This document outlines principles of learning that should be followed by teachers of gifted students. Principles include: (1) students' need to experience challenge in the classroom; (2) students' need to attain as much as individual abilities permit; (3) curricular emphasis on students' personal interests; (4) meaningful experiences; (5) students' opportunities to assist teachers in determining objectives, learning and evaluation procedures; and (6) opportunities to work in committees with others of similar ability. Two psychologies of instruction are described for teaching gifted students: behaviorism with its precisely stated, measurable objectives developed prior to teaching, and humanism with possibilities for students to engage in choosing which objectives to attain and which learning opportunities to pursue. (Three references) (JDD)
TEACHING THE GIFTED
Marlow Ediger

Gifted students possess more talents than do others in society. Thus more will be expected of the gifted learner. Gifted students learn more readily, retain content longer, possess increased curiosity, tend to be highly creative, and have a greater desire to learn as compared to other students.

Gifted students need an educational environment which is supportive emotionally and challenging intellectually. They need to attain optimally in the classroom and in society. Materials of instruction need to be adequate so that worthwhile goals can be accomplished. Goals need careful consideration before implementation in that relevance, salience, and importance are inherent in the chosen end. Appropriate techniques of appraisal need to be in the offing so that the evidence from appraising is valid and reliable.

Which principles of learning from educational psychology should be followed by the teacher of gifted students?

Principles of Learning

Gifted students need to experience challenge in the classroom. Working continuously in small groups with non-gifted students will not suffice. The gifted student may well become bored if these situations continually are in evidence. The gifted need opportunities to interact positively with average and slow achievers; however, they also need a curriculum adjusted to their needs, interests, and abilities. Students individually need to accept others as well as be accepted.
Gifted students need to attain as much as individual abilities permit. They should definitely not be held to present grade level achievement nor to the average achievement level of other students in the classroom setting. Open ended situations should prevail in terms of what each gifted learner attains. Encouragement, motivation, and guidance are three vital concepts to emphasize in teaching the gifted.

Pertaining to providing for individual differences, Ediger wrote:

Definite provisions should be made for individual pupils in the classroom setting. Differences that exist among pupils in the school and class setting include the following:

1. Differences in pupils interest in ongoing learning experiences.
2. Differences in capacity among learners.
3. Differences in achievement among learners.
4. Differences in social development.
5. Differences in socio-economic levels.
6. Differences in psychomotor development.

It behooves the teacher to study each pupil thoroughly in terms of the above named characteristics. The teacher needs to set realistic goals for each pupil to achieve in all facets of development. Relevant learning opportunities need to be provided for pupils in order to achieve these objectives. Evaluation of pupil achievement is then necessary to determine if desired objectives have been met.

Personal interest of the gifted should be emphasized in the curriculum. Each student possesses hobbies, talents, and abilities which need identification and recognition. Thus the interests of the gifted may become learning opportunities to achieve vital objectives. Learners need to share their interests with others in school and in society.

Meaningful experiences should be the lot of the gifted. With meaning, students understand subject matter taught. Also, the content
then becomes relevant. Making sense out of facts, concepts, and generalizations represents the heart of teaching-learning experiences.

Student-teacher planning of the curriculum is important. Gifted students should have ample opportunities to assist teachers in determining objectives, learning opportunities, and evaluation procedures. The student should be actively involved in developing the curriculum, rather than being a passive recipient.

Gifted students need ample opportunities to work in committees with others of similar ability. Sharing, caring, and respecting are salient concepts to emphasize here, as well as when the gifted work and play with learners of lesser capacity and achievement levels. Each student in the public schools has a vital role to play in society, presently as well as in the future. The concept tracking must not be confused with providing for individual differences. To provide adequately for the gifted, these students need intellectual stimulation by peers who also are of high capabilities. There are also opportunities for the gifted to interact with other students of diverse talents, interests, and abilities. Life in society is homogeneous as well as heterogeneous. Thus one tends to interact with others of like or similar interests (homogeneous grouping) whereas the individual also interacts with a heterogeneous group when buying goods or services, as well as in earning a living. One, however, cannot expect the same/similar achievement from students working in heterogeneous groups in classroom settings. Within any heterogeneous group there will be future medical doctors, engineers, attorneys, professors, administrators, mechanics, carpenters, cafeteria workers, cooks, and custodians, among others. However, each
student needs to be aided to attain optimally in an atmosphere of definite respect and value.

Certainly, a gifted student should not be expected each day to assist slow learners to achieve. This is an evil. There can be times when a gifted learner works with slow learners. However, each gifted student has a curriculum of his/her own to achieve sequentially. Thus gifted students need a curriculum which stimulates, motivates, and encourages to achieve optimally.

Smutny and Blockson\textsuperscript{2} wrote:

There are many factors to consider when initiating a gifted program. Usually a school district appoints a committee or task force to develop a written plan that serves as an operational guide for implementing the program. The written plan should address the following areas:

- Program philosophy
- Program goals and objectives
- Population to be served
- Program budget
- Program structure and design
- Staffing and staff responsibilities
- Facilities, schedules, materials, and supplies
- Implementation procedures
- Program evaluation

Psychologies of Instruction

Behaviorism, as a psychology of instruction, may be utilized to teach the gifted. With behaviorism, predetermined objectives need to be written. The objectives are written prior to instruction by the classroom teacher. Each objective is written in measurable terms. After instruction, the gifted student has or has not achieved sequential objectives. Precise objectives are desired so no leeway exists in stating what will be taught. The teacher might even announce at the
beginning of a lesson what gifted students are to learn as a result of instruction. Certainty then exists in terms of what is to be learned from a given lesson presentation.

Learning activities are aligned with the precise objectives of instruction. Only what guides the student to achieve objectives is contained as subject matter in the learning activities. Measurement techniques to determine gifted student achievement is also aligned with the objectives. Thus procedures of measurement should be valid.

Behaviorism emphasizes reinforcement theory of student learning. A student then needs rewarding for each attained objective. The reward is contingent upon the gifted student achieving predetermined, measurably stated objectives.

Sequences in arranging objectives is very important. In ascending order of complexity, each gifted student achieves sequential objectives. A previously achieved objective assists the student to attain a new objective. The previously achieved objectives then provide readiness for attaining quality sequence. Each objective is closely sequenced in small steps with other objectives in moving from the simple to the increasingly complex.

Shaping of behavior in a desired direction is advocated by behaviorists. Observable behavior only, not what is internal, is desired from each student when measurably stated objectives are achieved. Rewards given to students for sequential objectives achieved shapes or molds behavior in a desired way. With successive approximations, the gifted student comes closer and closer to attaining desired measurably stated objectives as well as long term goals.
When utilizing behaviorism, as a psychology of instruction, the teacher of the gifted should emphasize

1. vital, relevant subject matter, not isolated trivia.
2. sequential objectives, separated from each other adequately in scope, to emphasize student challenge and fascination in learning.
3. critical thinking whereby students analyze information in terms of separating facts from opinions, fantasy from reality, and the vital from the trivia.
4. creative thinking in which learners reveal the novel, the unique, and the original.
5. problem solving activities. Here students identify problems, gather data from a variety of sources, develop hypotheses, as well as test each hypothesis. If evidence warrants, students modify original hypotheses.

As a second psychology of instruction, humanism may be emphasized. With humanism, sequence resides within the student, not within the teacher or in the available textbooks. The gifted student then selects sequential activities to pursue within a flexible learning environment. A learning stations philosophy may be emphasized. An adequate number of stations with five or six tasks possible per station gives the learner ample opportunities to select what to pursue, as well as which tasks to omit. The gifted student is the chooser. The teacher serves as a guide, stimulator, and assistant. The teacher of the gifted may develop initially all the stations and tasks. Student-teacher planning might also be involved.

Additional approaches available whereby the gifted sequences his/her tasks could emphasize a contract system. What goes into a contract for completion is determined by the gifted student with teacher guidance. The due data for contract fulfillment and signature of both student and teacher should accompany each contract.
Individualized approaches in reading literature may be a further example of humanism, as a psychology of teaching and learning. An adequate number of literature books of diverse titles and reading levels needs to be in the offering. The gifted student selects a book to read that he/she perceives purpose in reading. After the completed reading of the book, the gifted student may choose the method of appraisal to reveal comprehension, reading skill, as well as enjoyment. With humanism, the learner selects, sequences, and appraises what has been learned with teacher guidance.

With humanism, as a psychology of learning, the following points are salient in teaching the gifted:

1. The learner is the focal point of instruction since he/she processes as well as sequences information. The teacher is a stimulator and motivator of student achievement.
2. The student needs to practice and learn the art of decision making from among alternatives.
3. Active involvement in curriculum development is salient, such as in student-teacher planning of objectives, learning opportunities, and appraisal procedures.
4. Personal interests of the gifted are important considerations in teaching-learning situations.
5. A learning stations philosophy may be implemented whereby the gifted chooses what to learn, as well as omit, within a flexible open-ended environment.

In Closing

Principles of learning which need implementation in the gifted student curriculum include the following:

1. Challenge to achieve objectives.
2. Attain optimally on an individual basis.
3. interest in ongoing activities and experiences.
4. meaningful, understandable tasks and lessons.
5. learner-instructor planning of goals, activities, and appraisal procedures.
6. quality committee work with peers.
7. achieve as much as personal abilities permit in a specifically designed curriculum.

Two psychologies in education were discussed

1. Behaviorism with its precisely stated, measurable objectives developed prior to teaching gifted students.
2. Humanism with possibilities for students to engage in choosing which objectives to attain and learning opportunities to pursue.

Students need to have ample opportunities to select, with teacher guidance, objectives, learning opportunities, and appraisal procedures. Gifted students should do much critical and creative thinking, as well as problem solving in ongoing lessons and units.

To evaluate the effectiveness of the gifted student curriculum, Davis and Rimm\(^3\) wrote:

Although gifted programs are more difficult to evaluate than other programs, this evaluation is vital. Gifted programs come and go; the record of continuity is dismal. Therefore, if teachers and program directors hope to maintain or expand their programs, they must be able to demonstrate the success of the program to the administration, the school board members, to parents, and to state or federal funding services. This is accountability. These publics will want to know who is being served by the program, how they are being served, and what beneficial effects the program is having. They also will want to know if the program is cost-effective— if costs in time, personnel, and resources are producing optimal results. Equally important, teachers and program directors will need information allowing them to revise and improve the program. Beyond creating classroom quizzes or evaluating student papers and projects, teachers and coordinators usually have little training or experience in educational evaluation.
SELECTED REFERENCES

