Innovative Programs

  Purpose: To fund the development of creative and innovative instructional methods, curriculum development, staff training, staff evaluation and/or alternative forms of staff compensation.
  District allocated money: Maximum $10,000 per district.
  Description: Grant must be approved by the legislature each year. Grant application can originate from one or more faculty members. Applications are usually mailed out toward the end of March, and deadlines occur toward the end of May.
  Grant applications: Contact the State Department of Education.

Section 2. Assessment Instruments

A balance between the administration of formal and informal assessments for G/T high school students must be maintained. Examples of formal assessments suitable for G/T high school students are listed below. For examples of informal assessments, see chapter 4 on identification and assessment in *The Best Practices Manual for Gifted and Talented Programs in Idaho.* Addresses and Internet sites for all publishers are listed at the end of this section.

Specific academic talent

Individual:
Woodcock-Johnson Pyscho-Educational Battery, revised
The Riverside Publishing Co.
Wechsler Individual Achievement Test
The Psychological Corporation
Group:
Tests of Achievement and Proficiency (TAP)
The Riverside Publishing Co.
California Achievement Test
CTB MacMillan/McGraw-Hill
Scholastic Aptitude Tests (SAT)
PRO-ED, Inc.

Intellectual ability

Individual:
Wechsler Adult Intelligence Scale, Third Edition
The Psychological Corporation
Wechsler Intelligence Scale for Children (WISC-III)
The Psychological Corporation
Stanford-Binet Intelligence Scale, Fourth Edition
The Riverside Publishing Co.
Woodcock-Johnson Psycho-Educational Battery—Tests of Cognitive Ability
The Riverside Publishing Co.
Slosson Intelligence Test
Slosson Educational Publications, Inc.
Kaufman Brief Intelligence Test (K-BIT)
American Guidance Service

Group:
Otis-Lennon School Ability Test
The Psychological Corporation
Cognitive Abilities Test (CogAT)
The Riverside Publishing Co.

Screeners: (nonverbal cognitive test)
Raven Progressive Matrices
The Psychological Corporation
Matrix Analogies Test (MAT)
The Psychological Corporation
Test of Nonverbal Intelligence, Third Edition (TONI-3)
PRO-ED, Inc.
Naglieri Nonverbal Ability Test
The Psychological Corporation

Creative thinking

Torrance Tests of Creative Thinking
Scholastic Testing Service, Inc.
Structure of the Intellect (SOI), creativity section
Western Psychological Services

Leadership

Renzulli's Scale for Rating the Behavioral Characteristics of Superior Students
Creative Learning Press, Inc.
Meyers Briggs
Consulting Psychological Press, Inc.

Addresses and Internet sites for all publishers

The following publishers are listed above in reference to specific assessment instruments and may carry other assessments and publications related to G/T high school programs.

- American Guidance Service
  4201 Woodland Rd., PO Box 99
  Circle Pines, MN 55014-1796
  http://www.agsnet.com

- Consulting Psychological Press, Inc.
  3803 East Bayshore Rd., P.O. Box 10096
  Palo Alto, CA 94303
  http://cpp-db.com

- Creative Learning Press
  P.O. Box 320
  Mansfield Center, CT 06250
  http://users.neca.com/clp/i&f/

- CTB MacMillan/McGraw-Hill
  20 Ryan Ranch Rd.
  Monterey, CA 93940-5703
  http://www.ctb.com

- PRO-ED, Inc.
  8700 Shoal Creek Blvd.
  Austin, TX 78758-6897
  http://proedinc.com

- The Psychological Corporation
  555 Academic Court
  San Antonio, TX 78204-2498
  http://www.hbem.com

- The Riverside Publishing Co.
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  http://riverpub.com

- Scholastic Testing Service, Inc.
  480 Meyer Rd.
  Bensenville, IL 60106-1617
  http://www.ststesting.com

- Slosson Educational Publications, Inc.
  PO Box 280
  East Aurora, NY 14052-0280
  http://www.slosson.com

- Western Psychological Services
  12031 Wilshire Blvd.
  Los Angeles, CA 90025-1251
  http://www.wpspublish.com

Section 3. Early College Entrance Programs

The following Early College Entrance Programs provide G/T high school students with the opportunity to simultaneously earn college credits and credits required for high school graduation. Students in Early College Entrance Programs take courses at the college, instead of the high school.

- The Advanced Academy of Georgia (AAG) at the State University of West Georgia in Carrollton, Georgia. Eleventh- and 12th grade students enroll as full-time college students.

- The Clarkson School is on the campus of Clarkson University in Potsdam, New York. This program accepts students after their 11th grade. It provides a college curriculum in the sciences and engineering, which serves as a bridging experience to college studies.

- The Early Entrance Program at California State University accepts students after the 7th or 8th grade. Students attend a yearlong transition school, during which they take some college classes. They are evaluated for admission as full-time college students after that year.

- The Early Entrance Program at the University of Washington, Seattle, is a program of the Halbert Robinson Center for the Study of Capable Youth. It is appropriate for students who are not yet 15 years old. Students enter the program through a yearlong transition school in which they take some college courses.

- The Mary Baldwin College Program for the Exceptionally Gifted (PEG) is located in Stauten, Virginia. The program is for females only. They can enter after completing the 8th grade. During the first two years of college, students study and stay in dorms with other PEG students.

- The Residential Honors Program at the University of Southern California in Los Angeles. This is a one-year, full-time residential program in which students take college courses that simultaneously fulfill remaining high school requirements.

- Simon's Rock of Bard College in Great Barrington, Massachusetts admits 11th- and 12th-grade high school students to take college classes. Students can receive an associate degree after two years, and remain to complete a bachelor's degree or transfer elsewhere as college juniors.

- The Texas Academy of Leadership in the Humanities (TALH) at Lamar University in Beaumont. Students enter after completing the 10th grade in high school and take only college courses.

Section 4. Summer Residential Programs

The following list of summer residential programs for G/T students was compiled for the 1999 summer session. For updates on G/T summer programs contact the web site of the National Association for Gifted Children at http://www.nagc.org or the state G/T homepage at http://www.sde.state.id.us:2500/GiftedTalented/. The following list is not intended to be comprehensive.

Adventures in Science and Arts
Western Washington University
Extended Programs- MS 5293
Bellingham, WA 98225
Phone: 360-650-6820
Contact: Debra Gibbons, Program Manager
E-mail: adventure@cc.wwu.edu
URL: http://www.ac.wwu.edu/~adventur

A college experience featuring challenging, hands-on workshops in the sciences and arts for motivated learners in grades 5-12. The program is also offered three weekends in February and March.

Cornell University Summer College Programs for High School Students
B20 Day Hall
Ithaca, NY 14853
Phone: 607-255-6203
Contact: Janna Buliosi
E-mail: summercollege@cornell.edu
URL: http://www.summercollege.cornell.edu

A comprehensive program, offering high school sophomores, juniors and seniors the opportunity to earn college credit during three- and six-week programs.

JEMS—Junior Engineering Math and Science
University of Idaho
Moscow, Idaho 83844
Phone: 208-885-7303
Contact: Jean Teasdale
E-mail: jeant@uidaho.edu
URL: http://www.asee.org/jets
Fax: 208-885-6645

Students can earn college credit. Targeted for juniors only.

Johns Hopkins Pre-College Summer Program
Johns Hopkins University
102 Macaulay Hall
3400 N. Charles Street
Baltimore, MD 21218
Phone: 410-516-4548
Contact: Patricia Palmer, Director
E-mail: summer@jhu.edu
URL: http://www.jhu.edu/summer

Students may take university classes and earn credit in mathematics, medical science, computer science, earth and space science, humanities, American government, international relations and more. Summer residential programs are also offered at sites in Baltimore, Maryland; Carlisle, Pennsylvania; Clinton, New York; Lancaster, Pennsylvania; Los Angeles, California; and Saratoga Springs, New York.

Satori Camp
Eastern Washington University
Dept of Education
MS 90
526 5th Street
Cheney, WA 99004
Phone: 800-999-8363
Contact: Dr. Bruce Mitchell
E-mail: summer@mail.ewu.edu
URL: http://dcesso.ewu.edu./ss/

Participants take special classes that are taught by university faculty. Targeted for G/T high school students.

Summer Enrichment Program
University of Northern Colorado
Greeley, CO 80639
Phone: 970-351-2683
Contact: Teresa M. Mecham
E-mail: sep99@bentley.unco.edu
URL: http://www.edtech.unco.edu/coe/sped/sep.html

A two-week program on the University of Northern Colorado campus.

Summer Institute for the Gifted
Byrn Mawr College
Bryn Mawr, PA 19010
Phone: 973-334-6991
Contact: Margaret Solitario
E-mail: info@cgp-sig.com
URL: http://www.cgp-sig.com

A three-week co-educational program for academically talented students in grades 4-11. Challenging academic courses, full recreational program, evening entertainment, trips, cultural and socialization components.

Summer Institute for the Gifted
Drew University
Madison, NJ 07940
Phone: 973-334-6991
Contact: Dr. Albert Dorhout
E-mail: info@cgp-sig.com
URL: http://www.cgp-sig.com

A three-week co-educational program for academically talented students in grades 4-11. Challenging academic courses, full recreational program, evening entertainment, trips, cultural and socialization components.

Summer Institute for the Gifted
Pacific Lutheran University
Haavik House
Tacoma, WA 98447
Phone: 253-535-8549
Contact: Brian Zipse
E-mail: info@cgp-sig.com
URL: http://www.cgp-sig.com

A three-week co-educational program for academically talented students in grades 4-11. Challenging academic courses, full recreational program, evening entertainment, trips, cultural and socialization components.

Summer Institute for the Gifted
Vassar College
Poughkeepsie, NY 12604
Phone: 973-334-6991
Contact: Dr. Maria Paschitti
E-mail: info@cgp-sig.com
URL: http://www.cgp-sig.com

A three-week co-educational program for academically talented students in grades 4-11. Challenging academic courses, full recreational program, evening entertainment, trips, cultural and socialization components.

Summer Scholars Academy
Brigham Young University
Provo, UT 84602
Phone: 801-378-4786
Contact: Jennifer Johnson
E-mail: johnsojm@ConGate.byu.edu
URL: http://coned.byu.edu/cw/cwschola/

High school students can earn college credit.

Uconn Mentor Connection: An Inquiry Based Summer Program for Talented Teens
University of Connecticut
362 Fairfield Road, U-7
Storrs, CT 06269
Phone: 860-486-0283
Contact: Dr. Jeanne Purcell or Heather Spottiswoode
E-mail: epsadm07@uconnvm.uconn.edu
URL: http://www.gifted.uconn.edu

A three-week program that provides young people with opportunities to participate in creative projects and investigations directly with university mentors.

Whittenburger Summer Writing Program
Albertsons College
2112 Cleveland Blvd.
Caldwell, ID 83605
Phone: 208-459-5869
Contact: Anna Marie Boles
E-mail: aboles@acofi.edu
URL: http://www.acofi.edu/library/whitt/index.html

A two-week institute for writers in their junior or senior year. The focus is interdisciplinary in nature.

Young Writer's Workshop
Simon's Rock College of Bard
Great Barrington, MA 01230
Phone: 413-528-7231
Contact: Jamie Hutchinson, Director
E-mail: jamieh@simons-rock.edu
URL: http://www.simons-rock.edu

This workshop is designed for intellectually talented and motivated students. It emphasizes using informal, playful, expressive writing to strengthen language and thinking skills.

Section 5. Competitions (General)

Competitions are an excellent option to challenge G/T high school students. For a list of competitions related to the arts see p. 99. To obtain an updated list check the "Competitions" section on the state G/T homepage: http://www.sde.state.id.us:2500/GiftedTalented/.

Academic Decathlon

Contact: Tom Farley
Address: State Department of Education
P.O. Box 83720
Boise, ID 83720-0027
Phone: 208-332-6944
E-mail: tcfarley@sde.state.id.us

Targeted for grades 9-12.

American History Awards, Daughters of the American Revolution

Contact: National Society, Daughters of the American Revolution
Address: 1776 D Street NW
Washington, D.C. 20006-5392
Phone: 202-879-3256
E-mail: historian@dar.org
URL: http://www.dar.org
Fax: 202-879-3252

Specific topics announced each year, e.g., naval heroes from 1789-1815. Targeted for grades 9-10.

American Legion National High School Oratorical Contest

Contact: Local American Legion
Address: American Legion State Headquarters
H. Melvin Napier
901 Warren St.
Boise, ID 83706
Phone: 208-342-7061
E-mail: idlegion@micron.net
URL: http://netnow.micron.net/~idlegion/

Students research and speak on some aspect of the Constitution. They also present an extemporaneous speech on three assigned parts of the Constitution in which they have five minutes to prepare. Targeted for grades 9-12.

Bayer/NSF Award for Community Innovation

Contact: Bayer/NSF
Address: 105 Terry Drive, Suite 120
Newtown, PA 18940-3425
Phone: 1-800-291-6020
E-mail: success@edumedia.com
URL: http://www.nsf.gov/bayer-nsf-award.htm
Fax: 215-579-8589

The focus is on environmental improvement or an environmental plan relating to local issues.

Dupont Challenge

Contact: Science Essays Awards Program
Address: General Learning Communications
900 Skokie Boulevard, Suite 200
Northbrook, IL 60062-4028
Phone: 847-205-3000
URL: http://www.glcomm.com/dupont/index.html

Students write essays on timely topics in any science discipline. Targeted for grades 9-12.

Duracell/NSTA Invention Challenge

Contact: National Science Teachers Association
Eric Crossley
Address: 1840 Wilson Blvd.
Arlington, VA 22201-3000
Phone: 888-255-4242 or 703-312-9258
E-mail: duracell@nsta.org
URL: http://www.nsta.org/programs/duracell.shtml
Fax: 703-522-6193

Students invent and build a practical working device powered by Duracell batteries. Targeted for grades 7-12.

Future Problem Solving
Contact: Maria Karnowski
Address: 2505 West Jefferson
Boise, ID 83702
Phone: 208-334-0976
E-mail: mkarnow124@aol.com

National competition emphasizing problem solving and critical thinking skills. Teams must seek solutions to current real-life problems and analyze their future effects. Targeted for grades 4-12.

GeoChallenge

Contact: National Geographic Society
Address: 1145 17th St., NW
Washington, D.C. 20036-4688
Phone: 800-647-5463
E-mail: NGT@nationalgeographic.com
URL: http://www.nationalgeographic.com/geochallenge/index.html

Students who enter this $50,000 scholarship contest must design, conduct and report on an independent geography research project. All rules and guidelines are available on the Internet.

Intel Science Talent Search

Contact: Science Service
Address: 1719 N Street NW
Washington, D.C. 20036
Phone: 202-785-2255
E-mail: sciedu@sciserv.org
URL: http://www.sciserv.org
Fax: 202-785-1243

Extensive research study and documentation required. Targeted for grade 12.

Invest Smart

URL: http://library.advanced.org/10326/market_simulation/index.html

Invest Smart is an educational internet site for educators and students to learn the stock market by developing portfolios of stocks. The site contains lessons as well as the game simulation. There is no fee requirement for this site. Targeted for students ages 12 through 19 years.

NASA Space Science Student Involvement Program

Contact: NASA Headquarters
Education Division
Attention: SSIP Competition
Address: Mail Stop FEO
Washington, DC 20546
Phone: 800-848-8429 or 202-358-1110
E-mail: info@nsip.net
URL: http://education.nasa.gov/students2.html

A variety of competitions for both individuals and teams including interplanetary art, future aircraft design, science expedition and problem solving.

National History Day

Contact: Kris Major
Address: Idaho Historical Museum
610 N. Julia Davis Drive
Boise, ID 83720
Phone: 208-334-2120
E-mail: kmajor@ishs.state.id.us
URL: http://www.state.id.us/ishs.index.html
Nat.URL: http://www.thehistorynet.com/NationalHistoryDay/
Fax: 208-334-4059

Students research a specific time in history and display their findings through theatrical productions. Targeted for grades 4-12.

Odyssey of the Mind

Contact: Jane Fallon
457 Ridge Rd.
Moscow, ID
Phone: 208-882-1392 (evenings)

Competition emphasizes creative thinking, problem solving and group cooperation. Excellent program for highly creative students—elementary through high school.

Sea World/Busch Gardens Environmental Excellence

Contact: Education Department
Address: 7007 Sea World Drive
Orlando, FL 32821
Phone: 407-363-2389
URL: http://www.seaworld.org/EEAwards/eeaward.html

Focus is on preserving the local environment. There are eight award categories. Targeted for grades 9-12.

Stock Market Game

Contact: Patti Harrell
Address: Stock Market Game
Boise State University
1910 University Drive
Boise, ID 83725
Phone: 208-426-1193
E-mail: pharrell@boisestate.edu
URL: http://www.smgww.org
Fax: 208-426-4006

Targeted for grades 4-12.

TEAMS-Tests of Engineering Aptitude, Mathematics and Science

Contact: Kate Grace
College of Engineering
University of Idaho
Moscow, ID 83843
Phone: 208-885-6438
E-mail: kgrace@uidaho.edu
URL: http://www.asee.org/jets/html/teams.htm
Fax: 208-885-6645

The TEAMS test students on what first-semester college-level engineering students are expected to know by midterm. One varsity team of 4-8 students per high school is allowed. Targeted for grades 9-12.

Toshiba/NSTA ExploraVision Awards Program

Contact: Toshiba/NSTA ExploraVision
Address: 1840 Wilson Blvd.
Arlington, VA 22201-3000
Phone: 800-EXPLOR-9
E-mail: exploravision@nsta.org
URL: http://www.toshiba.com/tai/exploravision/index.htm

The competition encourages students to combine their imaginations with the tools of science and technology to create and explore a vision of the future. Targeted for grades K-12.

Young Naturalists Awards

Contact: American Museum of Natural History
Address: Central Park West at 79th Street
New York, NY 10024-5192
Phone: 212-769-5100
URL: http://www.amnh.org/youngnaturalistawards/index.html

The contest focuses on a different topic each year: 1998, biodiversity; 1999, earth science; 2000, planetary science.

Section 6. Competitions (Arts)

Competitions are an excellent option to challenge G/T high school students. The following list identifies competitions in the arts open to Idaho high school students. For a list of general competitions see p. 93. To obtain an updated list check the "Competitions" section on the state G/T homepage: http://www.sde.state.id.us:2500/GiftedTalented/.

Arts Recognition and Talent Search

Contact: National Foundation for the Advancement in the Arts
Dena Willman
Address: 800 Brickell Ave., Suite 500
Miami, FL 33131
Phone: 800-970-2787
E-mail: NFAA@NFAA.org
URL: http://www.nfaa.org/
Fax: 305-377-1147

The focus is on dance, music, music/jazz, music/voice, theater, photography, visual arts and writing. Targeted for students who are 17 or 18 years old by December 1 and high school seniors.

Baker's Plays High School Playwriting Contest

Contact: Baker's Plays
Ray Pape
Address: P.O. Box 699222
Quincy, MA 02269-9222
Phone: 617-745-0805
E-mail: info@bakersplays.com
URL: http://www.bakersplays.com

The content of the play should be about high school experience and can include any subject.

Congressional Art Competition

Contact: Congressional Arts Caucus
Address: U.S. Congress
Washington, DC 20515

Students may submit their art in painting, drawing, collage and printing, based upon a particular theme, to their congressmen. Targeted for students in grades 9-12.

Donna Reed Foundation for the Performing Arts

Contact: Donna Reed Foundation for the Performing Arts
Sandra Scott
Address: Scholarship Division, P.O. Box 122
Denison, IA 51442
Phone: 712-263-3334
E-mail: info@donnareed.org
URL: http://www.donnareed.org

Supports individuals who desire to pursue an education or career in the performing arts. Categories include dance, acting (stage or screen) and writing for stage or screen.

International Children's Art Exhibition

Contact: Pentel of America, LTD.
Janet Quan
Address: 2805 Columbia Street
Torrance, CA 90509
Phone: 310-320-3831 ext. 269
URL: http://www.pentel.com

Ninth-grade students are the oldest group eligible. Art competition for creation of original artwork reflecting the child's life. Winners' works go on international traveling exhibit.

Reflections Scholarship Competition

Contact: National PTA
Jane Wood
Address: 330 N. Wabash Ave., Suite 2100
Chicago, IL 60611
Phone: 312-670-6782
E-mail: info@pta.org
URL: http://www.pta.org
Local
Contact: Joann Tominaga
E-mail: joanntominaga@desertonline.com
Phone: 208-344-0851

For seniors in high school wishing to pursue arts in their future education. Scholarships are awarded in the four areas of literature, music, photography, and the visual arts. Students should submit two original works along with a completed packet: a personal essay, a teacher's letter of recommendation including the form, and completed entry forms signed by the local PTA president. Students who would like to enter the competition should communicate with the Reflections chairperson at their high schools.

Scholastic Art Awards

Contact: Alliance for Young Artists and Writers, Inc.
Address: 555 Broadway, 4th Floor
New York, NY 10012
Phone: 212-343-6493
URL: http://www.scholastic.com

Targets young artists in grades 7-12 who have talent in painting, drawing, mixed media, sculpture, ceramics, video, film animation, computer graphics, jewelry, textiles and photography.

ThinkQuest

URL: http://www.thinkquest.org

ThinkQuest is a contest for web site design. It awards categorical prizes up to $25,000 and targets students 12 through 19 years of age.

The Young American Creative Patriotic Arts Awards

Contact: Ladies Auxiliary to the VFW
Judy Millick
Address: 406 W. 34th St.
Kansas City, MO 64111
Phone: 816-561-8655
E-mail: info@ladiesauxvfw.com
URL: http://ladiesauxvfw.com
Fax: 816-931-4753

Encourages students in grades 9-12 to express their artistic talents, demonstrate their patriotism and become eligible for funds to further their art education. Students who have abilities in a variety of media—watercolor, pencil, pastel, charcoal, tempera, crayon, acrylic, pen-and-ink and oil on canvas or paper—should apply.

Young Playwrights Discovery Program

Contact: Young Playwrights Coordinator
Address: Very Special Arts Education Office
The John F. Kennedy Center for the Performing Arts
Washington, DC 20566
Phone: 202-628-2800
E-mail: playwright@vsarts/org
URL: http://www.vsarts.org

The targeted group is high school students. The plays should heighten public awareness and reflect the rights and needs of the disabled in our society.

Section 7. Miscellaneous Opportunities

The following are out-of-school opportunities for G/T high school students.

PROGRAM	INFORMATION	TIME	CONTACT
American Legion Boys' State	Junior boys' mock state legislature.	Summer	Local American Legion
Business Week	Interactive business simulation.	Summer	Boise State University 208-426-1125
Federal Government Page	In Washington D.C.	All year	Kathleen Taylor 202-225-7233
Intermountain Junior Science and Humanities Symposium	For juniors and seniors. Original research paper mandatory for seniors.	February	University of Utah 1-888-685-8856 801-581-8761
Junior Statesman	Speakers program, student debates and an introduction to American government and politics.	Summer	1-800-334-5353
Medical Club	Focus: medical careers, lab tours, presentations, speakers, etc.	All year	St. Lukes Hospital 208-381-2222 *or* St. Alphonsus Hospital 208-367-2121 (Both hospitals are in Boise)
Syringa Girls' State	Junior girls' mock state legislature.	Summer	Local American Legion Auxiliary
U-Doc	Pre-medicine focus. Targeted for minorities and women.	Summer	University of Idaho Moscow, ID 208-885-4001

Mountain Home High School

Intern Interview

Student _____ **Date** _____

Facilitator (Interviewer) _____

Internship _____

Mentor _____

This form is intended to be used with an oral interview. Follow-up questions should be asked and responses noted as appropriate.

1. In what ways has this internship met your expectations? In what ways has it not met them?

2. What problems have you had with the internship? How did you work them out?

3. Are you currently having any problems? What are your ideas for working on them?

4. What things have you actually done so far?

5. What would you like to do that you have not been able to do so far?

6. How does this internship fit into your long-range goals?

7. How does this internship compare to your other classes?

8. Would you recommend to a close friend that he or she take a G/T internship?

9. What has been your favorite thing about the internship? Your least favorite?

10. What else would you like to tell me?

Interviewer's Comments:

Mountain Home High School

Mentorship Contact Log

Student's Name _____

Mentor's Name _____

Date	Who	Reason	PH	LT	IP	Outcome

PH= Phone LT= Letter IP= In Person

Mountain Home High School

Gifted/Talented Program
Mentor's Evaluation of Intern

Mentor's Name _____

Student's Name _____

Subject of Internship _____

Date _____

Please evaluate the intern by circling the appropriate number on the rating scale. If an item is not applicable to this situation, write "NA" to the left of the number. You may write comments on the back of this form to clarify or amplify the evaluation.

	POOR	AVERAGE	GOOD	EXCELLENT
1. Attendance and promptness	1	2	3	4
2. Courtesy	1	2	3	4
3. Appropriate appearance	1	2	3	4
4. Attentiveness	1	2	3	4
5. Responsibility	1	2	3	4
6. Pre-internship skills and background	1	2	3	4
7. Growth of understanding of topic	1	2	3	4
8. Meets deadline	1	2	3	4
9. Benefits from critique	1	2	3	4
10. Quantity of work	1	2	3	4
11. Effective use of time	1	2	3	4
12. Works independently	1	2	3	4
13. Quality of work content	1	2	3	4

	POOR	AVERAGE	GOOD	EXCELLENT
14. Quality of work presentation	1	2	3	4
15. Takes initiative	1	2	3	4

Recommended Grade: _____

Comments:

_____ _____

Mentor's signature Date

Curriculum and Contract Example for
Mountain Home High School

Gifted/Talented Internship
Fall Semester 1995

Student:

Mentor: Name and Address

Topic:

Background

_____ is a senior at Mountain Home High School. He is undertaking this internship under the auspices of the school district's Gifted/Talented Program. Successful completion of this internship will result in one semester elective credit.

Schedule

The internship will begin on ____(date)__. The intern will register for the internship for the seventh hour each day and will receive credit based on that registration. Whenever possible the individual work of the internship will be completed during this time. However, sometimes the internship work must be scheduled at other times. The intern may work independently at home during the seventh hour when he is not scheduled for internship work, or he may arrange with the librarian to work in the library at that time. He will meet once a week with the mentor. This meeting will be regularly scheduled for 2:15 at the Pupil Personnel Office. The time and place may occasionally be changed at the discretion of the mentor. A minimum of 70 hours is required to earn this credit. This includes a minimum of one hour weekly contact time with the mentor and the additional time spent on application of skills learned, research and study.

Make-up Work

If the intern will miss any of his regular classes because of this internship, he will give a copy of this contract to relevant teachers to explain the situation. He should have it cleared ahead of time and make arrangements if he is going to miss a class. The principal has indicated that this contract is a waiver of the minimum attendance rule for classes and that no petition will be required to receive credit in the classes he misses because of his internship. The intern is responsible for negotiating agreements with his teachers regarding make-up work, tests, etc., so that these absences are not a burden for teachers or disruptive to other students. He must give his teachers as much advanced notice as possible when he will be absent and must turn in make-up work promptly. It is wise to do the make-up work before the day he will miss rather than after, whenever possible.

Supervision

During internship activities, the intern will be under the supervision of the mentor and those he appoints. However, it is understood that he may sometimes be working on his own and not in the presence or under the direct supervision of any adult. The mentor will meet with him at least once a week and will assign him appropriate activities for the times when he cannot meet with him.

Curriculum

The content of this internship may include but may not be limited to the following:

- basic DOS operations
- basic computer programming
- basic computer repair including installation of drives, boards and cards, CPUs, monitors and printers
- installation and operation of software
- installation of hardware
- LAN—Novell operation system
- troubleshooting in-shop and during service calls

Independent work, which will be required of the intern, will include:

- reading text provided by the mentor on various areas of computer operations
- keeping a journal which will include notes on readings and observations and a log of dates and time spent on internship
- keeping a log of dates and time spent on internship
- practicing application of operations

Transportation

_____ will provide his own transportation to the mentor's office or designated work site. During these times he is to travel only to and from his internship and on internship business. He is not to transport other people without specific written advanced parental permission. He also has permission to ride with his mentor, appointee, or facilitator.

Attendance

The school will not keep formal attendance records for the seventh hour. If _____ must be absent during any scheduled internship meeting or observation time, he should call both the mentor and the high school in advance. If _____ is absent from a scheduled meeting or observation time without notification, the mentor or his office will call the high school office.

Grading and/or Problems

The intern, his parents and/or the mentor will contact the facilitator if any questions or problems arise. The facilitator will contact them during the internship and at its conclusion for evaluations and feedback. The mentor will evaluate the intern five times including midterms and final grades. The facilitator, as the certified teacher, will have final responsibility for actual grades.

Waiver of Liability

Extending the public school education beyond the school grounds provides increased learning opportunities. It also involves added risks. _____ will be driving during school hours. No security checks are provided by the school system for mentors and other adults with whom the student may work during his internship. There is considerably more student independence and less frequent grading; a student who does not structure work time well and/or who is reluctant to report problems to the facilitator and mentor promptly may risk failing in this course even though they typically get A's in structured courses. (This is unusual; however, most students have great success with these internships.) There may be other risks not stated here.
_____ and his parents understand that mishaps may occur in the pursuit of this internship. They release the school district, school district personnel and the mentor from liability for mishaps.

Signature Block

Student's Name: _____

Parent's Name: _____

Mentor's Name: _____

G/T Facilitator: _____

High School Counselor: _____

High School Principal: _____

Moscow High School

Extended Learning Goal Example

Six goals are required for the semester. You may have more as long as the committee, mentor and coordinator feel that they are useful to your study and not an unreasonable amount of work to complete in the time allotted.

Goals are meant to be a guide for the directed study and a focus for both the mentor and the student. The mentor and the student should write the goals together. It is counter-productive for everyone if the goals are not clear to all parties involved.

A goal has four parts:

What: State simply what the goal is to be about.

"To learn the proper methods and techniques involved in giving a dog a routine physical exam."

How: State your game plan; how are you going to attack this goal?

"I will read the freshman text on anatomy of a dog, study a manual on physical exams written by my mentor, observation of exams in the clinic and practice with my mentor's patients."

When: When do you plan to have all this accomplished?

"Readings will be completed by Sept. 25. Mentor will give a practical exam on Oct. 1 and practice will continue throughout the semester."

Proof: How are you going to demonstrate to the committee and the coordinator that you have actually completed the goal? Many different methods may be used!

"I will demonstrate a routine examination as part of my final presentation."

or

"I will include a section in my final paper on routine examinations of domestic animals."

or

"I will perform a routine examination for my mentor, and he or she will write an evaluation of my performance and a grade in my journal."

or

"My parents will come to the clinic and videotape me giving a routine examination, and I will show this to the ELI committee."

Remember: Goals should be measurable, have definite parameters and be clearly expressed so that no confusion arises between the student and the committee. The more exacting you are the better the results.

Moscow High School

Extended Learning Internship Syllabus
Spring 1998

JAN 26 Check in to 309, get assignment, go to library
27 Check in to 309, go to library
28 Class in 309—expectations, journals, contracts, class structure
29 Class in 309—graphs, quotes, goal setting
30 (class if needed)—mentor calls

FEB 3 Check-in—journals
4 Class—goals, mentors, article reviews
10 Check-in
11 Class—**Article Review 1 due**—time management
16 No School—Presidents' Day
17 Check-in—Show me your rough ideas for goals
18 Class—time management, procrastination
24 Check-in—**Article Review 2 due**
25 Class—rough copy of goals (all four parts, interviews, surveys)

MAR 3 Check-in, formal copy of goals due (all four parts, typed)
4 Class—note taking, documentation, research methods
6 **End of 6 weeks**
10 Check-in, **Article Review 3 due**
11 Class—stress: signs and reduction techniques
13 **Last Day to Change Any Goal**
14-22 **Spring Break**
23 Check-in
24 Class—**Article Review 4 due**, goal progress check, problem-solving techniques
31 Check-in

APR 1 Class—writing to inform, drawing conclusions and comparisons
7 Check-in
8 Class—more on writing, **Article Review 5 due**
14 Check-in
15 Class—creative projects, final paper
21 Check-in
22 Class—**Written Book Report due, Oral Reports Given in Class**
24 **End of 12 weeks**
28 Check-in
29 Class—final goal check, organizing information for writing
30 and May 1—No School, Inservice Days

MAY 5 (Tues.)—**Final Papers due at beginning of regular class period**
Students will schedule presentation times, write thank-you notes
6 Class—practice speech techniques
12 Class—plan presentation
13 Class—write note cards for presentation, arrange for equipment
19 Individual check-in/problem solving
20 Dress rehearsal with microphones and equipment in auditorium
21 **Presentations in MHS Auditorium**
26 **Awards Night in MHS Auditorium**

JUN 2 Makeup Exam Period—Come to 309 to pick up all work and grade

Independent Study Contract

Name:_____

A. **Title** of in-depth project:_____
_____

B. **Describe** the final project:_____
_____
_____

C. **Rationale**: What I'll learn by completing the project:
_____
_____
_____

D. **Research**: List resources and/or people who will assist:
1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

E. **Research Objectives**: List two questions pertaining to your proposed area of study:
1. _____
_____
2. _____
_____

F. **Time line**: List steps you will take to reach your goal and dates of completion:
1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

G. **Materials**: List materials you will need and cost, if any:
1. _____ 5. _____
2. _____ 6. _____
3. _____ 7. _____
4. _____ 8. _____

H. **Intended Audience**:
1. _____ 3. _____
2. _____ 4. _____

I. **Evaluators**: List people who are qualified and available to evaluate your project:

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

J. **Evaluation**: List four criteria to evaluate your project:

1. _____ 3. _____
2. _____ 4. _____

Autonomous Learner Seminar Worksheet

Name: _____

1. What are you interested in pursuing for your seminar?

   ❑ Futuristic ❑ Advanced Knowledge ❑ Problematic
   ❑ General Interest ❑ Controversial

2. Brainstorm possible topics within your selected area: _____

   _____

   _____

   _____

   _____

3. Develop a title and describe your seminar: _____

   _____

   _____

4. Complete a description of your plan for each stage of the seminar:

a. Presentation of factual information _____

   _____

   _____

b. Discussion and/or activity _____

   _____

   _____

c. Closure _____

   _____

   _____

5. Briefly describe the following areas concerning the preparation, development and presentation of your seminar:

a. Resources needed _____

_____

_____

b. Resources available _____

_____

_____

c. Possible problems _____

_____

_____

d. Appropriate audience _____

_____

_____

e. Evaluation plan _____

_____

_____

6. Complete your action plan:

Tasks	Person Responsible	Date Due	Comments

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