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AUTHOR Hollingsworth, Patricia L.

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ABSTRACT

The University of Tulsa (Oklahoma) School for Gifted Children is a full school program for able learners ages 3-12. The school is the only one in the nation to use a curriculum based on Enaction Theory which postulates that thinking is a matter of running a simulation in one's head and involves three steps: (1) creating a mental model, (2) manipulating that model, and (3) developing a strategy for problem solving. The curriculum also incorporates other hands-on experience-based approaches, including Renzuilli's Triad Enrichment approach to children's independent investigations, the Talents Unlimited model to develop multiple talents, the Developing Capable Young People approach to social and emotional development, and Math Their Way and Mathematics a Way of Thinking for the math program. Each classroom has a lead teacher and one or more assistants. Consultants in computers and mathematics, music, Spanish, art, and science are available. Students are selected by an Admissions Board using interviews, parent information forms, and results of tests measuring verbal, quantitative, perceptual, and creative abilities. The school sponsors conferences for teachers and parents of gilted and talented youngsters and serves as the practicum site for The University of Tulsa's master's degree with specialization in gifted education. (VW)

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THE UNIVERSITY OF TULSA SCHOOL FOR GIFTED CHILDREN



600 South College Avenue Tulsa, Oklahoma, 74104

(918) 592-6000, extension 2569

Patricia L. Hollingsworth

RATIONALE AND PURPOSE OF UNIVERSITY SCHOOL

Our program attempts to meet the unique needs for unique individuals. We believe, as did Jefferson, that nothing is more unequal than equal treatment of unequals.

The ideas and interests of young gifted children are often so different from their age peers that they seek older friends. This situation gives the younger child less chance for leadership. Our school provides a place for gifted children to develop age peer friendships, and an opportunity for leadership.

The purpose of our curriculum is to maximize the intellectual, social, and emctional capacities of gifted children. The innate abilities of the gifted child need to be nurtured, stimulated, and rewarded. Our program provides learning experiences to develop those special skills and abilities.

It is our aim to teach students to value and respect the unique abilities of themselves and others. We try to provide a warm, caring environment in which everyone, students and teachers, can learn and grow.

DEFINITION

Gifted children are those who are identified by a variety of measures to demonstrate actual or potential high abilities in creative, academic, or intellectual areas.

THE PROGRAM

The University of Tulsa School for Gifted Children is a full school program for able learners ages three to twelve. The purpose of the school is to provide an emotionally supportive and intellectually challenging learning environment that rewards both creativity and socially responsive behavior. We believe that a person learns best in a supportive but kindly firm atmosphere where he or she is actively involved and has some control over what occurs. We know that each student is an individual and therefore we do not expect uniform educational results.

Flexible pacing is provided for all children at our school. A new student told his teacher with delight, "This is a school where you just study what you need to learn." One of the most widely used methods is open-ended materials and activities. The other is grouping of students according to specific academic skills. Our low pupil/teacher ratio, approximately 7 to 1, allows us to provide a great deal of individual attention to children.

Early Childhood Level

Early childhood students, ages three to five, work in learning centers of their own choosing and remain there as long as they are actively involved in their work. The children dictate stories, create new story endings, read stories if able, use a wide variety of manipulatives and art materials, use open-ended math materials, and write to the extent of their interest and ability.

Primary Level

Primary children, ages four to eight, are flexibly grouped according to reading and math skills, social and emotional maturity, and intellectual interests. Many of the activities are individualized and arranged in learning centers. Reading is introduced in a personal, organic method so that the important aspects of each child's life are part of her first reading vocabulary. Just as children select their first oral vocabulary, in our reading program they select their first reading vocabulary. Each word a child selects is written on a card, which the child uses to read to others, write on the chalkboard, and enter into a personal dictionary. When there are enough words the children use the cards



to make sentences. The sentences are recorded and become part of books that they read to one another.

Math is likewise open-ended in that the hands-on materials can be used for any skill that the child is attempting to master. Children move at their own pace through the materials. Children keep track of their own progress on individualized cards or on a contract form. Older Primary Level students work independently in math folders at their own pace in addition to the use of hands-on materials. Many of the materials are self-correcting and children have a choice in materials, activities, work sequence, and work groups. There is ample opportunity for repetition without boredom because of the variety of materials for reinforcement.

For older primary students spelling j individualized and self-paced in a learning center. Students move to appropriate small groups for math and reading. For sustained silent reading time, each child brings reading materials appropriate for his reading level. Other open-ended activities are independent projects relating to science, math, social studies, and language arts. Projects are independently researched and developed.

Intermediate Level

Students in the Intermediate Level, ages seven to twelve, individually plan their work days. Some activities are required and others optional, but the sequence is the student's responsibility.

Intermediate students do a great deal of creative writing using a variety of writing styles. The writing provides the students with a personalized spelling list and language arts lesson.

In math, each student is pre-tested to determine initial mastered level. The students move at their own speed, taking the amount of time needed to master the new concepts.

Each student is encouraged to work on independent projects of his or her own choosing. The projects are not required, but for those who do them, there is positive reinforcement, such as special trips and exhibits of their products. Topics have ranged from Guy Lombardo to hermit crabs.

Students from age three are taught creative brainstorming techniques in which many varied and unusual responses are encouraged and respected. They are also taught planning, decision making, communication skills, and forecasting - all of which help student to develop a variety of individual talents.

When working with computers students learn LOGO, and BASIC, moving



at their own pace, both through these and the math and language arts software.

Students who demonstrate talent in drama, art, Spanish, music, or motor skills are guided to additional activities to expand their abilities. Students may take ballet, gymnastics, violin, or cello in our afterschool program. Performances and exhibits are held for students to demonstrate their talents in drama, music, Spanish, ballet, gymnastics, and art.

THE CURRICULUM

The Enaction Curriculum attempts to develop the capacities for thinking and problem solving and to provide stimulating and challenging knowledge. The Enaction Curriculum is a curriculum based on Enaction Theory (Ohlsson, 1983), (Newell & Simon, 1972) and domain specific knowledge (Glaser, 1984). Enaction theory postulates that thinking is a matter of running a simulation in one's head. The three steps involved are creating a mental model, manipulating that model, and developing a strategy for problem solving.

Enaction Theory

The first step in the Enaction Curriculum is developing the mental model or schema of an object system. In this step, activities are focused on ways to develop the mental model more fully, such as drawing, creating simulations, building models, participating in concept attainment, and reading. The next step involves all the things that could be done to a model. Here activities involve experimenting and manipulating models. The third step focuses on what has been learned that would be useful in future problem solving. Individual and group evaluation of what was learned, how it was learned, and what might be done to make learning more effective is discussed with the children at this step.

The Importance of Content

Coupled with the process oriented Enaction Theory is an emphasis on thematic content. This content emphasis was selected because a great deal of research (Glaser, 1984) has found that thinking is strongly influenced by experience with new information. It has been found that expert problem solvers are those with conceptual and procedural knowledge in a specific content area. Problem solving, comprehension, and learning are based on knowledge. There can be no problem solving, evaluation or thinking without subject matter, content, or knowledge. Productive thinking, planning, decision making, communication, and forecasting are taught at University



School through content areas using the Talents Unlimited model. In addition, students are encouraged to pursue their academic interests with indepth independent study and research projects following the Renzulli Triad model.

The University Connection

Another essential component of the curriculum involves making use of our relationship with the University of Tulsa. The University Connection consist of T. U. Exploration, in which children visit classes, professors, staff, students, and exhibits, and T. U. Input, in which those resources come to us. Our relationship with the University provides us with tremendous unique resources that few schools can match.

Other Curriculum Strategies

The Enaction Curriculum, while providing structure and direction for our curriculum, is flexible enough to encompass a variety of other based approaches with national and international recognition. We use Renzuilli's Triad Enrichment approach to children's independent investigations. We use the Talents Unlimited model to develop multiple talents in our children. We use the Developing Capable Young People approach to social and emotional development. We use Math Their Way and Mathematics a Way of Thinking as our math program. These approaches work well with the Enaction Curriculum because they are hands-on, experience based approaches. Our school is unique in its curriculum structure but open enough to use other outstanding approaches which have proven to be effective.

IDENTIFICATION AND ADMISSION

The task of selecting students for any gifted program is one of the most controversial issues in gifted education. Some programs emphasize selection according to achievement. Other programs emphasize potential. All selection is an inexact science with many uncontrolled variable: Selection for one gifted program in no way guarantees selection for another gifted program.

High verbal abilities have been found to correlate with high intelligence. The instruments we use measure both verbal, quantitative, perceptual, and creative abilities. Professional recommendations, interviews, and parent inventories are also considered.

After a child has been referred to our school, he or she is tested by a psychometrist using either the McCarthy Scales of Children's Abilities or the WISC-R and a test for creativity. The McCarthy is used for children ages 2-1/2 years to 7 years of age. The WISC-R is used for children above 7 years old. We generally accept children



who score in the 90th percentile or above if the psychometrist recommends placement in our school.

The Admissions Officer informally interviews both parent and child. During testing, the parent completes an information form concerning the child.

When the test has been scored, the University School Admissions Board reviews all of the separate sections of the tests, parent information forms, and any other pertinent information before making a placement recommendation. The Admissions Officer contacts the parent concerning the Board's decision. A written report is later mailed to the parents. The Admissions Board is comprised of the Director, as chairperson; the Admissions Officer; a teacher; the psychometrist; two parents; and the chairperson of the University School Board.

SCHOOL INFORMATION

Grouping of Students

Our grouping of students is flexible. Basically, three and four year olds are in the Early Childhood group. The primary group is for children approximately four to eight years of age. Our intermediate group has children whose ages range from seven to twelve. Within these groups, children are grouped according to reading, math, other abilities, personal interests, and sometimes according to age. Placement will also depend upon the development of fine motor skills, task commitment, social and emotional development, and interest in more abstract tasks.

Types of Instruction

Students learn to work independently, in small groups and in large groups. Differences in learning styles are taken into account in planning activities. Students are involved in self-directed and teacher-directed activities.

Faculty and Staff

Each classroom has a lead teacher and one or more assistants. In addition there is a computer and math consultant, a music consultant, a Spanish consultant, an art consultant, and a science consultant. Administrative personnel include a director/teacher, admissions officer, and a part-time secretary.

Adult Education

The teaching staff is involved in approximately 60 hours of



inservice development during the school year. A variety of lectures and speakers are provided for parents. In addition, an eighteen hour parenting seminar is periodically provided.

After School Program

The school offers before and after school programs in violin, ballet, and gymnastics.

Staff Development

The scaff has been involved in Enaction Curriculum training for the writing and development of individualized programs; Triad Enrichment training to develop students' productive thinking, planning, forecasting, decision making, and communication skills; and Developing Capable Young People training to help pupils become responsible and mature.

Program Evaluation

Evaluation of the program is a continuous process that involves a number of written descriptions of the program and measurement Our program goals are to 1) enhance pupils' academic instruments. achievement, 2) provide an intellectually challenging emotionally supportive atmosphere, and 3) develop a creative and positive approach to school and learning. To evaluate enhancement of academic achievement, a standardized achievement test, usually the Stanford Achievement Test, is given yearly to all pupils in the Primary Level and above. Annually, we ask parents to complete individual written evaluations of the program to help us evaluate how well we are meeting our goals. In addition, the entire staff works together to supply constant formative evaluation to insure that the needs of each individual student are being met. This is done formally each week in our staff meetings and informally each day. Our staff's main concern is that each child has an opportunity to develop to his or her fullest potential.

One girl in our Intermediate Level said she did not want to get Chicken Pox because that would mean missing school. She added, "At my old school I would have gladly caught anything, but not here. I don't want to miss a day of school." This is the most rewarding kind of evaluation any teacher or administrator can have.

NATIONAL SIGNIFICANCE OF UNIVERSITY SCHOOL

There is ro other school in the nation whose curriculum is based on Enaction Theory. Nobel Prize Winner, Dr. Herbert A. Simon, on whose research Enaction Theory is based, recently spoke in Tulsa. Dr. Simon was most interested in our school and requested that information about University School be sent to him. Presentations



about University School have been made in California, Vermont, Nevada, Texas, and Oregon. Persons from these and many other states have said their state has nothing like our school.

An article about the University School curriculum was in a recent issue of a leading national journal in gifted education, Roeper Review. The article, written by the University School Director, Dr. Patricia Hollingsworth, describes the Enaction curriculum strategy and purpose.

LOCAL SIGNIFICANCE OF UNIVERSITY SCHOOL

Locally our school is a visitation site for university students and professors, public and private school teachers, and other professionals, such as psychologists, doctors, and child development spacialists. Our school also serves as the practicum site for The University of Tulsa's M. A. degree with specialization in gifted education.

Services to Teachers, Parents, and Helping Professions

The director and other staff persons act as consultants and speakers for groups of teachers, parents, and others in the community. Local teachers come to our school to observe and seek information. Staff persons are consulted for identification and testing procedures, curriculum information, staff development and inservice training, parental problems, school placement problems, and a variety of other reasons.

The University School sponsors conferences for both teachers and parents of gifted and talented youngsters. The conference for Parents of Gifted Children, co-sponsored with The University of Oklahoma Tulsa Medical College, was the first ever held in the state. The NETWORK for Parents and Teachers of the Gifted, also sponsored by University School, provides workshops for teachers throughout the region on a semiannual basis.

The University School publishes a directory of private schools in the Tulsa area as a community service project. The directory gives information concerning cost, hours, philosophy, special features, scholarships and contact persons for each school. The directory is distributed to new persons in the community, doctors, and others in helping professions.

The parents' organization of University School periodically provides speakers and lecturers which are free and open to the public. The parent group sponsors a book fair which is open to the public. Over 300 books that would be appropriate for gifted and talented students are on display.



Services to Gifted Students Throughout Oklahoma

Our school sponsors a variety of opportunities for local gifted and talented students to exhibit academic and artistic projects. The annual Winter Drama Festival is a chance for students to write, produce, and perform plays at the University of Tulsa. These students also have an opportunity to exhibit their projects and to interact with professionals in their own academic interest area at the Spring Creative Producers Convention.

A summer program is available to any student in any gifted program. Classes have been offered in dramatics, science, art, geography, computers, Spanish and music.

A PROVEN SUCCESS

The school has proven to be a place where gifted and talented students are valued, respected, and treated as individuals. We believe that the curriculum should be fit to the child not the converse. Our small classes and caring staff are developing children, who not only succeed academically, but who enjoy doing so.

TUITION

\$1,900 per year Early Childhood and Primary I (9:30 - 11:30, M - F)

\$2,500 per year Primary II and III (9:00 - 2:30)

\$2,600 per year Intermediate I and II (8:45 - 2:30)

Extended days from one to five are available in the Early Childhood and Primary I clases for a nominal charge.

Summer Programs are also available.

FOR FURTHER INFORMATION CONTACT:

Dr. Pat Hollingsworth, Director or

Ms. Marti Sudduth, Admissions

592-6000, extention 2569



Univ. of Tulsa School for Gifted Children by Patricia L. Hollingsworth, Ed.D.

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