

SEARCHING FOR HIDDEN TREASURE: THE IDENTIFICATION OF UNDER-  
REPRESENTED GIFTED AND TALENTED STUDENTS

Tammy Newman Tucker, B.B.S., M.Ed.

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APPROVED:

Jeanne Tunks, Major Professor  
Michael Sayler, Minor Professor  
Betty Crocker, Committee Member  
Richard Fossey, Program Coordinator  
Leslie Patterson, Chair of the Department of  
Teacher Education and Administration  
Jerry R. Thomas, Dean of the College of  
Education  
Sandra L. Terrell, Dean of the Robert B.  
Toulouse School of Graduate Studies

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The purpose of this study was to examine the effect of staff development on the nomination and identification of culturally diverse and/or economically disadvantaged students for gifted programs. Teachers kindergarten through fifth grade from ten districts ( $N = 100$ ) received 30 hours of staff development in gifted education. The experimental group ( $n = 50$ ) received a specialized version of the training. The control group ( $n = 50$ ) received the standard training provided by the Education Service Center.

Teachers in the experimental group completed three Stages of Concern questionnaires at the beginning and end of the training and in the fall. Two Levels of Use interviews were also conducted, one in the fall and one in the spring. Innovation configurations were developed utilizing interview results.

A repeated measures analysis of variance was conducted to determine differences in concerns of teachers over time. The results revealed growth, however, not of a significant level. A paired-samples  $t$ -test was conducted to determine differences in levels of use of the instructional strategies presented in the training. Again, results revealed growth in classroom application of strategies; however, the amount of growth was not significant. A paired-samples  $t$ -test was conducted on the components of the innovation configurations. Differentiated instruction was not significantly different, however, grouping strategies and student products showed significant growth in classroom application.

Student nomination and identification data were analyzed across six ethnicities: White not economically disadvantaged, White economically disadvantaged, Hispanic not economically disadvantaged, Hispanic economically disadvantaged, African American not economically disadvantaged, and African American economically disadvantaged. Chi-square analyses determined statistical significance in nominations of Hispanic economically disadvantaged and African American not economically disadvantaged. Significant differences in placement of students occurred in White economically disadvantaged and Hispanic economically disadvantaged groups. No Hispanic not economically disadvantaged students met placement criteria.

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS.....	iii
LIST OF TABLES.....	vi
LIST OF FIGURES.....	viii
Chapters	
I. INTRODUCTION .....	1
Statement of the Problem .....	3
Purpose of the Study.....	3
Research Questions.....	3
Research Hypotheses.....	4
Rationale.....	4
Assumptions .....	11
General Principles of Staff Development.....	11
Limitations.....	12
Definitions .....	13
II. LITERATURE REVIEW .....	15
Giftedness and Socioeconomic Status.....	16
Giftedness and Cultural Diversity .....	19
Among-Group Cultural Diversity.....	22
Within-Group Cultural Diversity .....	23
Teacher Perceptions and Gifted Identification .....	27
Implications for Staff Development.....	32
Evaluating the Impact of Staff Development.....	39
Concerns-Based Adoption Model (CBAM) .....	40
III. METHODOLOGY .....	50
Research Questions and Associated Hypotheses .....	50
Setting.....	51
Student Identification.....	53

Population .....	55
Design .....	62
Instrumentation .....	68
Concerns-Based Adoption Model .....	68
Project SPRING .....	68
Data Sources .....	69
Data Analysis .....	70
IV. RESULTS .....	72
Organization of Data Analysis .....	72
Descriptive Characteristics of Responders .....	73
Analysis of Data .....	75
Research Question 1 .....	75
Research Question 2 .....	85
Research Question 3 .....	89
Summary of Findings .....	93
V. DISCUSSION .....	95
Summary of the Study .....	95
Findings .....	96
Research Question 1 .....	96
Research Question 2 .....	100
Research Question 3 .....	102
Limitations .....	104
Implications for Future Research .....	105
Significance of the Study to the Field .....	106
APPENDICES .....	108
REFERENCES .....	260

## LIST OF TABLES

	Page
1. Stages of Concern about the Innovation .....	42
2. Levels of Use of the Innovation .....	44
3. Potential Ethnic Disproportion of Student Populations Identified as G/T .....	56
4. Potential Disproportion of Economically Disadvantaged Student Population .....	58
5. Student Demographics by Participating School District.....	59
6. Teacher Demographics by Participating School District .....	60
7. Highest Degree Held .....	61
8. Average Years Experience of Teachers .....	62
9. Average Daily Attendance .....	73
10. Ethnicity of Student Population by District .....	74
11. Descriptive Statistics for Stages of Concern.....	75
12. Repeated Measure ANOVA Summary Table for Stages of Concern.....	76
13. Descriptive Statistics for Levels of Use.....	78
14. Paired Samples <i>t</i> -Test for Levels of Use .....	79
15. Descriptive Statistics for Innovation Configuration Component 1 .....	81
16. Paired Samples <i>t</i> -Test for Innovation Configuration Component 1.....	82
17. Descriptive Statistics for Innovation Configuration Component 2 .....	82
18. Paired Samples <i>t</i> -Test for Innovation Configuration Component 2.....	83
19. Descriptive Statistics for Component 3.....	83
20. Paired Samples <i>t</i> -Test for Component 3 .....	84
21. Student Nominations by Ethnic Group.....	86



22.	Percentages of General and Nominated Student Populations by Ethnic Group .	86
23.	Result of <i>t</i> -Test by Ethnicity .....	87
24.	Student Placement by Ethnic Group.....	91
25.	Percentages of General and Placed Student Populations by Ethnic Group .....	91
26.	Results of <i>t</i> -Test Ethnicity .....	92

## LIST OF FIGURES

	Page
1. Identification Procedures Flowchart.....	54
2. Innovation Configurations.....	81

# CHAPTER I

## INTRODUCTION

The State of Texas supports a multi-faceted view of giftedness. The *Texas State Plan for the Education of Gifted/Talented Students* (1996) describes giftedness as “a child or youth who performs at or shows the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment.” An assumption exists that giftedness occurs in all populations; therefore, representation of all populations occurs in gifted programs, approximating proportions in the general population. More than two decades of research and demonstration projects make evident otherwise (Hunsaker, 1994; Bacca & Chin, 1982; Gallagher & Kinner, 1974). The gifts and talents of culturally diverse and/or economically disadvantaged students often go unrecognized and undeveloped due to the lack of educational opportunities and circumstances for those talents to grow (McKenna, Hollingsworth, & Barnes, 2005). Only with increased achievement in all students will more children’s potential be recognized, developed, and identified for specialized instruction (Hertzog, 2005)

Data from the National Research Council (2002) clearly indicates that the enrollment in the gifted and talented programs in United States public schools mirrors the White population of the nation. Culturally diverse students (African American or Hispanic) and/or students of economically disadvantaged backgrounds (which includes African American, Hispanic, and White children living in poverty) remain underrepresented. Texas’s gifted and talented programs follow suit with trends in the

United States, in spite of the dramatically changing demographics in the state over the last ten years.

Under-representation of economically disadvantaged and/or culturally diverse students in gifted programs in a region of west Texas shows significant increase in the past several years. The current procedures used in the region to match learner needs to programs fail to embrace multiple populations. Poor representation across all subgroups, disproportionate to the general population, leads to questions of fairness and discrimination toward students from poverty and cultural diversity (Gallagher, 1995). Rycraft (1990) classifies these groups of individuals as having the “greatest wasted talent” (p. 141).

Reasons for the continued problem of under-representation include: (a) narrow definitions of giftedness limited to observable intellectual and academic excellence, (b) identification practices that rely on instruments standardized utilizing the middle-class, White culture, and (c) the lack of cultural and poverty knowledge on the part of educators due to inadequate training. As school districts face increasing racial diversity and poverty levels, educators resort to greater reliance on a prescribed set of scores established to provide a “cut off” for gifted individuals from the general student population. This inevitably guarantees that students with limited educational experiences fail to meet criteria for placement in gifted programs.

Passow and Frasier (1996) stated that even with current strides toward increased numbers and proportions of economically disadvantaged and/or culturally diverse students, under-representation of these students in programs for the gifted seems not to have changed substantially. This is disconcerting to educators and researchers

because early recognition and appropriate educational opportunities increase the likelihood of future extraordinary achievement, and reduce the risk of later emotional and educational failure (Pfeiffer, Petscher, & Jarosewich, 2007).

### Statement of the Problem

In spite of the sustained efforts of educators and researchers, the under-representation of economically disadvantaged and/or culturally diverse students in gifted programs persists in today's schools. Although these populations are increasing, students from these groups continue to remain under-represented in gifted programs.

### Purpose of the Study

The purpose of the study is to promote selection of students from under-represented populations through staff development that informs teachers of the viability of culturally diverse and/or economically disadvantaged students for gifted programs. The curriculum for the training will become the thirty hours of basic training in gifted education provided through the Region XIV Education Service Center.

### Research Questions

In this study, three research questions evolved to guide the study:

1. What effect does staff development have on changes in teacher attitudes of economically disadvantaged and/or culturally diverse gifted children?
2. Do changes in teacher attitudes generate greater numbers of nominations for placement in gifted programs?
3. From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?

## Research Hypotheses

From these questions, five hypotheses emerged:

1. There will be a significant increase in scores on each of three administrations of the Stages of Concern Questionnaire.
2. There will be a significant increase in levels on two Levels of Use interviews.
3. Innovation Configurations show a significant increase in component scores.
4. Teachers trained in methods of identifying talent and giftedness among economically disadvantaged and/or culturally diverse children will nominate these students for screening into gifted programs at a significantly higher, at the  $p < .05$  level, than teachers who receive limited or no training in identifying talent and giftedness among economically disadvantaged and/or culturally diverse children.
5. Culturally diverse and/or economically disadvantaged students referred for gifted programs will be placed in gifted programs at a higher rate.

## Rationale

The under-representation of economically disadvantaged and culturally diverse students in gifted programs contributes to deferred dreams as denial of opportunities to reach students' full potential in school and, ultimately, in life (Harris III, 1999). This statement has its roots in Brazilian intellectual and educator Paulo Freire's *Pedagogy of the Oppressed* (1968). This work provides a theoretical framework for education that criticizes traditional educational models as models that reinforce existing socio-economic power structures and offers an alternative model that allows economically and/or racially "oppressed" individuals to rise above their oppression and reach their full potential. Oppression in this study refers to the continued under-representation of culturally diverse and/or economically disadvantaged students in the region's gifted programs. Whether the oppression is a deliberate act or the result of the status quo that has been in place for many generations is not the focus of this study. Nevertheless,

maintaining the status quo in gifted program identification continues to sustain the middle-class White composition of gifted programs. Freire would posit that this is a form of oppression.

Freire holds that the oppressed blindly follow those who lead, with no resistance to the oppressor. This occurs following generations of “We have always done it this way.” Gifted identification follows the oppression model referred to by Freire by continuing to use the same identification procedures that do not promote identification of culturally diverse and/or economically disadvantaged individuals. School districts maintain a static set of identification procedures that unintentionally oppress economically disadvantaged and/or culturally diverse populations. A region of west Texas employed the same set of identification criteria since 1991 and the same ratio of students from the middle-class, White culture to culturally diverse and/or economically disadvantaged population in spite of data clearly indicating an increase in the under-representation of culturally diverse and/or economically disadvantaged populations within schools in the area. Without knowledge of the availability of more equitable gifted programming and identification procedures, under-representation of these populations continues.

Freire’s framework for education consists of two stages: First, oppressed people realize the extent of their oppression and commit themselves to its transformation. An awareness of giftedness in all cultures is the first step in removing the hidden oppression. Individuals become aware of their gifts and empowered to exhibit those gifts, allowing them to rise above oppression. In the second stage, pedagogy ceases to belong to the oppressed and becomes pedagogy for all people. The purpose of

providing staff development in the areas of cultural diversity and poverty is also twofold: First, to use selection measures that are equitable for all populations and second, to make all stakeholders aware that the “oppression” or under-representation exists. Freire posits that awareness leads to action by both oppressor and oppressed. Without action, some individuals acquire a kind of naïve consciousness in which they are aware of their situation, but make no effort to change the situation or themselves. This naïve consciousness can be seen in the generational poverty found in Region 14 of west Texas. Views of the teachers and individuals comprising the school culture must be explored to eliminate the possibility that teachers’ perceptions contribute to the oppression of culturally diverse and/or economically disadvantaged gifted students (Freeman, 2006).

Payne (1996) considers Freire’s “oppression” to be “the extent to which an individual does without resources” (p. 5). These resources fall into the following categories:

- Financial – the money to purchase material goods and services
- Emotional – having the ability to choose and control appropriate emotional behavior.
- Mental – having the level of mental abilities and skills to be productive in daily life.
- Spiritual – having a belief that there is hope for the future.
- Physical – possessing physical health and mobility.
- Support systems – having friends and family who are accessible in times of need.
- Relationships/role models – having access to adults to exhibit appropriate behaviors.



- Knowledge of hidden rules – knowing the unspoken cues and habits of a particular group.

Typically, the definition of poverty is a lack of financial resources. While this is certainly an important aspect of poverty, financial resources alone do not define an individual's success in the mainstream population (Payne, 1996). Freire would agree that other resources inherent in each individual culture hold greater importance to the freedom of the oppressed. Freire (1968) and Payne (1996) view emotional resources as the most important because they provide strength and support needed to keep an individual from returning to their old patterns of living. In order for an individual to free himself from oppression he must take an active role and remain persistent with the new behavior until reaching a certain level of comfort. Persistence provides proof of the presence of emotional resources (Payne, 1996).

Vygotsky's (1978) cultural perspective analyzes the development of cognitive potential as displayed within a sociocultural milieu, whether ethnic or economic. His general law of cultural development explains how culturally organized social interactional patterns shape the psychological development of the child. "Any function in children's cultural development appears twice, or on two planes - socially and then psychologically" (p.67). First it appears between people and then within the individual child. The pattern also holds true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition.

Vygotsky's perspective identifies four concepts as the tools by which culture shapes cognitive development: transfer of knowledge, transfer of cognitive skills, development of emerging cognitive potentials, and fostering of cognitive potentials. First, adults and able peers socially transmit knowledge to children within the

boundaries of one's own culture. Second, modeling and practicing of activities determined by the culture develop cognitive skills so that the child's current level of intellectual functioning increases. In this manner, socialization of the child to conform to the needs or demands of the culture occurs. Third, the nurturing of new cognitive skills takes place when the child shares in the responsibility for the task and completes the task according to societal norms. Finally, the child applies the newly developed cognitive skills on challenging tasks requiring support and guidance (Armour-Thomas, 1992).

Before individuals free themselves from their oppression, Payne (1996) believes that they must possess knowledge of the hidden rules of the dominant culture. Hidden rules dictate unspoken understandings of inclusion and exclusion. Lack of knowledge of the hidden rules concerning food, dress, behavior, etc. inhibit inclusion. In order to successfully rise above oppression as contributing members of the mainstream society, substantial knowledge about the hidden rules of the dominant population becomes paramount (Payne, 1996). Issues of power are enacted in classrooms and linked to the culture of power in middle and upper classes. This is the reason that children from middle and upper class homes tend to do better in school because the culture of the school is based on the culture of the upper and middle classes – of those in power (Freeman, 2006).

The demographic information from the state of Texas and Region XIV, in relationship to the number of culturally diverse and economically disadvantaged children in the gifted program, suggests a high level of oppression. The current situation in the region aligns with the theories of Freire, Payne, and Vygotsky by demonstrating that

individuals not upper or middle class, suffer oppression through the lack of recognition of their gifts and talents in gifted programs. While the region's school districts are primarily rural, with large populations of economically disadvantaged and culturally diverse students, the upper and middle class White student groups remain dominant in programs for gifted students.

Many factors may contribute to the under-representation or oppression of culturally diverse and/or economically disadvantaged children in gifted programs in Region XIV. One is that a high percentage of children from oppressed populations are underachievers (Ford, Baytops, & Harmon, 1997) so their true abilities may not be exhibited in traditional classrooms. Identification for gifted programs in Region XIV requires students to exhibit a high level of achievement as indicated on standardized tests for placement in the gifted program. Requiring high scores on achievement tests oppresses gifted culturally diverse and/or economically disadvantaged students who do not traditionally perform well on standardized tests. Another is the fact that teachers tend not to refer culturally diverse and/or economically disadvantaged students for gifted screening (Strong Scott & Delgado, 2005) so their voices go unheard. Data from the past five years in Region 14 shows that less than 20% of the nominations for gifted screening are culturally diverse and/or economically disadvantaged students while these groups constitute a majority of the school population. Additionally, there is an over-representation of culturally diverse children living in poverty. The lack of educational experiences associated with conditions of poverty may contribute to lowered academic achievement, thus possibly reflecting a lack of experience rather than a lack of ability (Strong Scott & Delgado, 2005). Other factors contributing to the

oppression of gifted culturally diverse and/or economically disadvantaged children are the relation between racial/ethnic affiliation and academic performance (Ford & Harmon, 2001), the equating of difference with deficit (Ford & Grantham, 2003), and teachers' lowered expectations for students in these groups (Masten, Plata, & Wengler, 1999; Plata, Masten, & Trusty, 1999).

The need exists to establish a dialogue between cultures, in which mainstream voices and the voices of under-represented populations communicate their particular worldviews, philosophies, and ethnic identities envisioned within their social and ethnic groups. Freire's framework advocates the need to give culturally diverse and/or economically disadvantaged children and their parents the opportunity to express their voices. The mainstream view of giftedness is enhanced and elaborated by the perspectives of culturally diverse and/or economically disadvantaged individuals and communities in interaction with the traditional voices of the American school culture (Clark & Gonzalez, 1998).

By training teachers through staff development on how to listen to the oppressed, hope is that the voices of economically disadvantaged and/or culturally diverse gifted children will be heard. Continued under-representation of economically disadvantaged and/or culturally diverse students in gifted programs is a complex and perplexing problem that requires a shift in the traditional paradigm of intellectual and academically gifted. It requires staff development personnel to rethink the preparation of teachers to recognize, receive, and rectify the current imbalance. Teachers trained to assess students, using more insightful methods, increase the potential for inclusiveness. Giftedness should be a measure of the students' abilities rather than a measure of how

well the students “fit in” with the mainstream culture. Current teacher training on identification practices emphasizes the latter rather than celebrating the former.

### Assumptions

Methods abound for correcting the problem of under-representation.

Development of the proposed teacher training for this study focuses on the following research-supported assumptions.

- Giftedness manifests itself in different ways and in different areas of ability.
- Cultural and/or economic diversity influence the ways in which students demonstrate giftedness.
- Programs may vary as to match with learner needs.
- Educators and particularly classroom teachers hold the key to increasing the accuracy of their ability to identify gifted students in their classrooms given appropriate experiences that develop their awareness and identification skills.

### *General Principles of Staff Development*

The principles that follow provide guidelines derived from the general literature on identification of gifted students (Abeel, Callahan, & Hunsaker, 1994). The development of a staff development program for teachers focuses on these principles.

1. Adopt contemporary definitions and theories of giftedness. To ensure recognition of gifts and talents exhibited by diverse ethnic and economic groups, it is important to select a well-defined concept of giftedness and to use that definition to drive the staff development process.
2. Train teachers to use separate and appropriate strategies to identify different areas of giftedness. Most current definitions of giftedness go beyond a narrow definition of giftedness as an IQ score to include the demonstration of potential in specific areas such as specific subject matter aptitude and creativity.
3. Train teachers to use reliable, valid, and culturally sensitive instruments and training strategies for assessing areas of giftedness as defined. Much evidence

exists regarding the inability of tests to assess giftedness in culturally and economically diverse students. Arguments abound that standard assessment instruments are biased against economically disadvantaged students on factors such as language, response format, and experience (Hilliard III, 1992).

4. Train teachers to use multiple criteria in the identification process to recognize the limits of a single cut-off score. No one piece of information is adequate for identifying giftedness. Likewise, do not determine placement based on one piece of information. The *Texas State Plan for the Education of Gifted and Talented Students* (2000) requires the use of at least three criteria for identification and the criteria must be a mixture of quantitative and qualitative measures. A philosophy of assessment rather than testing aids in identification and service of greater proportions of gifted economically disadvantaged students.
5. Train teachers in both gifted and multicultural education to increase effectiveness in identifying all populations of gifted students. Too often, a deficit perspective of economically disadvantaged students exists that emphasizes student weaknesses rather than student strengths. Teachers need to receive training in the following areas: 1) early experiences with economically disadvantaged students; 2) understanding and respecting differences, customs, and languages; 3) understanding of communication skills and behaviors; 4) understanding and decreasing of existing stereotypes of different populations of students; 5) how to work effectively with different populations of students and their families; 6) greater respect for individual and group differences in learning and achievement.
6. Gifted programs should align with learners' needs. A district's gifted program should be designed to meet the needs of learners who have the ability or the potential and an educational need that is not being met by traditional curriculum and instruction.

Frasier, Hunsaker, Lee, Finley, et al. (1995) establish specific staff development recommendations. To summarize their recommendations, teachers need training to avoid adopting stereotypical views of diverse populations and to understand that intelligence differs individually through experiences and environments rather than through ethnicity or socioeconomic level.

### Limitations

Several factors limit this study. The first limitation is the population proposed in the study. The study is limited to school districts in Region XIV of Texas whose

disproportionate representation of economically disadvantaged (including Hispanic, African American, or White students living in poverty) or culturally diverse students (Hispanic or African American) is identified by the Texas Education Agency through the Performance Analysis System/Data Analysis System. To control for this limitation, districts participating in the study will have similar demographics to each other.

The subgroups of African American and African American economically disadvantaged are included in the study with the recognition that the number of students in these groups in the participating districts is extremely small. Analysis of data determined trends concerning these groups. The Hispanic population included in this study does not include students of limited English proficiency because the numbers are so small that trends cannot be determined.

The second limitation is the dependence of the study on the accuracy of the state Public Information Management System (PEIMS) data. Districts endure numerous checks and balances to ensure the accuracy of data reporting. The participating districts all receive approval of their PEIMS reports from the Texas Education Agency.

The third limitation is whether students nominated for gifted programs are a good match with the identification instruments and the type of program offered. Each school district that participates in the Region XIV contracted services arrangement adheres to a common set of identification procedures and instruments. To control for this limitation the study focuses on training teachers to recognize potential giftedness in all subpopulations of students.

## Definitions

The following terms are pertinent to the understanding of this study.

- Gifted – For the purpose of this study, a gifted student is one who meets district criteria for placement in the school’s gifted program.
- Standardized test – For the purpose of this study, a standardized test has scores expressed in terms that relate to results on the test of a wider reference group of students called the norm group.
- Qualitative measures – For the purpose of this study, qualitative measures (attributes, characteristics, properties) are associated with the subjective quality of giftedness; they either do not require measurement or cannot be measured because the reality they represent can only be approximated. Knowledge of these aspects comes through observation combined with interpretative understanding.
- Quantitative measures – For the purpose of this study, quantitative measures are associated with the objective qualities of giftedness that are measurable and verifiable.
- Economically disadvantaged – African American, Hispanic, or White students who qualify for and participate in the state free- and reduced-price lunch program.
- Poverty – For the purpose of this study, federal guidelines for poverty are used, e.g., a family of four with an annual income of less than \$20,000.
- Low-income – For the purpose of this study, low income refers to a family of four with an annual income of less than \$40,000.
- Under-representation – For the purpose of this study, under-representation is the disproportionate representation of culturally diverse and/or economically disadvantaged students in gifted programs when compared to the general student population.
- At-risk – For the purpose of this study, at-risk students are those who meet requirements defined in the Texas Education Code Chapter 29, Section 29.081.



## CHAPTER II

### LITERATURE REVIEW

World history abounds with accounts of individuals with superior abilities. Indeed, virtually every culture preserves the accolades of their ablest citizens. As early as 2200 B.C. the Chinese developed an elaborate system of competitions in order to set apart the most outstanding individuals for government service (DuBois, 1970). The ability to compete in a global economy requires excellence and recognition of potential.

Historically, however, there has been much concern and debate regarding the extent to which culturally diverse and/or economically disadvantaged gifted children have gone unrecognized. The characteristics typically used to identify students as gifted learners do not manifest in the same ways in diverse populations as in the mainstream culture. Therefore, these children frequently remain unchallenged and may continue underachieving through school (Spicker, Fletcher, Montgomery, & Breard, 1993). Recognition of gifts and talents provides the means by which gifted students gain the knowledge and skills necessary to compete successfully (Abell & Lennex, 1999).

National efforts to address the under-representation phenomenon do not reflect significant increases in diverse students' representation in gifted education programs. Despite changes in gifted education definitions, procedures, practices, and policies, economically disadvantaged and/or culturally diverse students continue to remain under-represented in gifted education programs nationally. The gap widens, in some instances, with larger numbers of students being under-represented today than in past decades (Ford et al., 1997).

## Giftedness and Socioeconomic Status

Poverty is an ongoing problem for many families particularly in rural areas, and it is poverty rather than cultural diversity that limits the opportunities available for children (Spicker et al., 1993). Who would expect to identify potentially gifted learners in populations of children with the following characteristics (Spicker, 1992):

- A deficiency in language skills
- Lack of perceptual skill development in language differentiation
- Lack of stimulation for asking or answering questions
- Lack of enrichment activities
- Lack of concern over school attendance
- Lack of curiosity due to paucity of objects in the home
- Lack of support by parents of the school
- Lack of parental understanding of the education process
- Lack of quiet time for fostering discriminatory listening skills
- Lack of self-confidence
- Lack of time consciousness
- Lack of vocabulary related to education

Demographics on gifted education confirm that the populations most under-represented in gifted programs in Region XIV of west Texas are Hispanic, African American, and economically disadvantaged, which includes Hispanic, African American and White students from low-income families. Only 8% of Hispanic and African American students qualify for placement in gifted programs across the country. That percentage drops to approximately 3% for low-income Hispanic and African American

families (Reid, Udall, Romanoff, & Algozzine, 1999). Hispanic, African American and economically disadvantaged students continue to grow in both number and diversity in the state and in Region XIV, but their representation in classes for the gifted lags behind.

Following nearly a decade of decline, the number of economically disadvantaged children in the nation exhibits a trend of increasing growth, a pattern that began in 2000 (Poverty, 2006). In 2000, 11.3% of the total population fell below the federal poverty level. That number increased to 12.7% by 2004 with the increase predicted to continue (Poverty, 2006). Children who live in families with incomes below \$40,000 for a family of four, \$33,200 for a family of three or \$26,400 for a family of two meet low income guidelines. Of the more than 73 million children in the United States 58% of them live in poverty (Poverty, 2006). An analysis of the data by race and ethnicity indicates that 63% of Hispanic children, 61% of African American children, and 27% of White children currently live in poverty (Poverty, 2006).

In 2002-2003, Hispanic economically disadvantaged students comprised 24% of the student population in Texas schools. However, only 14% of the identified gifted students were economically disadvantaged Hispanics. This compares to 42% of the student population being Hispanic not economically disadvantaged and only 28.8% being in the gifted program. The percentages show little improvement for African American or White economically disadvantaged students. African American economically disadvantaged students comprised 7% of the student population but only 3% of the identified gifted students were economically disadvantaged African Americans. The African American not economically disadvantaged comprises 14% of

the student population with the GT population being only 8.5% African American. White economically disadvantaged students represented 6% of the total student population with only 3% identified as gifted while the White not economically disadvantaged represent 41% of the student population with 56.8% of the gifted population.

Economically disadvantaged students comprised 50% of the student population in Kindergarten through eighth grades in 2003-04. However, only 28% of the identified gifted population was economically disadvantaged – an under-representation by almost half. Data for 2004-2005 showed little improvement in the percentages with only 17% of the gifted students being economically disadvantaged. Data gathered for grades K-5 provides a clearer picture of the percentage of economically disadvantaged students since students in high school tend not to apply for the free or reduced price lunch program due to the stigma attached (P. Slocumb, 2005).

Projections indicate a continued increase in the percentage of Texas households living in poverty to 17.3% by the year 2030 (Murdock, Hoque, Michael, White, & Pecotte, 1997). The greatest increases are in single-parent families: 29.7% for families with male heads of household and 49.1% for households headed by females. As enrollment in Texas schools continues to increase by as much as 60.7%, the number of Whites decreases while African American and Hispanic ethnic groups increase dramatically. Not all children from culturally diverse backgrounds are economically disadvantaged, but Hispanics and African Americans have disproportionately large numbers in the economically disadvantaged population.

The higher incidence of poverty and low income among culturally diverse families directly correlates to the gross under-representation of economically disadvantaged

students in gifted programs (Howells, 2001). To rectify this situation requires searching for giftedness among students who may not exhibit their gifts in the same manner as students from middle or upper class backgrounds. However, class does not outrank race in importance. Although the representation of middle class culturally diverse students in gifted programs was higher than that of students from poverty, middle class status did not protect against racial under-representation.

### Giftedness and Cultural Diversity

In the 1960s, the idea of “cultural deprivation” became the primary belief for explaining the underachievement of culturally diverse children and those who lived in poverty. By focusing on the deficits, difficulty in recognizing the strengths of culturally diverse children increased (Banks, 1989). In addition, the focus on deficits diverted attention away from high achieving, culturally diverse children.

In 2002-03 Hispanic students represented 30% of the total student population in Texas schools. However, only 14% of the gifted population was Hispanic. The under-representation of African American students in gifted programs in the state was even more critical. Ten percent of the student population was African American, but only 2% of the gifted population.

By 2004-05 the percentage of Hispanic students rose to 46% of the total student population in Texas. Unfortunately, the under-representation of Hispanic gifted students continued at only 34%. The African American student population rose to 14% with only 9% of the gifted population being African American. Students who differ from the more

typical population in culture, language, or socioeconomic level remain under-identified as gifted.

The concern with under-representation of culturally diverse students in programs for the gifted focuses on inadequate selection for and participation in those areas of giftedness that society recognizes and rewards (Bermudez & Rakow, 1993). Each individual culture values and encourages the development of certain strengths or “intelligences” (Gardner, 1999) while summarily dismissing others (DeLeon & Argus-Calvo, 1997; Tannenbaum, 1986). Linguistically and culturally diverse students come from cultures that value special talents but the majority culture fails to recognize those talents (Bermudez & Rakow, 1993; Cohen, 1994). On the other hand, “opportunities and constraints of language, brain, mind, self, and culture: create success with the task of talent recognition” (Bialystok & Hakuta, 1994) (p. 206). No one cultural group has specific areas of talent reserved or allotted to them. Culturally diverse gifted students often bring unique strengths to particular contexts because of their cultural experiences. The characteristics typically used to identify students as gifted learners do not manifest in the same ways in diverse populations as in the mainstream culture. Therefore, these children frequently remain unchallenged and may continue underachieving through school (Spicker, Fletcher, Montgomery, & Breard, 1993).

Exploration of the socio-cultural context in which a child develops can yield important insights regarding specific aspects of the environment that function to constrain or foster the development of and subsequent display of potential giftedness (Armour-Thomas, 1992). Culture provides the content for attitudes, thought, and action; it allows for an idiosyncratic representation of knowledge among its peoples; it

determines the kinds of cognitive strategies and learning modes that individuals use for solving complex problems within their society. Ultimately, the norms and value system of its people determine expression of the kinds of cognitive competencies (Armour-Thomas, 1992).

Ideas about the descriptive and explanatory characteristics of culture provide several key elements for a framework for understanding the relationship between culture and giftedness (Armour-Thomas, 1992). Taken together, these perspectives suggest an inseparable interrelationship between cultural experiences and intellectual potential. To make a valid comparison of performance between cultural groups on an intellectual task requires complete understanding of how different cultural groups organize experiences to respond to that task (Armour-Thomas, 1992). Differences in individual cognitive ability will only emerge when the environmental challenges, opportunities, and motivation become interrelated (Ceci, 1996).

The core of the problem with identifying gifted economically disadvantaged and/or culturally diverse students lies in issues of culture. On the one hand, in considering the culturally diverse and economically disadvantaged gifted populations, educators must recognize the precocity of these individuals (Frasier, Garcia, & Passow, 1995). As such, they exhibit to varying degrees the general characteristics of gifted youth (i.e., creativeness, inventiveness, wide-ranging interests, high level of abstraction, critical thinking ability). On the other hand, however, the frame of reference of these students may differ markedly from the norm and their environmental experiences temper the emergence of traditional “gifted” characteristics. Students whose cultural orientation or economic status differ from mainstream society require special

consideration when assessing potential for these students to achieve at their highest possible level (L. B. Bailey, 2006; S. Bailey, 2000; Frasier, Hunsaker, L. et al., 1995).

### *Among-Group Cultural Diversity*

There are educators who argue that the purpose of identifying gifted potential among culturally diverse and economically disadvantaged populations is to enable the nurturing of traditional areas of talent valued and supported by the dominant culture. Definitions of giftedness and talent should not be contingent upon the cultural characteristics of any ethnic group. The manifestations of giftedness and talent, however, do depend on the cultural and economic backgrounds of students (Kirschenbaum, 1998). A strong similarity exists between the goal for gifted culturally diverse students and that for gifted students in the mainstream culture. It is to enable them to be contributing members of mainstream society; to succeed at a high level academically; to enter and succeed in college; and to pursue areas of specialized talent for which gifted programs have been designed (Frasier, Hunsaker, Lee, Mitchell et al., 1995).

Gifted culturally diverse students share the concerns of gifted students in general – poor peer relations, negative peer pressures, perfectionism, heightened sensitivity, concern over social and world issues and excessive expectations from significant others. However, these concerns may escalate in culturally diverse students who must contend with (a) social and environmental issues (e.g., racism and discrimination, lowered teacher expectations, high rates of poverty); (b) cultural issues (e.g., cultural conflict and differences relative to values, priorities, and learning style preferences); and



(c) psychological issues (e.g., racial identity, self-concept, locus of control) (Ford & Harris III, 1994). These issues often hinder effective nomination and identification of culturally diverse students in gifted programs.

Gifted culturally diverse and economically disadvantaged students suffer considerable risk of exclusion by their peers if they are high achievers. As a result, they may choose to underachieve rather than risk accusations of “acting white,” or of being “raceless,” or of seemingly rejecting their own culture (Frasier, Hunsaker, Lee, Finley et al., 1995). Gifted African American students may experience more psychological and emotional problems than their unidentified counterparts when the expectations of their own culture conflict directly with those of the dominant group (Ford & Harris III, 1993; Worrell, 2007).

### *Within-Group Cultural Diversity*

Within-group cultural differences are often as great as or greater than the differences among the major groups themselves. These differences include socioeconomic status, especially poverty levels; first language and English proficiency; residency in an urban/suburban/rural environment; and recency of immigration or migration (Frasier, 1989). While many children in these groups have support in their intellectual achievement in spite of expectations of being at-risk, others do not.

### *Hispanics*

The cultures of the various Hispanic groups vary within the country of origin – Puerto Rico, Cuba, Mexico, Dominican Republic, Central America, or South America

with each group speaking the Spanish language differently. Other differences among Hispanics include: (a) students with Hispanic surnames with backgrounds similar to middle-class dominant society; (b) bilingual students who speak English at school and Spanish at home; and (c) student new to the U.S. who experience language difficulties unlike other bilingual students and who have different cultural expectations at home (Maker & Schiever, 1989). Living at or below the poverty level, affects many Hispanics through the lack of emotional and financial resources that result from economic disadvantage. Hispanic families who are long-time residents of the U.S. may no longer speak Spanish. Their values and expectations become those of the majority population, creating a diverse group culturally (Maker & Schiever, 1989).

Hispanics also conceive of and define the term “education” differently. To be *educado* goes far beyond the classroom and may not involve school at all; it means to be well mannered, respectful, considerate, and knowledgeable about practical things (Ruiz, 1989). Schools recognize these qualities as admirable but not gifted. For their part, Hispanics may reject school programs that are academic in nature. In their terms, these programs may add to their “schooling” but not to their “education” (Ruiz, 1989).

Individuals from both Hispanic and White groups value the home, school, the individual, work, and religion differently (Reid et al., 1999). These differences influence how each group exhibits giftedness. Contrast of some of the values and beliefs of Hispanics and Whites are as follows (Reid et al., 1999):

- Being rather than doing vs. doing rather than being
- Limited stress on material possessions vs. material well-being
- Present time orientation vs. future orientation

- Simple patterns of work organization and group cooperation vs. individual action and reaction
- Central importance of the family and personal relations vs. impersonal relations

Based on extensive surveys in Texas, Hispanics value the abilities in children demonstrated in pragmatic alertness, sensitivity to others, leadership, related interpersonal skills (e.g., maturity, expressive style, charm, humor), and bilingual fluency (Bernal, 1978). Among the characteristics exhibited by gifted Hispanic students in their homes and schools are:

- The ability to acquire English language skills quickly once exposed to the language and given an opportunity to use it expressively
- An enjoyment of cognitive risk-taking behavior, often accompanied by a sense of drama
- The ability to keep busy and entertained, especially by imaginative games and ingenious applications, such as getting the most out of a few simple toys and objects
- The ability to understand and remember detailed instructions when given the first time
- The ability to exercise exceptional leadership
- The ability to be an active seeker of knowledge who honors education with hard work, dedication, and considerable effort (Shaunessy, McHatton, Hughes, Brice, & Ratliff, 2007)
- The ability to succeed in the dominant White society

Cultural and linguistic variables act as mediating factors affecting semantic and cognitive development in Hispanic children who are bilingual. Only when identification measures address the unique cultural and linguistic characteristics of these children's backgrounds can higher cognitive potential be identified (Gonzalez, 2006).

## *African Americans*

The identification of giftedness among African Americans is a complex and perplexing challenge. Much of the early research and practice reflects a strong inclination to associate African American cultural issues with socioeconomic status; thus focusing on their “disadvantagement” (Baldwin, 1977; Frasier, 1989; Gay, 1978; Torrance, 1978). For example, unlike the literature focusing on the Hispanic culture, much of the literature in gifted education related to African Americans reflects a gifted “disadvantaged” analysis, rather than a cultural analysis (J. M. Patton, 1992). This deficit-center orientation, which permeates the literature base, is a major factor in inhibiting the development of culturally appropriate nomination and identification policies for gifted African American children (Patton, 1992). Poverty, discrimination, and a severe lack of resources profoundly impact African Americans (Ford & Harris III, 1990).

According to Baldwin (1977), a number of common descriptors relate to African American gifted children affected by cultural diversity, economic deprivation, and/or geographic isolation (Baldwin, 1977). These include common behaviors such as:

- Communication and learning styles (e.g., language rich in imagery, persuasive language, sensitivity and alertness to movement, intuitive grasp of situations)
- Heightened sense of awareness regarding social situations (e.g., social intelligence and feeling of responsibility for the community, rebellious regarding inequities)
- Group affiliations (e.g., loyalty to peers, understanding compromise)
- Skill in dealing with their environments (e.g., physical resiliency to hardships encountered)
- Intellectual characteristics (e.g., logical reasoning, planning ability, practical problem-solving ability, academic-retentive memory, and insight)
- Creative strengths (e.g., tolerance for ambiguities, inventiveness, revolutionary ideas, flexibility of thinking, fluency)

- Interests and activities (e.g., special aptitudes in music, drama, and creative writing)

The display of gifted potential depends in part on the ethnic, racial, and socioeconomic composition of the classroom and the school. Demonstration of some behaviors occurs only if the individual is part of the majority, others if part of the minority, and still others only if the classroom is heterogeneous. While this is true particularly for gifted students, extenuating circumstances exist that affect gifted culturally diverse students due to particular cultural values they bring into the classroom (Frasier, Garcia, et al., 1995).

Over-representation of White not economically disadvantaged and under-representation of White economically disadvantaged, Hispanic not economically disadvantaged, Hispanic economically disadvantaged, African American not economically disadvantaged, and African American economically disadvantaged children in the region's gifted programs continues to exist. Since the goal for districts in Texas is for their gifted populations to mirror their student populations and to be able to demonstrate advancement toward this goal, it is clear that a problem exists within the region ("Texas state plan for the education of gifted/talented students," 1996). While evidence of an under-representation of economically disadvantaged and culturally diverse students exists in abundance, overcoming this situation remains problematic.

#### Teacher Perceptions and Gifted Identification

The first step typically used by schools to identify students for participation in gifted programs is to involve educational staff, especially classroom teachers, in referring students for assessment (Coleman, Gallagher, & Foster, 1994). Determination

of whether or not the under-representation of economically disadvantaged and culturally diverse groups results from the referral process, in the assessment process, or both requires careful study (Chinn & Hughes, 1987). Children who are not referred will never have the opportunity to be selected (Schack & Starko, 1990; Scott, Perou, Urbano, Hogan, & Gold, 1992).

Teacher perceptions of giftedness directly affect referrals for gifted screening. The general trend found in the literature indicates that teachers tend to believe that individuals who are gifted constitute a homogeneous group, that they are generally developmentally advanced in other domains as well as being intellectually gifted (Bain, Choate, & Bliss, 2006). The view of giftedness as a homogeneous entity lags behind current literature-based theories expressing giftedness as manifestations of multiple abilities (Gardner & Hatch, 1989; Sternberg & Davidson, 1986). Perceptions that children develop synchronously also notably counters what researchers are finding (Bain et al., 2006).

Classroom teachers observe students in a variety of situations and under a multiplicity of conditions. Because classroom teachers have countless opportunities to make judgments about students' capabilities, they are key individuals in nominating potentially gifted and talented students (Woods & Achey, 1990). However, with culturally diverse and economically disadvantaged students, teacher nominations may prove biased (Hadaway & Marek-Schroer, 1992). Teachers sometimes have negative attitudes and/or expectations of these students. This thinking limits the ability and willingness of educators to recognize the strengths of culturally diverse students. Too often, educators interpret differences as "deficits", leading to the "at-risk" label. Without

an adequate knowledge of the impact of culture on behavior, teachers often do not understand the motivation behind the actions of culturally diverse and economically disadvantaged students, and therefore, overlook children for gifted programs (Neumeister, Adams, Pierce, Cassady, & Dixon, 2007; Woods & Achey, 1990).

Changing educators' thinking about differences among children holds great promise for recruiting and retaining culturally diverse students in gifted education.

Teacher nominations of culturally diverse students occur less often than White students regardless of economic status (Plata et al., 1999). Teacher interactions, judgments, and ratings of schoolchildren relate to ethnicity and/or ethnic surname (Jensen & Rosenfeld, 1974; McCombs & Gay, 1987; Prieto & Zucker, 1981). Teachers also perceive the behavior of White students more positively than the behavior of culturally diverse students (Bahr & Fuchs, 1991). Considering students for gifted and talented programs requires the valuable contribution of teachers' unique perspectives (Siegle & Powell, 2004). Evidence that American teachers' expectations influence their subsequent evaluations of children, numerous researchers resulted in attempts to identify the factors that influence expectation (Rosenthal & Jacobson, 1968).

Considerable evidence exists that race and social class – two powerful influences on a multitude of behaviors – play some role (Dusek & Joseph, 1983; Kelly, Bullock, & Dykes, 1977; Zucker & Prieto, 1977; Zucker, Prieto, & Rutherford, 1979).

Cultural background significantly influences what one values, devalues, and ignores (Spindler & Spindler, 1990). When classroom teachers, unwittingly reflecting dominant-culture values in their nomination criteria, make recommendations for programs for children with high ability, those students missed may be highly capable

students whose culture does not value and promote verbal assertiveness around authority. The subjective parameters of White, middle-class society provide the basis for teacher nominations of gifted students. Students who differ culturally from their teachers go unidentified, regardless of their intellectual abilities. The students' display of knowledge for teachers, strangers, or on standardized tests may be nonexistent (Garrison, 1989). In addition, conspicuous and competitive individual achievement often does not exist (Spindler & Spindler, 1990). Giftedness, in fact, becomes recognized in terms of assimilation into the dominant culture, with "disadvantaged" children needing to distance themselves from their culture of origin in order to be viewed as gifted (Margolin, 1994). For culturally diverse students, initiation into the ranks of gifted and talented typically begins with a realignment of their cultural behavior to fit the mold of what teachers deem acceptable conduct. Often, the realignment process means totally relinquishing the cultural nuances that would identify the students as members of a racial group (Bonner II, 2000).

Teachers often refer students to gifted programs who are quiet, well behaved, well dressed, and who maintain a high grade point average (Clark & Gonzalez, 1998). This observation has special implications for identifying gifted children who are economically disadvantaged and/or culturally diverse. In addition to the negative impact on children when teachers equate giftedness with being a model student, other problems arise if teachers do not clearly understand the impact of cultural and/or environmental influences on the expression of giftedness. If teachers assume the inability of pupils to reach high-levels of performance, failure to give them proper opportunities to demonstrate their true abilities results (Martinson, 1974). Culturally



diverse students seem to prefer learning approaches that include cooperative learning opportunities and hands-on activities as opposed to more experimental analytical learning styles (Dillard & Brazil, 2002; Griggs & Dunn, 1996).

Teachers also thought children to be gifted if they (a) came from a two-parent home, (b) had parents who worked with the child at home, (c) had older siblings who were strong students, and/or (d) had educated parents (Rohrer, 1995). The current classroom population along with teachers' professional, experiential, and personal knowledge of the developmental range of young children influences teacher conceptions (Rohrer, 1995). Teachers must be trained to provide flexible learning opportunities such as heterogeneous groups, demonstrations, open-ended tasks and hands-on activities (Renzulli & Purcell, 1996). Relevant questions raised for teachers involved in the nomination process for gifted programs include (Storti, 1989):

1. What are their perceptions of gifted students?
2. How do they define giftedness?
3. How do such definitions and perceptions affect their referral of students for gifted programs?
4. How culturally competent are teachers?
5. What are their personal and professional experiences in working with culturally diverse populations?
6. What stereotypes and misperceptions do they hold?

Teachers' perceptions about differences among students manifest themselves in various ways, and they exert a powerful influence in educational settings. Obvious characteristics of gifted behavior exhibited by culturally diverse and economically disadvantaged children often elude teachers because their backgrounds, experiences, and learning styles differ significantly (Bell, 1994; Ford, 1998). Many teachers, unaware

of the dissonance between teacher and learner, regard those students who fail to adapt to the school environment as unresponsive, disruptive, and apathetic toward learning (Dillard & Brazil, 2002; Huff, Houskamp, Watkins, Stanton, & Tavegia, 2005). Consequently, low expectations ensue and potential skills and talents remain unrecognized. Demonstration of certain behaviors in such rudimentary form goes unnoticed because of, for example, poor expressive language skills. Children may be extremely knowledgeable about a particular topic, but refuse to participate because of lagging verbal skills. A culturally responsive teacher realizes the discrepancy in performance and focuses on students' abilities to converse effectively with peers. Culturally-based training offsets or eliminates cultural insensitivity to gifted behavior (S. Bailey, 2000; Baldwin, 2002; Banks, 1989). Since many gifted programs use teacher nominations as part of the identification process, to lessen the under-representation of culturally diverse and economically disadvantaged students, understanding teachers' perceptions of gifted characteristics is crucial.

### Implications for Staff Development

Most experts agree that the level of awareness of gifted education among educators is not at a desirable level. Teachers are poorly prepared for instructing the gifted (Chamberlin & Moore, 2006). Continuing skepticism remains about the ability of teachers to accurately nominate students when teachers receive no training (Borland & Wright, 1994; Clark & Gonzalez, 1998; Davis & Rimm, 1989; Gallagher & Coleman, 1994; Pagnato & Birch, 1959). Without proper training, teachers tend to have low expectations for economically disadvantaged and culturally diverse students (Forsbach

& Pierce, 1999). Teacher attitudes toward and knowledge about socioeconomic status and cultural diversity relate directly to the selective referral of students for gifted programs (Frasier, Garcia, et al., 1995). Interestingly, teacher attitudes did not change even in experienced teachers of gifted culturally diverse and/or economically disadvantaged students who received no training in gifted education (Neumeister et al., 2007)

A national survey revealed 61% of teachers received no training in gifted education (Archambault et al., 1993). Teachers relied more on academic skills when nominating students for gifted programs (Hunsaker, Finley, & Frank, 1997). This lack of knowledge about students has the greatest influence on the identification of giftedness. As the first step in the identification process, the teacher's nomination of a student for the gifted program (or the lack thereof) controls program admission (Schack & Starko, 1990). Although gifted and talented coordinators receive training in recognizing signs of giftedness, traditional classroom teachers do not (Rhodes, 1992). Without proper training, teachers make judgments based on their own preconceived ideas of what characteristics a gifted student should exhibit. Thirty-eight percent of student teachers believed that minority students' poor performance correlates to cultural deficits (Burstein & Cabello, 1989). After student teachers received training, only 7% related poor performance to cultural deficits. Researchers also found that teachers who have engaged in learning experiences themselves related to the characteristics and learning needs of culturally diverse and/or economically disadvantaged learners, as well as how to address those need in the classroom, are more effective teachers of these populations than teachers who receive no training (Little, Feng, Rogers, VanTassel-

Baska, & Avery, 2007). Change in belief systems occurs as teachers increase their awareness of gifted students' needs and make appropriate curricular adjustments required to meet those needs. Teacher training provides the *scaffolding* necessary for them to prepare for their classrooms (Bangel, Capabianco, & Moon, 2006). Instructional changes alter teachers' perspectives of their students and their total classroom environment (Hertzog, 2005).

The purpose of teacher nominations is to *complement*, not confirm, the quantitative measures used for identification. While research indicates the questionable nature of recommendations from teachers *without* training, teacher nominations, based on lists of specific characteristics employed after training, prove relatively accurate (Bernal, 1978). Teacher training holds great promise for decreasing the under-representation of culturally diverse and/or economically disadvantaged gifted students (Davis & Rimm, 1989). Nomination of these students improves as teachers gain increased knowledge of gifted characteristics. Asking teachers for nominations based on ratings of specific characteristics, rather than on global judgments, also improves accuracy of nominations (Borland & Wright, 1994). Moreover, researchers have compiled lists of behaviors in the hope of expanding teacher understanding of special potential in culturally diverse children (Bernal, 1978; Gay, 1978; Swenson, 1978).

To increase accuracy in the identification process, teachers need training in recognizing talents in culturally diverse and economically disadvantaged children. Teacher preparation should focus on the unexpected or unrecognized characteristics of the gifted. Emphasizing precisely those traits negatively correlated with school achievement can help to locate many of the under-represented gifted. The specific

problematic traits useful for teachers to know correlate to manifestations of creativity, critical thinking, and motivation (Richert, 1987). Classroom teachers demonstrated sensitivity to under-represented groups in gifted programs when given the opportunity to observe and learn about the accomplishments and talents of these students (Guskin, Peng, & Simon, 1992). Teachers require explicit information about the unique experiences and abilities of culturally diverse and economically disadvantaged students, and how to enhance their students' skills and talents commonly associated with giftedness (Barkan & Bernal, 1991; Cohen, 1994; Ford & Grantham, 2003; Passow & Frasier, 1996; Richert, 1985). Several important implications for developing effective staff development programs follow (Bain, Bliss, Choate, & Brown, 2007; Ford & Harris III, 1996):

1. Staff development programs should provide teachers with opportunities to understand the wealth of information they can provide about children that is not accessible through tests.
2. Staff development programs should include a variety of strategies to help teachers develop a common frame of reference about the core attributes of giftedness and to understand how this core set of attributes are expressed in different cultural and environmental contexts.
3. Staff development should focus on empirically sound practices for the education of children who are gifted, with a modicum of sensitivity to how gifted education should relate to general education (Bain et al., 2007)
4. Staff development should include information about the family processes operating within the homes of economically disadvantaged and culturally diverse students who are achieving, regardless of their circumstances or status.
5. Staff development programs should include opportunities for teachers to reinterpret items on referral checklists so parents of the economically disadvantaged and culturally diverse children in the communities they serve can more easily understand them.
6. Most importantly, staff development programs should provide teachers with opportunities to understand their role in identification as extending far beyond the task of generating names of students for testing.

Staff development programs, which focus proactively on individual differences and cultural diversity, must permeate educational and professional development experiences. With forecasts projecting growing culturally diverse and economically disadvantaged populations, teachers bear a greater responsibility for demonstrating multicultural competence (Ford & Grantham, 2003; Ford & Harris III, 1990; Ford, Harris III, & Tyson, 2002). Given the complexities of among-group and within-group cultural differences, it is unreasonable to expect teachers to be familiar with every cultural group (Kitano, 1991). However, teachers can learn to become analytic observers of behavior and cognitive learning process, to reflect on their own cultural behavior, and to integrate these observations into their teaching practices. Teachers' ability to make accurate observations is critical in creating the pool of students considered for gifted program participation. To become more culturally competent educators must (Ford, 2000):

1. Engage in critical self-examination that explores their attitudes and perceptions concerning cultural diversity, and the influence of these attitudes and perceptions on economically disadvantaged students' achievement and educational opportunities
2. Acquire accurate information about various cultural groups (e.g., histories, historical and contemporary contributions, and their preferred learning styles)
3. Learn how to infuse multicultural perspectives and materials into curriculum and instruction so as to maximize the academic, cognitive, social-emotional, and cultural development of students
4. Build partnerships with diverse families, communities, and organizations

Since all teachers do not receive professional training, in college or elsewhere, for recognizing potential gifted behaviors among culturally diverse and economically disadvantaged children, the need for staff development exists to raise awareness of various cultural dimensions and their impact on students (Bonner II, 2000; Rhodes, 1992).

The National Association for Gifted Children (2002) proposed standards related to teacher preparation in gifted education. Formal training for all teachers who work with gifted students eliminates deficit thinking that perpetuates under-representation of culturally diverse and economically disadvantaged students in gifted programs. At a minimum, such preparation focuses on testing and assessment, instructional strategies and models, social-emotional needs and development, underachievement, cultural diversity, and working with families (Ford & Harris III, 1996). Educational programs for the gifted that are designed specifically to address the academic and social needs of gifted learners reverse much of the underachievement behaviors, particularly those that occur due to a mismatch between students' needs and the programming offered (Matthews & McBee, 2007). All organizations and institutions providing such training require consistency in addressing the needs and issues of diverse students. Culturally focused training for teachers highlights the strengths and enriching opportunities cultural diversity brings to the learning environment (Dillard & Brazil, 2002).

The literature on gifted education suggests that differentiated programs and services for culturally diverse and/or economically disadvantaged students come about through a teacher's use of differentiation strategies in the classroom (VanTassel-Baska, Quek, & Feng, 2007). However, replicated studies indicate that regular classrooms offer very limited differentiated activities (Little et al., 2007). Moreover, there is no evidence in the literature that classroom instruction with gifted learners is monitored systematically to determine levels of implementation of best practice (VanTassel-Baska et al., 2007).

Creating a more inclusive gifted and talented program clearly addresses the theoretical underpinnings of the identification and nomination process. To optimize the

use of giftedness as a national resource, the multiplicity of forms in which giftedness can be found requires consideration (Sternberg & Davidson, 1986). The identification process begins with the classroom teacher. Therefore, any solution to the current under-representation of culturally diverse and economically disadvantaged children must include a strong professional development component, consisting of three elements (Spicker, 1996):

1. An overview of identification procedures and characteristics of gifted children
2. Characteristics of students from culturally diverse and economically disadvantaged backgrounds
3. The role of teachers in identifying these “hidden treasures”

Educators require awareness of what Glaser and Ross (1970) called “gifted behavior.” Look for the child who has a strong sense of self, pride, and worth; the child with an independent mind; the child who resists peer pressure and other typical negative social conditioning; the child who, on occasion, resists the teacher. Look for the child who, at critical points in his or her development, is prone to asking questions such as “Who am I?” or “Where am I going?” Look for the child who believes that his or her self-determination, creativity, and hard work will pay off in the future. Look for the child who can channel his anger at being disadvantaged into strategic action to change the situation for himself and others around him (Griffin, 1992). Clearly, such traits, attributes, and behaviors are not absolute in the sense that every gifted child always exhibits every one of them in the same manner. Rather, they are attributes ascribed to children identified as gifted. An apparent implication is that the search for better identification procedures for culturally diverse and economically disadvantaged gifted children focuses on ways of recognizing the specific behaviors or manifestations of



these attributes in various cultural, contextual, and environmental settings (Leung, 1981).

The limitation of all teacher nominations or observation checklists, even with teacher preparation, is that they can only indicate behaviors in school that teachers can observe. Teachers, through their own analysis and development, can choose between being “gatekeepers” of the current condition of disproportionate representation of culturally diverse and economically disadvantaged learners in gifted programs or “gateway” agents who advocate for opening opportunities for these learners (J. M. Patton, 1992) (Swanson, 2006). Gateway teachers, working in concert with parents and other family members, represent critical forces in affecting change in gifted nomination and identification processes. Expanding the cultural conceptions of giftedness and increasing teachers’ awareness of multiple expressions of giftedness in different subpopulations will increase the number of students nominated for gifted programming from culturally diverse and/or economically disadvantaged groups (Shaunessy et al., 2007).

#### *Evaluating the Impact of Staff Development*

VanTassel-Baska (2006) found the amount of staff development provided to teachers of the gifted inadequate, but also no framework existed that tied the learning to gifted programming or its effectiveness with learners. Moreover, rather than strengthening the staff development program for teachers, most of the school districts opted for staff development for the entire teaching staff using the same approach for all. Staff developers look at change as a means of understanding the effectiveness of

development programs. Five categories of teacher change may be evaluated as a result of staff development (M. Q. Patton, 1982):

1. Changes in teachers' feelings
2. Changes in teachers' opinions
3. Changes in teachers' knowledge
4. Changes in teachers' skills
5. Changes in teachers' behavior

Loucks and Melle (1982) followed three things to determine whether any change occurred in the teachers because of staff development:

1. How teachers' concerns about the program changed as it was implemented
2. How teachers' familiarity with and level of use of the program changed
3. To what extent teachers were using each component of the program

Each of the researchers views staff development as a process of change that occurs over time. Indeed, viewing change as a process and not an event is critical as teachers move through the various phases of the change process.

#### *Concerns-Based Adoption Model (CBAM)*

Frances Fuller, during the mid- and late 1960s, pursued a series of in-depth studies of the "concerns" of teachers as the process of change occurred. A counseling psychologist, Fuller approached her studies from a clinical rather than a pedagogical point of view. Based on a series of group counseling sessions and longitudinal in-depth interviews of student teachers, Fuller (1969) proposed a developmental conceptualization of the concerns of teachers.

The literature provided an independent set of studies under various headings, such as problems and anxieties of teachers, that, when combined with Fuller's clinical assessments, provided a grounded basis for characterizing the various kinds of concerns of preservice and inservice teachers. Further, it appeared that concerns occur in a natural sequence and are not simply a direct consequence of the quality of a particular teacher education program.

Expanding on Fuller's work, other researchers at the University of Texas Research and Development Center for Teacher Education developed a model describing the process of change. The concerns-based adoption model (Hall, Wallace, & Dossett, 1973) provides a means for determining the effectiveness of staff development by measuring the resulting amount of change in teachers' behavior.

One of the basic dimensions of the model is Stages of Concern about the Innovation, which answers the first question of how teachers' concerns about a program changed as the program was implemented. These concerns appear to be developmental in that earlier concerns must first be resolved before later concerns emerge (Hall & Hord, 1987, 2001). Table 1 outlines the identified stages.

A teacher does not have concerns at any single stage, but rather experiences a conglomeration of concerns with one or two stages being more intense (Hall, George, & Rutherford, 1977). In other words, a teacher's concerns at any given point in time would be high on one or two stages and low on the other stages. Teachers who are nonusers would have intense concerns at Stage 0, 1, and 2, with lesser concerns at Stages 4, 5, and 6. As teachers begin to apply what they have learned through staff development,

Stage 3 management concerns become more intense. As teachers gain more experience and confidence Stage 4, 5, and 6 concerns increase in intensity.

Table 1

*Stages of Concern about the Innovation*

Level	Stage	Description
0	Awareness	Little concern about or involvement with the innovation is indicated.
1	Informational	This stage indicates a general awareness of the innovation and interest in learning more detail about it. The person is interested in general characteristics, effects, and requirements for use.
2	Personal	Individual is uncertain about the demands of the innovation, her/his inadequacy to meet those demands, and her/his role with the innovation.
3	Management	Attention focuses on the processes and tasks of using the innovation and the best use of information and resources.
4	Consequence	Attention focuses on impact of the innovation on students in her/his immediate sphere of influence. The focus is on evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes
5	Collaboration	The focus is on coordination and cooperation with others regarding use of the innovation.
6	Refocusing	The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.

*Note:* Excerpted from *The Stages of Concern Chart: Operational Definitions of Stages of Concern of the Innovation*. Austin: Research and Development Center for Teacher Education, University of Texas, 1975.

When applied to the current study the stages are described as follows:

- Awareness: Teachers have little or no knowledge about cultural/economic differences in gifted students.

- Informational: Teachers are generally aware of the characteristics of culturally diverse and/or economically disadvantaged gifted students. The information remains at the general knowledge level with no personalization as something with which the teachers need to be concerned.
- Personal: Teachers are unsure of their role in overcoming the under-representation issue. Teachers are concerned about what they will be required to do and how much time it will take.
- Management: Teachers focus on the nomination and identification process and how to best use the assessment instruments and data gathered. Efficiency and identification timelines are of primary concern.
- Consequence: The impact of gifted program identification and assessment on students receives primary focus. Establishing district criteria to best meet students' needs is of paramount importance.
- Collaboration: Teamwork is the focus. Working together to assess students' needs is in the forefront.
- Refocusing: This stage includes an analysis of identification procedures and current research to determine if any changes to the process are required. Concern focuses on what is best for the students – not on program admission criteria.

Levels of use of an innovation (LoU), the second dimension of the CBAM, answer the second question of how teachers' familiarity with and level of use of the program changed. Levels of use focuses on the behaviors that are or are not taking place in relation to the nomination of culturally diverse and/or economically disadvantaged students for gifted programs. While the stages of concern traces the feelings and perceptions of individuals as they experience change, the levels of use provides insight into what the teachers are actually doing (Hall, Loucks, & Newlove, 1975). By using both SoC and LoU, differences between perceptions and actions can be distinguished conceptually and operationally.

Like the stages of concern, there is a typical progression in a teacher's movements through the levels of use from Level of Use 0, nonuse, to Level of Use IVA, routine. Table 2 outlines the levels of use of the innovation.

The Levels of Use (LoU) dimension describes the various behaviors of the teacher through various stages – from spending most efforts in orienting to managing, and finally to integrating use of learning gained from the staff development. Before a teacher actually applies what they have learned, the teacher becomes familiar with and increasingly knowledgeable about the characteristics of culturally diverse and economically disadvantaged gifted students. As application of the learning becomes more routine, the teacher strives to become more effective in referring culturally diverse and economically disadvantaged students for gifted screening. Teachers begin to share with each other to better integrate the staff development into the classroom.

Table 2

*Levels of Use of the Innovation*

Level	Use	Description
VI	Renewal	The user reevaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.
V	Integration	The user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.
IVB	Refinement	The user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations occur due to knowledge of both short- and long-term consequences for clients.

*(table continues)*

Table 2 (continued).

Level	Use	Description
IVA	Routine	Stabilization occurs in the use of the innovation. Ongoing use results in few if any changes. Little preparation or thought is being given to improving innovation use or its consequences.
III	Mechanical Use	The user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use result more from meeting user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
II	Preparation	The user is preparing for first use of the innovation.
I	Orientation	The user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.
0	Nonuse	The user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

*Note:* Excerpted from *Operational Definitions of Levels of Use of the Innovation*. Austin: Research and Development Center for Teacher Education, The University of Texas, 1975.

When applied to this study the levels are described as follows:

- Nonuse: Teachers are unaware of the characteristics of culturally diverse and/or economically disadvantaged gifted students. Teachers have not attended any specialized professional development, do not have their 30 hours of basic training in gifted education, and are not planning to attend any training.
- Orientation: Teachers have just completed their training and are evaluating what is going to be required of them in their classrooms.
- Preparation: Teachers are making plans to implement instructional strategies to encourage exhibition of gifted characteristics from culturally diverse and/or economically disadvantaged students. Teachers are planning to utilize the list of characteristics provided in their training to aid in the nomination process.

- Mechanical Use: Teachers use the list of characteristics provided in their training to aid in the nomination process, but do not implement instructional strategies in their classrooms to encourage gifted behavior.
- Routine: Teachers apply the characteristics of gifted learners and employ instructional strategies routinely in their classrooms to encourage gifted behavior.
- Refinement: Teachers are seeking ways to improve classroom instruction to meet the needs of gifted learners from all ethnicities and socioeconomic levels.
- Integration: Teachers are working together to improve their nomination of culturally diverse and/or economically disadvantaged gifted learners.
- Renewal: Teachers seek additional knowledge about under-represented populations and strive to meet the needs of their students better.

The third diagnostic dimension of CBAM is the concept of Innovation

Configurations (IC). The IC dimension answers the question of what teachers are actually doing in their classrooms toward implementing what they learned in the staff development. When analysis of an innovation is made in terms of its operational components and the different variations of these components, an Innovation Configuration Components Checklist is used to summarize the array of possibilities from “ideal” to “acceptable” to “unacceptable.”

Teachers need to have a clear picture of the operational forms of the classroom practices on which they will focus their energies – the Innovation Configurations that represent acceptable application of the staff development. The IC answers three basic questions:

1. What are the essential and related components?
2. Which variations of each component are desirable?
3. Are any variations unacceptable?

An innovation configuration checklist expresses answers to these questions. The checklist portrays all of the staff development components and the components’



variations. The teachers use an IC component checklist to analyze the use of their specialized training in the classroom. The IC component checklist indicates the level at which teachers see the importance of the staff development following training.

### *Project SPRING*

The literature clearly indicates that economically disadvantaged and/or culturally diverse children are under-represented in gifted programs. Project SPRING (Spicker, 1992, 1996; Spicker & Aamidor, 1996; Spicker et al., 1993) implemented identification and programming procedures to determine successful methods to increase the involvement of these groups in school programs for gifted students. The primary focus of the project was to develop teacher awareness workshops. Teachers without formal training in gifted education are likely to expect all gifted children to exhibit the characteristics of the mainstream culture. Effective nomination of economically disadvantaged and/or culturally diverse children for gifted programs requires modification of these teacher expectations.

Project SPRING utilized professional development procedures proven successful with the impoverished Appalachian descended children in southern Indiana. Training materials included the economically disadvantaged population, as well as Hispanic and African American subgroups in a three-state consortium, which comprised Indiana, South Carolina, and New Mexico. The project received funding through the Jacob Javits Gifted and Talented Students Education Act, US Department of Education. A comparison of pre-training and post-training nominations of economically disadvantaged and/or culturally diverse students indicated a significant decrease in the

under-representation of these subpopulations in gifted programs following the specialized teacher awareness training.

Project SPRING (Spicker & Aamidor, 1996) resulted in the development of a leader's manual for professional development designed to provide multicultural and poverty awareness training for teachers. The training examines traditional characteristics of gifted children from middle- and upper-class White backgrounds, characteristics of students from culturally diverse and economically disadvantaged backgrounds, and the role of teachers in identifying these "hidden treasures" using open-ended instructional strategies that promote the display of gifted behavior.

The project accomplished the following goals:

1. Demonstrated instruments and procedures for identifying ethnically diverse gifted students
2. Developed preservice and inservice training procedures for use by educational personnel to identify rural special populations of gifted students accurately

Results of Project SPRING indicated that effective implementation of the SPRING professional development model results in teachers having increased awareness of the diversity of giftedness.

Identifying gifted students from culturally diverse and economically disadvantaged populations benefits not only the individuals, but also society as a whole (Harris, 1993). The leaders of tomorrow are in today's schools (Davis & Rimm, 1989). Teachers have the potential for playing a significant role in the reduction of under-representation of culturally diverse and economically disadvantaged children in gifted programs when provided appropriate training (Bernal, 1978; Davis & Rimm, 1989). What remains to be seen is whether specialized teacher training improves the nomination of culturally

diverse and economically disadvantaged students in a region of west Texas. The current study described in the next chapter addresses this issue.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to promote selection of under-represented students, through staff development that informs teachers of the viability of culturally diverse and/or economically disadvantaged students in gifted/talented programs. The literature review revealed a need for such an investigation as students from these backgrounds continue to be significantly under-represented in gifted programs. Experts agree that professional development plays an important role in the increased nomination and identification of culturally diverse and/or economically disadvantaged students. Traditionally, only teachers providing gifted program services require staff development in gifted education. The remainder of school district staff receives little or no training in gifted education in general, much less in recognizing giftedness in children from differing backgrounds. If teachers have not received training in recognizing and working with gifted learners from culturally diverse and economically disadvantaged populations, teachers will likely not use classroom practices that encourage gifted potential and nominate students who fit the traditional definition of gifted while missing gifted students who do not.

#### Research Questions and Associated Hypotheses

This study examined the selection of students from under-represented populations by teachers who had completed the 30-hours basic training in gifted education with an emphasis on the characteristics of underrepresented populations and

instructional strategies that encourage the emergence of those characteristics. Three primary research questions guided this study.

1. What effect does staff development have on changes in teacher attitudes of economically disadvantaged and/or culturally diverse gifted children?
2. Do changes in teacher attitudes generate greater numbers of nominations for placement in gifted programs?
3. From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?

From these questions, five hypotheses were tested:

1. There will be a significant increase in concerns, from awareness to refocusing, on each of three administrations of a Stages of Concern questionnaire, among teachers in the experimental group.
2. There will be is a significant increase in levels of use on two levels of use interviews, among teachers in the experimental group.
3. Innovation Configurations show a significant increase in component scores, among teachers in the experimental group.
4. Teachers trained in methods of identifying talent and giftedness among economically disadvantaged and/or culturally diverse children will nominate these students for screening into gifted programs at a significantly higher rate, at the  $p < .05$  level, than teachers who receive limited or no training in identifying talent and giftedness among economically disadvantaged and/or culturally diverse children.
5. Culturally diverse and/or economically disadvantaged students referred for gifted programs will be placed in gifted programs at a significantly higher rate, at the  $p < .05$  level, when compared to matched students in classes among teachers who did not have additional training.

### Setting

In 1967, the Texas Legislature directed that the State Board of Education provide, by rules and regulations, for the establishment and operation of regional education service centers. Twenty regional service centers provide services to school

districts and charter schools. The centers are service organizations, not regulatory arms of the Texas Education Agency, and participation by schools in services provided by the centers is voluntary.

Chapter 8 of the Texas Education Code, enacted by the 75<sup>th</sup> Texas Legislature in 1997, specified the following purposes of education service centers.

Regional education service centers shall:

1. Assist school districts in improving student performance in each region of the system;
2. Enable school districts to operate more efficiently and economically; and
3. Implement initiatives assigned by the legislature or the commissioner.  
(TEA)

Regional education service centers support local districts in attaining the mission, goals, and objectives set forth by the Texas Education Agency. The mission of the TEA is “to build the capacity of the Texas public education system to provide to all students a quality education that enables them to achieve their potential and fully participate now and in the future in the social, economic, and educational opportunities of our state and nation.”

Region XIV Education Service Center serves 42 school districts and one charter school with over 44,480 students (7.7% African American, 29.3% Hispanic, 71.8% White, and 1.2% Asian or Native American), and 3,650 teachers in 13 counties of west, central Texas. Individual size of the districts ranges from just under 100 students to over 15,000. Over 50% of the students in this region are economically disadvantaged and 36.6% are at risk of educational failure.

Region XIV Education Service Center was the entity of training for this study. Thirty-nine of the 42 school districts in the region participate in the contracted services

arrangement for advanced academic services. The districts pay 25% of the districts' annual G/T allotment to the ESC in return for technical assistance in student identification, curriculum, and instruction, and provision of staff development. ESC consultants schedule, develop, and deliver staff development as needed by the participating districts. The Texas Education Agency requires offering a minimum of one thirty-hour basic training in gifted/talented education annually. TEA provides guidelines for what should be included in the training along with training materials to the advanced academics consultants at each ESC.

Initial staff development for treatment and control groups occurred at Region XIV ESC training facilities. ESC consultants have the freedom to assign teachers to specific staff development sessions. School district administrators agreed to allow the researcher to randomly assign the districts' K-5 teachers to treatment and control groups utilizing a simple drawing of names to determine which elementary schools would participate. Follow-up sessions took place in cluster groups in three areas of the region as determined by enrollment for the annual professional development conference hosted by Region XIV ESC.

### *Student Identification*

Districts in Region XIV ESC follow common identification procedures. Figure 1 outlines the process from nomination of students through receipt of gifted program services.

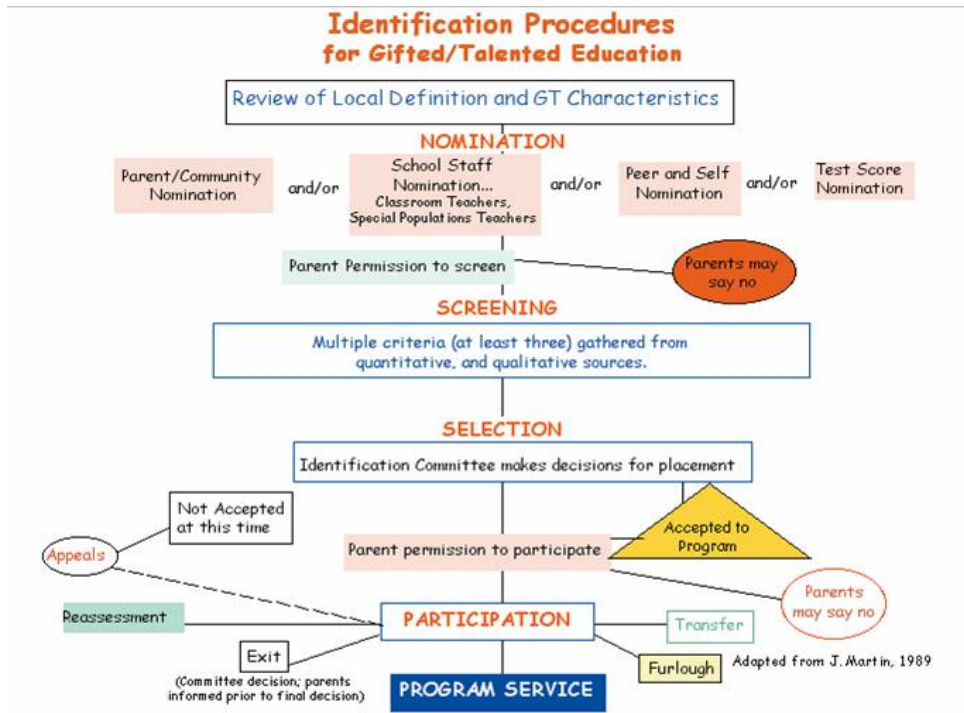


Figure 1. Identification procedures flowchart.

The general nomination period for gifted program screening begins in November of each school year and runs through the middle of December. Administrators, counselors, teachers, parents, students, and community members are eligible to complete nomination forms available through districts’ offices.

The screening process begins in January with the completion of the Scales for the Identification of Gifted Students (Ryser & McConnell, 2004) home version completed by parents and the Slocumb-Payne Teacher Perception Inventory (P. D. Slocumb & Payne, 2000) \completed by the nominated students’ teacher(s). Districts administer assessment instruments in February. Instruments used in the screening process are the Screening Assessment for Gifted Elementary and Middle School Students (SAGES-2)(Johnsen & Corn, 2001), Naglieri Nonverbal Abilities Tes (Naglieri,



1996)t, and the Torrance Test of Creative Thinking (Torrance, 1978). Region XIV scores and reports the completed assessments. The Advanced Academics secretary logged in all tests and coded each instrument to protect student confidentiality and guard against bias.

The districts' selection committees identified students for gifted program services. Identification ended by the end of February for kindergarten students in accordance with state regulations. Kindergarten students identified for gifted programs begin receiving services by March 1 each year. Identification of students in grades one through five ends by May 1 with parent notifications of placement/deferment sent at that time. Identified students begin receiving gifted program services the following school year.

### Population

Ten districts participated in the study. The districts were selected based on the level of risk assigned by the Texas Education Agency on the 2003-04 Program Analysis System. Levels rank from one to four based on the demographics of the general school population compared to the demographics of the gifted school population. Data reported by the districts as part of the Public Education Information Management System (PEIMS) determines the risk factor levels. This study utilized Data Elements 3 and 5. Data Element 3 is district-level analysis of potential ethnic disproportion of student populations identified as Gifted/Talented. Variables included in Data Element 3 are:

- Number of G/T students enrolled disaggregated by ethnicity
- Number of G/T students enrolled
- Number of all students enrolled by ethnicity

- Number of all students enrolled in the district
- Percentage of G/T students enrolled disaggregated by ethnicity
- Percentage of all students enrolled disaggregated by ethnicity

Table 3 outlines the risk factor and the criteria for each risk level for Data Element 3.

Table 3

*Potential Ethnic Disproportion of Student Populations*

Risk Level	Criterion District Population	Actual % Ranges	
African American	NR	Less than 20 African American students in the district	NR
	0	Difference score lies at or below the 50 <sup>th</sup> percentile	</= 5.7
	1	Difference score lies between the 50.1 <sup>th</sup> and the 65.0 <sup>th</sup> percentiles	5.8 to 9.9
	2	Difference score lies between the 65.1 <sup>th</sup> and 80.0 <sup>th</sup> percentiles	10.0 to 14.7
	3	Difference score lies between the 80.1 <sup>th</sup> and 95.0 <sup>th</sup> percentiles	14.8 to 23.5
	4	Difference score lies above the 95 <sup>th</sup> percentile	>/= 23.6
Hispanic	NR	Less than 20 Hispanic students in the district	NR
	0	Difference score lies at or below the 50 <sup>th</sup> percentile	</= -11.9
	1	Difference score lies between the 50.1 <sup>th</sup> and 65 <sup>th</sup> percentiles	12.0 to 17.4
	2	Difference score lies between the 65.1 <sup>th</sup> and 80 <sup>th</sup> percentiles	17.5 to 24.7
	3	Difference score lies between the 80.1 <sup>th</sup> and 95 <sup>th</sup> percentiles	24.8 to 38.6
	4	Difference score lies above the 95 <sup>th</sup> percentile	</= 38.7

Source: Texas Education Agency Program Analysis System / Data Analysis System (PAS/DAS) 2003-04.

For example, District A has a student population that is 12.07% African American and a gifted/talented population of 5.26%. The difference between the two percentages is 6.8%, which would receive a risk factor of “1” because the difference score falls between 5.8% and 9.9% according to the table that follows.

A district risk level for ethnic disproportion occurs based on the risk levels for African American and Hispanic subpopulations. If the risk level for both populations is “0,” then the district risk level is “0.” If the highest risk level for the subpopulations is “1,” then the district risk level is “1,” and so on through a district risk level of “4.”

Data Element 5 analyzes potential disproportion of students in grades one through eight identified as economically disadvantaged and as Gifted/Talented.

Variables considered in Data Element 5 are:

- Number of G/T students in Grades 1 through 8
- Number of all students in Grades 1 through 8
- Number of G/T students Grades 1 through 8 identified as economically disadvantaged
- Percentage of G/T students Grades 1 through 8 identified as economically disadvantaged
- Percentage of all students Grades 1 through 8 identified as economically disadvantaged

Table 4 outlines the risk factor and the criteria for each risk level for Data Element 5.

The formula used to derive the risk level is the percentage of economically disadvantaged students enrolled less the percentage of G/T students who are economically disadvantaged. For example, District A has a student population that is 57.17% economically disadvantaged and a gifted economically disadvantaged population of 22.57%, resulting in a difference score of 34.6. The risk level for a

difference score of 34.6 is “3” because the score is between 30.1 and 35.0 on the chart that follows.

Table 4

*Potential Disproportion of Economically Disadvantaged Student Population*

District Risk Level	Criterion: District Difference Score
NR	Less than 20 students identified as economically disadvantaged in the district
0	Difference Score is at or below 10.0
1	Difference Score is between 10.1 and 20.0
2	Difference Score is between 20.1 and 30.0
3	Difference Score is between 30.1 and 35.0
4	Difference Score is at or above 35.1

Source: Texas Education Agency Program Analysis System / Data Analysis System (PAS/DAS) 2003-04.

Each of the participating districts received a risk factor of three or above for the African American, Hispanic, and/or economically disadvantaged subpopulations, indicating that culturally diverse and/or economically disadvantaged populations are significantly under-represented in the districts’ gifted programs. The mean size of the participating districts is 1,024 students with a range of 304 students to 2,368 students. The means of student demographics across participating districts is 4.34% African American, 38.23% Hispanic, 56.74% White, and 60.81% economically disadvantaged (as determined by qualification for the state free and reduced price lunch program).

Table 5 provides student demographic data for each participating school district based on the 2006-2007 Academic Excellence Indicator System Report.

Table 5

*Student Demographics by Participating School District*

District	African American	African American GT	Hispanic	Hispanic GT	White	White GT	Economic Disadvantaged	Economic Disadvantaged GT
1	3	0	32.8	10.67	62.7	89.33	58.4	26.83
2	10.2	0	41.9	12	47.7	88	67.6	18.75
3	1.9	0	56.6	20	40.8	80	64.2	0
4	2.3	0	28.9	6.11	67.9	93.89	58.2	13.25
5	4.8	1.76	48.5	17.18	46	81.06	52.2	16.22
6	.6	0	32.6	3.57	66.8	96.43	54	22.22
7	1.5	0	17	2	80	98	70.7	35.29
8	9.1	0	40.8	17.39	49.6	82.61	59.7	18.18
9	.5	0	41.9	5.19	57.1	94.81	61.7	12.33
10	9.5	1.84	41.3	13.5	48.8	84.66	61.4	19.8

*Note:* All numbers expressed in percentages.

The population for the study consists of 10 teachers in kindergarten through grade 5 from each of the ten districts. Table 6 provides teacher demographic data for the participating school districts based on the 2006-2007 Academic Excellence Indicator System Report.

Table 6

*Teacher Demographics by Participating School District*

District	African American	Hispanic	White	Males	Females
1	0	8.3	91.7	20	80
2	0	10.6	98.4	21.9	78.1
3	0	11.4	88.6	39.6	60.4
4	3.3	2.5	94.2	22.1	77.9
5	2.1	8.5	88.8	24	76
6	0	3.6	96.4	27.2	72.8
7	0	2.4	97.6	32.8	67.2
8	0	13.5	86.5	28.8	71.2
9	0	3.7	96.3	18.9	81.1
10	1.1	5	93.9	23.8	76.2

*Note.* All numbers expressed in percentages.

Teacher demographics indicate that the means for each ethnic and gender group are African American - .65%, Hispanic - 45.18%, White - 93.24%, males -25.91%, and females - 74.09%.

Table 7 provides information by district as to highest degree held by teachers

based on the 2006-2007 Academic Excellence Indicator System Report. Data indicates that 89.27% of the teachers hold a bachelors degree with only 10.58% holding masters degrees.

Table 7

*Highest Degree Held*

District	Bachelors Degree	Masters Degree
1	91.6	8.4
2	96.7	3.3
3	96	4
4	89.7	10.3
5	83.7	15.7
6	91.2	8.8
7	76.2	23.8
8	94.6	5.4
9	88.7	10.4
10	84.3	15.7

*Note.* All numbers expressed in percentages.

Table 8 provides information on the average years of experience of teachers by district and the average years of experience in the district of current employment. The mean average years of experience is 13.39 years with a mean of 8.82 years of teaching in the district of current employment.

Table 8

*Average Years Experience of Teachers*

District	Average Years Experience	Average Years Experience with District
1	9.9	6.1
2	11.6	8
3	16.5	12.6
4	14	7.4
5	15.3	10.5
6	14	8.7
7	13.4	9
8	11.8	6.7
9	13.3	8.8
10	14.1	10.4

According to the State Board for Educator Certification (SBEC) Certification Status Report for the Fiscal Year Ending August 31, 2006, five of the ten districts have at least one teacher in kindergarten through fifth grade that is not currently certified. There is only teacher who has a G/T endorsement or supplemental certificate in any of the districts.

Design

This study utilized an experimental post-test only control group design. Pretreatment equality of groups occurred through randomization such that each district



has the same probability of being chosen. The names of each of the 40 rural districts were written on slips of paper and grouped by University Interscholastic League classification, e.g., a group for Class A schools, a group for Class AA schools and a group of Class AAA schools. The ESC staff development coordinator drew names from each group. Odd numbered drawings comprised the experimental group (Group A) and even numbered drawings comprised the control group (Group B). Four drawings were made from the Class A group (two for the experimental group and two for the control group, four drawings from the Class AA group, and two drawings from the Class AAA group to more accurately reflect the demographics of the Region.

The design's form is as follows:

R	X	O <sub>1</sub>
R		O <sub>2</sub>

The first row of symbols represents the treatment group, randomly assigned as signified by the *R*. The treatment consisted of specialized professional development on the characteristics and instructional needs of culturally diverse and/or economically disadvantaged gifted students. *O*<sub>1</sub> represents the process of measurement of the possible effects of the staff development on the nomination of culturally diverse and/or economically disadvantaged students for gifted programs. The second row of symbols represents the control group, randomly assigned as signified by the *R*. The control group received no treatment, as indicated by the absence of the *X*. *O*<sub>2</sub> represents the process of measurement of the demographics of the students nominated for gifted programs in the districts.

The post-test only control group design controls for the eight different classes of extraneous variables (Campbell & Stanley, 1963).

1. *History*: By utilizing a post-test only in this study, the effects of specific events occurring between multiple measurements is eliminated.
2. *Maturation*: Changes in the teachers' nominations of students for gifted program identification do not occur as a function of the passage of time.
3. *Testing*: The study utilized no test instruments, thus eliminating the effects of test taking upon the results.
4. *Instrumentation*: The same ESC personnel scored all measurement instruments.
5. *Statistical regression*: Extreme scores did not result in selection of any groups in this study.
6. *Bias*: Random assignment eliminated biases resulting in differential selection of teachers for the treatment and control groups. The ESC staff development coordinator drew the district names for group assignment.
7. *Experimental mortality*: With a post-test only design, there is no danger in the loss of subjects in comparison groups between pre- and post-test administrations.
8. *Selection-maturation interaction*: Selection-maturation threat results from differential rates of normal growth between pretest and posttest for the groups. This study utilizes a posttest only design to eliminate the possibility of selection-maturation.

Campbell & Stanley also identify sources of external validity controlled by the post-test only control group design:

1. The reactive or interaction effect of testing, in which a pretest might increase or decrease the respondent's sensitivity or responsiveness to the experimental variable. This study controls for this interaction by eliminating the pretest that likely causes a person's attitudes and susceptibility to persuasion to be changed by the pretest.
2. The interaction of selection and treatment in which sampling bias occur because researchers do not allow a more representative selection of schools for the study. This study controls for interaction of selection and treatment by using the entire population of districts that meet eligibility criteria and limiting participation in the study to kindergarten through fifth grade.
3. Reactive arrangements in which participants in the study know that they are participating in an experiment. This study controls for reactive arrangements by maintaining confidentiality of the study. The researcher will be the only individual

who knows which school districts are participating in the experiment and which are assigned to experimental and control groups.

To remove scorer bias regarding any student data, the Advanced Academics program secretary logged in all assessment information and provided a student code to protect student confidentiality. The coding system used by Region XIV ESC provides a student number, a district number, and the year. Expansion of the system includes a code for teachers in the control and experimental groups. A sample student code would be: 0195007A: 01 = student number; 950 = district number as assigned by TEA; 07 = year tested; A = nominating teacher is in the experimental group

Protection of student identification information removed selection committee bias. The committee had no student assessment results containing any identifying information. Placement decisions included no knowledge of the student's identity. The district gifted/talented program coordinator codes student results and maintains a master list of codes.

### *Professional Development*

The *Texas State Plan for the Education of Gifted Students* (2000) requires teachers who provide gifted program services to complete thirty clock hours of professional development in gifted education. Group B teachers (control group) participated in the standard 30 hours of staff development conducted by the Advanced Academics Consultant at Region XIV ESC in June 2007. Objectives for each of the sessions are as follows:

- Nature and Needs of Gifted Learners (six hours):

- Analyze the historical, legal and conceptual understandings of gifted education
- Demonstrate an understanding of the characteristics and behaviors of gifted learners that is the basis of developing programs that meet their needs
- Examine the social and emotional needs of gifted learners
- Assessing Student Needs for Gifted Programs (six hours)
  - Participants will demonstrate an understanding of identification procedures that allow appropriate and equal access to program services.
- Curriculum and Instruction for Gifted Learners (18 hours)
  - Part I - The participants will gain knowledge of:
    - the principles of differentiation,
    - critical features of curriculum for gifted learners, and
    - appropriate curriculum to address advanced learners characteristics
  - Part II – The participants will gain knowledge of instructional strategies appropriate to the teaching of gifted learners
  - Part III – Student products that encourage gifted behaviors

Group A teachers (experimental group) participated in specialized staff development conducted by the researcher that also meets state requirements. The agendas for the five days of training follow the same format as for Group B with emphasis on the characteristics and behaviors of non-traditional gifted learners through the following content:

- Nature and Needs of Gifted Learners
  - Emphasis on the characteristics of gifted learners in culturally diverse and/or economically disadvantaged backgrounds and cultural influences on gifted behavior
- Assessing Student Needs for Gifted Programs
  - Examples of student assessment results of gifted children from these subpopulations; assessment instruments appropriate for under-represented populations
- Curriculum and Instruction for Gifted Learners
  - Instructional strategies that promote the exhibit of gifted behaviors
  - Student projects appropriate for under-represented populations

The Advanced Academics Consultant at Region XIV ESC conducted two follow-up sessions. In August of each year, Region XIV Education Service Center provides a professional development conference to fulfill district's in-service requirements. Group A teachers participated in a follow-up session as a part of the conference. The session reviewed characteristics of non-traditional gifted learners and appropriate instructional strategies. A question and answer period allowed discussion of any questions/concerns the teachers had prior to the beginning of the school year. An additional follow-up session occurred in November, just prior to the gifted program nomination period. Teachers in Group A received a summary sheet of characteristics of non-traditional gifted learners to use when nominating students for gifted program identification.

## Instrumentation

### *Concerns-Based Adoption Model*

On the first morning of training, participating teachers in Group A (experimental group) completed a Stages of Concern Questionnaire, an instrument from the Concerns Based Adoption Model (Hall & Hord, 1987), to assess concerns about nomination, identification, and placement of students from under-represented populations into gifted programs. Group A teachers completed a second Stages of Concern Questionnaire at the end of the five days of training to determine if any progress through the stages occurred. Group A teachers completed a third Stages of Concern Questionnaire at the November follow-up session.

The Advanced Academics Consultant at Region XIV ESC conducted two “one-legged” (interviews short enough to be conducted while standing on one leg) interviews (CBAM method) with Group A teachers – one in the fall and one during the spring semester. The purpose of the conferences was to assess informally what the teachers observe in their classrooms, note the characteristics of traditional and non-traditional gifted learners observed, and any areas in which the teachers need additional assistance regarding understanding of under-represented populations. The findings from the informal assessments were applied to the Levels of Use and Innovation Configuration Checklist.

### *Project SPRING*

The study utilized the Project SPRING Teacher Awareness Workshop with adaptations of materials made to meet state professional development requirements.

The Project SPRING leader’s manual provides detailed instructions for the staff development session, along with all the information, overheads, handouts, and material lists needed to present the workshop. Student work samples and anecdotal information from the Texas Performance Standards Project were used for illustration and training purposes.

### Data Sources

*Research Question 1: What effect does staff development have on changes in teacher attitudes of economically disadvantaged and/or culturally diverse gifted children?*

Analysis of results of the three administrations of the Stages of Concern Questionnaire determined progress through the stages from pre-training through the November follow-up. Analysis of Levels of Use ratings and Innovation Configuration Checklists developed from the two one-legged interviews determined progress through the levels and toward “acceptable” classroom application of the knowledge gained through the staff development.

*Research Question 2: Do changes in teacher attitudes generate greater numbers of nominations for placement in gifted programs?*

Analysis of nomination data collected by teacher determined statistical differences between experimental and control groups and subpopulations of students. Nomination data to be collected include who nominated the student, grade level, ethnicity, socioeconomic status, and assessment results. District data were reported to the researcher utilizing the District Data Tables required by Region 14 ESC as part of the annual Gifted/Talented program evaluation.

*Research Question 3: From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?*

Data were gathered on the number of students identified for gifted services. The data were categorized by ethnicity: White not economically disadvantaged, White economically disadvantaged, Hispanic not economically disadvantaged, Hispanic economically disadvantaged, African American not economically disadvantaged, and African American economically disadvantaged. Data were compared to the total number of students nominated and placed and to the general student population.

### Data Analysis

Stages of Concerns Questionnaires were analyzed using a repeated measures analysis of variance. Comparisons were made between the first and second administrations of the questionnaire, the second and third administrations of the questionnaire, and the first and third administrations of the questionnaire. Levels of Use rating sheets from the two LoU one-legged interviews were analyzed using a paired samples t-test. The Innovation Configuration Checklists were analyzed using paired-samples t-tests for each component and graphs to show trends.

Nomination data were analyzed using paired samples t-tests. Comparisons were made between control and experimental groups for six ethnic groups: White not economically disadvantaged, White economically disadvantaged, Hispanic not economically disadvantaged, Hispanic economically disadvantaged, African American not economically disadvantaged, and African American economically disadvantaged.



Identification data were analyzed using descriptive statistics comparing nominations with identification.

In this study, it was hypothesized that nominations of culturally diverse and/or economically disadvantaged students for gifted programs would increase because of teachers receiving specialized training. Teachers would have greater knowledge of characteristics of under-represented gifted populations and instructional strategies to encourage their emergence. When teachers completed the thirty hours of basic training in gifted education that was developed for this study, teachers would become more alert to the diversity of gifts and talents held by a number of students whom they had previously seen to be inadequate, uninspired, or untalented.

## CHAPTER IV

### RESULTS

The purpose of the study was to promote selection of students from under-represented populations through staff development that informs teachers of the viability of culturally diverse and/or economically disadvantaged students for gifted programs. This study was conducted through summer staff development, which extended, for the experimental group, into the school year. The data collected included Stages of Concerns questionnaires, Levels of Use interviews, and Innovation Configuration checklists from the concerns-based adoption model, student nomination data, and student placement data.

#### Organization of Data Analysis

Following an introductory section that includes descriptive data, the results are presented as they serve to answer each research question. The study investigated whether or not staff development effects teacher nomination of economically disadvantaged and/or culturally diverse children for placement in gifted programs. The first set of analyses examines the concerns of teachers about implementing what was learned in the staff development sessions in their classrooms. The second set of analyses examines whether or not teachers used the instructional strategies presented in the staff development to encourage exhibition of giftedness among underrepresented populations. The third set of analyses examines whether what teachers are doing in their classrooms meets acceptable standards for implementation of the learned instructional strategies. The fourth set examines the nominations of underrepresented

students for gifted programs and whether the difference between nominations by teachers who received the staff development and teachers who did not is significant at the  $p < .05$  level. Finally, the placements of underrepresented students in gifted programs are analyzed to determine if there is a significant difference, at the  $p < .05$  level, between schools participating in the study and schools that did not.

### Descriptive Characteristics of Responders

The sample consisted of schools ( $N = 10$ ), ranging in size from 315 students to 2,599 students, and teachers of grades kindergarten through fifth ( $N = 100$ ). Table 9 shows the average daily attendance by school district. Five schools were randomly selected to serve as the experimental and five the control groups.

Table 9

#### *Average Daily Attendance*

UIL Classification	Experimental/Control	Enrollment
A	Experimental	315
A	Control	379
A	Control	466
A	Experimental	640
AA	Control	678
AA	Experimental	743
AAA	Control	1,253
AAA	Experimental	1,587
AAA	Control	2,375
AAA	Experimental	2,599
Total Control Group		5,151
Total Experimental Group		5,884

Source: October 2007 PEIMS submission

The ethnic makeup of the student sample consisted of White (54%), Hispanic (41%) and African Americans (5%). Of these ethnic groups, 55% were economically disadvantaged.

### Identification Procedures

While the districts used a uniform screening procedure to nominate students into the GT program, independent campus selection committees ultimately selected students. Therefore, selection criteria varied slightly campus to campus. Each district used the same screening instruments and placement criteria. Table 10 presents the instruments used and the minimum scores required for placement.

Table 10

#### *Identification Criteria*

Instrument	Minimum Score
SAGES-2	120 on any one subtest
NNAT	90 <sup>th</sup> percentile
Slocumb-Payne Teacher Perception Inventory	57
SIGS Home Version	120 in any area
Torrance Test of Creative Thinking	119
Portfolio	3

Placement in gifted programs required five of the seven areas meet or exceed the minimum score. Campus selection committees could decide to place a child even if minimum scores were not achieved in accordance with the Texas State Plan for the Education of Gifted Students.

## Analysis of Data

### *Research Question 1*

What effect does staff development have on teacher nomination of economically disadvantaged and/or culturally diverse children for placement in gifted programs?

#### *Stages of Concern*

The concerns-based adoption model was applied to determine the levels at which the knowledge and skills gained in the staff development were applied in the classroom. There were three administrations to teachers of the Stages of Concern questionnaires: one at the beginning of the 30-hour basic training, one at the end of the training, and one at mid-term of the school year four months after the training, immediately following support sessions conducted during the fall semester. Descriptive statistics were obtained for the three administrations. Table 11 presents these statistics, including mean, standard error of the mean, and standard deviation.

Table 11

#### *Descriptive Statistics for Stages of Concern*

	<i>N</i>	Mean	Std. Deviation
	Statistic	Statistic	Statistic
1st Stages of Concern	50	1.64	2.192
2nd Stages of Concern	50	2.16	2.216
3rd Stages of Concern	50	2.58	2.158
Valid N (listwise)	50		

The mean increases across stages from 1.64 to 2.58, indicating that teachers are moving from the awareness level toward refocusing. A mean score of 1.64 on the first questionnaire indicates that teachers were primarily at the first stage – awareness – where there was little concern about or involvement with the knowledge and skills to be presented at the training. The second questionnaire yielded a mean score of 2.16 indicating growth from the awareness stage to the informational stage where there was a general awareness of the knowledge and skills and interest in learning more information. At this stage, teachers are concerned about general characteristics, and requirements for use (Hall, George, & Rutherford, 1998). A mean score of 2.58 on the third questionnaire indicates that teachers are progressing through the “informational” stage and are moving toward the “personal” stage. Concerns became more about the demands of implementing the knowledge and skills into curricula already laden with requirements for high stakes testing.

A repeated measures ANOVA was performed on the means of each administration of the SoC. Table 12 shows the summary table for the repeated measures ANOVA.

Table 12

*Repeated Measure ANOVA Summary Table for Stages of Concern*

Source	SS	df	MS	F	p	$\eta^2$
Individuals	607.927	49	12.407			
Occasion	22.173	1.782	12.444	11.26	<.001	.19
Residual	96.493	87.311	1.105			
Total	726.593	130.093				

Hypothesis 1: *There is a significant increase in scores on each of three administrations of a Stages of Concern Questionnaire.*

The calculated  $F$  ratio for test occasions  $F_o$  equals 11.26 and is less than the critical value of  $F$  for 1.78 and 87.311 degrees of freedom, which is 19.5; therefore, the null hypothesis is not rejected. If  $f$  critical is less than  $f$  calculated then the null hypothesis is not rejected (Hinkle, 1998). Thus, there is no significant increase in scores on each of three administrations of a *Stages of Concern* questionnaire and the null hypothesis is accepted. In terms of probability that the observed differences in the means of the test occasions would have occurred by chance if the null hypothesis were true (the population means are equal) is greater than .05. The researcher analyzed *Stages of Concern* data to determine if the data followed a linear or quadratic trend. The data exhibited a linear trend because the significance level of the tests of within-subjects contrasts is  $<.05$ . In essence, the teachers showed some progress in their concerns, but not significant progress.

### *Levels of Use*

The second instrument employed to determine the levels at which the knowledge and skills gained in the staff development were applied in the classroom was the *Levels of Use*. Two interviews were conducted with each teacher – one at the beginning of the school year and one in the spring. Descriptive statistics were obtained for the two interviews. These statistics, including mean, standard error of the mean, and standard deviation are presented below in Table 13.

A mean score of 2.65 on the first Levels of Use indicates the teachers are at the “Preparation” level, meaning that they know the logistical requirements of applying what

they learned in the training, the necessary resources, and timing for initial use in the classroom. An increase in the mean to 2.98 indicates the teachers are ready to move to the “Mechanical Use” level. At this level the teachers focus most of their effort on the short-term, day-to-day use of the knowledge and skills gained in the training. Any changes in use are made for the teachers’ benefit rather than the students’. Teachers are simply attempting to master the instructional strategies, often resulting in disjointed and superficial use.

Table 13

*Descriptive Statistics for Levels of Use*

	<i>N</i>	Mean	Std. Deviation
	Statistic	Statistic	Statistic
1st Levels of Use	50	2.650	1.9981
2nd Levels of Use	50	2.980	1.9032
Valid N (listwise)	50		

A paired samples *t*-test was performed on the means of each interview. The *t*-test is performed to determine the difference between the means of samples. In determining whether to perform a *t*-test, the researcher sought to verify the probability of the sample mean appearing due to random sampling fluctuation. Table 14 represents the results of the *t*-test.



Table 14

*Paired Samples t-Test for Levels of Use*

1 <sup>st</sup> LoU Mean	2 <sup>nd</sup> LoU Mean	<i>df</i>	<i>t</i>	<i>p</i> *
2.65	2.98	49	-1.566	.124

\* *t* critical for a two-tailed test

*Hypothesis 2: There is a significant increase in levels on two Levels of Use interviews.*

The t-critical value is  $p > .05$ , therefore, the hypothesis that the means of the two interviews are equal is not rejected. The difference between the means does indicate that progression toward the next level occurred, but the change from the first interview to the last was not significant.

*Innovation Configuration*

The final evaluation of teacher application of knowledge and skills was the Innovation Configuration. The answers to questions concerning instructional strategies asked during each Levels of Use interview were used to develop the Innovation Configurations. Teachers were asked if they used the three primary strategies, which ones they used, and how often the strategies were used. According to the CBAM, for Component 1 no use or just minimal use was determined by the researcher to be an unacceptable model of implementation. Implementation for activities only was an acceptable model, and consistent use for each learner was an exemplary model. For Component 2, large group or just cooperative groups was an unacceptable model; large, cooperative, and homogeneous grouping was an acceptable model, and grouping strategies and working independently was an exemplary model. For Component 3, all

students completing the same assignments or only occasionally having choices of assignments was deemed unacceptable; students having at least two choices on most assignments was an acceptable model; and students having choices on most assignments and being able to choose to do independent projects was exemplary.

#### Component 1: Differentiated Instruction

0. No evidence of implementation
1. Minimal implementation
2. Implemented for activities only
3. Consistently used for each learner

#### Component 2: Grouping Strategies

0. Students remain primarily in whole group
1. Utilizes large and cooperative groups
2. Utilizes large, cooperative, and homogeneous groups
3. Utilizes large, cooperative, and homogeneous groups and also allows students to work independently
- 4.

#### Component 3: Student Products

0. All students complete the same assignments
1. Students occasionally choices of assignments
2. Students have at least 2 choices on most assignments
3. Students have at least 2 choices on most assignments or may choose to do independent projects

A score of 0-1 is unacceptable; 2 is acceptable; and 3 is exemplary. Figure 2 presents a line graph of the two Innovation Configurations.

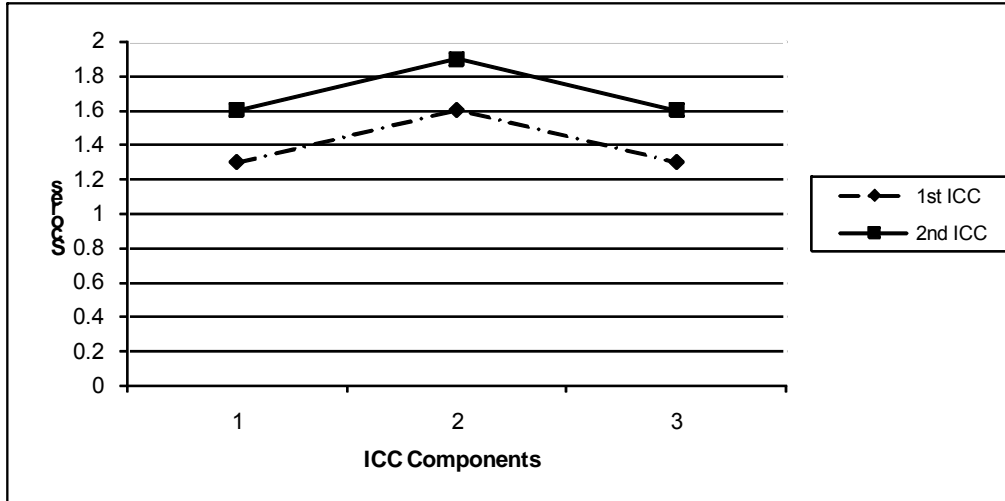


Figure 2. Innovation configurations.

A paired samples *t*-test was performed on the means of each component in the *Innovation Configuration* to determine if growth on the components is statistically significant at  $p < .05$ . Table 15 shows the descriptive statistics for Innovation Configuration Component 1.

Table 15

*Descriptive Statistics for Innovation Configuration Component 1*

	Mean	<i>N</i>	Std. Deviation	Std. Error Mean
1st Innovation Configuration Component 1	1.38	50	1.308	.185
2nd Innovation Configuration Component 1	1.60	50	1.309	.185

The first component of the Innovation Configuration is differentiated instruction. There is a small gain in means from 1.38 to 1.60; however, scores of 0-1 represent an

unacceptable model of application of the knowledge and skills gained from the training.

Table 16 depicts the paired samples t-test for *Innovation Configuration* Component 1.

Table 16

*Paired Samples t-Test for Innovation Configuration Component 1*

1 <sup>st</sup> ICC Component 1	2 <sup>nd</sup> ICC Component t	<i>df</i>	<i>t</i>	<i>t</i> Critical two-tailed
1.38	1.60	49	-1.531	.132

The *t*-critical > .05, therefore, the hypothesis that the means of the two components are equal is not rejected.

Innovation Configuration Component 2 is grouping strategies. Table 17 shows the descriptive statistics for Component 2.

Table 17

*Descriptive Statistics for Innovation Configuration Component 2*

	Mean	<i>N</i>	Std. Deviation	Std. Error Mean
1st Innovation Configuration Component 2	1.66	50	1.171	.166
2nd Innovation Configuration Component 2	1.96	50	1.124	.159

There is a small gain in means from 1.66 to 1.96, indicating that teachers are improving and are very near creating an acceptable model of application of the knowledge and

skills gained from the training. Table 18 depicts the paired samples t-test for *Innovation Configuration Component 2*.

Table 18

*Paired Samples t-Test for Innovation Configuration Component 2*

1 <sup>st</sup> ICC Component 1	2 <sup>nd</sup> ICC Component t	df	t	t Critical two-tailed
1.66	1.96	49	-2.458	.018

The *t*-critical value is less than .05, therefore, the hypothesis that the means of the two components are equal is rejected. The difference between the Means of Component 2 is statistically significant.

The third component in the *Innovation Configuration* is student products. Table 19 shows the descriptive statistics for Component 3.

Table 19

*Descriptive Statistics for Component 3*

	Mean	N	Std. Deviation	Std. Error Mean
1st Innovation Configuration Component 3	1.30	50	1.313	.186
2nd Innovation Configuration Component 3	1.62	50	1.308	.185

Data once again indicates a gain in mean scores for the component indicating that teachers are improving their application of the knowledge and skills gained from the training. Table 20 depicts the paired samples *t*-test for Component 3.

Table 20

*Paired Samples t-Test for Component 3*

1 <sup>st</sup> ICC Component 1	2 <sup>nd</sup> ICC Component t	<i>df</i>	<i>t</i>	<i>t</i> Critical two-tailed
1.30	1.62	49	-2.419	.019

The *t*-critical value is less than .05, therefore, the hypothesis that the means of the two components are equal is rejected. The difference between the Means of Component 3 is statistically significant.

*Hypothesis 3: Innovation Configurations show a significant increase in component scores.*

The mean scores for each component show increase from the first Innovation Configuration to the second. Component 1 increases were not statistically significant. However, Components 2 and 3 were statistically significant. Consequently, what becomes apparent from these analyses is that teachers changed their practice of applying the second and third strategies of grouping and student products, indicating training on the strategies was successful in effecting change in the classroom. The Innovation Configurations answer the question of whether the strategies presented in the training have been fully implemented, what the implementation looks like in classrooms, and what relationship the strategies have to the students. In terms of staff development activities, the Innovation Configurations provide a record of what teachers are actually doing in the classroom, thereby providing valuable information as to what follow-up or staff development needs to be provided to further the implementation process.

The results of the three CBAM elements, stages of concern, levels of use, and innovation configurations, confirm that the staff development provided in this study were effective in initiating the change process. The Stages of Concern questionnaires show an increase in concerns, from awareness to refocusing, on each of the three administrations among teachers in the experimental group. There was also an increase in levels of use on the two Levels of Use interviews, and the Innovation Configurations show a significant increase in component scores indicating that teachers are improving their use of the instructional strategies presented in the training.

### *Research Question 2*

*What effect does staff development have on teacher nomination of economically disadvantaged and/or culturally diverse children for placement in gifted programs?*

Nomination data for experimental and control groups were analyzed across six ethnic groups:

1. White not economically disadvantaged,
2. White economically disadvantaged,
3. Hispanic not economically disadvantaged,
4. Hispanic economically disadvantaged,
5. African American not economically disadvantaged, and
6. African American economically disadvantaged.

Table 21 shows the number of students nominated in each ethnic group by teachers in both groups. Table 22 shows a comparison between the general student population and the nominated population.

Table 21

*Student Nominations by Ethnic Group*

Group	White Not Economically Disadvantaged	White Economically Disadvantaged	Hispanic Not Economically Disadvantaged	Hispanic Economically Disadvantaged	African American Not Economically Disadvantaged	African American Economically Disadvantaged
Control Group	62	15	6	3	1	0
Experimental Group	57	26	3	56	10	3

Table 22

*Percentages of General and Nominated Student Populations by Ethnicity*

Group	White	Hispanic	African American	Economically Disadvantaged
Control Group	89%	24%	1%	21%
Experimental Group	54%	38%	8%	55%
General Student Population	54%	41%	5%	55%



The Texas State Plan for the Education of Gifted and Talented Students states that the gifted program population should mirror the general student population. Following the training, the experimental group nominated a proportionate number of students from each ethnic group.

A chi-square test was performed on each sample by ethnicity. The chi-square is used to determine the observed and expected outcomes of samples. In determining whether to perform a chi-square test, the researcher sought to determine the probability of the differences between observed and expected outcomes of ethnicities of experimental and control groups appearing due to random sampling fluctuation. Table 23 depicts chi-square results for each ethnicity with one degree of freedom.

Table 23

*Chi-Square Results by Ethnicity for Students Nominated*

Group		O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
White Not Economically Disadvantaged	Control	62	59.5	2.5	6.25	.11
	Experimental	57	59.5	-2.5	6.25	.11
		119	119	0		.22 = $\chi^2$ calc.
	.22 < 3.841 therefore, accept null hypothesis					
White Economically Disadvantaged	Control	15	20.5	-5.5	30.25	1.476
	Experimental	26	20.5	5.5	30.25	1.476
		41	41	0		2.952 = $\chi^2$ calc.
	2.952 < 3.841 therefore, accept null hypothesis					
Hispanic Not Economically Disadvantaged	Control	6	4.5	1.5	2.25	.5
	Experimental	3	4.5	-1.5	2.25	.5
		9	9	0		1.0 = $\chi^2$ calc.
	1.0 < 3.841 therefore, accept null hypothesis					

*(table continues)*

Table 23 (continued).

Group		O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Hispanic Economically Disadvantaged	Control	3	29.5	-26.5	702.25	23.81
	Experimental	56	29.5	26.5	702.25	23.81
		59	59	0		47.62 = $\chi^2$ calc.
47.62 > 3.841 therefore the null hypothesis is rejected						
African American Not Economically Disadvantaged	Control	1	5.5	-4.5	15.75	2.86
	Experimental	10	5.5	4.5	15.75	2.86
		11	11	0		5.72 = $\chi^2$ calc.
5.72 > 3.841 therefore the null hypothesis is rejected						
African American Economically Disadvantaged	Control	0	1.5	-1.5	2.25	1.5
	Experimental	3	1.5	1.5	2.25	1.5
		3	3	0		3.0 = $\chi^2$ calc.
3.0 < 3.841 therefore accept null hypothesis						

Note.  $\chi^2$  critical with 1 degree of freedom = 3.841. If  $\chi^2$  calculated <  $\chi^2$  critical the null hypothesis is accepted (Hinkle, 1998).

*Hypothesis 4: Teachers trained in methods of identifying talent and giftedness among economically disadvantaged and/or culturally diverse children will nominate these students for screening into gifted programs at a significantly higher, at the .05 level, than teachers who receive limited or no training in identifying talent and giftedness among economically disadvantaged and/or culturally diverse children.*

The means of the experimental group exceeded the means of the control group in all ethnicities. However, in conducting the *t*-tests, analyses indicated that in each of the six ethnicities tested, the level of significance was greater than .05 in all but one ethnicity – Hispanic Economically Disadvantaged. The results of five tests were statistically insignificant. The Hispanic Economically Disadvantaged test, however, was statistically significant. The statistical significance of the test provides support for the

hypothesis that teachers who are trained to recognize characteristics of a particular ethnic group are better able to select those students.

It was hypothesized that experimental group teachers would respond positively to staff development, handouts provided describing traits of gifted children, and recommend culturally diverse children significantly more than teachers with no preparation for selecting culturally diverse and/or economically deprived children for GT programs. Of the fifty teachers who participated in the experimental group, forty-three made nominations. It is assumed, with the results observed, that if all fifty had made nominations, that more children of differing ethnic backgrounds and/or economically deprived children may have been nominated.

### *Research Question 3*

*From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?*

Placement data for experimental and control groups were analyzed for six ethnic groups:

1. White not economically disadvantaged,
2. White economically disadvantaged,
3. Hispanic not economically disadvantaged,
4. Hispanic economically disadvantaged,
5. African American not economically disadvantaged, and
6. African American economically disadvantaged.

Table 24 shows the number of students placed in each ethnic group. Table 25 shows a comparison of the percentage of students placed in the gifted program in each ethnic group with the general student population.

A chi-square test was performed on each sample by ethnicity. Chi-square is used to determine the difference between observed and expected outcomes of samples. In determining whether to perform a chi-square, the researcher wanted to determine the probability of the differences between observed and expected outcomes of ethnicities of experimental and control groups appearing due to chance. Table 26 depicts chi-square results for each ethnicity.

*Hypothesis 6: Culturally diverse and/or economically disadvantaged students referred for gifted programs will be placed in gifted programs at a higher rate.*

The means of the experimental group exceeded the means of the control group in all ethnicities. In addition, in conducting the *t*-tests, the results of the analyses indicated that in each of the six ethnicities tested, the level of significance was less than .05 in all but two ethnicities – Hispanic Not Economically Disadvantaged in which there were no students who met placement criteria and African American Economically Disadvantaged. The results of these tests were statistically significant at the  $p < .05$  level. The results of the African American Economically Disadvantaged test was statistically insignificant. The null hypothesis for White not economically disadvantaged, White economically disadvantaged, Hispanic economically disadvantaged, and African American not economically disadvantaged is rejected. The null hypothesis for African American Economically Disadvantaged is accepted.

Table 24

*Student Placement by Ethnic Group*

Group	White Not Economically Disadvantaged	White Economically Disadvantaged	Hispanic Not Economically Disadvantaged	Hispanic Economically Disadvantaged	African American Not Economically Disadvantaged	African American Economically Disadvantaged
Control Group	12	1	0	1	1	0
Experimental Group	6	14	0	19	6	1

Table 25

*Percentages of General and Placed Student Populations by Ethnic Group*

Group	White	Hispanic	African American	Economically Disadvantaged
Control Group	87%	7%	7%	13%
Experimental Group	13%	41%	15%	74%
General Student Population	54%	41%	5%	55%

Table 26

*Chi-Square Results by Ethnicity for Students Placed*

Group		O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
White Not Economically Disadvantaged	Control	12	9	3	9	1
	Experimental	6	9	-3	9	1
		18	18	0		2 = $\chi^2$ calc.
	2 < 3.841 therefore, accept null hypothesis					
White Economically Disadvantaged	Control	1	7.5	-6.5	42.25	5.63
	Experimental	14	7.5	6.5	42.25	5.63
		15	15	0		11.26 = $\chi^2$ calc.
	11.26 > 3.841 therefore, the null hypothesis is rejected					
Hispanic Not Economically Disadvantaged	Control	0				
	Experimental	0				
	No students met placement criteria.					
Hispanic Economically Disadvantaged	Control	1	10	-9	81	8.1
	Experimental	19	10	9	81	8.1
		20	20	0		16.2 = $\chi^2$ calc.
	16.2 > 3.841 therefore the null hypothesis is rejected					
African American Not Economically Disadvantaged	Control	1	3.5	-2.5	6.25	1.786
	Experimental	6	3.5	2.5	6.25	1.786
		7	7	0		3.572 = $\chi^2$ calc.
	3.572 < 3.841 therefore the null hypothesis is accepted					
African American Economically Disadvantaged	Control	0	.5	-.5	.25	.5
	Experimental	1	.5	.5	.25	.5
		1	1	0		1.0 = $\chi^2$ calc.
	1.0 < 3.841 therefore the null hypothesis is accepted.					

Note.  $\chi^2$  critical with 1 degree of freedom = 3.841. If  $\chi^2$  calculated <  $\chi^2$  critical the null hypothesis is accepted (Hinkle, 1998).

## Summary of Findings

In summary, analyses of the data revealed several interesting findings. For instance, there were no statistically significant differences between administrations of a *Stages of Concerns* questionnaire over time. This finding may support previous findings that it takes a minimum of three to five years for change to occur (Hall & Hord, 1986). Another important finding that also supports change theory included the examination of teachers' implementation of knowledge and skills gained through the staff development. Again, differences were insignificant between two *Levels of Use* interviews and yet the *Innovation Configurations* developed from the two interviews indicated consistent growth in all components, with components two and three showing statistically significant growth.

Another important finding was that there was no statistically significant difference between ethnicities of students nominated for gifted program screening between experimental and control groups except for Hispanic economically disadvantaged and African American not economically disadvantaged. Hispanic economically disadvantaged is the fastest growing population in the region. However, an important finding occurred in that there were statistically significant differences between White economically disadvantaged and Hispanic economically disadvantaged students who met placement criteria for gifted programs. Hispanic not economically disadvantaged had no students meeting placement criteria. White not economically disadvantaged, African American not economically disadvantaged, and African American economically disadvantaged should no significant differences. It is important to note that the African American population in the region is extremely small. Placement findings would indicate

that the staff development had a significant effect on the accuracy of teacher nominations and placement of underrepresented students.



## CHAPTER V

### DISCUSSION

The present study investigated the effects of staff development on teacher nominations of underrepresented students for gifted programs. The following discussion examines the results of the study and illuminates the findings. The discussion includes deliberations of the assumptions and limitations of the study that offer relevant information. Additional material, garnered from teachers' responses during interviews, provides different insights into the effect of the method. Implications for future research and the value of the findings to the enhancement of the body of knowledge in staff development methodology close the discussion.

#### Summary of the Study

The primary focus of this research has been to determine if specialized staff development could enhance equity in gifted programs. Specifically it examined the nomination and identification of a statistically significant greater number of potentially gifted and talented underrepresented students for gifted programs by teachers participating in the specialized staff development. An ancillary objective has been to determine the teachers' levels of application of knowledge and skills gained through the staff development.

Three primary research questions guided this study. They are as follows:

1. What effect does staff development have on changes in teacher attitudes of economically disadvantaged and/or culturally diverse gifted children?
2. Do changes in teacher attitudes generate greater numbers of nominations for placement in gifted programs?

3. From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?

A review of the literature revealed several factors that influence the under-representation of culturally diverse and/or economically disadvantaged groups. These factors included the effects of poverty, increasing cultural diversity, the relationship between culture and giftedness, and teacher perception. Implications for staff development were reviewed. Staff development plans provided teachers with the knowledge and skills needed to encourage children from underrepresented populations to exhibit their potential and to aid teachers in recognizing giftedness among these populations..

Possible solutions for attending to under-representation were reviewed, such as using a broader definition of giftedness, using multiple criteria in the identification process, and training teachers as nominators of giftedness. Payne's *Framework for Understanding Poverty* was used as the model for understanding economic disadvantage. The framework offered a paradigm providing an appropriate context in which to view cultural diversity and/or economic disadvantage experienced throughout this study.

## Findings

*Research Question 1: What effect does staff development have on changes in teacher attitudes of economically disadvantaged and/or culturally diverse gifted children?*

### *Differences in Stages of Concern*

Three Stages of Concern questionnaires were administered to teachers: one at the beginning of the 30-hour basic training, one at the end of the training, and one at

mid-term of the school year following the training. Results of a repeated measures ANOVA indicated there were no significant increase in scores on each of three administrations. However, the repeated measures ANOVA revealed teachers concerns gradually shifted from being concerned about what is expected of them in implementing the strategies presented in the training toward the effect of instruction on students. The gradual shift is not surprising as the research indicates that individuals typically do not reach even the third stage for a year, with a true paradigm shift taking as long as three to five years (Hall & Hord, 1986).

In spite of the lack of statistical significance in the progression through the stages from awareness to refocusing, increases in scores between administrations of the questionnaires shows that growth occurred. Timely provision of affective experiences and cognitive resources can provide the basis for concerns arousal and resolution, thereby facilitating the development of higher-level concerns (Hall, George, & Rutherford, 1998). In general, it appears that an individual's concerns move toward higher levels with time, successful experience, and the acquisition of new knowledge and skills.

The importance of the results for this study shows that the staff development was successful in increasing the acquisition of knowledge and skills in classroom instruction that encourages the expression of giftedness in populations that are underserved in gifted programs. Successful staff development is crucial in providing teachers, who nominate the vast majority of students for gifted screening, with the tools they need to recognize gifts as they are exhibited by the different ethnicities. As teachers continue to apply the knowledge and skills gained through the training provided through this study,

they will become more adept at providing the type of classroom environment conducive to the appearance of gifts that might otherwise go unseen.

### *Differences in Levels of Use*

The second measure used to determine the levels at which the knowledge and skills gained in the staff development were applied in the classroom was the Levels of Use. Two interviews were conducted with each teacher – one at the beginning of the school year and one in the spring. No significant difference was found between the means of the two interviews. However, as with the Stages of Concern, the data showed an increase in the levels of use of the knowledge and skills gained through the training. This indicates that teachers are becoming more familiar with and more skilled in using the instructional strategies presented in the staff development. From a staff development perspective, the Levels of Use provides valuable information for designing support for teachers' ongoing learning about gifted education. During the Levels of Use interviews, teachers were asked if they were using any of the instructional strategies presented in the training. Those who answered "no" were determined to be nonusers. Of the nonusers interviewed, there were those who were either not interested in any type of change or were forced into implementing the strategies although their views of instruction did not change. As a staff developer, this group of teachers will not benefit from coming and sitting in workshops. One-on-one coaching with strong leadership is needed to effect change in this group.

As a part of the Levels of Use interviews, nonusers were asked whether or not they had begun to use the strategies presented in the training, or were contemplating

use. This group of teachers expressed interest in learning more about the strategies and how to implement them in the classroom. Follow-up sessions designed for their specific grade level or subject area would provide the additional information needed to begin implementation. Pairing with a coach provided the support needed for use of the instructional strategies to grow over time, changing these nonusers into users.

If the teachers responded to the interviewer by indicating that they were using the instructional strategies, they were asked which strategies were being used and how often. There were two distinct groups of users. One group had begun using the instructional strategies, but were having difficulty reconciling their previous classroom practices with what they were doing. This group needed opportunities to discuss these issues with experienced users or with the ESC consultants to dissuade the teachers' anxieties. The second category of users interviewed were already regular and committed users of the presented instructional strategies in their schools. These teachers were valuable change agents in the schools and were used to provide models of what implementation or successful instructional strategies.

It is interesting to note that the two school districts showing the most growth in progression, from nonuse to renewal, indicated repeatedly during the *Levels of Use* interviews, that their administrators required implementation of the knowledge and skills gained in the training. The teachers noted that administrator walk-throughs and classroom observations looked for specific examples of inclusion of the instructional strategies in the classroom. These administrators also required weekly lesson plans outlining implementation of the strategies.

#### *Differences in Innovation Configurations*

The final measure applied to determine the levels of application of knowledge and skills was the Innovation Configuration. The ICC Checklist consisted of three components: Differentiated Instruction, Grouping Strategies, and Student Products. The first component, differentiated instruction showed improvement from the first ICC to the second, but the growth was not statistically significant. This is a critical issue in that differentiated instruction is the means by which individual student needs are met. Eight of the ten school districts participating in the study provide program services to their gifted students through differentiated instruction in the regular classroom. Only two of the districts provide any type of pull-out program for their gifted students. Gifted students will only show their gifts when classroom instruction encourages them to do so. The lack of statistical significance in this component indicates that the training portion emphasizing differentiated instruction requires expansion and additional follow-up must be done with teachers.

The second component, Grouping Strategies, showed significant growth from the first ICC to the second. These grouping strategies take place in the regular classroom. Only the class AAA schools do any type of cluster grouping with their gifted students. In the other districts the gifted students are distributed evenly across sections of the grade level.

*Research Question 2: Do changes in teacher attitudes generate greater numbers of nominations for placement in gifted programs?*

Nomination data for experimental and control groups were analyzed for six ethnic groups: 1) White not economically disadvantaged, 2) White economically disadvantaged, 3) Hispanic not economically disadvantaged, 4) Hispanic economically

disadvantaged, 5) African American not economically disadvantaged, and 6) African American economically disadvantaged. There were differences found between experimental and control groups for each of the six ethnic groups, however, only two groups had significant differences – Hispanic Economically Disadvantaged and African American Not Economically Disadvantaged. The differences indicate that the training was successful, but requires additional emphasis on recognizing gifted characteristics in the five specific populations. It is interesting to note that Hispanic Economically Disadvantaged group is the fastest growing population in the region is economically disadvantaged, especially Hispanic economically disadvantaged. The vast majority of Hispanic students in the region are also economically disadvantaged. Region 14 of west central Texas has suffered severe economically decline in the past decade. Because of the decline, families left the region to pursue economic opportunities elsewhere. The population remaining is largely poor with the largest minority group being Hispanic. The African American population in the rural districts in the study constitute a small portion of the total population. Once again, the majority of African Americans in the rural districts are also economically disadvantaged.

The training heavily emphasized the Hispanic and economically disadvantaged populations (both White and Hispanic) that comprise the majority of students in the schools. During the training as student profiles were presented teachers commented that they had students in their classrooms that fit the profiles. A dialogue began with teachers at each table and teachers began making notes of students' names and characteristics. The training seemed to create an "aha moment" for many of the

teachers. The “aha moment” resulted in increased nominations of underrepresented students.

One last indication of the effectiveness of the training was a comparison of nomination data from the past three years in the region. Not surprisingly the data were very similar in ethnic makeup to the control group in the study. The training presented to the control group was used in the region during the past three years and so were the identification and placement criteria for the gifted programs. The only difference was training specialized to emphasize underserved populations that was presented to the experimental group; Therefore, the training was effective in increasing the nomination pool and identification of the culturally diverse and/or economically disadvantaged students for gifted programs.

*Research Question 3: From the number of culturally diverse and/or economically disadvantaged students referred for screening, what was the total number of students identified for gifted program services?*

Placement data for experimental and control groups were analyzed for six ethnic groups:

1. White not economically disadvantaged,
2. White economically disadvantaged,
3. Hispanic not economically disadvantaged,
4. Hispanic economically disadvantaged,
5. African American not economically disadvantaged, and
6. African American economically disadvantaged.



Results of the analysis indicated significant differences between control and experimental groups in two of the six groups – White not economically disadvantaged and Hispanic economically disadvantaged. No Hispanic not economically disadvantaged students met placement criteria. Results indicate that teachers who received the specialized training increased the nomination pool, including students previously overlooked for nomination. The larger nomination pool resulted in greater accuracy in identification of gifted students from each population. The implementation of the instructional strategies presented in the training provided an outlet for gifted behaviors not previously seen in traditional classroom environments. The training was effective in focusing attention on groups traditionally ignored because they do not fit the White, middle class definition of gifted. Teachers commented during the training that they felt they had done a “grievous disservice” to their students by not recognizing the gifted potential sooner.

The results of the African American Economically Disadvantaged population were statistically insignificant. It should also be noted that the African American population is only 7% of the student population as a whole. Generalizing the results of data analysis on such a small population is not encouraged.

The effectiveness of the staff development presented to the experimental group is clear when percentages of students nominated by experimental and control groups are reviewed. The control group nominations were predominantly (71%) White not economically disadvantaged – the group that is most over-represented in gifted programs. The experimental group nominations were only 37% White not economically disadvantaged – almost half the number of nominations made by the control group.

Similar differences were seen in the percentages of Hispanic economically disadvantaged. The control group nominations were only 3% Hispanic economically disadvantaged while the experimental group percentage was 36%. These differences are dramatic and further indicate the effectiveness of the staff development.

### Limitations

The results of this study must be interpreted in the context of the methodological limitations within the study. The first limitation is the population proposed in the study. The study is limited to school districts in Region XIV of Texas whose disproportionate representation of economically disadvantaged (including Hispanic, African American, or Caucasian students living in poverty) or culturally diverse students (Hispanic or African American) is identified by the Texas Education Agency through the Performance Analysis System / Data Analysis System. Districts with similar demographics were paired to attempt to control this limitation. However, district demographics did differ slightly. A more balanced sample might have been beneficial in answering the research questions.

The subgroups of African American and African American economically disadvantaged are included in the study with the recognition that the number of students in these groups in the participating districts is extremely small. Data were analyzed to determine trends concerning these groups and not to generalize to the population as a whole. The Hispanic population included in this study does not include students of limited English proficiency because the numbers are so small that trends cannot be determined.

Another limitation is the dependence of the study on the accuracy of the state Public Information Management System (PEIMS) data. Districts endure numerous checks and balances to ensure the accuracy of data reporting. The participating districts all received approval of their PEIMS reports from the Texas Education Agency.

The final limitation was whether students nominated for gifted programs are actually a good match with the identification instruments and the type of program offered. Each school district that participates in the Region XIV contracted services arrangement adheres to a common set of identification procedures and instruments. Additional students may have been identified if identification procedures and instruments could be used that better fit the characteristics of underserved populations.

#### Implications for Future Research

The findings in this study highlight the importance of training teachers to recognize the gifted characteristics of under-represented groups and to support and encourage their decision to nominate these children. The staff development humanized the under-represented children through their ethnic characteristics and self-descriptions. Seeing the children through their own eyes through writings in their native languages opened the eyes of teachers to who these gifted under-represented students are and what they have to offer. The gifted community is challenged to open their eyes to a means of getting teachers, the primary nominators of students for gifted programs, to see that gifted students are not just White and middle-class. By implementing training programs such as the one used in this study, a paradigm shift can occur that will effect gifted education in a manner not heretofore noted. The implications for staff

development provide insight on how to make improvements to the basic training required by the state. Since the findings in this study indicate that specialized training results in more accurate, increased nomination and identification of underrepresented students for gifted programming, implications emerge for certification requirements for teachers of gifted education.

The use of a common set of identification instruments and procedures should be further studied empirically to determine if allowing no changes in instruments results in elimination of students who might otherwise be identified. Identification practices need a tighter match to program services in general but also in specific areas of giftedness. Appropriate services for students gifted intellectually, academically, creatively, and artistically should be thoughtfully developed. Program quality should not be sacrificed for broad identification procedures that are not matched to program services. Underrepresented groups, including culturally diverse and/or economically disadvantaged, need to be nominated and identified for gifted programs using nontraditional approaches and performance-based assessments in addition to more traditional methods. It would be interesting to investigate whether students who are identified as gifted in the region are placed in programs that are designed to serve their specific areas of giftedness or are students simply identified as gifted and coded as such without receiving the services needed to develop their gifts into talents.

#### Significance of the Study to the Field

The present study offers additional insight into the identification of underrepresented populations in gifted programming. Unlike previous studies, the study

investigated the effect of specially designed staff development and the application of knowledge and skills gained through the training on increasing the nomination, identification, and placement of underserved groups. It capitalized upon the most common nominator of students for gifted program identification – the teacher, to explore their effectiveness in correctly recognizing gifted students from culturally diverse and/or economically disadvantaged students in their classrooms, which added to the body of literature on staff development. The study explored new content for staff development that comprises the state mandated thirty hours of basic training in gifted education that perhaps could increase the representation of culturally diverse and/or economically disadvantaged students in gifted programming. The study also deepened the understanding of the field for how staff development interacts with the effectiveness of the nomination and identification process in students from underserved groups. The training provided information on the characteristics of gifted children from each of the six ethnicities. Teachers were given sample student assessments from each ethnicity and were asked to determine if the child is gifted. Teachers were also presented with instructional strategies proven to be effective in encouraging gifted behaviors in the ethnicities studied. Finally, teachers were given sample student products from the different ethnic groups to provide concrete examples of how the instructional strategies presented are effective with the children. These targeted staff development approaches, resulted in an effective means of altering recommendations and eventual placements of underrepresented students in gifted programs.

APPENDIX A  
STAGES OF CONCERN QUESTIONNAIRE

The purpose of this questionnaire is to determine what people who are nominating or thinking about nominating students for your district’s gifted/talented program are concerned about at various times during the thirty-hour gifted/talented staff development process. The items were developed from typical responses of schoolteachers who ranged from no knowledge at all about gifted/talented programs to many years experience in teaching gifted children. Therefore, a good part of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time. For the completely irrelevant items, please circle “0” on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

For example:

This statement is very true of me at this time.	0	1	2	3	4	5	6	7
This statement is somewhat true of me now.	0	1	2	3	4	5	6	7
This statement is not at all true of me at this time.	0	1	2	3	4	5	6	7
This statement seems irrelevant to me.	0	1	2	3	4	5	6	7

Please respond to the items in terms of your present concerns, or how you feel about your involvement or potential involvement with

**gifted program nomination and identification**

(Please specify the innovation)

There is no one definition of this program, so please think of it in terms of your own perceptions of what gifted program nomination and identification involves. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with the gifted program identification process.

Thank you for taking time to complete this task.

<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Irrelevant</b>	<b>Not true of me now</b>		<b>Somewhat true of me now</b>			<b>Very true of me now</b>	

1.	I am concerned about students' attitudes toward this innovation.	0	1	2	3	4	5	6	7
2.	I now know of some other approaches that might work better.	0	1	2	3	4	5	6	7
3.	I don't even know what the innovation is.	0	1	2	3	4	5	6	7
4.	I am concerned about not having enough time to organize myself each day.	0	1	2	3	4	5	6	7
5.	I would like to help other faculty in their use of the innovation.	0	1	2	3	4	5	6	7
6.	I have a very limited knowledge about the innovation.	0	1	2	3	4	5	6	7
7.	I would like to know the effect of reorganization on my professional status.	0	1	2	3	4	5	6	7
8.	I am concerned about conflict between my interests and my responsibilities.	0	1	2	3	4	5	6	7
9.	I am concerned about revising my use of the innovation.	0	1	2	3	4	5	6	7
10.	I would like to develop working relationships with both our faculty and outside faculty using this innovation.	0	1	2	3	4	5	6	7
11.	I am concerned about how the innovation affects students.	0	1	2	3	4	5	6	7
12.	I am not concerned about this innovation.	0	1	2	3	4	5	6	7
13.	I would like to know who will make the decisions in the revised identification process.	0	1	2	3	4	5	6	7
14.	I would like to discuss the possibility of using the innovation.	0	1	2	3	4	5	6	7
15.	I would like to know what resources are available if we decide to adopt this innovation.	0	1	2	3	4	5	6	7
16.	I am concerned about my inability to manage all the innovation requires.	0	1	2	3	4	5	6	7
17.	I would like to know how my teaching or administration is supposed to change.	0	1	2	3	4	5	6	7
18.	I would like to familiarize other departments or persons with the progress of this new approach.	0	1	2	3	4	5	6	7

**0**                      **1**                      **2**                      **3**                      **4**                      **5**                      **6**                      **7**  
**Irrelevant**            **Not true of me**            **Somewhat true of me now**            **Very true of me now**

19.	I am concerned about evaluating my impact on students.	0	1	2	3	4	5	6	7
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20.	I would like to revise the innovation's instructional approach.	0	1	2	3	4	5	6	7
21.	I am completely occupied with other things.	0	1	2	3	4	5	6	7
22.	I would like to modify our use of the innovation based on the experiences of our students.	0	1	2	3	4	5	6	7
23.	Although I don't know about this innovation, I am concerned about things in the area.	0	1	2	3	4	5	6	7
24.	I would like to excite my students about their part in this approach.	0	1	2	3	4	5	6	7
25.	I am concerned about time spent working with nonacademic problems related to this innovation.	0	1	2	3	4	5	6	7
26.	I would like to know what the use of the innovation will require in the immediate future.	0	1	2	3	4	5	6	7
27.	I would like to coordinate my effort with others to maximize the innovation's effects.	0	1	2	3	4	5	6	7
28.	I would like to have more information on time and energy commitments required by this innovation.	0	1	2	3	4	5	6	7
29.	I would like to know what other faculty are doing in this area.	0	1	2	3	4	5	6	7
30.	At this time, I am not interested in learning about this innovation.	0	1	2	3	4	5	6	7
31.	I would like to determine how to supplement, enhance, or replace the innovation.	0	1	2	3	4	5	6	7
32.	I would like to use feedback from students to change the program.	0	1	2	3	4	5	6	7
33.	I would like to know how my role will change when I am using the innovation.	0	1	2	3	4	5	6	7
34.	Coordination of tasks and people is taking too much of my time.	0	1	2	3	4	5	6	7
35.	I would like to know how this innovation is better than what we have now.	0	1	2	3	4	5	6	7

APPENDIX B  
LEVELS OF USE INTERVIEW QUESTIONS

Question	Purpose
<p>Are you using the instructional strategies modeled during the curriculum training?</p>	<p>To distinguish between users and nonusers; to break LoU 0-II from LoU III-VI.</p>
<p>IF YES</p>	
<p>What do you see as the strengths and weaknesses of the gifted nomination and identification process on your campus? Have you made any attempt to do anything about the weaknesses?</p>	<p>To probe Assessing and Knowledge categories</p>
<p>Are you currently looking for any information about teaching gifted learners in the regular classroom? What kind? For what purpose?</p>	<p>To probe Acquiring Information category.</p>
<p>Do you ever talk with others about the innovation? What do you tell them?</p>	<p>To probe Sharing category.</p>
<p>What do you see as being the effects of using the instructional strategies in the regular classroom? Are you doing any evaluating, either formally or informally, of your use of instructional strategies? Have you received any feedback from students? What have you done with the information you get?</p>	<p>To probe Assessing category.</p>
<p>Have you made any changes in how you teach since attending the training? What? Why? If not, are you considering making any changes?</p>	<p>To distinguish between LoU III, LoU IV B and LoU IV A; to probe Status Reporting and Performing categories.</p>
<p>As you look ahead to later this year, what plans do you have in relation to incorporating the instructional strategies in your classroom?</p>	<p>To probe Planning and Status Reporting categories.</p>
Question	Purpose
<p>Are you working with others (outside of anyone you may have worked with from</p>	<p>To separate LoU V from III, IV A and IV B. If a positive response is given, LoU V</p>

<p>the beginning) in your implementation of the instructional strategies? Have you made any changes in your use of the strategies based on this coordination?</p> <p>Are you considering or planning to make major modifications or to replace the instructional strategies at this time?</p>	<p>probes (below) are used.</p> <p>To separate LoU VI from III, IV A, IV B and V.</p>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">LoU V Probes</div>	
<p>How do you work together? How frequently?</p> <p>What do you see as the strengths and the weaknesses of this collaboration?</p> <p>Are you looking for any particular kind of information in relation to this collaboration?</p> <p>When you talk to others about your collaboration, what do you share with them?</p> <p>Have you done any formal or informal evaluation of how your collaboration is working?</p> <p>What plans do you have for this collaborative effort in the future&gt;</p>	

Question	Purpose
<div style="border: 1px solid black; padding: 5px; display: inline-block;">IF NO</div>	
<p>Have you made a decision to use the strategies in the future? If so, when?</p>	<p>To separate LoU 0 from I; to probe Status Reporting, Planning and Performing categories. To separate LoU I from II.</p>
<p>Can you describe the strategies for me as you see them?</p>	<p>To probe Knowledge category.</p>

<p>Are you currently looking for any information about the strategies? What kinds? For what purpose?</p>	<p>To probe Acquiring Information category.</p>
<p>What do you see as the strengths and weaknesses of the strategies for your situation?</p>	<p>To probe Assessing category.</p>
<p>At this point in time, what kinds of questions are you asking about the strategies? Give examples if possible.</p>	<p>To probe Assessing, Sharing, and Status Reporting categories.</p>
<p>Do you ever talk with others and share information about the strategies? What do you share?</p>	<p>To probe Sharing category.</p>
<p>What are you planning with respect to the strategies? Can you tell me about any preparation or plans you have been making for the use of the strategies?</p>	<p>To probe Planning category.</p>
<p>Can you summarize for me where you see yourself right now in relation to the use of the strategies?</p>	<p>To get a concise picture of the user's perception of his/her use or nonuse.</p>

APPENDIX C

LEVEL OF USE RATING SHEET (CBAM, 1975)

Interview: #1 #2  
Date:

Teacher:

Interviewer:

Level	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing	Overall LoU
Non-Use	0	0	0	0	0	0	0	0
Orientation	I	I	I	I	I	I	I	I
Preparation	II	II	II	II	II	II	II	II
Mechanical Use	III	III	III	III	III	III	III	III
Routine	IVA	IVA	IVA	IVA	IVA	IVA	IVA	IVA
Refinement	IVB	IVB	IVB	IVB	IVB	IVB	IVB	IVB
Integration	V	V	V	V	V	V	V	V
Renewal	VI	VI	VI	VI	VI	VI	VI	VI
User is not doing	ND	ND	ND	ND	ND	ND	ND	ND
No information in interview	NI	NI	NI	NI	NI	NI	NI	NI

Is the individual a past user? Yes No

How much difficulty did you have in assigning this person to a specific LoU? None 1 2 3 4 5  
Very much

Comments:

APPENDIX D  
INNOVATION CONFIGURATION CHECKLIST



Interview: #1 #2  
Date:

Teacher:

Component 1: Differentiated Instruction

- Consistently used for each learner
- Implemented for activities only
- Minimal implementation observed
- No evidence of implementation

Component 2: Grouping Strategies

- Primarily whole group
- Cooperative groups
- Homogeneous groups
- Working independently

Component 3: Student Products

- All students complete the same assignments
- Students have minimal choices of assignments
- Students consistently have at least 2 choices on each assignment
- Students are allowed to do independent projects

APPENDIX E  
NATURE AND NEEDS OF NONTRADITIONAL GIFTED LEARNERS  
WORKSHOP OUTLINE

<p><b><u>Purpose</u></b></p> <p>The purpose of this workshop is to help teachers understand that many gifted students are not being identified for program intervention because they do not resemble the stereotypical picture of a gifted child. Multicultural and poverty awareness must be emphasized to find the gifted potential in all cultures and populations.</p> <p>Identification of rural disadvantaged gifted children for gifted program intervention will pay off, in the long run, for their communities. Hopefully, these gifted students will finish high school, go on to college, and then return to address major economic and social problems in rural communities.</p> <p>Teachers will have a greater awareness and a better understanding of the nature and needs of gifted learners if they understand what giftedness looks like in various subpopulations.</p>	
<p><b><u>Getting Ready</u></b></p> <p>Prepare the following MATERIALS:</p> <p>For the TRADITIONAL CHARACTERISTICS Section:</p> <p>Slides and Handouts:  #1 – Regional Identification Procedures/Student Profile Form  #2 – State Definition  #3 – Characteristics of Advantaged Gifted Children</p> <p>For the SPECIAL POPULATIONS Section:</p> <p>Slides and Handouts:  #4 – Rural Communities  #5 – Economically Disadvantaged/Giftedness in Poverty  #6 – Characteristics of Rural Economically Disadvantaged Gifted Children  #7 – Characteristics of Rural Hispanic Gifted Children  #8 – Characteristics of Rural African American Gifted Children  #9 – Characteristics of Gifted Children: Traditional, Economically Disadvantaged, Hispanic, and African American</p> <p>For the ROLE OF TEACHERS Section:</p> <p>Video:  Grade 4 Performance Standards Project student presentation</p>	

Slides and Handouts:

#10 – Characteristics of Rural Gifted Students: Advantaged and Disadvantaged

#11 – Molly's Story

11.1 Molly's Original Story

11.2 Molly's Corrected Story

#12 – Creative Writing Assessment – Definitions and Scoring

#13 – Rosa's Story

13.1 Rosa's Original Story

13.2 Rosa's Corrected Story

#14 – Luis's Story

14.1 Luis's Original Story

14.2 Luis's Corrected Story

#15 – Lashay's Story

15.1 Lashay's Original Story

15.2 Lashay's Corrected Story

#16 – Shameka's Story

16.1 Shameka's Original Story

16.2 Shameka's Corrected story

#17 – Molly's Torrance

17.1 Activity 1

17.2 Activity 2

17.3 Activity 3

#18 – Definitions and Scoring for the Torrance

#19 – Maria's Torrance

19.1 Activity 1

19.2 Activity 2

19.3 Activity 3

#20 – Thomas's Torrance – Activity 2

#21 – Leroy's Torrance – Activity 3

#22 – Rosa's Torrance – Activity 3

#23 – Slocumb-Payne Teacher Inventory

#24 – Naglieri Nonverbal Abilities Test (NNAT) Sample

#25 – Screening Assessment for Gifted Elementary and Secondary Students Second

Edition (SAGES-2) Sample

For the SUMMARY Section:

Slides and Handouts:

#26 – For more information

#27 – Workshop Evaluation Form

The Nature and Needs of Gifted Learners workshop has three parts. In the first part, traditional identification procedures and

<p>characteristics of traditional gifted children will be discussed.</p> <p>In the second part, the focus will be on students from rural communities, rural schools, and those from culturally diverse and economically disadvantaged backgrounds. Gifted students from culturally diverse and economically disadvantaged backgrounds exhibit characteristics different from those of traditional gifted students.</p> <p>The third part of the workshop emphasizes the important role that teachers play in the process of identifying these hidden gifted students. Instructional strategies useful in encouraging the display of gifted potential will be discussed.</p>	
<p style="text-align: center;"><b>Traditional Characteristics</b></p> <p><b><u>Introduction</u></b></p> <p>In this part of the workshop, information about traditional gifted students, state definition, and a composite profile of the traditional gifted child will be presented.</p> <p><b><u>Purpose</u></b></p> <p>The objectives are:</p> <ul style="list-style-type: none"> <li>• To provide information about traditional gifted students.</li> <li>• To clarify faulty perceptions and answer questions about gifted subpopulations.</li> </ul> <p><b><u>Procedure</u></b></p> <p>Traditionally a student who is identified for a gifted program will have a profile that lists scores that meet or exceed an established district line on assessments and teacher/parent recommendations.</p> <p>The majority of students who fit this profile are from white, middle and upper-level socioeconomic homes. Every few students from populations of different cultures or low socioeconomic status are recognized as gifted and talented based on traditional measures.</p>	<p><u>Slide 1/ Handout #1 – Regional Identification Procedures/Student Profile Form</u></p>
<p>Gifted and talented programs are provided by the public schools for children whose needs are not being met in the regular classroom. The state definition states that . . . "gifted and talented student" means a child or youth who performs at or shows the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment and who:</p> <p>(1) exhibits high performance capability in an intellectual, creative, or artistic area;</p>	<p><u>Slide/Handout #2 – State Definition</u></p>

<p>(2) possesses an unusual capacity for leadership; or  (3) excels in a specific academic field” (Texas Education Code §29.121).</p> <p>“High performance capability” (looking at the definition) refers to children who have high abilities but do not show them on traditional performance measures. “Specific academic ability” includes students who may have exceptional abilities in one subject or field but not in others.</p> <p>The addition of creative, artistic, and leadership capacities expands the definition of giftedness beyond the intellectual performances measured by traditional intelligence tests. This expansion of giftedness into other domains is carried still further by Howard Gardner’s multiple intelligence theory and Robert Sternberg’s mental strategies for problem solving.</p> <p>Despite the expanded definition of giftedness, school districts in the state continue to use varying methods for identifying students for gifted program services. Region 14 is adapting traditional identification measures to accept a “preponderance of evidence” gathered for each student rather than an established cutoff point.</p> <p>Identification procedures that use a definitive cutoff point greatly favor the acculturative experiences of urban and suburban, white, middle-class children whose values are those of societies’ dominant Euro-American culture. The characteristics of gifted children with these acculturation experiences are listed in Slide/Handout #3 – Characteristics of Advantaged Gifted Children.</p>	
<p><b><u>Characteristics of Advantaged Gifted Children</u></b>  Gifted children from white, urban/suburban, middle-class backgrounds exhibit characteristics traditionally thought of as the typical characteristics of gifted students. These characteristics were compiled by Lewis Terman in his longitudinal studies entitled <i>The Genetic Study of Genius</i>, begun in the mid 1920’s.</p> <p>The characteristics of these advantaged gifted students tend to be as follows:</p> <ul style="list-style-type: none"> <li>• They speak standard English, are verbal in the classroom and in social situations, and have good oral communication skills.</li> <li>• They are active participants in all classroom activities.</li> </ul>	<p><u>Slide/handout #3</u>  - Characteristics of Advantaged Gifted Children</p>

<ul style="list-style-type: none"> <li>• They perform educational tasks within time limitations, as well as completing all classroom assignments and homework.</li> <li>• They perform well on standardized tests and do well in all subjects.</li> <li>• They produce written work in proper grammatical form with good spelling and legible handwriting.</li> <li>• They demonstrate their strengths within the academic classroom.</li> </ul> <p>They usually perform equally well on verbal and nonverbal tests.</p>	
<p><b><u>Summary of Traditional Gifted Students</u></b></p> <p>This profile of the traditional gifted student is the stereotypical picture of gifted students held by the general public.</p> <p>Traditional gifted programs identify students based on the following:</p> <ul style="list-style-type: none"> <li>• High standardized test scores</li> <li>• High IQ scores</li> <li>• High grade point averages</li> <li>• Good teacher recommendations</li> </ul> <p>Students who fit this profile are usually:</p> <ul style="list-style-type: none"> <li>• White</li> <li>• Middle and upper-level socioeconomic status</li> <li>• Acculturated to urban/suburban experiences</li> </ul> <p>The characteristics of traditional identified gifted children are less likely to be exhibited by gifted children who are from economically disadvantaged or culturally diverse homes.</p>	
<p style="text-align: center;"><b>Special Rural Populations</b></p> <p><b><u>Introduction</u></b></p> <p>Not all gifted children come from middle and upper-class homes, or from urban and suburban areas, or from families who are concerned with significant achievement in schools. Not all gifted children score high on IQ tests or on standardized tests.</p> <p><b><u>Purpose</u></b></p>	

The objectives of this section are:

- To promote awareness that gifted children exist in all segments of society.
- To examine the changing economy in rural communities and the effect this has on local schools.
- To identify circumstances within economically disadvantaged populations that may constrain a child's performance in school.
- To consider gifted children who live in rural areas, are economically disadvantaged, and/or culturally diverse.

### **Procedure**

Consider the following questions:

- Can a student who makes poor grades or doesn't pay attention be gifted?
- Can a child who uses incorrect verb tense be gifted?
- What about the student who scores in the 50<sup>th</sup> percentile and below? Can he/she be gifted?
- What percentage of your school population qualifies for free or reduced lunch? What is the percentage of these "poor" children in your gifted program?
- Are there any students with disabilities in your gifted program? Why not?
- What percentage of your school population is from a culturally different background? Do you have the same percentage in your gifted program?
- Do you know some students who are really bright, but don't make good grades or score well on tests? Would they benefit from some special programs or options that are not part of the regular classroom curriculum?

### **Project SPRING**

Federal funds were made available to develop new methods for identifying and programming for special populations of gifted students through the Javits Act. Educators had become concerned with the lack of representation of students from these populations in gifted programs throughout the country.

Project SPRING (Special Populations Rural Information



<p>Network for the Gifted), at Indiana University, has developed methods to identify the following underserved rural disadvantaged gifted populations: economically disadvantaged, Hispanic, and African American. To identify these diverse groups, culturally specific assessments and procedures were developed and field tested by Project SPRING.</p> <p>The Nature and Needs of Gifted Learners Workshop considers culturally specific information on rural disadvantaged, Hispanic, and/or African American gifted children, while examining characteristics that are recognizably in the classroom.</p>	
<p><b><u>Rural Communities</u></b></p> <p>In the past decade major economic and social forces have profoundly affected rural communities.</p> <p>Traditional rural occupations of farming, ranching, oil field work, and small manufacturing that once supported the majority of rural residents provide only one-third of rural employment today. Such service-producing industries such as tourism, insurance, and real estate not account for nearly two-thirds of rural employment.</p> <p>In 2004 the USDA reported that family income in rural areas in Texas is 60% less than that in metropolitan areas. Declining income and lack of job opportunities in west central Texas have resulted in a significant rural exodus, particularly of many young families with roots in the community going back several generations.</p> <p>Rural schools, like all schools, face many problems, but in rural areas the difficulties relate mainly to size, distance, and resources. Lower tax bases and smaller school populations translate into less money, fewer programs, fewer teacher specialists in subject areas, and less money spend on technology and materials.</p> <p>Distance restricts field trips and cultural resources for students and families; it inflates expenses for all enrichment activities; and it increases costs for staff development. Lack of readily available resources, both monetary and cultural, severely limits educational services in rural areas.</p>	<p><b><u>Slide/Handout #4</u></b> – Rural Communities</p>
<p><b><u>Economically Disadvantaged</u></b></p>	<p><b><u>Slide/Handout #5</u></b> – Economically</p>

<p>For some children the lack of money in families that are economically disadvantaged:</p> <ul style="list-style-type: none"> <li>• Limits the purchase of toys, equipment, books, and writing tools.</li> <li>• Restricts visits to museums, historical sites, new geographic areas, and meeting people who are different from themselves.</li> <li>• Arrow the opportunity for challenging experiences.</li> </ul> <p>Parents in these families are easily preoccupied with earning money for necessities and find that:</p> <ul style="list-style-type: none"> <li>• Their expectations for better things are frustrated.</li> </ul> <p>They are likely to have a minimal amount of formal schooling and lack information necessary to help their own children.</p>	<p>Disadvantaged</p>
<p><b><u>Characteristics</u></b></p> <p>Gifted students from a rural and economically disadvantaged background exhibit characteristics that are different from those of the traditional gifted student.</p> <p>These special populations are usually overlooked when selection is based on standardized test scores and cutoffs. These children’s distinctive characteristics may be viewed as both positive and negative within the context of formal education.</p> <p>Characteristics of rural disadvantaged gifted children that detract from gifted and talented identification are as follows:</p> <ul style="list-style-type: none"> <li>• Many times rural children will speak a nonstandard regional dialect.</li> <li>• They may be less verbal in oral communication skills.</li> <li>• They tend to be passive participants in classroom activities, unless the subject is one of special interest to them.</li> <li>• They may be relatively unaffected by time pressures, working slowly but meticulously.</li> <li>• They are likely to be lax in completing assignments and homework.</li> <li>• They do not perform well on standardized tests.</li> </ul> <p>The strengths of rural disadvantaged gifted children are:</p> <ul style="list-style-type: none"> <li>• They may show exceptional ability in one subject and average to below average in another.</li> <li>• They produce written work that may be of high quality in content but of poor quality in grammatical form, spelling, and handwriting.</li> </ul>	<p><u>Slide/Handout #6</u> – Characteristics of Rural Disadvantaged Gifted Children</p>

<ul style="list-style-type: none"> <li>• They are more likely to demonstrate their strengths outside the classroom in such areas as auto mechanics, in knowledge that is specific to their rural environment, in creativity related to 4-H or FFA projects, or in musical talent and the performing arts.</li> </ul> <p>They are likely to perform better on nonverbal than verbal tests.</p>	
<p><b><u>Hispanic</u></b></p> <p>Characteristics of rural disadvantaged Hispanic gifted children that detract from gifted and talented identification are as follows:</p> <ul style="list-style-type: none"> <li>• They may be limited or nonproficient speakers of English.</li> <li>• They tend to be passive participants in classroom activities.</li> <li>• They tend to focus on instructional process rather than the end product.</li> <li>• They are often unmotivated by routine classroom instruction.</li> <li>• They are not likely to perform well on standardized tests.</li> </ul> <p>The strengths of rural disadvantaged Hispanic gifted children are:</p> <ul style="list-style-type: none"> <li>• They are creative in oral storytelling.</li> <li>• They may score high on math activities, lower on language-related activities, and are inclined to the fine arts.</li> <li>• They produce written products that may be of high quality in content but poor quality in grammatical form, spelling, and handwriting.</li> <li>• They are likely to do well with creative and artistic activities and/or ideas.</li> <li>• They demonstrate higher order thinking skills in oral rather than written form.</li> </ul> <p>They tend to show a preference for kinesthetic modality.</p>	<p><b><u>Slide/Handout #7</u></b>  – Characteristics of Rural Disadvantaged Hispanic Gifted Children</p>
<p><b><u>African American</u></b></p> <p>Characteristics of rural disadvantaged African American gifted children that detract from gifted and talented identification are as follows:</p> <ul style="list-style-type: none"> <li>• They speak nonstandard English.</li> <li>• They tend to be passive participants in school settings.</li> <li>• They tend to be unmotivated toward school tasks.</li> <li>• They tend not to perform well on timed tests and activities.</li> <li>• They have difficulty with tasks that restrict movement.</li> </ul> <p>The strengths of rural disadvantaged African American gifted children are:</p> <ul style="list-style-type: none"> <li>• They display rich oral language skills spiced with imagery</li> </ul>	<p><b><u>Slide/Handout #8</u></b>  – characteristics of Rural disadvantaged African American Gifted Children</p> <p><b><u>Slide/Handout #9</u></b>  – characteristics of Rural Disadvantaged Gifted Children: Traditional, Hispanic, and</p>

<p>and humor.</p> <ul style="list-style-type: none"> <li>• They have good eye-hand coordination, skilled body movements, and physical stamina.</li> <li>• They tend to perform better on nonverbal than verbal measures.</li> <li>• They respond well to concrete experience, are able to solve real-life problems, and can improvise with common materials.</li> </ul> <p>They are bicultural; equally adept at navigating between African American and mainstream cultures.</p>	<p>African American</p>
<p><b><u>Summary of Special Populations: Rural Disadvantaged Gifted</u></b></p> <p>Gifted Hispanic and African American children from the populations examined exhibit many traits and behaviors in common with the group of economically disadvantaged children.</p> <p>Additionally, the two former groups demonstrate characteristics that are specific to their cultures and communities. Oral storytelling, for example, is valued as a means to record and report history and also to entertain and teach important lessons about life.</p> <p>Other distinctions are:</p> <p>Hispanic:</p> <ul style="list-style-type: none"> <li>• show a preference for kinesthetic modality.</li> <li>• Are competitive in the classroom and/or at play.</li> <li>• Demonstrate higher level thinking skills orally.</li> </ul> <p>African American:</p> <ul style="list-style-type: none"> <li>• May prefer a kinesthetic learning style.</li> <li>• Are sometimes withdrawn in a school setting.</li> </ul> <p>Most rural disadvantaged gifted children do share many common characteristics. However, discrete differences exist within diverse ethnic and cultural populations.</p> <p>To illustrate, expressive language is listed as one of the characteristics of gifted children, but for many Hispanic children English may not be their preferred language, indeed they may not speak English.</p> <p>An additional example, a preference for kinesthetic learning style is common for both African American and Hispanic children.</p>	

<p>Typically, teachers do not nominate children for gifted programs if they speak nonstandard or limited English, or if they are animated and active in their learning.</p> <p>Also, the traditional assessment measures use in our schools do not always consider the cultural influences and learning styles of disadvantaged children.</p>	
<p style="text-align: center;"><b>Role of Teachers</b></p> <p><b><u>Introduction</u></b></p> <p>Classroom teachers are essential to identifying gifted students from special populations. After becoming aware of the characteristics of these students and the importance of identification, the teachers' role is to nominate these students for screening.</p> <p><b><u>Purpose</u></b></p> <p>This part of the workshop describes the teachers' role in nominating disadvantaged and/or culturally diverse students for gifted programs. The information collected using different methods and procedures is presented in the context of:</p> <ul style="list-style-type: none"> <li>• Work samples and test data</li> <li>• Anecdotal Data</li> <li>• Student products</li> </ul> <p><b><u>Procedure</u></b></p> <p>Teachers without formal training in gifted education are likely to expect all gifted children to exhibit the characteristics that are normally listed for advantaged gifted children. It is critical that stereotypical expectations are modified.</p> <p>The next slide contrasts characteristics typical of advantaged rural gifted children with characteristics often seen in disadvantaged rural gifted children.</p> <p>Gifted children from disadvantaged rural circumstances who do not display the behaviors in the left column might nevertheless display different kinds of behaviors that <i>do</i> mark them as gifted.</p> <p>To illustrate this, behaviors that might be seen in the classroom can be contrasted with work samples produced by these children.</p>	<p><u>Slide/handout #10</u> –  Characteristics of rural Gifted Students:  Advantaged and Disadvantaged</p>

<b><u>Work Samples and Test Data</u></b>		
<p>To illustrate characteristics of rural disadvantaged gifted children consider the following: creative writing samples, the Torrance Test of Creative thinking, performance areas, and standardized test scores.</p> <p><u>Creative Writing Samples</u></p> <p>On Slide/handout #10, characteristic #8 for disadvantaged gifted students states that their written work may be of poor quality in grammar, spelling, and handwriting. This is in direct contrast to advantaged rural gifted students, whose written work will frequently be completed with good grammar, spelling, and handwriting.</p>		
8. Produce written work in proper grammatical form with good spelling and legible handwriting	8. Produce written work that may be of high quality in content but of poor quality in grammatical form, spelling, and handwriting	
<p>When a written assignment is completed with poor grammar, misspelled words, and illegible handwriting, a teacher would certainly not expect the student to be gifted.</p> <p><u>Economically Disadvantaged</u></p> <p>However, to demonstrate that students can produce high-quality writing even though the mechanics and appearance are poor, look at the story produced by Molly, an economically disadvantaged fourth grader. The story was written in response to an in-class assignment to write a story entitled “The Flying Monkey.”</p> <p>If Molly’s story had been evaluated on the basis of spelling, punctuation, grammatical form, and handwriting, she would have received a failing grade. Fortunately for Molly, her story was judged on the merits of its content. Note the novel names she gives her characters, her creativity in inventing the word “huenormous” to properly describe Suziky’s abnormally large wings, and her sequencing skills in ordering the events in the story.</p> <p>Molly’s scores for the writing sample were two for Fluency, two for Flexibility, three for Originality, three for Elaboration 1 (for adding interesting details), and three for Elaboration 2 (for transforming and combining ideas), for a total score of 13. The highest possible score in each category is three, for a total possible score of 15.</p>		<p><u>Slide/Handout #11 – Molly’s Story</u></p> <p><u>Slide/Handout #12 – Creative Writing Assessment: Definitions and</u></p>

	Scoring
<p><b><u>Hispanic</u></b></p> <p>Rosa is first-generation Hispanic American. She is bilingual, with Spanish and English spoken in the home.</p> <p>Rosa’s story is well conceived and readable. There are errors in syntax, (. . . they went to go see. . .”), but most teachers could read this without much difficulty or distraction from the story.</p> <p>What is of interest in these stories is the sense of isolationism or abandonment that some children write about. While we should approach the interpretation or analysis of these stories with some caution, as adults and teachers, we must also be aware that what a child writes about in the form of allegory may represent their own experiences. For example, Rosa writes of being different, being abandoned, finding a friend who is also different, and then being united with someone large, powerful (bear) and living happily ever after. Similarly, Luis writes of loneliness, of being different (too brown, too small), disappreciated (sic) by his family. He too, leaves and finds others who do appreciate him.</p>	<p><u>Slide/Handout #13</u> – Rosa’s Story</p> <p><u>Slide/handout #14</u> – Luis’s Story</p>
<p><b><u>African American</u></b></p> <p>The following two creative writing samples are by African American children.</p> <p>In this writing sample, Lashay’s voice is clearly heard. The language and vocabulary are culturally specific, conforming to the child’s speech pattern. This story is an example of the use of nonstandard English.</p> <p>Grammar, punctuation, spelling, and syntax in this story are similar to those noted in Molly’s story. Notice the use of “an” throughout the story, “an man, an monkey,” etc. and the run-on sentences without punctuation. Syntax does not conform to standard English, for example, “He just want to go.”</p> <p>On the other hand, Lashay gives a lot of descriptive information about her flying monkey – what he wore, what he did, what others thought about him. Her use of “monkey napped” is appropriate and completely novel.</p> <p>Her vocabulary is quite advanced for a third-grade student, and</p>	<p><u>Slide/Handout #15</u> – Lashay’s Story</p>

<p>the sentence structure goes beyond that expected for written exposition, e.g., “Now this wasn’t just an ordinary monkey this was an flying monkey.” The use of reported speech interposed throughout the story, almost as an aside, is a mature device which introduces other characters to the reader, and gives the reader additional information about the flying monkey.</p> <p>It would be a mistake if teachers considered this writing deficient because it fails to conform to standard English. On the contrary, this story is elaborate and certainly innovative.</p> <p>Shameka uses no punctuation in her story, going from one idea to another without pausing. At first reading, the story challenges the reader to bring coherency and meaning to the string of words. With careful reading, however, continuity and theme emerge, as Shameka expands upon the monkey’s exploration of his world. Shameka introduces problems the monkey encounters, problems that are later resolved.</p> <p>To look beyond the errors in spelling, grammar, and syntax to the theme or central idea the writing is conveying, is to realize that children from culturally and linguistically diverse families have tremendous potential. Given the opportunity, children write what they know from their lives, from their lived experiences. When teachers learn how to read children’s texts, they move into the sociocultural context of the child. This enables teachers to guide children as they become more accomplished writers, both in content and form.</p>	<p><u>Slide/Handout #16 – Shameka’s Story</u></p>		
<p><b><u>Torrance Test of Creative Thinking</u></b></p> <p><i><u>Economically Disadvantaged</u></i></p> <p>Molly’s responses to the Torrance Test of Creative thinking shown in Handout #17 illustrate several other characteristics typical of bright, disadvantaged children.</p> <p>Note the difference between her performance on the verbal component (Activity 1) and the nonverbal components (Activities 2 and 3). The difference between the two components is quite dramatic and illustrates characteristic #10 on Handout #10.</p> <table border="1"> <tr> <td>10. Usually perform equally well on verbal and non-verbal tests</td> <td>10. Are likely to perform better on nonverbal than verbal tests</td> </tr> </table>	10. Usually perform equally well on verbal and non-verbal tests	10. Are likely to perform better on nonverbal than verbal tests	<p><u>Slide/Handout #17 – Molly’s Torrance</u></p> <p><u>Slide/Handout #18 – Definitions and Scoring for the Torrance</u></p>
10. Usually perform equally well on verbal and non-verbal tests	10. Are likely to perform better on nonverbal than verbal tests		
<p>Molly produces only one appropriate verbal response, yet her nonverbal responses are truly outstanding. Particularly impressive is</p>			



<p>her originality and the elaboration of each of her drawings. Molly’s low verbal and high nonverbal test scores are similar to those obtained by the majority of disadvantaged children who are gifted.</p> <p>For the Verbal Section of the Torrance, Molly received 1 point for Fluency and 0 for Originality, for a total of 1 point.</p> <p>For the Nonverbal Section, Molly scored 9 (of 14 possible) for Fluency, 9 ( of 14 possible) for Flexibility, 6 (of 25 possible) for Originality, and 66 (no ceiling) for Elaboration.</p> <p>Since Molly completed only seven of the 12 triangles (Activity 3) in the time allowed, she lost five easy points for fluency, which further illustrates a negative characteristic of disadvantaged gifted children (#4 on Handout #10).</p>			
<table border="1"> <tr> <td>4. Perform tasks within time limitations</td> <td>4. Are relatively unaffected by time pressures; work slowly but meticulously</td> </tr> </table>	4. Perform tasks within time limitations	4. Are relatively unaffected by time pressures; work slowly but meticulously	
4. Perform tasks within time limitations	4. Are relatively unaffected by time pressures; work slowly but meticulously		
<p>However, the elaborate details and exceptional originality of her drawings resulted in a total creativity score that was significantly higher than that obtained by many of the advantaged gifted children who completed all the designs.</p> <p>Working slowly and doing well on a few items rather than working fast and doing poorly on many items is another characteristic common to many rural disadvantaged gifted children.</p>			
<p><b><u>Hispanic</u></b></p> <p>On Activity 1, Maria, a bilingual, first-generation Hispanic American fourth grader, chose to write her responses in Spanish. Given the type of prompt requiring <i>unusual uses and ideas others will not think of</i>, and with the imposition of a time limit, she writes in her primary language. Her production was perhaps increased using Spanish than if she had written in English. It is interesting that of the seven responses for fluency, four are considered Original. This may indicate that tasks requiring higher level thinking (abstract thought/creative thought), and at this point in her academic career, she has greater facility with Spanish than English (See comparison below, Jesus’ Torrance Activity 1.)</p> <p>In the next two exercises, (Handouts #19.2 and #19.3) Activity 2 “Incomplete Figures” and Activity 3 “Triangles,” Maria’s responses are in English. However, in both instances she simply lists her titles: The</p>	<p><u>Slide/handout #19 – Maria’s Torrance</u></p>		

<p>Hen, The Alien. Even when she provides description, her language proficiency is limited: the curios man and the longest, The sand clock.</p> <p>She received a total of 30 points for the Nonverbal portion of the Torrance tests.</p> <p>For Creative Writing, <i>The Flying Monkey</i>, she wrote in Spanish and received the following scores: Fluency 3, Flexibility 2, Originality 1, Elaboration 1, Elaboration 1 for a total of 8 points.</p>	
<p>Thomas is an African American. His responses in Torrance Activity 2 “Incomplete Figures” provide examples of the following characteristics:</p> <ul style="list-style-type: none"> <li>• Perform better on nonverbal measures.</li> <li>• Use approximate time instead of accurate time.</li> </ul> <p>Thomas carefully completes the first of the incomplete figures; details and shading are added. (Note the details on the ears, and the additional items added beyond the initial response – sun, tree, foreground.) This perhaps indicates that he envisioned the final outcome as a total scene.</p> <p>On Figure 2, he adds a few significant details, but the overall effect is not original, and the quality of the work is not at the same level as Figure 1.</p> <p>It would appear that Thomas concentrated primarily on Figure 1, and he did not have sufficient time to complete Figure 2.</p>	<p><u>Slide/Handout #20</u> – Thomas’s Torrance – Activity 2</p>
<p>Leroy is also African American. Whereas most children worked on individual triangles, Leroy approached this task with the idea of incorporating all 12 triangles into one cohesive theme - a castle. Each triangle is systematically connected and the symmetry maintained throughout, with the exception of one line drawn on the right side between the second and third triangles.</p> <p>Did Leroy view this task as a problem to be solved? Did he mentally construct the castle before beginning, or should we assume that this arrangement was haphazard and just happened to evolve as a castle? Connecting lines are fairly uniform, and the overall impression is one of precision, but with no detail. Few erasures are detected on this page, perhaps indicating his planning.</p>	<p><u>Slide/Handout #22</u> – Leroy’s Torrance – Activity 3</p>
<p><b><u>Ability Testing</u></b></p>	

<p>Referring again to handout #10, characteristics #6 and #7 for advantaged gifted students are typical of most traditional gifted students: 6) Perform well on standardized tests, and 7) Perform well in all subjects.</p> <p>The corresponding characteristics for gifted children who are <i>disadvantaged</i> state that these children: 6) Are not likely to perform well on standardized tests, and 7) May show exceptional ability in one subject and average to below average in others.</p>	
<p><b><u>Economically Disadvantaged</u></b></p> <p>The following profile of Johnnie is representative of a disadvantaged gifted student.</p> <p>Johnnie’s fourth-grade Texas Assessment of Knowledge and Skills (TAKS) results were as follows:</p> <p>Reading – met standard  Math – did not meet standard  Writing – prompt 1 – did not meet standard</p> <p>Note that Johnnie met state standards in reading but did not meet state standards in math or writing. Discrepancies such as these are typical of children from disadvantaged backgrounds. None of Johnnie’s scores are what would traditionally be expected from a child who had been designated as gifted (met commended standard).</p> <p>Johnnie’s other scores were as follows:  Naglieri Nonverbal Abilities test: 96%  SAGES-2: Math/Science 130, Language Arts/Social Studies 73, Reasoning 84</p> <p>The one subject area in which Johnnie shows exceptional ability on the SAGES-2 is Math/Science with a quotient of 130; all other scores are below average, again illustrating the characteristics of a disadvantaged gifted child.</p> <p>Johnnie’s exceptional high score in math/science reflects his environmental interests and background. Farming and animal care are the major enrichment experiences available to him. His daily chores include feeding the pigs that are being raised to help feed the family.</p> <p>After a workshop in which teachers critiqued work samples produced by disadvantaged gifted children, Johnnie’s fourth-grade</p>	<p><u>Slide/Handout #23 – Johnnie’s Profile</u></p>

<p>teacher nominated him for a gifted program (Project SPRING).</p> <p>The teacher reported, “Johnnie knows more about wood than most people and knows what firewood puts out the most heat. When we have a class discussion, Johnnie shows more insight and depth of understanding than anyone else in class.”</p>	
<p><b><u>Hispanic</u></b></p> <p>Rosa is a first-generation Hispanic American. She is bilingual, with Spanish and English spoken in the home.</p> <p>Rosa’s fourth-grade TAKS scores are not exceptional, and they would not result in nomination for a gifted and talented program:</p> <p>Reading: did not meet standard  Math: met minimum standard  Writing: Prompt 2 – did not meet standard</p> <p>On the Slocumb-Payne Teacher Inventory Rosa receives 74 points of a possible 76 total – the highest score of 13 students nominated by the classroom teacher.  No inventory was returned by the parents.</p> <p>On the Torrance Tests of Creativity, Rosa scored the following:  Verbal 15  Nonverbal 34  This placed her at the 84<sup>th</sup> percentile.</p> <p>Rosa’s scores on a Creative Writing Sample were:  Fluency 3  Flexibility 3  Originality 3  Elaboration 2  Elaboration 2</p> <p>Total 13 of a possible 15</p> <p>Her scores on the Torrance Tests of Creativity and the Creative Writing Sample, indicate emerging talent potential requiring guidance and direction if it is to be sustained.</p>	<p><u>Slide/Handout #24</u> – Rosa’s Profile</p> <p><u>Slide/handout #25</u> – Rosa’s Torrance – Activity 3</p> <p><u>Slide/Handout #13</u> – Rosa’s Story</p>
<p><b><u>African American</u></b></p>	<p><u>Slide/Handout #26</u> – Lashay’s</p>

<p>Lashay is a fourth-grade African American living in a small rural community. Her TAKS results are as follows:</p> <p>Reading – met commended standard  Math – met minimum standard  Writing – Prompt 3 – met minimum standard</p> <p>Other scores are:  NNAT 95%  SAGES-2 Math/Science 110, Reading/Language Arts 115,  Reasoning 98  Torrance Tests of Creativity  Verbal 9  Nonverbal 61</p> <p>Creative Writing Sample  Fluency 3  Flexibility 3  Originality 3  Elaboration 3  Elaboration 3</p> <p>Slocumb-Payne Teacher Inventory 49</p> <p>No parent inventory returned</p> <p>Although Lashay received high scores on the NNAT, she did not qualify for her school’s gifted and talented program. Students must have 4 out of 6 criteria at or above the district cutoff line in order to qualify for placement. Without having a parent inventory returned, the verbal nature of the SAGES-2 effectively eliminates Lashay from the gifted program.</p>	<p>Profile</p> <p><u>Slide/Handout #15 – Lashay’s Story</u></p>
<p style="text-align: center;"><b><u>Anecdotal Data</u></b></p> <p>Anecdotal information and examples from Parent Inventories illustrate other characteristics of disadvantaged gifted children.</p> <p>The Scales for the Identification of Gifted Home Rating Scale reveals behaviors that children exhibit at home that may not be apparent during the school day, particularly if the child tends to be a passive participant in classroom activities.</p>	
<p><b><u>Economically Disadvantaged</u></b></p>	<p><u>Slide/Handout</u></p>

<p>–Characteristics #3 and #9 for Disadvantaged Gifted students are:  3. Tend to be passive participants in classroom activities  9. Are more likely to demonstrate their strengths outside the classroom</p>	<p><u>#10</u></p>
<p>Parents are asked on this form to rank the observable behavior of their children in General Intellectual Ability, language Arts, Mathematics, Science, Social Studies, Creativity, and Leadership. Parents are also asked to give examples that apply to their child’s ability or interest. Parent information provides rich data about a child’s out-of-school accomplishments. Such information should receive serious consideration when identifying students for gifted programs.</p> <p>The following information from Home Rating Scales illustrates abilities and behaviors that are distinct from those of the average child of corresponding age and background:</p> <p>“<b>Evan</b> is very good at figuring out how things are put together. He was 4 when his Dad bought a wheel barrow. My husband had the instructions but was having to try to figure them out. He left the room. When he returned Evan had assembled it and my husband tightened the bolts down.</p> <p>. . . made a chair when he was 4. He made it out of scrap wood, with a back and 4 legs and you could actually sit on it. He also made a ladder.</p> <p>. . . built a go cart in the third grade. It is made out of wood, you sit in it and steer with your feet. The only help he had was putting on the wheels, otherwise he built and designed it by himself.</p> <p>. . . he absolutely loves to build and hammer. He is extremely talented at building and designing things.”</p> <p>“<b>Rhonda</b> has made games – word searches, mazes, card games, and board games – since she was 5 years old.</p> <p>She has written short stories and humorous things since before she actually could write; she told her stories to her brother and sister and had them write them for her.</p> <p>Rhonda is really interested in making things – anything to do with building and creating out of any available materials or scraps.</p> <p>. . . has been able to do perspective drawings since she was 6 years old.</p> <p>“<b>Allen</b> collects baseball cards. He uses price guides to determine the value of the cards and sells them. (He is quite good at</p>	<p><u>Slide/handout #29</u> – Sample Anecdotes – Home Rating Scale</p>

<p>making a profit).  . . . is very good in math and enjoys business. He has been particularly interested in his father's scrap metal business since he was in the first grade. He is very good at earning money and finding ways to profit.”</p> <p>“<b>Jimmy</b> works on diesel engines, repairing, greasing, tightening bolts, washing, changing oil, etc.; he has done this for 3-5 years.  . . . he builds cars and trucks with Legos®, collects cars and trucks, draws diesels every day (and draws horses).”</p>	
<p><b><u>African American</u></b></p> <p>The following are responses obtained on a Parent Information survey:  <i>Does your child fix or make things? How long has she/he been doing this?</i></p> <p>M.H. “any things he put his mine to do he can do it sent 7”  (since age 7)</p> <p>R.H. “well, he tore his bike down, fixed it back. He tinkles around with radios. When he was 9”</p> <p>Z.T. “. . . was hungry and couldn't wait for anyone to fix her food so she did it and got a spanking. For 2 years”</p> <p><i>Describe the talent. How long has he/she done this?</i></p> <p>Z.T. “she lies excessively, but she dances well. All of her life.”</p> <p>M.H. “He love to sing church songs sent 1 until now”</p> <p>W.C. “. . . like to repeat stories he has read”</p> <p><i>Your child is really interested in:</i></p> <p>Z.T. “Eating and be nose”</p> <p>W.C. “Computers”</p> <p>M.H. “Learning”</p> <p>R.M. “Drawing, playing sports”</p> <p><i>Something that hasn't been mentioned that I would like to tell you about my child:</i></p>	<p><u>Slide/Handout #30</u> – Sample Anecdotes – Parent Information</p>

<p>T.W. "T. is very smart but I worry about how much common sense she has.</p>	
<p>Anecdotal data collected from teachers can also be very useful in assessing students' abilities. The Slocumb-Payne Teacher Inventory has been developed to assess gifted behaviors considered to be positive or negative.</p>	<p><u>Slide/Handout #31 – Teacher Information Form</u></p>
<p>The following are samples of anecdotal information collected from teachers.</p> <p><i>Produces solutions and ideas that others do not think of.</i>  T. reasons very well. She solves problems encountered during story time and when asked high level questions, she speaks out.</p> <p><i>Influences other children to do things he/she initiates.</i>  She is definitely a leader. It doesn't take much for her to influence others.</p> <p><i>Tries to be funny. He/she is amusing in writing, drawings, or role playing. Makes up humorous jokes: tells about his/her experiences with humor.</i>  T loves to write and role play. She enjoys writing funny fantasy stories. She also likes to imitate funny actors and actresses.</p> <p><i>Has a sustained/enduring interest in a subject, e.g., science, math, literature . . .</i>  T always tries to figure out different ways to work math problems. She loves to read novels. Whatever she reads she shares it with the class.</p>	<p><u>Slide/handout #32 – Sample Anecdotes – Teacher Information</u></p>
<p><b><u>Hispanic</u></b></p> <p>The Scales for the Identification of Gifted Home Rating Scale is available in a Spanish version. The inventory requires a respondent to rate a student from 0-4 in General Intellectual Ability, language Arts, Mathematics, Science, Social Studies, Creativity, and Leadership. Using this inventory rather than an open-ended questionnaire, allows respondents with limited proficiency in English to complete the form with minimal assistance.</p>	<p><u>Slide/Handout #33 – Parent Inventories</u></p>



<p style="text-align: center;"><b>Summary of Nature and Needs of Gifted students</b></p> <p>Identification of special populations of gifted students can be accomplished when teachers become aware of the characteristics of these students. Teachers must understand and know that not all gifted students exhibit traditional characteristics of the stereotypic gifted student.</p> <p>Economically disadvantaged and/or culturally diverse gifted students come from unique backgrounds with unique problems requiring special understanding but it is a background that also engenders special values and attributes. Understanding these students and recognizing their distinct characteristics will provide the awareness necessary for in-school nomination by classroom teachers.</p>	<p><u>Slide/Handout</u> 34– Workshop Evaluation Form</p>
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\* Workshop adapted from Project SPRING II *Identification Awareness Workshop*.

APPENDIX F  
IDENTIFICATION AND ASSESSMENT OF NONTRADITIONAL GIFTED LEARNERS  
WORKSHOP OUTLINE

<p><b><u>Purpose</u></b></p> <p>The purpose of this workshop is to prepare teachers to use innovative procedures and instruments to identify underrepresented gifted students for appropriate program placement. Seven procedures used successfully with diverse populations in Project Spring are discussed, along with student work samples. These seven comprehensive approaches are:</p> <ul style="list-style-type: none"> <li>• Contests</li> <li>• Creative Writing Samples</li> <li>• Torrance Streamlined Tests of Creative Thinking</li> <li>• Storytelling Festival</li> <li>• Parent Information</li> <li>• Adult/Community Information</li> </ul> <p>Teacher Recommendations</p>			
<p><b><u>Getting Ready</u></b></p> <p>Prepare the following MATERIALS for each activity:</p> <p>For the CONTEST activity:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>Pencils (colored, regular)</li> <li>Theme paper</li> <li>Drawing paper</li> <li>Markers</li> <li>Leaves</li> <li>Twigs</li> <li>Rocks</li> <li>Feathers</li> <li>Acorns</li> <li>Chestnuts</li> <li>Evergreen branches</li> <li>Cloth</li> <li>Glue</li> <li>Newspapers</li> <li>Prizes and certificates (optional)</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>Laptop microphones</li> <li>Laptop for each group</li> <li>2 camcorders</li> <li>Videotapes/DVDs</li> <li>Craft sticks</li> <li>Modeling clay</li> <li>Pipecleaners</li> <li>Floral wire</li> <li>Thin wire</li> <li>Yarn</li> <li>Baling twine</li> <li>String</li> <li>Rope</li> <li>Clothespins</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>Pencils (colored, regular)</li> <li>Theme paper</li> <li>Drawing paper</li> <li>Markers</li> <li>Leaves</li> <li>Twigs</li> <li>Rocks</li> <li>Feathers</li> <li>Acorns</li> <li>Chestnuts</li> <li>Evergreen branches</li> <li>Cloth</li> <li>Glue</li> <li>Newspapers</li> <li>Prizes and certificates (optional)</li> </ul>	<ul style="list-style-type: none"> <li>Laptop microphones</li> <li>Laptop for each group</li> <li>2 camcorders</li> <li>Videotapes/DVDs</li> <li>Craft sticks</li> <li>Modeling clay</li> <li>Pipecleaners</li> <li>Floral wire</li> <li>Thin wire</li> <li>Yarn</li> <li>Baling twine</li> <li>String</li> <li>Rope</li> <li>Clothespins</li> </ul>	
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<p>Slides and Handouts:</p> <ul style="list-style-type: none"> <li>#1 – Survival Contest – Activity Choices</li> <li>#2 – Survival Contest – Scoring</li> <li>#3 – Questions for Interviews</li> <li>#4 – Comments from Survival Contest Interviews</li> </ul>			

#5 – Instructions for the Survival Contest

#6 – Characteristics of Gifted Children: Traditional, White economically disadvantaged, Hispanic, Hispanic economically disadvantaged, African American, African American economically disadvantaged

For the CREATIVE WRITING SAMPLE activity:

Plain writing paper

Pencils

Slides and Handouts:

#7 – Creative Writing Assessment

#8 – Directions for Scoring Creative Writing Samples

#9 – Scoring of Creative Writing Samples

#10 – Creative Writing Evaluation Form

#11 – Student Story Samples

For the TORRANCE STREAMLINED TESTS OF CREATIVE THINKING activity:

Slides and Handouts:

#12 – Torrance Tests of Creativity – Copy

#13 – Student Torrance Samples

#6 - Characteristics of Gifted Children: Traditional, White economically disadvantaged, Hispanic, Hispanic economically disadvantaged, African American, African American economically disadvantaged

#14 – Definitions and Scoring for the Torrance

#15 – Directions for Administering the TTCT

For the STORYTELLING FESTIVAL activity:

Slides and Handouts:

#16 – Storytelling Contest

Instructions

Evaluation Form

Storytelling Sample

For the PARENT INFORMATION FORM activity:

Slides and Handouts:

#17 – Parent Information Form

#18 – Parent Information Sample Anecdotes

#6 - Characteristics of Gifted Children: Traditional, White economically disadvantaged, Hispanic, Hispanic economically disadvantaged, African American, African American economically disadvantaged

<p>#19 – Parent Information Collection – Instructions  #20 – Sample Letter – Parent Information</p> <p>For the ADULT/COMMUNITY INFORMATION SURVEY activity:</p> <p>Slides and Handouts:  #21 – Community Organization Instructions  Community Organizations and Individuals  #22 – Survey of Adult Community Members  #23 – Examples of Information Obtained from Adult/Community Survey</p> <p>For the TEACHER INFORMATION FORM activity:</p> <p>Slides and Handouts:  #24 – Teacher Information Form  #25 – Sample Anecdotes – Teacher Information  #26 – Workshop Evaluation Form</p>	
<p>This workshop will demonstrate new procedures and instruments to identify underrepresented gifted students. The following seven procedures are different from the traditional methods used in identifying gifted children in the region.</p> <ul style="list-style-type: none"> <li>• <b>Contests</b>, using products to measure creativity, critical thinking, and problem-solving abilities</li> <li>• <b>Creative writing samples</b>, assessing creativity by measuring fluency, flexibility, originality, and elaboration</li> <li>• The <b>Torrance Streamlined Tests of Creative Thinking</b>, including both verbal and nonverbal measures of originality, fluency, flexibility, and elaboration</li> <li>• A <b>Storytelling Festival</b>, assessing fluency and creative expressive oral language</li> <li>• A <b>Parent Information Form</b>, collecting anecdotal data concerning abilities outside a classroom setting</li> <li>• An <b>Adult/Community Information Survey</b>, looking at unusual abilities documented by adults other than teachers.</li> <li>• A <b>Teacher Information Form</b>, reflecting a new teacher awareness of gifted children, replacing the traditional teacher recommendations.</li> </ul> <p>Workshop activities involve participating in a contest, a creative writing activity, a test of creativity, and learning how to prepare and evaluate the identification procedures. Information from workshop participants</p>	

will be collected and evaluated as the workshop proceeds.

## Contests

### Introduction

One of the best methods of measuring abilities of underrepresented gifted students is to collect product samples from contests, projects, and hobbies. In-school contests allow every child to have equal access to materials with a variety of choices encompassing a wide range of interests.

### Purpose

The objectives of a contest are:

- To identify abilities that are not readily visible in an academic setting.
- To measure creative thinking, critical thinking, logic, and problem-solving abilities.

### Procedure

Workshop simulation of a Survival Contest will demonstrate how to prepare, execute, and evaluate a contest for school or classroom use.

1. Prepare the following handouts for each workshop participant:
  - #1 – Survival Contest – Activity Choices
  - #2 – Survival Contest – Scoring
  - #3 – Questions for Interviews
  - #4 – Comments from Survival Contest Interviews
  - #5 – Instructions for the Survival Contest
2. Label seven tables or work areas with the contest activity number and directions for each activity. Place the following materials on the appropriate tables:

Table #1 (Draw a map . . .)

Drawing paper, colored pencils, markers

Table #2 (Build a dwelling . . .)

Leaves	craft sticks
Twigs	modeling clay
Rocks	pipe cleaners
Feathers	floral wire
Acorns	thin wire



<p>#3), each participant may conduct the next interview. Continue until everybody has been interviewed.</p>	
<p><b><u>Evaluation</u></b></p> <p>Before beginning the evaluation discussion, explain that elementary students should be allowed one hour to complete their projects and sit for an interview.</p> <p>In a school setting, the cafeteria or any other large room is the best place to arrange a contest. Each class in the grade level should have an opportunity to participate in the contest. Schedule classes so there will not be too many students at one time.</p>	
<p><b><u>Review</u></b></p> <p>Discuss any questions about procedures and details of conducting the contest.</p> <p>Discuss areas that may be of concern. Give total scores and compare high and low.</p> <p>Discuss the quality of the children’s comments and the observations made by the judge.</p>	<p><u>Slide/Handout #5</u> – Instructions for the Survival Contest</p> <p><u>Slide/Handout #2</u> – Survival Contest – Scoring</p> <p><u>Slide/Handout #4</u> – Comments from Survival Contest Interviews</p>
<p><b><u>Summary</u></b></p> <p>To summarize the use of contests for identification of underrepresented gifted students, review the characteristics of these gifted children from the Nature &amp; Needs Workshop.</p> <p>Contests generate many positive outcomes for the students, as can be illustrated by looking again at the lists of characteristics of underrepresented gifted children. Even the negatively perceived, detractor characteristics become positive.</p> <ul style="list-style-type: none"> <li>• The children become active participants (#3).</li> <li>• They extend their verbal abilities to communicate their ideas (#2 and #10).</li> </ul>	<p><u>Slide/Handout #6</u> - Characteristics of Gifted Children: Traditional, White economically disadvantaged, Hispanic, Hispanic economically disadvantaged, African</p>



<ul style="list-style-type: none"> <li>• They are given ample time to complete the activities (#4).</li> <li>• They are allowed the choice of hands-on activities (#9 and #10) or classroom-type, if they prefer.</li> <li>• Their performance rating does not depend on a standardized test or a written product (#6 and #8).</li> </ul> <p>The characteristics that focus on the children’s strengths may be highlighted by the contest choices the children make.</p> <ul style="list-style-type: none"> <li>• The children may choose one of the areas because of their personal ability or strength in a particular subject (#7).</li> <li>• They can show content depth and abilities without writing (#8).</li> <li>• Products are in the realm of real life instead of classroom related (#9).</li> </ul> <p>Product scoring will reveal critical thinking, creativity, and problem-solving abilities that may be obscured in regular academic activities.</p>	<p>American, African American economically disadvantaged</p>
<p style="text-align: center;"><b>Creative Writing Samples</b></p> <p><b><u>Introduction</u></b></p> <p>An excellent method to determine students’ creativity in writing is by collecting writing samples. Writings generated in response to a prompt given in an open atmosphere at school are assessed for creativity.</p> <p><b><u>Purpose</u></b></p> <p>The objectives of collecting creative writing samples are:</p> <ul style="list-style-type: none"> <li>• To identify students who demonstrate unusual writing talents.</li> <li>• To identify creative and critical thinking and imagination.</li> </ul> <p><b><u>Procedure</u></b></p> <p>The first priority of collecting writing samples for assessing creativity is to make sure that there is a creative atmosphere, or at least an open atmosphere. To establish such a setting, begin by brainstorming – collecting any and all ideas from everyone.</p> <p>The rules of brainstorming are to hear as many ideas as possible. Any ideas are acceptable. Listen to what others say; their</p>	

ideas may generate new ideas. Ideas should be collected quickly and informally.

The first topic for brainstorming is “animals.”

- Name as many kinds of animals that you can.
- What kind of animals do you find in a zoo?
- What are some imaginary animals – ones from stories and ones that you can make up?

This simple, but innovative exercise guides participants as they begin the creative writing exercise:

The title of the story is *The Flying Monkey*. Misspelled words do not matter.

This writing activity will take 15 minutes.

Activity Time 15 Minutes

Stories may be shared. Discuss the reasons for using an innovative prompt – *The Flying Monkey*. Other ideas for imaginative stories about animals with a divergent characteristic are:

*The Duck that Won't Quack*

*The Cat That Won't Scratch*

*The Lion That Won't Roar*

(from *Flying Monkeys and Silent Lions*, E. Paul Torrance, *Exceptional Children*, Nov. 61, pp 119-127.)

Topics based on divergent ideas using familiar subjects tend to free the writer's imagination and produce interesting writing samples.

**Assessment of Creative Writing Samples**

Creative writing samples are *not* scored on the basis of misspelled words, incorrect grammar, or poor handwriting. All writing samples are evaluated for creativity, with ratings for the following areas:

Slide/Handout #7  
– Creative Writing Assessment

Area of Creativity	Definition	
Fluency	Has many ideas; Has large number of reasons why	
Flexibility	Sees things in different ways; Has a variety of reasons	

Originality	Offers unique, unusual ideas	
Elaboration 1	Adds interesting details	
Elaboration 2	Transforms or combines ideas	
<p><b><u>Scoring</u></b></p> <p>To avoid the possibility of bias in scoring, writing samples should be coded with numbers and names should be concealed or removed.</p> <p>Directions for Scoring Creative Writing Samples:</p> <ol style="list-style-type: none"> <li>1. Two raters read all compositions for an initial impression. The raters should not be a teacher or person who will recognize the handwriting.</li> <li>2. Each writing sample is then read individually a second time and scored holistically by the two raters.</li> <li>3. The raters score each sample on creativity only.</li> <li>4. Incorrect syntax, grammar, spelling, or other writing mistakes that may confound the scoring of creativity are <i>not</i> considered.</li> <li>5. Separate evaluation forms are used for the two raters; a third form combines or averages the scores for the final rating.</li> <li>6. In case of a wide discrepancy in scores, a third party should read the sample and make the final judgment.</li> </ol>		<p><u>Slide/Handout #8</u> – Directions for Scoring Creative Writing Samples</p> <p><u>Slide/Handout #9</u> – Scoring of Creative Writing Samples</p>
<p>Scoring criteria are given in Handout #9, along with examples and a brief rationale for specific scores. This handout goes into a detailed explanation and should be used initially. Once the raters are familiar with these standards, the abbreviated version included in the Creative Writing Evaluation Form (Slide/Handout #10), may be convenient.</p> <p>The scoring used for each category is as follows.</p> <p style="padding-left: 40px;">3 = Frequently 2 = Sometimes 1 = Seldom 0 = Never</p>		<p><u>Slide/Handout #10</u> – Creative Writing Evaluation Form</p>

<p>Each category can receive a maximum of three points, with a maximum composite score of 15 points for the creative writing sample.</p>	
<p><b><u>Activity</u></b></p> <p>Using Student Story Samples, assess the creative writing of two fourth-grade children, and a second-grade child using the criteria discussed above.</p> <p style="text-align: center;"><u>Story Text</u></p> <p>Once there was a flying monkey. He flew all over the world. His name was Flyer. Flyer had adventures with other foreign people. Flyer had got this kind of liquid in him that made him fly. He went to Hong Kong, Japan, Korea, England, Rome and Canada. Flyer is the fastest flying monkey ever. He is funny and speaks English. He has made front pages on newspapers everywhere. Flyer never hurts anyone. But one day Flyer went back to America. He thought, "I best Ameriac, <i>ameriac</i>, or however you say it, hasn't changed."</p> <p>When Flyer got back, he was put in a circus. He learned to do flips and other things. But he died of not flying anymore. So he died while doing an act. He died just yesterday afternoon.</p> <p>That's the story of Flyer, the flying monkey.</p> <p style="text-align: center;"><u>Story Text</u></p> <p>Once in a forest unknown on the other side of the world, there lived monkeys but they flew. They all flew like giant birds over the unknown land. If someone came close they would knock it out. There was always one monkey that attacked first. He was also the smartest monkey of all. That is why he is the king. He would even know that he can't lose to anyone. So that land will never be found until the monkeys all die. The man who touched the land went in a submarine. But the monkey saw him and almost got him, but he escaped. No one has gotten closer than that.</p> <p style="text-align: center;"><u>Story Text</u></p> <p>The flying monkey is very funny and really brave. Since he is flying he is brave. The flying monkey is very noseey. The flying monkey can be seen but can't be caught from the people from the ground. Only from people that is in the sky with flying things and only flying things. The flying monkey can high dive, too. From the sky the flying</p>	<p><u>Slide/Handout #11.1</u> – Student Story Sample: Fourth Grade</p> <p><u>Slide/Handout #11.2</u> – Student Story Sample: Fourth Grade</p> <p><u>Slide/Handout #11.3</u> – Student Story Sample: Second Grade</p>

<p>monkey can see people and they look like real toys. The flying monkey can do many things. He can be many things, too. Everybody like the flying monkey.</p>										
<p style="text-align: center;"><b>Torrance Streamlined Tests of Creative Thinking</b></p> <p><b><u>Introduction</u></b></p> <p>The Torrance Streamlined Tests of Creative Thinking Demonstrator Form A is another effective way to measure creativity. It is a fifteen-minute test composed of a five-minute verbal section and two five-minute nonverbal activities.</p> <p><b><u>Purpose</u></b></p> <p>The objective of using the streamlined version of the Torrance is to measure both verbal and nonverbal creativity.</p> <p><b><u>Procedure</u></b></p> <p>The following examples of the Torrance Tests collected from students who were subsequently identified as gifted, illustrate characteristics frequently exhibited by underrepresented gifted students.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>Activity 1</td> <td>Verbal</td> </tr> <tr> <td>Activity 2</td> <td>Incomplete Figures – Nonverbal</td> </tr> <tr> <td>Activity 3</td> <td>Triangles – Nonverbal</td> </tr> </table>	Activity 1	Verbal	Activity 2	Incomplete Figures – Nonverbal	Activity 3	Triangles – Nonverbal	<p><u>Slide/Handout #12</u> – Torrance Tests of Creativity – Copy</p>			
Activity 1	Verbal									
Activity 2	Incomplete Figures – Nonverbal									
Activity 3	Triangles – Nonverbal									
<table style="margin-left: auto; margin-right: auto;"> <tr> <td>Sample 1</td> <td>illustrates</td> <td>Activity 2</td> </tr> <tr> <td>Sample 2</td> <td>illustrates</td> <td>Activity 2</td> </tr> <tr> <td>Sample 3</td> <td>illustrates</td> <td>Activity 3</td> </tr> </table>	Sample 1	illustrates	Activity 2	Sample 2	illustrates	Activity 2	Sample 3	illustrates	Activity 3	<p><u>Slide/Handout #13</u> – Student Torrance Samples</p> <p><u>Handout #6</u> - Characteristics of Gifted Children: Traditional, White economically disadvantaged, Hispanic, Hispanic economically disadvantaged, African</p>
Sample 1	illustrates	Activity 2								
Sample 2	illustrates	Activity 2								
Sample 3	illustrates	Activity 3								

	American, African American economically disadvantaged
<p><b><u>Scoring</u></b></p> <p>Sample Torrance Activities in Slide/Handout #13 provide an opportunity to practice scoring according to the following definitions and scoring guidelines.</p> <p><b>Activity 1</b> is the Verbal portion of the Torrance and is scored for Fluency and Originality.</p> <p>a. <b>Fluency</b> is defined as the number of relevant responses the student offers.</p> <p style="padding-left: 40px;">In Activity 1, the Fluency score is the number of <u>unusual</u> uses listed (for junked automobiles). The term “unusual” should be interpreted liberally to include almost all uses (of junked automobiles or any specific part from them).</p> <p style="padding-left: 40px;">There is <b>no limit</b> on Fluency responses for Activity 1.</p> <p>b. <b>Originality</b> is defined as any response other than the common ones, based on a sample of 500 records. (Overhead/Handout #14.3 is a list of common responses for unusual uses of junked automobiles, any of which would receive zero points for Originality.)</p> <p style="padding-left: 40px;">In Activity 1, the Originality score is the number of responses other than the common ones. Such responses having creative strength are given one point each.</p> <p><b>Activity 2 and Activity 3</b> are the Nonverbal components and are scored for Fluency, Flexibility, Originality, and Elaboration.</p> <p>a. The <b>Fluency</b> score in Activities 2 and 3 is the number of objects or pictures made from the incomplete figures and triangles.</p> <p style="padding-left: 40px;">In Activity 2 the total points allowed for Fluency is <b>two</b>, and in Activity 3 the total allowed is <b>12</b>. Add the two scores for a possible total Nonverbal</p>	<p><u>Slide/Handout #14</u> – Definitions and Scoring for the Torrance</p>

Fluency Score of **14**.

- b. **Flexibility** is concerned with the number of **different ways** the triangles in Activity 2 and Activity 3 are used.

Examples:

- 1 pt. – join several triangles together to make a bigger picture
- 1 pt. – use the triangle as an object in a total picture (perspective)
- 1 pt. – use the triangle as a part of a total picture
- 1 pt. – add things to the triangle, e.g., top and bottom as decorations
- 1 pt. – use as part of total picture
- 1 pt. – use as space in picture

Total points allowed for Flexibility for Nonverbal Activities 2 and 3 is **12**.

- c. **Originality** for the Nonverbal Activities 2 and 3 is any response not included under the list of common responses.

Additional points are given for combining two or more triangles into a single coherent object or scene:

- 2 triangles = 1 extra point
- 3 triangles = 2 extra points
- 4 triangles = 3 extra points . . . and so on.

Total points allowed for Originality in Nonverbal Activities 2 and 3 is **14**, plus up to **11 extra** points for combining triangles in Activity 3 (for a possible total Nonverbal Originality Score of **25**).

- d. **Elaboration** is defined as the imagination and exposition of detail as a function of creative ability and is labeled Elaboration on a primary response. Credit is given in Activities 2 and 3 for each elaboration (detail) added to the original stimulus figure itself. One point is scored for each elaboration.

There is **no limit** on Elaboration points.

Activity

Slide/Handout  
#13 – Student

<p>Workshop participants score Torrance activities together, comparing the student samples.</p>	<p>Torrance Samples</p> <p><u>Slide/Handout #15</u> – Directions for Administering the Torrance Tests of Creative Thinking</p>
<p><b><u>Summary</u></b></p> <p>In considering the Torrance Streamlined Tests of Creative Thinking, review the following points:</p> <ul style="list-style-type: none"> <li>• The Torrance Tests produce a Nonverbal Creativity score, in addition to a Verbal Creativity score.</li> <li>• The Torrance Streamlined Tests are based on the nationally standardized Torrance Tests of Creative Thinking by E. Paul Torrance.</li> <li>• In under-represented students, the Torrance Tests of Creative Thinking reveal creativity that is clearly outstanding, though this creativity may <i>not</i> be apparent using other assessment procedures or instruments.</li> <li>• Refer to Handout #15 for directions for administering the Torrance Streamlined Tests of Creative Thinking.</li> </ul>	
<p style="text-align: center;"><b>Storytelling Festival</b></p> <p><b><u>Introduction</u></b></p> <p>The Storytelling Festival was developed to identify gifted culturally diverse children. Since some cultures have an oral tradition which embraces their history and is rich in metaphor and imagery, storytelling was seen as an activity that might elicit young children’s verbal talent. In the context of a story, children could express distinctive qualities of voice, articulation, animation, and originality of theme.</p> <p>Because this activity allows young children to tell their story, they are not constrained by the mechanics of writing and spelling. Therefore, they are able to express ideas with greater fluency.</p>	



<p><b><u>Purpose</u></b></p> <p>The objectives of the Storytelling Festival are:</p> <ul style="list-style-type: none"> <li>• To identify verbal and creative talent in young children.</li> <li>• To provide young children, with limited writing skills, the opportunity to tell a story without regard for the mechanics of writing.</li> </ul>	
<p><b><u>Procedure</u></b></p> <p>These guidelines explain the procedures to begin the storytelling activity. At first, children may duplicate or imitate one another. As teachers encourage children to become storytellers, the stories will become more elaborate, original, and creative.</p>	<p><u>Slide/Handout #16.1 – Storytelling Instructions</u></p>
<p>The evaluation rates children’s stories from one to three in five categories: Clear storyline, Characterization, Voice quality, Kinesthetics, and Overall. A sixth category allows for additional comments. These categories may be modified. The ethnicity and demographic diversity of children will determine the modifications.</p>	<p><u>Slide/Handout #16.2 – Storytelling Evaluation Form</u></p>
<p>Read the story <i>The Beginning of Spiderman</i>. Although this child selects a popular character for his story, he has some ownership. This is a story as much about the child as it is Spiderman. The grandmother is a pivotal figure in the story, as she is in the boy’s life. Notice the length of his story, his use of inventive language, “flim-flam,” and his list of characters who are assigned lengthy conversations.</p> <p>When this child told his story he adopted distinct voices and styles of speech for each of the characters. He used animation, body language, and facial expressions as he moved from one character to the next.</p>	<p><u>Slide/Handout #16.3 – Storytelling Sample</u></p>
<p><b><u>Summary</u></b></p> <p>Storytelling allows a child’s creative talents to emerge unconstrained by the mechanics of writing and spelling. Storytelling provides for greater fluency and originality of ideas.</p>	

<p style="text-align: center;"><b>Parent Information Survey</b></p> <p><b><u>Introduction</u></b></p> <p>Children often exhibit behaviors at home that may not be apparent during the school day. For example, a child who is adept at following directions and assembling small machines may not have an opportunity to demonstrate this ability in a school setting.</p> <p>Similarly, the child who is familiar with nature and outdoor life will have limited opportunities in a traditional instructional setting to demonstrate his expertise.</p> <p>The Parent Information Form can provide the classroom teacher with useful descriptions and examples of a child’s activities and hobbies outside of school.</p>	
<p><b><u>Purpose</u></b></p> <p>The objectives of the Parent Information Form are:</p> <ul style="list-style-type: none"> <li>• To identify behaviors and skills that are not apparent in the classroom.</li> <li>• To collect information about in-depth interests.</li> <li>• To collect evidence of nonverbal abilities.</li> </ul>	
<p><b><u>Procedure</u></b></p> <p>The Parent Information Forms ask parents to provide <i>specific</i> information about their child’s behaviors and abilities, and to give a brief history of these behaviors.</p> <p>Parents are given the opportunity to write about their child in an anecdotal manner, using language that is appropriate for them. Moreover, soliciting information from parents brings those parents into a participatory role in their child’s education.</p> <p>In Project SPRING, teachers awarded a small token to children who returned their signed Parent Information Form – completed or not. The return rate for the Parent Information Form was about 70%.</p>	<p><u>Slide/Handout #17.1</u> – Parent Information Form – Sample 1</p> <p><u>Slide/Handout #17.3</u> – Parent Information Form – Sample 2</p>
<p>One school in Project SPRING elected to use a Parent Inventory to</p>	<p><u>Slide/Handout</u></p>

<p>collect information from parents. Parents, and others who were interested in identifying gifted children within the population, met to determine specific characteristics the community and culture valued and considered to be gifted qualities. These qualities or characteristics are reflected in the Parent Inventory.</p>	<p><u>#17.2</u> – Parent Inventory – Sample 3</p>
<p>Parents report on those items that are of specific relevance to their own child. Some parents did not complete the form or return it. Some sections may be complete with information, and other sections left blank. The parent is at liberty to customize the form in a manner that will adequately report a child’s activities, hobbies, etc. The information teachers receive can be very useful. Teachers in Project SPRING used parent information to support placement of children in gifted programs.</p>	<p><u>Slide/Handout #19</u> – Parent Information Collection – Instructions</p> <p><u>Slide/Handout #20</u> – Sample Letter – Parent Information</p>
<p>The following are examples of information that was received in response to a Parent Information Form.</p> <p>“Evan us very good at figuring out how things are put together. He was 4 when his Dad bought a wheel barrow. My husband had the instructions but was having to try to figure them out. He left the room. When he returned Evan had assembled it and my husband tightened the bolts down.</p> <p>    . . . made a chair when he was 4. He made it out of scrap wood, with a back and 4 legs and you could actually sit on it. He also made a ladder.</p> <p>    . . . build a go cart in the third grade. It is made out of wood, you sit in it and steer with your feet. The only help he had was puttin on the wheels, otherwise he build and designed it by himself,</p> <p>    . . . he absolutely loves to build and hammer. He is extremely talented at building and designing things.”</p> <p>    “Rhonda has made games – word searches, mazes, card games, and board games – since she was 5 years old.</p> <p>    She has written short stories and humorous things since before she actually could write; she told her stories to her brother and sister and had them write them for her.</p>	<p><u>Slide/Handout #18.1</u> – Parent Information Sample Anecdotes – Sample 1</p> <p><u>Slide/Handout #18.2</u> – Parent Information Sample Anecdotes – Sample 2</p>

Rhonda is really interested in making things – anything to do with building and creating out of any available materials or scraps.

... has been able to do perspective drawings since she was 6 years old.”

“Allen collects baseball cards. He uses price guides to determine the value of the cards and sells them (He is quite good at making a profit.)

... is very good in math and enjoys business. He has been particularly interested in his father’s flea-market business since he was in the first grade. He is very good at earning money and finding ways to profit. Maybe he’ll be a tycoon when he grows up!”

“Jimmy works on diesel engines, repairing, greasing, tightening bolts, washing, changing oil, etc.; he has done this for 3-5 years.

... he build cars and trucks with legos, collects cars and trucks, draws diesels every day (and draws horses).”

### **Summary**

Parent narratives may reveal talents in a child that are truly unusual or unique. The length of time the child has been engaged in a hobby or activity is important; a sustained interest in a particular area is a characteristic of the gifted child.

Review the following points:

- Data collected from parents can provide information that may be unknown or unobserved by teachers in a formal educational setting.
- The Parent Information Form is sent home with all students at the grade level(s) of interest, with expectations for return from parents who have particularly interesting information.
- A letter accompanying the form will explain its purpose and why the school is interested in collecting information from parents. The letter should include a deadline for returning the form.
- Parent information about the student and his capabilities can be particularly valuable when accompanied by examples. Examples can be evaluated in terms of age levels and

<p>abilities.</p> <ul style="list-style-type: none"> <li>• Parents can supply information about a child’s in-depth interests.</li> <li>• Parent responses can provide evidence of nonverbal abilities.</li> <li>• Parent information provides rich data about a child’s out-of-school accomplishments. Such information should receive serious consideration in identifying students for gifted programs.</li> </ul>													
<p style="text-align: center;"><b>Adult/Community Information Survey</b></p> <p><b><u>Introduction</u></b></p> <p>Adults in the community who work with young children through different organizations can sometimes see abilities that may not be apparent in a traditional academic setting. Therefore, information collected from these adults can also be very important in identifying under-represented gifted students.</p>													
<p><b><u>Purpose</u></b></p> <p>The objectives of collecting adult/community information are:</p> <ul style="list-style-type: none"> <li>• To identify unique talents and out-of-school interests.</li> <li>• To find unusual abilities displayed in projects and products.</li> </ul>													
<p><b><u>Procedure</u></b></p> <p>The following is a list of adults and organizations that should be surveyed for information about children with outstanding abilities:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Boy and Girl Scouts</td> <td style="width: 50%;">Latch Key Program Supervisors</td> </tr> <tr> <td>Destination Imagination</td> <td>Coaches: Community Programs</td> </tr> <tr> <td>4-H Programs</td> <td>Community and School Clubs</td> </tr> <tr> <td>YMCA, YWCA</td> <td>School Administrators</td> </tr> <tr> <td>Boys Club, Girls Club</td> <td>School Maintenance</td> </tr> <tr> <td>School Cooks</td> <td>Church Groups</td> </tr> </table> <p>A community may have some special groups or clubs that are not listed here. Those groups should also be included in the survey.</p>	Boy and Girl Scouts	Latch Key Program Supervisors	Destination Imagination	Coaches: Community Programs	4-H Programs	Community and School Clubs	YMCA, YWCA	School Administrators	Boys Club, Girls Club	School Maintenance	School Cooks	Church Groups	<p><b><u>Slide/Handout #21.2 – Community Organizations and Individuals</u></b></p>
Boy and Girl Scouts	Latch Key Program Supervisors												
Destination Imagination	Coaches: Community Programs												
4-H Programs	Community and School Clubs												
YMCA, YWCA	School Administrators												
Boys Club, Girls Club	School Maintenance												
School Cooks	Church Groups												

<p><b><u>Instructions for Adult/Community Survey</u></b></p> <ol style="list-style-type: none"> <li>1. Prepare a list of groups and individuals in your community that might be able to provide information about a child's out-of-school abilities.</li> <li>2. Assign committee members, teachers, or volunteers to survey and/or interview the adults listed</li> <li>3. Prepare the survey forms on school letterhead paper.</li> <li>4. Provide training in purposes and procedures for those conducting the survey.</li> </ol> <p>Each adult to be surveyed or interviewed should be contacted personally. If it is at all possible, the person conducting the survey should wait while the survey is completed, answering any questions that arise. If the adult completing the survey wishes to have more time to think about the questions, be sure he/she understands the purpose and the procedures. A return date and place should be listed on the survey.</p>	<p><u>Slide/Handout 21.1</u> – Instructions for Adult/Community Recommendations</p>
<p>A short interview with community members may be more effective than simply sending the information form to them. Questions can be asked and the answers filled in by the interviewer. This may be preferable to distributing the forms because the process that is being used to find hidden gifted children can be explained to each individual.</p>	<p><u>Slide/Handout #22.1</u> – Survey of Adult Community Members – Sample 1</p> <p><u>Slide/Handout #22.2</u> – Community Inventory – Sample 2</p> <p><u>Slide/Handout #23</u> – Examples of Information Obtained from Adult/Community Surveys</p>
<p><b><u>Summary</u></b></p> <p>Review the following points:</p> <ul style="list-style-type: none"> <li>• Information about students with unusual abilities is collected from community leaders who work with children.</li> </ul>	

<ul style="list-style-type: none"> <li>• This information can be valuable in identifying students with unique talents and interests.</li> <li>• The information seeks to find students with unusual abilities displayed through projects, products, and activities outside the classroom.</li> </ul>	
<p style="text-align: center;"><b>Teacher Information Form</b></p> <p><b><u>Introduction</u></b></p> <p>In searching for gifted children from under-represented populations, a teacher should look at all students with the following questions in mind:</p> <ul style="list-style-type: none"> <li>• Could this student be achieving greater school success and possibly be a candidate for a gifted program if: <ul style="list-style-type: none"> <li>○ His early years had been different?</li> <li>○ He had been offered a greater variety of experiences?</li> <li>○ Someone had shown appreciation of cognitive skills?</li> <li>○ An adult had provided an environment and materials that fostered intellectual and academic pursuits?</li> </ul> </li> <li>• Has a student exhibited unusual abilities in projects, in research, or in any classroom assignments?</li> </ul> <p>The Nontraditional Identification and Assessment of Gifted Learners workshop has given participants a broader understanding of gifted students and gifted programs. With this expanded awareness, teachers can go back to their classrooms and view their students in new ways, collecting information about them that will be valuable in identifying under-represented gifted students who need program intervention.</p>	
<p><b><u>Purpose</u></b></p> <p>The following are objectives of the Teacher Information Form:</p> <ul style="list-style-type: none"> <li>• To collect data in narrative form from those who work closely with students.</li> <li>• To describe gifted characteristics that cannot be observed from test scores and grades.</li> <li>• To identify creative and critical thinkers and leaders.</li> </ul>	

<p><b><u>Procedure</u></b></p> <p>A Teacher Information Form collects anecdotal information in the same manner as the Parent and Adult/Community forms. The observations are in the areas of leadership, creativity, originality, and humor – qualities derived from the research literature dealing with characteristics of creative persons.</p>	
<p><b><u>Activity – Teacher Information</u></b></p> <p>In reviewing examples of Teacher Information Forms, workshop participants may wish to share behaviors they have observed in the classroom, and relate classroom observations to questions asked on the forms. Discuss personal observations in the context of lists of characteristics for both traditional rural disadvantaged gifted students. How do specific behaviors or characteristics fit into the categories of leadership, creativity, originality, and humor?</p>	<p><u>Slide/Handout #24.1</u> – Teacher Information Form – Sample 1</p> <p><u>Slide/Handout #24.2</u> – Teacher Inventory – Sample 2</p>
<p><b>Summary of Nontraditional Identification Instruments and Procedures</b></p> <p>To collect meaningful data and interpret the results, teachers must first have Nature and Needs of Gifted Learners to learn the background and characteristics of gifted students who have traditionally been underrepresented.</p> <p>Through additional workshops and training, educators can gain expertise in using innovative procedures and strategies for identifying hidden gifted students.</p>	<p><u>Slide/Handout #26</u> – Workshop Evaluation Form</p>



APPENDIX G

CURRICULUM FOR NONTRADITIONAL GIFTED LEARNERS PART I





<p>5. Curriculum that is planned for the gifted learners in schools can benefit a wider spectrum of students as well.</p>	
<p><b><u>Elements of Curriculum</u></b></p> <p><u>Narrative:</u> The three basic components of curriculum are content, process and product.</p> <p>CONTENT:           The facts, concepts, and principles that govern a body of study. (Day 1)</p> <p>PROCESS:           Skills related to the subject or course of study that includes, but is not limited to, basic skills, creative and critical thinking skills, research skills, and affective skills. (Day 2)</p> <p>PRODUCTS:        Synthesis and application of the knowledge, concepts and skills to communicate what is learned. (Day 3)</p>	<p>Slides CI8, CI9, CI10 Elements handout</p>
<p><b><u>Principles of Differentiation</u></b></p> <p>As a guideline for the differentiation of content, process, and product, we follow the principles of differentiation.</p> <p>There are 4 principles of differentiation that apply to content:</p> <p>1. <b>Present content that is related to broad-based issues, themes, or problems explored through a multicultural context.</b> Content for curriculum tends to be more successful if the student is moving toward bigger ideas that require more abstract thinking than what might be found in the general education classroom. Instruction is organized around one of these bigger ideas that require the student to use a variety of skills or processes to move toward an understanding of how content relates to something more complex. The instruction can center on an issue, a problem, or a theme. An issue might be described as a question or area of concern. A problem is a question of consequence, generally characterized by controversy and debate. A theme can be one of two types. A topical theme is a specific area of study with limited scope and a universal theme is a broad-based concept representing experiences and struggles that are an integral part of the human experience.</p>	<p>Slides CI11, CI12, CI13, CI14</p> <p>Principles handout</p>

Universal themes can include topics, problems and issues within the cultures represented in the classroom. Poverty can be a problem as the economy shrinks. A problem-based unit might address “What can be done to help people in our community?” Expanding that study might require that the student examine the issue of civil rights. A topical theme might examine the impact of the reduction of the area’s economy on a nation’s economy. A universal theme that addresses the issue is relationships. “What is the relationship of humankind to the economy?”

2. **Integrate multiple disciplines into the area of study.** In order to study a broad issue, problem, or theme, it is necessary to examine how others impact a particular discipline. World War II was not only about battles and commanders; during this period of time, national economies rose and fell, music changed its focus, computers experienced their creation, and literature entered a new world of realism. In the general education classroom, little time is spent on other disciplines. In the development of curriculum for nontraditional gifted learners, the connections between the disciplines become as important as the connections within a discipline. The teacher does not have to be an expert in all areas. What they need to be able to do is to find the connections between widely disparate topics and allow students to examine these connections. (Go over curriculum planning wheel. Have participants complete a sample wheel.)

3. **Present comprehensive, related, and mutually reinforcing experiences within an area of study.** To help nontraditional gifted learners reach their potential, we must provide them with quality educational experiences, including study skills, learning strategies, higher level thinking skills, test-taking skills, and time-management skills.

There are three models that enhance the instructional planning and make it inclusive for nontraditional gifted students. One model is *sensitivity enhancement* what would involve students in activities such as simulations, debates, analysis of rhetoric, and designs of answers to problems. The second model is

<p><i>information processing</i> including library research using original documents, interviews, the collection of materials for information, role play, field trips, or time capsule strategies. This model gives students the background necessary for achieving the goals and objectives of the curriculum. The third model is <i>concept development</i> that involves the use of materials from different cultures instead of relying on the traditional materials found in most classrooms.</p> <p>4. <b>Allow for in-depth learning of a self-selected topic within the area of study.</b> There are two aspects to this principle. The first part is self-selected. If the student is able to select a topic that is mutually agreeable to both the student and teacher, student interest will drive his or her investigations to a much greater degree than if all decisions are made by the teacher. The ability to go beyond superficial learning and dig into the details that support a concept or idea leads to depth.</p>	
<p><b><u>Structure of Knowledge</u></b></p> <p>The structure of knowledge uses critical content (topics and facts) as a tool to help students understand concepts and “big ideas” that transfer through time and across cultures.</p> <p>Phenix (1986) says, “The distinctively human goal in learning is to expand meanings beyond particulars to the larger patterns of understanding.” “The purpose of these patterns . . . is to guide the selection of learnable content so that it will exemplify the characteristic features of the disciplines.”</p> <p>The guide for the selection of content is known as the “Structure of Knowledge” which has 5 levels:</p> <ol style="list-style-type: none"> <li>1. <b>Themes:</b> Themes are universal ideas, broad-based concepts such as patterns, relationships, survival, conflict. These represent important experiences and struggles that are an integral part of life. Selection of a broad-based theme that goes across all the disciplines is the driving force of the curriculum. A universal theme with generalizations can serve as the</li> </ol>	<p>Slide C115 Structure handout</p>

<p>organizing element for the content.</p> <ol style="list-style-type: none"> <li>2. <u>Generalizations / Enduring Understandings</u>: Generalizations of a theme are statements that explain ideas and concepts. Generalizations are summaries of thought, “What do I understand as a result of my study?” A generalization statement includes 2 or more concepts in a sentence that transcends time. Generalizations should: (1) be universal truths; (2) go across time, cultures, and disciplines; (3) be simply stated; and (4) encompass at least two concepts.</li> <li>3. <u>Concepts</u>: Concepts are anchor points that are timeless. A concept is an organizing idea; a mental construct. 15-30 major concepts structure the content of each discipline.</li> <li>4. <u>Topics</u>: areas of specific study such as Civil War, oceans, measurement, etc.</li> <li>5. <u>Facts</u>: Facts are the tools for understanding concepts and generalizations.</li> </ol> <p>There are nine steps in developing a differentiated unit that follows the structure of knowledge. We will explore 5 of these steps today:</p> <ol style="list-style-type: none"> <li>1. Choose a <b>unit theme</b> that encourages interdisciplinary integration.</li> <li>2. Identify the <b>major concepts</b> to serve as integrating lenses for the unit.</li> <li>3. Web the <b>topics</b> for study, by subject or area, around the concept and theme.</li> <li>4. List <b>enduring understandings</b> (deeper transferable ideas that develop as a result of fact-based studies) students will master after engaging in this unit.</li> <li>5. List <b>essential questions</b> used to guide students toward mastery of the essential understandings.</li> </ol>	<p>Slide C116 Steps handout</p>
<p><b>The value of utilizing the structure of knowledge:</b></p>	<p>Slides C117, C118</p>





<p>The Knowledge and Skills statements from the TEKS provide information as to the major topics of study to be included.</p>	
<p><b>Step Four:</b></p>	
<p>Because there is typically more content than can reasonably be addressed within the available instructional time, educators are obliged to make choices. Establishing curricular priorities may be graphically depicted using three nested rings.</p> <p>The blank background within the largest ring represents the field of possible content (topics, skills, and resources) that might be examined during a unit or course. This ring identifies knowledge that students should be familiar with.</p> <p>In the middle ring, we sharpen our choices by specifying important knowledge (facts, concepts, and principles) and skills (processes, strategies, and methods). Student learning would be incomplete if the unit concluded without mastery of these essentials. The middle ring specifies the prerequisite knowledge and skills students need to successfully accomplish key performances. The largest and middle rings are representative of knowledge and skills that gifted learners are able to master very quickly or, in many cases, have already mastered. Utilizing strategies to compact and accelerate the curriculum in these rings provides additional time to devote to the content in the smallest ring.</p> <p>The smallest ring requires finer-grain choices and a focus on intellectual priorities. Here we select the deeper understandings that will anchor the unit and establish a rationale for it. These are the big ideas that we want students to “get inside of” and retain after they’ve forgotten many of the details. Deeper understandings implicitly answer the question, Why is this topic worth studying?</p> <p>Four basic criteria, or filters, to use in selecting big ideas and core processes to teach for deeper understanding:</p> <ul style="list-style-type: none"> <li>• To what extent are the content standards and topics enduring and transferable big ideas, having value beyond the classroom? A big idea may be described as an intellectual linchpin. A linchpin idea is one that is essential for deep understanding – without it, a student cannot go anywhere.</li> <li>• To what extent are the content standards and topics</li> </ul>	<p>Slide CI23</p> <p>Stage 1 E.U. rings handouts (sample and blank)</p> <p>Slide CI24</p>

<p>big ideas and core processes at the heart of the discipline? Authentic learning experiences shift students from a passive knowledge receiver into an active constructor and verifier of meaning. By involving students in “doing” the subject, we provide them with insights into how knowledge is generated, tested, and used. (Cite example of 8<sup>th</sup> grade social studies project as journalist to Civil War).</p> <ul style="list-style-type: none"> <li>• To what extent are the content standards and topics abstract, counterintuitive, often misunderstood, or easily misunderstood ideas requiring uncoverage? What important concepts or processes do students have difficulty grasping? What do they frequently misunderstand? What do they typically struggle with? About which big ideas are they likely to harbor a misconception? These are fruitful topics to select and uncover.</li> <li>• To what extent are the content standards and topics big ideas embedded in facts, skills, and activities? Many seemingly straightforward facts are difficult to grasp without understanding the underlying concepts that give meaning to those facts. Any many skills are only successfully mastered when we understand their intellectual purpose or justification.</li> </ul>	
<p><b><u>Step 5: Generating essential questions</u></b></p> <p>Essential questions are an exceptional tool for clearly and precisely communicating the pivotal points of the curriculum. An essential question is the heart of the curriculum. It is the essence of what you believe students should examine and know in the short time they have with you. When the curriculum is formed around questions, the clear message to the students is that you are probing with them.</p> <p>When composing a unit of study for investigation at any level of teaching, creating meaningful and clear essential questions can serve as scope and sequence to the structure of the study. A set of essential questions provides an advanced organizer for a curricular experience. The questions suggest a logical pattern of investigation.</p>	<p>Slide C125</p>

<p><b>Criteria for Writing Essential Questions</b></p> <ol style="list-style-type: none"> <li>1. Each child should be able to understand the question. If the learner cannot understand the language of the questions, then the purpose is defeated.</li> <li>2. Using the six facets as question generators ensures inclusion of all aspects of enduring understanding.</li> <li>3. The language of the questions should be written in broad, organizational terms. This way the students realize through the completion of many activities, they will learn much about the content. If a question is too specific, it is probably an activity itself or the point of a classroom discussion.</li> <li>4. The question should reflect your conceptual priorities. The essential question points to the essence of what your students will examine in the course of their study.</li> <li>5. Each question should be distinct and substantial. This cues students that there will be a set of activities examining the nature of the content.</li> </ol>	<p>Slide CI26 Essential questions handouts (blank and sample)</p>
<ol style="list-style-type: none"> <li>6. Questions should not be repetitious. Just as a book chapter should have distinct content integrity, so should each essential question stand on its own without being blurred into another question.</li> </ol>	
<p><b>Step 6: Tie knowledge and skills (TEKS) to essential questions</b></p> <p>The next step is to take your TEKS and determine which knowledge and skills go along with each essential question.</p>	
<p><b><u>Differentiating Content</u></b></p> <p>Content may be differentiated in a number of ways. For the</p>	

<p>purpose of this training, the discussion will be limited to three:</p> <ol style="list-style-type: none"> <li>1. Pacing or Acceleration – the rate at which students advance through the content is modified</li> <li>2. Depth – exploration of content within a discipline; analyzing from the concrete to the abstract, familiar to the unfamiliar, known to the unknown; exploring the discipline by going past facts and concepts into generalizations, principles, theories, laws; investigating the layers of experience within a discipline through details, patterns, trends, unanswered questions, ethical considerations.</li> <li>3. Complexity – extending content in, between, and across disciplines through the study of themes, problems, and issues; seeing relationships between and among ideas in/within a topic, discipline, and disciplines; examining relationships in, between, and across disciplines over time, and from multiple points of view.</li> </ol>	
<p><b><u>Texas State Plan</u></b></p> <p>As you know, guidelines for gifted education in Texas are provided through the Texas State Plan. We have looked at Section 1: Student Assessment and Section 2: Program Design in previous sessions. Today we are going to look at Section 3: Curriculum and Instruction. (Review).</p>	<p>Slide CI27 State Plan handout</p>
<p><b><u>Depth</u></b></p> <p>Exploration of content within a discipline. Teachers AND students dig deeper into the curriculum. The deeper students go with a subject, the broader it gets.</p> <p>Depth also includes analyzing content from the concrete to the abstract, the familiar to the unfamiliar, the known to the unknown.</p> <p>Depth allows exploration of the discipline by going past facts and concepts into generalizations, principles, theories, and laws.</p>	<p>Slide CI28</p>
<p><b><u>Elements of Depth</u></b></p> <p>Students investigate the layers of experience within a discipline utilizing the elements of depth:</p> <ul style="list-style-type: none"> <li>• Know and use the language of the discipline</li> <li>• Use details to elaborate in the discipline</li> </ul>	<p>Slide CI29</p>

<ul style="list-style-type: none"> <li>• Look for patterns in the discipline</li> <li>• Look for trends in the discipline. (Forces that shape a body of knowledge)</li> <li>• Identify the unanswered questions of the discipline</li> <li>• Identify and explain the rules or how information/events are organized in the discipline</li> <li>• Be sensitive to the ethical considerations in the problem/issue/discipline</li> <li>• Look at big ideas that can be supported by the evidence from a body of knowledge</li> </ul>	
<p><b>Language of the Discipline</b> - the nomenclature that defines a body of knowledge that makes it unique from another.</p> <p>The specialized vocabulary skills and tools of the discipline. Language gives entrance into the study of the details of the discipline.</p> <p>What terms or words are specific to the work of the disciplinarian?  What tools does the disciplinarian use?</p>	<p>Slide CI30</p>
<p><b>Details</b> – facts or embellishments</p> <p>What are its attributes?  What features characterize this?  What specific elements define this?  What distinguishes this from other things?</p> <p>A good answer is not a single, but multiple set of responses  A good answer is not naming, but describing  A good answer is not identifying, but is embellishment</p> <p>Prompts:</p> <ul style="list-style-type: none"> <li>• Add to. . .</li> <li>• Give evidence of. . .</li> <li>• Cite. . .</li> <li>• Extend. . .</li> <li>• Show alternatives. . .</li> <li>• Elaborate. . .</li> <li>• Find another way to say. . .</li> </ul> <p>Get across the message that on right answer is not enough.</p> <p>Details help kids see how parts create a whole (deductive reasoning)  Details can't come without language. They are symbiotically</p>	<p>Slide CI31</p>

<p>related.</p> <p>Language and details are ON the page. These are the simplest elements to explore. The shift then goes on to the next layer of depth.</p>	
<p><b>Patterns</b> – repetitions, predictability</p> <p>What are the recurring events?  What elements, events, or ideas are repeated over time?  What was the order of the events?  How can we predict what will come next?</p> <p>Patterns must be built / constructed. The deeper students go the more construction there is. This is problem solving. The ability to look for patterns arms students to problem solve. Patterns are not always seen the same way. Patterns are the weaving together of details to get the whole. When students explain their thinking, it is METACOGNITION.</p> <p>Language and Details allow students to measure the answer. Patterns allow students to measure the process to the answer.</p> <p>Patterns are BETWEEN the lines.</p>	<p>Slide CI32</p>
<p><b>Trends</b> – forces that enable students to see something and the context in which it happens.</p> <p>Context: Where and When it takes place effects the Why.</p> <p>What ongoing factors have influenced this study?  What factors have contributed to this study?</p> <p>Trends are OFF the page. Students must use secondary sources.</p>	<p>Slide CI33</p>
<p><b>Unanswered Questions</b> – We know what we know and we pursue that which we don't know.</p> <p>In the realm of what is known, we accept things that are considered fact. Students are only <u>consumers</u> of knowledge.</p> <p>When we move into the unknown, students note ambiguities, discrepancies, gaps, missing pieces. Students become <u>producers</u> of knowledge.</p> <p>What is still not understood about this area/topic/study/discipline?</p>	<p>Slide CI34</p>



<ul style="list-style-type: none"> <li>• Look at ideas/information over time – past, present, and future</li> <li>• Look at ideas/information from different points of view</li> <li>• Look for connections among/between ideas/information/disciplines</li> </ul>	
<p><b>Over Time</b> – Relationships between past, present, future, and within a time period</p> <p>Looks at how the passage of time affects the study Determines what is revealed when this study is examined over a specific time period. Examines what different perspectives time provides in understanding this study.</p> <p>How are the ideas related between the past, present, and future? How are these ideas related within or during a particular time period? How has time affected the information? How and why do things change or remain the same?</p>	Slide CI40
<p><b>Points of View</b> – multiple perspectives, opposing viewpoints, differing roles and knowledge</p> <p>Looks at how viewing things from different perspectives helps understand an event, body of knowledge, or set of ideas. Examines how the consideration of opposing viewpoints leads to a better understanding of an event or issue.</p> <p>What are the opposing viewpoints? How do different people and characters see this event or situation?</p>	Slide CI41
<p><b>Interdisciplinary Connections</b> – within disciplines, between disciplines, and across disciplines</p> <p>Determines common elements among the Topics from the different disciplines. Looks at how a particular idea relates to all of these topics across the disciplines. Examines how each of these topics contributes meaning to this idea.</p> <p>What are common elements among topics from different disciplines? How does the idea/topic/concept relate to other disciplines? How do topics/ideas from across the disciplines contribute meaning to this idea?</p>	Slide CI42



<p>The elements of depth and complexity should be evident, as appropriate, in the teaching/learning process with the teacher as the facilitator and the student as the investigator.</p>	
<p><b>Assignment</b></p> <p>Prior to Day 2, complete the steps discussed today on a unit of your choice.</p> <p>Complete the handout to identify the desired results of your unit. Bring your work to share with the group.</p> <p>Developing curriculum that is sufficiently rigorous, challenging, and coherent for students who are gifted is a challenging task. The result, however, is well worth the effort. Appropriately differentiated curriculum produces well educated, knowledgeable students who have had to work very hard, have mastered a substantial body of knowledge, and can think clearly and critically about that knowledge. Achieving such results for one or for a classroom full of students will produce high levels of satisfaction, not only for the students who are beneficiaries, but also for every teacher who is willing to undertake the task.</p>	<p>Slide CI43 Identify desired results handout</p>

APPENDIX H

CURRICULUM & INSTRUCTION FOR NONTRADITIONAL GIFTED LEARNERS

PART II WORKSHOP OUTLINE

<p><b>Introduction</b>  Challenging units of study provide an excellent vehicle for differentiating learning experiences for students with various intellectual abilities.  Workshop Objectives:  In Part I we identified the desired results that we want our students to reach. Today in Part III we will put the Backward Design Model into action through planning learning experiences and instruction.</p>	CII1
<p><b>Categories of Knowledge</b></p> <p>In Part I we spent a considerable amount of time discussing the structure of knowledge.</p> <p>Today we will just quickly review the categories and what they mean</p>	CII2 Categories handout
<p><b>Stage 2: Plan Learning Experiences and Instruction</b></p> <p><b>Introductory Activities:</b>  An introduction sets the stage for a unit. Components may include</p> <ol style="list-style-type: none"> <li>1. A focusing question – derived from a standard or overarching principle embedded within a unit can promote curiosity in students, and help both teachers and students maintain a focus on meaning that is central to the unit. Focusing questions for a unit on tragic heroes might be “What is meant by the phrase ‘tragic hero’?” “Who are tragic heroes?” “Is anyone you know a tragic hero?” “What are the common characteristics of their journeys toward self-understanding?”</li> <li>2. A needs assessment to determine students’ prior knowledge, interests, and learning preferences</li> </ol>	CII3  Key Components handout
<ol style="list-style-type: none"> <li>3. A teaser or “hook” to motivate students and may point to the relevance of upcoming content as well</li> <li>4. Information about the relevance of the goals and unit expectations – a concept map of ideas in the unit, unit schedule or calendar of events</li> <li>5. Information about expectations for students - presentation or review of rubrics or checklists for quality</li> <li>6. Consideration of students’ interests in or experiences that connect with the unit content – interest checklists, charts</li> </ol>	

<p>that guide students in listing what they already know about a topic and questions they have about the topic, and invitations for students to suggest ways in which they might like to explore the topic or express their learning are just a few ways teachers commonly use introductory activities to help students connect with new content.</p>	
<p>A powerful introduction can have a long life and a very positive impact on learning. For that reason, it is worth your time to ask, “How will I let students know the content of the unit is going to be worthwhile, interesting, and exciting?” “How will I establish curiosity or a desire to know in the students?” “How will I orient them to the learning journey we will take together?” “How can I tap into my students’ prior experiences in a way that connects the study to their lives?”</p>	
<p><b>Teaching Strategies</b></p> <p>One of the most important tasks in designing challenging curriculum is the selection of teaching activities to use to instruct students or connect them with the content. These strategies forward the learning goals within a curriculum unit and place the teacher in the role of facilitator, trainer, coach, or model of learning.</p> <p>Examine each strategy. Show video clips of strategies implemented in actual classrooms – ASCD and Winebrenner</p> <p>Strategies:</p> <ul style="list-style-type: none"> <li>Most Difficult First</li> <li>Learning Centers</li> <li>Tiered Assignments</li> <li>Learning Contracts</li> <li>Curriculum Compacting</li> <li>WebQuests</li> <li>RAFT Activity</li> </ul>	<p>CII4 Strategies handout</p>

<p><b>Learning Activities</b></p> <p>Critical thinking skills – Various thinking skills that are used to analyze and evaluate data and evidence in order to develop, judge the effectiveness of, or respond to an argument or position.</p> <p>Creative thinking skills – Various cognitive skills that are involved in creative production</p> <p>Independent Study &amp; Research skills – skills necessary for gathering, analyzing, and synthesizing information</p>	<p>CII5</p> <p>Process skills handout</p>
<p><b>Grouping for Learning</b></p> <p>Grouping for learning enables teachers to arrange students in configurations most likely to enhance the acquisition of content and skills. The Texas State Plan requires grouping arrangements that allow gifted students to work with other non-gifted students, to work only with other gifted students, and to work independently.</p>	<p>CII6</p>
<p><b>Assignment:</b></p> <p>For the remainder of our time together today you are going to put the backward design model into action and complete a differentiated unit of instruction. You have already completed the first stage. Today you will add stage two and design your activities, choose your teaching strategies and put the stages together.</p>	<p>CII7 Planning handout</p>
<p><b>Closing</b></p> <p>As we attempt to provide gifted students with a comprehensive K-12 curriculum that spans a multitude of topics and subject areas, we must also keep in mind our long-term purposes for teaching and learning. It is vital we remember that amid all of the details, facts, activities, and assignments, the important thing about school is that it provides students with the understandings and skills they can use all of the rest of their lives.</p> <p>A challenging curriculum asks students to look at key information, concepts, principles, and skills across contexts as a practitioner would use them and to reflect as students on what they learn about themselves by comparing themselves with those practitioners.</p> <p>I hope the curriculum design model presented here will serve as</p>	

<p>a catalyst for the development of possibilities in you as you try it out and adapt it to your needs. By going through the design process, you are constructing knowledge as your students do – by seeking meaning, making connections, putting ideas to work at a high level of professional quality, and reflecting on what your work teaches you about yourself – even as it teaches the students you serve.</p>	
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APPENDIX I  
CURRICULUM AND INSTRUCTION FOR NONTRADITIONAL GIFTED LEARNERS  
PART III WORKSHOP OUTLINE

<p><b><u>Overview</u></b></p> <p>Over the course of the 3 days we will examine a backward design process for developing curriculum that is appropriate for gifted learners. This backward design process includes three stages: (1) identifying desired results (which we did in Part I); (2) planning learning experiences and instruction (which we did in Part II); and (3) determining acceptable evidence (which we will do today).</p> <p>In Part I we identified the desired results that we wanted our students to accomplish as a result of their experiences with the unit content.</p> <p>Today we will determine the evidence we are willing to accept as documentation of mastery of the unit content.</p>	<p>Slide CIII1</p>
<p><b>Stage 3: Determining Acceptable Evidence</b></p> <p>Because understanding develops as a result of ongoing inquiry and rethinking, the assessment of understanding should be thought of as a collection of evidence over time instead of an event. When the goal is deep, enduring understanding, we need to rely on more complex assessment methods to determine if the goal has been reached.</p> <p>Given the focus on enduring understanding, our unit will be anchored by performance tasks or projects. This type of assessment provides evidence that students are able to use their knowledge in context, a more appropriate means of evoking and assessing enduring understanding.</p> <p>More traditional assessments, such as quizzes and tests, are used to round out the picture by assessing essential knowledge and skills that contribute to the culminating performances.</p>	<p>Slide CIII2</p> <p>Enduring understanding sheets</p>
<p>Assessment of enduring understanding must be grounded in performance-based tasks and projects that are as authentic as possible. Authentic tasks have certain characteristics. An assessment task, problem, or project is authentic if it</p>	<p>Slide CIII3</p> <p>Six facets task sheet</p>



<ul style="list-style-type: none"> <li>• Is realistic. The task replicates or simulates the ways a person’s knowledge and abilities are tested in the real world.</li> <li>• Requires judgment and innovation. A plan must be designed, and the solution must involve more than following a set routine or procedure, or plugging in knowledge.</li> <li>• Asks a student to “do” the subject. The student has to carry out exploration and work in a subject.</li> <li>• Replicates or simulates the contexts in which adults are tested in the workplace, community, and home. Authentic contexts involve specific situations that have particular constraints, purposes, and audiences.</li> <li>• Assesses a student’s ability to efficiently and effectively use a repertoire of knowledge and skills to negotiate a complex task. Performance is more than simply the sum of drills.</li> <li>• Allows appropriate opportunities to rehearse, practice, and consult resources; obtain feedback on performances; and refine performances and products.</li> </ul>	
<p><b>Products</b></p> <p>Products are the method by which students indicate that they have completed a study or performance. Examining the State Plan gives a good indicator of what a product should look like.</p>	<p>Slide CIII4</p>

<p style="text-align: center;">STATE GOAL FOR SERVICES FOR GIFTED STUDENTS</p> <p>Students who participate in services designed for gifted students will demonstrate skills in self-directed learning, thinking, research, and communication as evidenced by <b>the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experience, or environment. High school graduates who have participated in services for gifted students will have produced products and performances of professional quality as part of their program services.</b></p>	<p>Slide CIII5</p>
<p><b>Narrative:</b></p> <p>It is very clear from the State Goal that the closing element of a unit of study should be the development of a performance or product. It is equally clear that waiting until the senior year to introduce the skills necessary to produce such a product is much too late. Product-related skills must be introduced and expanded upon from kindergarten until the senior year in order to prepare the student for a successful development. Student products should be innovative and should mirror the work done by professionals in the field. Products should be advanced in relationship to other students of the same age, experience, or environment.</p> <p>There are two Principles of Differentiation that address student products.</p>	<p>Slide CIII6 Principles handout</p>

<p><b>Encourage the development of products that challenge existing ideas and produce “new” ideas.</b></p> <p>Challenging curriculum must produce products that are advanced in relation to other students of the same age, grade, or environment. These products should reflect the use of information and not a recitation of previously achieved facts. If the student completes an independent study, one of the criteria used to evaluate that work might be has the work contributed to the body of information currently available to users of that information. For example, a study of stem cell research might include a survey of current attitudes toward that research thus expanding the body of knowledge.</p>	
<p><b>Encourage the development of products that use new techniques, materials, and forms.</b></p> <p>For many students who complete an independent study or a guided research project, a written format may be appropriate; however, it quickly becomes apparent that some forms of projects beg for a different presentation format. I have provided a list of possible products for you in your packets. Along with this list is a scope and sequence of products for kindergarten through 12<sup>th</sup> grade. Choosing an appropriate presentation mode is a critical part of any differentiation for gifted learners. If a student has written a piano piece to accompany <u>Lord of the Flies</u>, the presentation of that piece is the best way to evaluate its success.</p>	
<p><b>Performance Standards</b></p> <p>In addition, the Texas Education Agency has developed Performance Standards for Gifted and Talented students in grades 4, 8, and 12.</p>	Slide CIII7
<p><b>Activity:</b></p> <p>Participants should be divided into groups of four or five. Each group is assigned two to three of the scoring dimensions.</p>	Scoring dimensions handouts; chart paper; markers

<p>Determine what kinds of products would be developed to reflect the scoring dimensions assigned to the group. For example, what kind of product would show <i>Knowledge and Skills</i>? What would a student have to produce to indicate <i>Innovation and Application</i>? Show the results by grade level or discipline on chart paper.</p> <p>The entire group will then discuss the question, “What effects will the adoption of these standards have on the kinds of products developed in gifted programs?”</p>	
<p><b>You be the Judge</b></p> <p>Provide scoring critique sheets for the performance standards.</p> <p>Have participants work in pairs to complete critique sheets.</p> <p>Compare participants sheets with actual judges sheets from judges training.</p>	<p>CIII8 Critique sheets</p>
<p><b>Product Guidelines</b></p> <p>The standards for developing products will help ensure that the task is appropriate for gifted learners:</p> <ul style="list-style-type: none"> <li>• The task should be meaningful to both the teacher and student.</li> <li>• The task should be framed by the student</li> <li>• The task requires the student to locate and analyze information as well as draw conclusions about it.</li> <li>• The task requires students to communicate results clearly.</li> <li>• The task requires students to work together for at least part of the task.</li> </ul> <p>Show “bullying” video from Breckenridge as an example of a task that meets the above criteria.</p>	<p>CIII9</p> <p>Possible products handout</p>

<p><b>Selecting Products</b></p> <p>In selecting products, two basic guidelines should be followed:</p> <ul style="list-style-type: none"> <li>• Products should demonstrate what a student learns about the content and concepts.</li> <li>• Products should reflect the student’s knowledge, understanding and application of skills (processes).</li> </ul>	<p>CIII10</p>
<p>Since the determination and development of a product will be a task that will consume time and effort, the teacher should determine early on what s/he is willing to change in what s/he is teaching in order to allow for the development of the product.</p>	
<p><b>Suggestions for the development of student products:</b></p> <ul style="list-style-type: none"> <li>• Most of the product development time should be in class or within the school day.</li> <li>• Student work and progress should be closely monitored.</li> <li>• Timelines should be developed and adhered to.</li> <li>• Teachers should provide a guidebook which would include how to develop a proposal for study, possible resources, product or method of presentation to be developed and a timeline for implementation.</li> </ul>	<p>CIII11</p>
<p><b>Performance-based assessment</b></p> <p>Because enduring understanding develops as a result of ongoing inquiry and rethinking, assessment should be thought of as a collection of evidence over time instead of an event. When the goal is enduring understanding, we need to rely on more complex assessment methods to determine if the goal has been reached.</p> <p>Performance-based assessment involves complex challenges that mirror the issues and problems adults</p>	<p>CIII12</p> <p>Performance tasks handouts</p>

<p>face. The challenges are authentic. Ranging in length from short-term tasks to long-term, multistaged projects, they require a tangible product or performance.</p> <p>The key elements of a performance-based assessment can be summarized in the acronym GRASPS: goal, role, audience, situation, product or performance, and standards.</p>	
<p><b>Activity:</b></p> <p>Design a performance task for your content:</p> <p>Using the performance task handouts in your packets, design a performance task that fits your content area. Write out the task on the blank task form and be ready to share with the group.</p>	<p>Blank Performance Task sheet</p>
<p><b>Evaluating Performance Assessments: Rubrics &amp; Checklists</b></p> <p><b>What are rubrics?</b></p> <p>Rubrics are guidelines to quality. They specify evaluation criteria and describe each value point on a scoring scale. Thus, a rubric is a scoring guide that describes the requirements for levels of proficiency as students respond to a learning task, open-ended question, or stated criteria. The purpose is to answer the question, “What are the conditions of quality, and to what degree has the student progressed toward that level of quality in the task?”</p> <p>A rubric enables teachers to clarify to students what is expected in a learning experience and what to do in order to reach higher levels of achievement. To be effective, rubrics must be shared with students prior to beginning the task so they know the characteristics of quality work and have a clear target for which to aim.</p> <p>Kingore, B. (2002). <i>Rubrics and More!</i> Austin: Professional Associates Publishing</p>	<p>CIII13</p>

<p><b>Who benefits from rubrics?</b></p> <p>Teachers benefit – Carefully constructed rubrics are relevant to instruction and guide teachers in designing lessons that enable students to reach higher levels of proficiency. Rubrics provide a standard for the grades in a grade book.</p> <p>Students benefit – Rubrics provide students with a clearer view of the merits and demerits of their work than grades alone communicate. Rubrics communicate to students that students are responsible for the grades they <b>earn</b> rather than to continue to view grades as something someone <b>gives</b> them.</p> <p>Parents benefit – Rubrics more concretely explain to parents the student’s levels of proficiencies and learning needs. Rubrics communicate more clearly the standard behind grades so parents understand why a child earns certain grades.</p> <p>Kingore, B. (2002). <i>Rubrics and More!</i> Austin: Professional Associates Publishing</p>	<p>Slide CIII14</p>
<p><b>Why use rubrics?</b></p> <p>One reoccurring difficulty in education is the subjective nature of assessment and evaluation. A rubric defuses this dilemma by providing a shared standard of quality. Rubrics are essential to help ensure consistency and fairness in evaluation, e.g., that different educators would assign similar grades to a work sample. Without a rubric, a grade of <b>A</b> may not mean the same thing in different classes.</p> <p>The ongoing process of constructing effective rubrics invites professional conversations among grade-level teams and across grade levels. These conversations clarify instructional priorities. Together, educators determine the key attributes of learning tasks and discuss which criteria can be measured and taught. Thoughtfully developed rubrics make an important contribution to the quality of instruction.</p> <p>Rubrics are standard in real-life situations. Rubrics have been successfully used for years in the Olympics, Wall Street stock analysis, beauty contests, state and national</p>	<p>Slide CIII15</p>

<p>level tests, and many professional competitions.</p> <p>Rubrics can be used for both goal setting and evaluation. First, provide a copy of a rubric and have students set goals before they begin the work by checking the levels they intend to achieve. Then, when the task is complete, the students use the same rubric copy for self-assessment with a second color of pen by marking their achievement level. Finally, teachers use the same rubric copy and a third color of pen to mark their evaluation of the achievement. Many teachers found that students' achievement increased when they used a rubric to goal set their intended level of success before they began the task. Setting their own target increases the students' determination to reach it.</p> <p>Kingore, B. (2002). <i>Rubrics and More!</i> Austin: Professional Associates Publishing</p>	
<p><b>Characteristics of Rubrics</b></p> <p>Effective rubrics:</p> <ul style="list-style-type: none"> <li>• Reflect the most significant elements related to success in a learning task and</li> <li>• Enable students and teachers to accurately and consistently identify the level of competency or stage of development.</li> <li>• Help teachers grade students' work more accurately and fairly.</li> <li>• Encourage students' self-evaluation and higher expectations.</li> <li>• Are shared with students prior to beginning the task so they know the characteristics of quality work.</li> <li>• Provide more information than just a narrow checklist of skills or attributes.</li> </ul> <p>Kingore, B. (1999). <i>Assessment</i>, 2<sup>nd</sup> ed. Austin: Professional Associates Publishing</p>	<p>Slide CIII16, CIII17</p>



<p><b>Components of Rubrics</b></p> <p>Rubrics have two critical components in their design: the evaluative criteria and the levels of proficiency. The first component determines the characteristics of quality work on a specific task. Teachers have to think precisely about these criteria to analyze the many facets of the learning task and communicate clearly to students which characteristics are most significant to success.</p> <p>(look at evaluative criteria slide for math and writing)</p> <p>A second critical component of rubrics is the determination of the specific levels of proficiency or degrees of success for each part of a task. Teachers have to carefully analyze questions of quality so they can delineate what represents competency at different levels. The levels of proficiency are used to distinguish acceptable from unacceptable responses.</p> <p>Kingore, B. (1999). <u>Assessment</u>, 2<sup>nd</sup> ed. Austin: Professional Associates Publishing</p> <p>(Look at examples of levels of proficiency slide for math and writing)</p>	<p>Slide CIII18</p> <p>Slide CIII19</p> <p>Slide CII20</p>
<p><b>Guidelines for Construction</b></p> <ol style="list-style-type: none"> <li>1. Consider your definition of a quality performance. Discuss with other professionals the characteristics that distinguish quality from mediocre work.</li> <li>2. Collect samples of rubrics as models to adapt for your needs.</li> <li>3. Determine potential criteria by collecting examples of a wide quality range of students' work and then analyzing attributes common to performances at different levels of proficiency.</li> <li>4. As often as appropriate, limit the number of criteria so the rubric fits on one page. Lengthy rubrics appear more overwhelming and, therefore, less used.</li> <li>5. Write descriptors for the degrees of proficiency exhibited in students' work.</li> </ol>	<p>Slide CIII21 Guidelines handout</p>

<p>6. As often as possible, accent what to do in the proficiency levels of each criteria on the rubric rather than just relating what is wrong or calculating the number of errors.</p> <p>7. Initially, develop a rubric using expanded descriptors to communicate your intent clearly to your colleagues.</p> <p>8. As much as possible, avoid generalities such as good-better-best or little-some-frequently.</p> <p>9. Ask others to read your rubric and offer suggestions.</p> <p>10. The process of creating rubrics is difficult and show. It is often developmental – as soon as your finish a rubric and use it once, you immediately know ways you want to change it.</p> <p>Kingore, B. (1999). <i>Assessment</i>, 2<sup>nd</sup> ed. Austin: Professional Associates Publishing.</p>	
<p><b>Demonstration:</b></p> <p>Rubric Generator</p> <p><i>Rubrics and More!</i></p> <p>Rubric and checklist websites:  <b>Rubrics:</b></p> <p><a href="http://rubistar.4teachers.org">http://rubistar.4teachers.org</a></p> <p><a href="http://www.teachervision.com/lesson-plans/lesson-4521.html">http://www.teachervision.com/lesson-plans/lesson-4521.html</a></p> <p><a href="http://www.teach-nology.com/web_tools/rubrics">http://www.teach-nology.com/web_tools/rubrics</a></p> <p><a href="http://school.discovery.com/schrockguide/assess.html">http://school.discovery.com/schrockguide/assess.html</a></p>	<p>Rubric Generator handout</p>

<p>PROJECT-BASED LEARNING CHECKLISTS:</p> <p><a href="http://www.4teachers.org/projectbased/checklist.shtml">http://www.4teachers.org/projectbased/checklist.shtml</a></p> <p><a href="http://www.rainbowtech.org/CyberLib/assess.htm">http://www.rainbowtech.org/CyberLib/assess.htm</a></p> <p>Allow time for teachers to get online and explore.</p>	
<p><b>Closure:</b></p> <p>Complete Evidence summary sheet</p>	<p>Slide CIII22</p>

APPENDIX J

NATURE AND NEEDS OF GIFTED LEARNERS WORKSHOP OUTLINE

<p><b>Introduction</b>  Purpose: To provide the participants with the knowledge of the nature and needs for the gifted learner.</p> <p>Review Objectives</p> <p><b>Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Analyze the historical, legal and conceptual understandings of gifted education</li> <li>2. Demonstrate an understanding of the characteristics and behaviors of gifted learners that is the basis of developing programs that meet their needs</li> <li>3. Examine the social and emotional needs of gifted learners</li> </ol>	<p><i>Show NN1</i></p> <p><i>Show NN2</i></p>
<p>Opening Activity: Penny/Coin</p>	
<p><b>Penny/Coin Activity</b>  Ask participants to estimate how many pennies they have touched in a lifetime and write that number on the top of the handout #1. Now think about a penny, a common coin with which we all are very familiar. Using the top two circles on the handout, have participants draw/write the details they remember from the head and tail of a penny. Begin this activity with each participant working independently. Next, compare drawings with others in table groups and add more details to their drawings.</p>	<p><b><i>Use Handout #1</i></b></p> <p><i>Show NN3</i></p>
<p>Lastly, take out a penny and complete the drawings. How many pennies have you touched? Poll the participants to share their estimations. The average American touches about 1,000 pennies a year; so <math>1,000 \times \text{age} = \text{number of pennies touched in a lifetime}</math>.</p> <p>How many remembered what a penny looks like?  Ask the participants to estimate how many students they have taught in their career as a teacher. As educators, we touch a lot of lives. Sometimes the students come in and out of your classrooms and even though we know a lot about them, there is still more to learn.</p> <p>Think about two children that you know. Someone you might want to nominate for gifted programs — a relative, a child you met at the store, a student in your class or maybe a former student. Write their  Name  Age  School  Graduation year</p> <p>As we discuss the characteristics of gifted learners, keep these students in mind. How will their educational needs be met in the</p>	<p><i>Show NN4-5</i>  <i>Show NN6-7</i>  <i>Use Resource 1</i></p>

<p>classroom?</p> <p>Read the poem <i>Perfect</i> and discuss the educational needs of this child.</p> <p>Show NN4-5 and ask participants to guess the age of the child who wrote this.</p> <p>Show NN6-7 and tell them that the child is five years old.</p> <p>Read Tamika's response to the question using <i>Resource 1</i>.</p>	
<p><b>Historical and Legal</b></p> <p>Purpose: To gain knowledge of the history of gifted</p> <p>Discuss the quote on NN8.</p> <p>Say, "Now, let's look at the historical perspective of the gifted."</p>	<p><i>Show NN8</i>  <i>Distribute historical perspective cards – Resource 2</i></p>
<p><b>Timeline Activity</b></p> <p>Give participants cards with the historical information about gifted education. Have them arrange these events on a timeline. Discuss the significance of these events that they have created beginning with 1900 and ending with 1996.</p> <p>Have participants check themselves using Handout #2, 2a</p>	<p><b><i>Use Handout #2, 2a</i></b></p>
<p><b>Activity: In Step with the Law</b></p> <p><b>Materials needed:</b>  copies of TEA Q&amp;A and the Texas State Plan for Gifted Education  a set of the in-step scenarios</p> <p><b>Time:</b> 60 to 90 minutes, depending upon depth of discussions</p>	
<p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Give every participant a copy of TEA Q&amp;A and a copy of the State Plan for Gifted Education.</li> <li>2. Depending on the number of participants, break them up into small groups of two to four.</li> <li>3. Assign one specific part or subtopic of the bill to each small group and give them about five minutes to read the section and discuss its meaning and ramifications. They become the "experts" on their particular section of the law.</li> <li>4. Also give the participants a few minutes to briefly look over the main points of the Texas State Plan for Gifted Education.</li> <li>5. Have the entire group of participants stand in a large circle.</li> </ol>	<p><i>Use Resource 3 - In Step with the Law game</i>  <i>Use Resource 4 – cards to be used in game</i></p> <p><b><i>Use Handout #3, 3a</i></b></p>

6. With the individual printed scenarios in hand, allow each participant to choose one blindly — as if drawing a card from a deck. If the group is larger than the number of cards, one card can be drawn for every two people. If the group is smaller than the number of cards, participants can draw more than one card. Urge the participants not to read the cards until their “turn” arrives.
7. Start at one point on the circle by any random means — guessing a number between one and one hundred, etc. One by one, each participant reads the scenario he or she has.
8. The group will then discuss whether or not the practices of the fictitious district are in compliance or “in-step” with the law.
9. Be sure to ask the *experts* who had read the law concerning this specific situation not to speak up too soon. Allow the whole group to debate the legality of the district’s actions (approximately two or three minutes).
10. After sufficient debate (as determined by the facilitator), ask the *experts* to share what the law says about this situation. Have the group then make a call as to whether or not the fictitious district is “in-step” with the law. If the situation involves an idea addressed in the Texas State Plan for Gifted Education, open the floor for any comments and then have the group make a call.
11. If the district is indeed in compliance in this situation, the participant(s) holding that scenario steps inside the circle a few steps. If the district is not in compliance with the law, the participant(s) remains in the circumference. In case participants complain about not having cards that would allow them to step inside the circle, remind them that the “luck of the draw” gave them their particular scenario.
12. Continue around the circle allowing the participants to read the scenarios in the same manner.
13. When a second scenario is “in-step,” the participant(s) also steps inside the circle. However, the readers of only two scenarios can be inside the circle at one time. When a third scenario is deemed legal, the readers of the first compliant scenario must rejoin the circumference. As people from each new, compliant scenario enter the circle, the ones who have been inside the circle the longest amount of time step back into the circumference. In this way, the circle is never crowded with people, and the participants holding incorrect scenarios are not labeled as being

<p>“out-of-step.”</p> <p>14. As the activity progresses, people move in and out of the circle almost like a dance. At the same time, real-life situations are discussed, the law is analyzed and applied to a specific district occurrence, and people are given a chance to be legal experts for a few minutes.</p>	
<p><b>Activity: Myths and Realities</b></p> <p>Purpose: To examine the misconceptions of giftedness.</p> <ol style="list-style-type: none"> <li>1. Distribute the myth and realities cards (one set per group).</li> <li>2. Have participants take turns reading the cards aloud to the small group.</li> <li>3. Decide whether the statement is a myth or a reality.</li> <li>4. Place the cards in two stacks (one for myths and one for realities).</li> <li>5. Lead a discussion with the entire group as to their decision(s).</li> <li>6. Review with the group the correct answers.</li> </ol> <p>Many misconceptions will be revealed and thoughtful discussion and understandings will follow.</p>	<p><i>Use Resource #5 – Myths/Realities cards</i></p> <p><i>Show NN9</i></p> <p><i>Show NN10-19</i></p>
<p><b>Which One is Gifted?</b></p> <ol style="list-style-type: none"> <li>1. Initiate a discussion among participants by asking them to identify the gifted student in the picture. Why has he/she been chosen?</li> <li>2. Guide participants to make generalizations such as: giftedness is not identified by behavior, each student could be gifted, etc.</li> <li>3. Trace stereotypes of giftedness from their origin in the school’s expectations, lack of information, social values, etc.</li> <li>4. Have participants identify other stereotypes of gifted students.</li> </ol>	<p><i>Show NN20</i></p>



<p><b>CHARACTERISTICS OF GIFTEDNESS</b></p> <ol style="list-style-type: none"> <li>1. Discuss Curry and Hagan's lists.</li> <li>2. Draw a Venn diagram to compare/contrast the two lists</li> </ol>	<p><i>Use Handouts #4, 4a</i> <i>Show NN21-22</i></p>
<p><b>Perfectionism</b></p> <p>Discuss the quote on NN 24. Have participants complete the exercise on Handout #5 Using Handout #6 discuss that answers and think of ways to help children deal with perfectionism. Use Handouts #7-8 to brainstorm activities that will help children who are perfectionists to have realistic expectations of themselves and others.</p>	<p><i>Show NN23</i> <i>Handouts #5-8</i></p>
<p><b>Talent Development Model</b></p> <ol style="list-style-type: none"> <li>1. Review the model.</li> <li>2. Have participants discuss influence teachers have as positive or negative catalysts for talent development.</li> </ol>	<p><i>Use Handout #9</i> <i>Show NN24</i></p>
<p><b>Matter of Degree</b></p> <p>Use the bell curve graphic to show the area of performance that "remarkably high" represents. The area between +1 and -1 SD on the curve is usually the performance level for which the general curriculum is designed. The other deviations indicate a need for modifications. This is to be used as a guide, not an absolute. Under certain conditions, certain people, at certain times can accomplish extraordinary work. Gifted individuals are usually consistent in their performance levels, not episodic. Individuals who show potential usually demonstrate a quick mastery of new information or skills when given the opportunity in a consistent manner and over time.</p>	<p><i>Use Handout #10</i> <i>Show NN25</i></p>
<p><b>Autonomous Learner Gifted Behavior Profile</b></p> <p>Objective: To recognize and/or identify gifted, talented and creative learners Materials: Autonomous Learner Rating Scale Autonomous Learner Gifted Behavior Profile Grid Descriptions of Profiles of Gifted Behavior</p> <p>Time: Varies, but a minimum of 45 minutes should be considered.</p>	<p><i>Show NN33</i></p>
<p><b>Profiles of the Gifted and Talented</b></p> <p><b>Purpose:</b> To examine the types of giftedness (atypical and typical).</p>	

<ol style="list-style-type: none"> <li>1. Divide the class into six groups of approximately 7-10 people. If the initial group size is larger than 60 people, identify the group as 1 and 1a etc. and note that there will be a duplication of information.</li> <li>2. Distribute one packet of Profiles to each participant. Group 1 will focus on Type I students, group 2 on Type II, etc. through Group 6 on Type VI.</li> <li>3. Announce to the group that they should read the profile of the student they have been assigned.</li> <li>4. Have them think of a prominent person (fictional, dead or alive) who exhibits many of the characteristics of the type person.</li> <li>5. Have them explain how their celebrity fits this profile.</li> <li>6. Next, focus on the Profile as a student in school. How would you identify this student? What special needs does the student have? What can the school provide the student? (NOTE: Don't let the group continue to use the celebrity while discussing the profile. The focus should be on the student.</li> <li>7. After completing the discussion, propose the questions, "Would your identification process identify each student? How could you modify the identification in order to find this student?"</li> </ol>	<p><i>Show NN34</i></p> <p><b>Use Handouts #12-16</b></p> <p><i>Show NN35-40</i></p>
<p><b>Excluders</b></p> <p>Think about the types of students you would not normally nominate for a gifted program. List characteristics.</p> <p>Discuss Negative characteristics and brainstorm reasons for these behaviors.</p>	<p><b>Use Handout #17</b></p> <p><i>Show NN41-43</i></p>
<p><b>Program Options</b></p> <ol style="list-style-type: none"> <li>1. Have participants read information about each program option.</li> <li>2. As a table group, discuss advantages and disadvantages of each program and list on charts. Discuss the kind of programs in the districts. Are they effective? Why or why not?</li> </ol>	<p><b>Use Handout #17 - Borland</b></p> <p><i>Show NN44</i></p> <p><i>Use Resource #9</i></p>
<p><b>Best Practices</b></p> <p>Discuss the findings on instructional management as researched by Karen Rogers.</p> <p>Share implications for each instructional management strategy at individual school districts.</p>	<p><b>Use Handout #18- Rogers</b></p> <p><i>Show NN45-50</i></p>



APPENDIX K  
IDENTIFICATION AND ASSESSMENT OF GIFTED LEARNERS  
WORKSHOP OUTLINE

**Time:** Six hours

**Purpose:** To locate those students whose learning characteristics require a differentiated curriculum.

**Objective:** Participants will demonstrate an understanding of identification procedures that allow appropriate and equal access to program services.

<p><b>Introduction</b></p> <p>Discuss workshop objective: Participants will demonstrate an understanding of identification procedures that allow appropriate and equal access to program services</p> <p>Ask how we will find students who will benefit from the options offered in the state goal.</p> <p>Discuss elements and implications of each segment of the State Goal</p>	<p><i>Slide ASN1</i></p> <p><i>Slide ASN2 - objective</i></p> <p><i>Slide ASN3 – State Goal</i></p> <p><i>Slide ASN4-7 – goal elements</i></p>
<p>Review the state definition. Underline the various areas of giftedness (intellectual, creative, artistic, leadership, and specific academic field).</p>	<p><i>Slide ASN8 – state definition</i></p> <p><i>Slide ASN9 – intellectual</i></p> <p><i>Slide ASN10 – creative</i></p> <p><i>Slide ASN11 – artistic</i></p> <p><i>Slide ASN12 – leadership</i></p> <p><i>Slide ASN13 – specific fields</i></p>
<p><b><u>Activity</u></b></p> <p>Have the participants look at the handout. Ask how can the teacher observe or assess these characteristics in the school setting according to the State Definitions.</p> <p>Model the answer to the question with <i>Psychomotor</i>. (State that <i>Psychomotor</i> is not a part of the State Plan.) Examples of measures (assessments) include, but are not</p>	<p><i>Slide ASN14-19</i></p> <p><b><i>Use handout #1 – Juntune charac.</i></b></p> <p><b><i>Use handout #2 - characteristics</i></b></p>

<p>limited to,</p> <ul style="list-style-type: none"> <li>a. observation <ul style="list-style-type: none"> <li>1) commitment to skill development (passion)</li> <li>2) beyond age peers in skill abilities</li> </ul> </li> <li>b. portfolio</li> <li>c. President's Physical Fitness Award</li> </ul> <p>Assign a definition and characteristic to each table of participants. The ask them to come up with at least three (3) measures used to assess these abilities in the school setting.</p> <p>Share measures with the group.</p>	
<p>Discuss that each district has their own local definition of giftedness that is based on the State Definition. Stress that the definition serves as the basis for assessment, beliefs about giftedness, and type of gifted services they offer.</p> <p><b>(NOTE:</b> If participants do not have "Local definition" available, have them work with the State definition.)</p>	<p><i>Slide ASN20 – local definition</i></p>
<p><b><u>Activity</u></b></p> <p>Have participants work in pairs. Have them determine who will be <u>A</u> and who will be <u>B</u>. (<u>A</u> will be the parent. <u>B</u> will be the teacher.)</p> <p><u>A</u> asks <u>B</u>, "How do I get my child in that gifted program."</p> <p><u>B</u> responds.</p> <p><u>A</u> reports what they learned from <u>B</u> to the group.</p>	<p><i>Slide ASN21</i></p>
<p>Discuss how each heard about this information. All of these are in the State Plan. The rationale for needing to know this information is that you, the teachers, are the parent's first contact for G/T services.</p>	<p><i>Slide ASN22 – identification analysis</i></p>
<p>Discuss plan. (Provide a copy of the Texas State Plan to participants.)</p>	<p><i>Slide ASN23 - assessment</i></p>
<p><b>Nomination</b></p> <p>Distribute Handout #3 – Identification Flowchart</p> <p>This is the agenda for student identification.</p>	<p><b><i>Use handout #3 – identification flowchart</i></b></p> <p><i>Slide ASN24 - flowchart</i></p>
<p>Use analogy of fishing and casting the net wide in the nomination process to discuss student identification.</p>	<p><i>Slide ASN25 – casting net</i></p>

Discuss beliefs.	<i>Slide ASN26 - beliefs</i>
Nominations should be ongoing. Districts should have open nominations at least one time each year. If this is in the State Plan, how will parent/community know that the district is accepting nominations?	<i>Slide ASN27 – flowchart sec. 1</i>
<p><b>Activity: Community</b></p> <p>1. Assign each table (group) one of the following:</p> <ol style="list-style-type: none"> <li>radio spot</li> <li>newspaper article</li> <li>flyer</li> <li>student handbook</li> <li>other</li> </ol> <p>2. Have them produce a product. A way to inform parents/ community that the district is accepting nominations for gifted/talented program.</p> <p>3. Report back to whole group.</p>	<i>Materials: radio spot; ad; flyer; brochure; handbook section</i>
Discuss cartoon	<i>Slide ASN28 – cartoon</i>
<p><b>Activity:</b></p> <p>1. Give each table (group) an example of a parent checklist that could accompany the nomination (used as a screening instrument later). Have them list the pros and cons of the checklist on a note card.</p> <p>2. Report back.</p>	<b>Use handout #4 – SIGS home</b>
<p>Discuss how school (GT coordinator, counselor, or principal) should provide a review of local definition and GT characteristics for school personnel.</p> <p>Discuss that if teachers are to nominate students for evaluation from their classroom, they must develop assignments that elicit from the students the behaviors and characteristics associated with gifted learners.</p> <p>Point out that very few (no) characteristics can be evoked from these questions/assignments.</p> <p>Discuss how these activities limit a teacher from seeing possible characteristics.</p>	<p><i>Slide ASN29 – flowchart sec. 2</i></p> <p><i>Slide ASN30 – cartoon</i></p> <p><i>Slide ASN31 – sample assigns.</i></p>





<p>Jot down people you know in your life who...</p> <ul style="list-style-type: none"> <li>• have a good sense of humor and can make people laugh</li> <li>• everyone seeks out for help</li> <li>• learns quickly, yet doesn't speak up</li> </ul> <p>Discuss choices.</p> <p>Discuss value of peer nominations.</p> <p>Discuss value of self-nominations and test score nomination.</p>	<p><b>Use handouts #8-9 – peer nominations</b></p> <p><i>Slide ASN44 – self-nomination</i></p> <p><i>Slide ASN45 – test nomination</i></p> <p><i>Slide ASN46 – parent permission to screen</i></p>
<p><b>Screening</b> Review definition of screening.</p> <p>Discuss the criteria for screening. From the discussion earlier, does your district follow the criteria? How can you and parents find this information?</p> <p>Discuss the idea of having a menu of possible screening instruments based on student strengths and factors that counteract bias (i.e., Toni3, NNAT, Raven, others).</p> <p>Then, discuss the use of verbal and nonverbal instruments. Ask when to use verbal versus nonverbal.</p> <p>Discuss the importance of the district researching the tests they use. Information can be found on the Web. Test results must match district definition.</p> <p>Show cartoon about how tests are normed.</p>	<p><i>Slide ASN47 – screening</i></p> <p><i>Slide ASN48 – criteria</i></p> <p><i>Slide ASN49 – IQ cartoon</i></p> <p><i>Slide ASN50 – quantitative</i></p> <p><i>Slide ASN51 – qualitative</i></p> <p><i>Slide ASN52 – standardized tests</i></p> <p><i>Slide ASN53 - cartoon</i></p>
<p><b>Identification Measures</b></p>	

<p>Ability</p> <p>Achievement</p> <p>Creativity</p> <p>Productivity</p>	<p><i>Slide ASN54 – ability</i></p> <p><b>Use handout #10 NNAT score sheet; #11 SAGES score sheet</b></p> <p><i>Slide ASN55</i></p> <p><b>Use handout #12 Purdue Scales</b></p> <p><i>Slide ASN56 – creativity</i></p> <p><b>Use handout #13 TTCT sheet</b></p> <p><i>Slide ASN57 – productivity</i></p> <p><b>Use handout #14 – student production</b></p> <p><i>Slide ASN58 – special areas</i></p>
<p><b><u>Activity</u></b></p> <ol style="list-style-type: none"> <li>1. Provide table groups of actual test instruments.</li> <li>2. Have participants come up with the purpose, strengths, and limitations of the instrument. What students would each instrument identify?</li> <li>3. Report back to the large group.</li> </ol> <p>Discuss the strengths and limitations of each instrument.</p>	<p><i>Materials: test booklets for NNAT, SAGES, TTCT</i></p>
<p>Ask, “Does the identification match the definition? Why? Why not? What would have been better?” Pretend you are in charge of the world.</p> <p>Do the screening instruments match the population? Why? Why</p>	<p><i>Slide ASN59 – Match1</i></p> <p><i>Slide ASN60 –</i></p>

<p>not? What would have been better?</p> <p>Do the screening instruments match the population? Why? Why not? What would have been better?</p> <p>Again, stress that the district identification must match the district definition.</p>	<p><i>Match2</i></p> <p><i>Slide ASN61 – match3</i></p>
<p><b>Selection</b></p> <p>Refer to the flowchart to address the next step in the identification process.</p> <p>Ask the question, “What next?” What do you do with the information from the screening steps once they are completed?</p> <p>Data from the assessment measures is evaluated using a profile form</p> <p>Discuss the use of student profile. Show how you would enter data.</p>	<p><i>Slide ASN62 – flowchart sec. 2</i></p> <p><i>Slide ASN63 – def. of selection</i></p> <p><i>Slide ASN64 – cartoon about carnivore</i></p> <p><b><i>Use handout #15 – profile form</i></b></p> <p><i>Slide ASN65 – profile form</i></p>
<p>Decision for placement</p>	<p><i>Slide ASN66 – def. of placement</i></p>
<p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Provide each participant with a practice packet.</li> <li>2. Look at the four students’ data.</li> <li>3. Place the data on minimum score sheet or student profile.</li> <li>4. Look at district’s definition of giftedness.</li> <li>5. Make your own decisions: yes or no.</li> </ol> <p>Then</p> <ol style="list-style-type: none"> <li>1. Work in a committee of three (3).</li> <li>2. Discuss each student’s data.</li> <li>3. Decide if you would recommend gifted services for each student and why or why not.</li> <li>4. Report out to large group.</li> </ol>	<p><i>Materials: Group practice packets</i></p>
<p>Discuss some other issues that should be considered by the placement committee.</p> <p>Once the decision for placement has been made, parents should be notified even if program services are not needed at this time.</p>	<p><i>Slide ASN68 – educ. Provisions</i></p>

<p>Parents must give permission to participate with the district's GT services.</p>	
<p>As the G/T teacher you will need to be able to answer the <i>what if</i>.</p> <ol style="list-style-type: none"> <li>1. Who can appeal?</li> <li>2. How quickly does it have to happen?</li> <li>3. Who gets the appeal?</li> <li>4. What do they do with the appeal?</li> <li>5. Is that the end?</li> </ol> <p>Discuss a typical appeals process.</p>	<p><i>Slide ASN69 – appeal</i></p>
<p>Discuss areas shown in chart.</p> <p>Discuss what should be in a transfer policy. Discuss possible problems that might be created.</p> <p>Discuss reasons for a furlough.</p> <ol style="list-style-type: none"> <li>1. Scheduling, parent, student</li> <li>2. Process for bringing them back into G/T program. Not disciplinary in nature.</li> </ol> <p>Discuss reassessment. It occurs no more than three (3) times. (<i>Refer to the Texas State Plan.</i>)</p> <p>Note: A student can only be reassessed once in _____ and once in _____ if a district chooses to reassess.</p> <p>Reassessment should be based on performance in the G/T program.</p>	<p><i>Slide ASN70 – flowchart sec. 3</i></p> <p><i>Slide ASN71 – transfer</i></p> <p><i>Slide ASN72 – furlough</i></p> <p><i>Slide ASN73 – exit</i></p> <p><i>Slide ASN74 - reassessment</i></p>
<p><b>Activity:</b> What If? Scenarios</p> <ol style="list-style-type: none"> <li>1. Divide participants into groups of 3-4.</li> <li>2. Have each group member number off 1 to 3 or 1-4 (depending on group size), and remember their number.</li> <li>3. Distribute the three scenarios to each group.</li> <li>4. Instruct participants to read the scenarios: Probation, Leave of Absence, or Exit?. Discuss the scenarios and decide as a group which decision is appropriate for the individual student and why.</li> <li>5. For each scenario call out a number from 1 to 4 and everyone with that number rises.</li> <li>6. Choose a standing participant at random to give the decision</li> </ol>	<p><i>Materials:</i> <i>Identification exercise</i></p>

<p>and rationale of that group.</p> <p>7. All standing participants with the same answer and rationale may be seated.</p> <p>8. Call on one of the remaining standing participants at random for their decision and rationale.</p> <p>9. Repeat the process until everyone is seated and all scenarios have been addressed.</p>	
<p><b>Summary</b></p> <p>Do an acrostic with the word</p> <p>I D E N T I F Y</p> <p>sharing information that you have learned today.</p>	<p><i>Slide ASN75 – procedures should.</i></p> <p>..</p> <p><b>Use handout #16 - Identify</b></p>

APPENDIX L  
CURRICULUM AND INSTRUCTION FOR GIFTED LEARNERS PART I  
WORKSHOP OUTLINE

**Time:** 6 Hours

**Purpose:** The participants will gain knowledge of:

- the principles of differentiation,
- critical features of curriculum for gifted learners, and
- appropriate curriculum to address advanced learners' characteristics

<p><b><u>Overview</u></b></p> <p>The consideration of curriculum is a massive issue. The 3 curriculum days serve as a general introduction to curriculum for gifted students. It represents a basic understanding of the underpinnings of gifted curriculum. While there are many philosophies concerning how the curriculum should be developed, the elements generally remain the same.</p> <p>Over the course of the 3 days we will examine the 3 elements of curriculum that are differentiated for gifted learners: content, process, and product.</p>	Slide C11
<p><b><u>Objectives:</u></b></p> <p>By the end of today's session, you should be able to:</p> <ul style="list-style-type: none"><li>• Articulate a working definition of "differentiation."</li><li>• Analyze and pose solutions to problems and issues inherent in differentiated classrooms.</li><li>• Plan and develop differentiated units of study.</li></ul>	Slide C12
<p><b><u>Characteristics and Differences</u></b></p> <p>Purpose: Participants will be able to make connections between the characteristics of gifted students and their curricular needs.</p> <p><u>Narrative:</u></p> <p><b>Comment to participants—These characteristics represent characteristics of gifted students. They will be manifested slightly differently because of age, gender, ethnicity and environment.</b></p> <ul style="list-style-type: none"><li>• One area of giftedness is assigned to each of the tables.</li></ul>	<i>Use Handout #1 – Characteristics of Various Areas of Giftedness</i>

<ul style="list-style-type: none"> <li>• Instruction: In your groups, select at least four of the characteristics and be able to explain how the selected characteristics relate to instruction. (For example: if the student exhibits an outstanding vocabulary, are there modifications which can be made in the curriculum to take advantage of this such as special writing assignments in lieu of regular assignments?)</li> <li>• De-briefing —This may be a difficult assignment for some of the participants. The workshop leader should be prepared to move among the groups and prompt those members of the audience who cannot see a link between the characteristics and the curriculum. In de-briefing the point needs to be made that there must be a connection between what a child can <b>do</b> and what is <b>offered</b> to him or her to do. It is difficult for students to exhibit gifted characteristics if there are no opportunities for them to do so in the curriculum. Opportunities should be provided then, at least part of the time which would allow a match between what a student had the potential to do and what they are provided to do.</li> <li>• The issue becomes one of whether the teacher can identify that a student possesses advanced characteristics and whether that teacher chooses to modify curriculum for the student.</li> </ul>	
<p><b><u>Assumptions Regarding Curriculum Development</u></b></p> <ol style="list-style-type: none"> <li>1. The regular school district curriculum, as it is currently operationalized through texts, is insufficient and inappropriate for gifted learners.</li> <li>2. General School curriculum needs to be modified for the gifted by reorganization rather than just adding or deleting. <ol style="list-style-type: none"> <li>1. Curriculum development for the gifted has to be viewed as a long-term process that involves adaptation of the current curriculum, infusion of appropriate extant curricula for the gifted, and the development of new curriculum.</li> <li>2. Curriculum that is planned for the best learners in schools can benefit a wider spectrum of students as well.</li> </ol> </li> </ol>	<p><i>Slide C13-5</i></p>
<p><b><u>Intro to Differentiation</u></b></p> <p><b><u>Activity: Super Sleuth</u></b></p>	<p><i>Slide C16</i></p> <p><i>Use handout #2 Super Sleuth</i></p>



<p>Directions: Have participants walk around the room and find someone who can respond to one of the questions below. After verbally replying to the question, the person initials the square.</p> <p>Stipulations:</p> <ol style="list-style-type: none"> <li>1. A person can only answer and initial one square on your card. If you don't understand a person's answer, ask for an explanation.</li> <li>2. The goals of this activity are: to activate prior knowledge and to meet new people with new ideas.</li> </ol>	
<p><b><u>What is Differentiation?</u></b></p> <p>Have participants complete the before learning side of the anticipation guide. Tell them we will refer back to the guide to complete the other side later in the day.</p> <p>Definition: Have participants complete their individual definitions of differentiation and then work together to develop a group definition. Have each group share their definitions and then combine into a class definition. Then discuss research definitions.</p> <p><u>Research Definitions:</u></p> <p><b>Differentiation is a philosophy that enables teachers to plan strategically in order to reach the needs of diverse learners in classrooms today.</b></p> <p><b>Differentiation is classroom practice that looks eyeball to eyeball with the reality that kids differ, and the most effective teachers do whatever it takes to hook the whole range of kids on learning.</b></p> <p><b>Differentiated Instruction is “changes in the pace, level, or kind of instruction <u>in response to</u> learners’ needs, styles, or interests.</b></p>	<p><i>Slide C17</i></p> <p><i>Use Handout #3 What is Differentiation?</i></p> <p><i>Slide C18-10</i></p>
<p><b><u>Beliefs Related to Differentiated Instruction</u></b></p> <ul style="list-style-type: none"> <li>• Human beings share common feelings and needs.</li> <li>• Schools should help us understand and respect those commonalities.</li> <li>• Individuals differ significantly as learners; these differences matter in the classroom.</li> </ul>	<p><i>Slides C10-15</i></p>

<ul style="list-style-type: none"> <li>• Schools and classrooms should help students understand and respect learning differences and needs</li> <li>• Intelligence is dynamic rather than static, plural rather than singular.</li> <li>• Human capacity is malleable; the art of teaching is the art of maximizing human capacity.</li> <li>• A central goal of schools should be maximizing the capacity of each learner.</li> <li>• We may underestimate the capacity of many children as learners.</li> <li>• Students should be at the center of the learning process.</li> <li>• Students should be actively involved in making sense of the world around them through the lenses we call “disciplines.”</li> <li>• All learners require respectful, powerful, and engaging schoolwork to develop their individual capacities so that they become fulfilled and productive members of our society.</li> <li>• A major emphasis in learning should be “personal best”, a competition against oneself for growth and progress.</li> <li>• Teachers and other adults need to help learners accept responsibility for their growth and progress.</li> </ul>	
<p><b><u>Teacher Beliefs that Conflict with Differentiation</u></b></p> <ul style="list-style-type: none"> <li>• <b>Teachers are tellers and students are absorbers.</b></li> <li>• <b>Time in the classroom is fixed.</b></li> <li>• <b>Curriculum is largely fact and skill based</b></li> <li>• <b>Pleasurable learning is a luxury we don’t have time for.</b></li> <li>• <b>“Fair” means treating all kids as if they were alike.</b></li> <li>• <b>Students don’t learn what the teacher does not directly observe.</b></li> <li>• <b>We all need to start in the same place.</b></li> <li>• <b>Everyone does everything.</b></li> <li>• <b>Life is difficult; teachers must help students prepare for its rigors by giving them a taste of “reality” in the classroom.</b></li> <li>• <b>Grades are effective motivators for learning.</b></li> <li>• <b>Grouping of any sort is evil.</b></li> <li>• <b>If we ability group, we don’t need to differentiate.</b></li> <li>• <b>Intelligence is fixed.</b></li> <li>• <b>Most students cannot handle responsibility in the classroom and for their learning.</b></li> <li>• <b>Students “feel bad” if anyone does anything different.</b></li> <li>• <b>If we treat everyone the same the students won’t notice differences.</b></li> <li>• <b>Students should be able to learn and show what they</b></li> </ul>	<p><i>Slides C116-20</i></p>

<p><b>learn in the same way.</b></p> <p>We can see the evidence of these conflicts when we compare traditional and differentiated classrooms.</p>	<p><i>Use Handout #4 Comparing classrooms</i></p>
<p><b><u>NCLB</u></b></p> <p>Section 2122b)(9)(A) describes training “to enable teachers to address the needs of students with different learning styles.”</p>	<p><i>Slide C121</i></p>
<p><b><u>Rationale for Differentiation</u></b></p> <p>Students have different levels of readiness  Students differ in ability levels  Students have different interests  Students have different cognitive needs.</p> <p>Students don't all learn the same thing in the same way on the same day.</p>	<p><i>Slide C122</i></p>
<p><b><u>Elements of Curriculum</u></b></p> <p>Differentiation is the modification of elements of curriculum to make the learning more closely match the ability of the learners. It occurs when the teacher modifies one or more of the components of curriculum to match the instructional needs of the gifted learners. The Three components of curriculum that can be modified are content, process and product.</p> <p>CONTENT (Day 1): The facts, concepts, and principles that govern a body of study</p> <p>PROCESS (Day 2): Skills related to the subject or course of study that includes but is not limited to basic skills, creative and critical thinking skills, research skills and affective skills.</p> <p>PRODUCTS (Day 3): Synthesis and application of the knowledge, concepts and skills to communicate what is learned.</p>	<p><i>Slide C123</i></p> <p><i>Use Handout #5 elements of curriculum</i></p>
<p><b><u>Principles of Differentiation</u></b></p> <p>Four principles of differentiation address content:</p> <ul style="list-style-type: none"> <li>• <b>Present content that is related to broad-based issues,</b></li> </ul>	<p><i>Slide C124</i></p> <p><i>Use Handout #6 Principles of Differentiated</i></p>

<p><b>themes, or problems.</b></p> <p>Content for curriculum tends to be more successful if the student is moving toward bigger ideas that require more abstract thinking than what might be found in the general education classroom. Instruction is organized around one of these bigger ideas that require the student to use a variety of skills or processes to move toward an understanding of how content relates to something more complex. The instruction can center on an issue, a problem, or a theme. <b>An issue might be described as a question or area of concern. A problem is a question of consequence, generally characterized by controversy and debate.</b> A theme can be one of two types. A <b>topical theme</b> is a specific area of study with limited scope and a <b>universal theme</b> is a broad-based concept representing experiences and struggles that are an integral part of the human experience. <b>Universal themes can include topics, problems and issues.</b> Bears can be a problem as</p>	<p><i>Curriculum</i></p>
<p>their habitat shrinks. A <b>problem-based</b> unit might address “What can be done with bears as the suburbs expand?” Expanding that study might require that the student examine the <b>issue</b> of animal rights. “Do wild animals have any rights at all as humans expand into their final habitat areas?” A <b>topical theme</b> might examine the impact of the reduction of native habitat on a nation’s economy. A <b>universal theme</b> that addresses the issue is relationships. “What is the relationship of humankind to the environment?”</p> <ul style="list-style-type: none"> <li>• <b>Integrate multiple disciplines into the area of study.</b> In order to study a broad issue, problem or theme, it is necessary to examine how others impact a particular discipline. World War II was not only about battles and commanders; during this period of time, national economies rose and fell, music changed its focus, computers experienced their creation, and literature entered a new world of realism. In the general education classroom, little time is spent on other disciplines. In the development of G/T curriculum, the connections between the disciplines become as important as the connections within a discipline. The teacher does not have to be an expert in all areas. What they need to be able to do is to find the connections between widely disparate topics and allow students to examine these connections.</li> <li>• <b>Present comprehensive, related, and mutually</b></li> </ul>	

<p><b>reinforcing experiences within an area of study.</b>  One of the most distressing aspects of some G/T programs is the tendency to lean toward episodic instruction. This is instruction that skips to cover a long list of different content with no connections. It may move from a study of holidays to novels about teenage problems and then next address computer-based math instruction. Instruction for the gifted is like instruction for the general education student. It should follow some logical sequence and build on previous instruction, allowing students to use skills taught previously in another venue.</p> <ul style="list-style-type: none"> <li>• <b>Allow for in-depth learning of a self-selected topic within the area of study.</b>  There are two aspects to this principle. The first part is <i>self-selected</i>. If the student is able to select a topic that is mutually agreeable to both the student and teacher, student interest will drive his or her investigations to a much greater degree than if all decisions are made by the teacher. The ability to go beyond superficial learning and dig into the details that support a concept or idea leads to in-depth learning.</li> </ul> <p><u>Activity:</u> The Writing on the Wall</p> <ul style="list-style-type: none"> <li>• The 4 principles are listed one per page and posted around the room.</li> <li>• Many teachers are all ready addressing the principles without using the specialized vocabulary. Participants note on sticky notes what they are currently doing with regard to particular Principles. For example, they might note that they are doing interdisciplinary studies in American History or addressing the issue of cloning in Science. Participants make brief notes (one per note) concerning how they might be addressing the Principles currently.</li> <li>• Participants then walk around the room and place their sticky notes on the appropriate principle sheet.</li> </ul> <p><b><i>Debrief — Examine the Principles. Determine which is currently being used more than others, which is used the least and why. Examine the problem of actually teaching broader concepts in the classroom.</i></b></p>	
<p><b><u>Four Ways to Differentiate Content</u></b></p> <p>Pacing – the concept of altering the speed of learning and</p>	<p>Slide C126</p>

<p>providing more sophisticated resources for learning in order to challenge learners.</p> <p>Depth – the concept of challenging learners by enabling them to venture further, deeper, and more elaborately into the area under study. Teachers AND students dig deeper into the curriculum. The deeper students go with a subject, the broader it gets.</p> <p>Depth also includes analyzing content from the concrete to the abstract, the familiar to the unfamiliar, the known to the unknown.</p> <p>Depth allows exploration of the discipline by going past facts and topics into concepts.</p>	<p><i>Slide C127</i></p>
<p>Elements of Depth –</p> <ul style="list-style-type: none"> <li>• Know and use the <u>Language of the discipline</u></li> <li>• Use <u>Details</u> to elaborate in the discipline</li> <li>• Look for <u>Patterns</u> in the discipline</li> <li>• Look for <u>Trends</u> in the discipline. (Forces that shape a body of knowledge)</li> <li>• Identify the <u>Unanswered questions</u> of the discipline</li> <li>• Identify and explain the <u>Rules</u> or how information/events are organized in the discipline</li> <li>• Be sensitive to the <u>Ethical Considerations</u> in the problem/issue/discipline</li> <li>• Look at <u>Big ideas</u> that can be supported by the evidence from a body of knowledge</li> </ul>	<p><i>Use Handout #7 Facilitating D&amp;C</i></p>
<p><b><u>Language of the Discipline</u></b></p> <p>Deals with the language, or jargon, particular to a discipline or study. It also deals with the specific tools used by the disciplinarian and may address different occupations related to the field.</p>	<p><i>Slide C128</i></p> <p><i>Use handout #9 Traits and Skills</i></p>
<p><b><u>Details - Factors, parts, variables, attributes</u></b></p> <p>What are its attributes?  What features characterize this?  What specific elements define this?</p>	<p><i>Slide C129</i></p>

<p>What distinguishes this from other things?</p> <p>A good answer is not a single, but multiple set of responses  A good answer is not naming, but describing  A good answer is not identifying, but is embellishment</p> <p>Prompts:</p> <ul style="list-style-type: none"> <li>• Add to . . .</li> <li>• Give evidence of . . .</li> <li>• Cite . . .</li> <li>• Extend . . .</li> <li>• Show alternatives . . .</li> <li>• Elaborate . . .</li> <li>• Find another way to say . . .</li> </ul> <p>Get across the message that one right answer is not enough.</p>	
<p>Details help kids see how parts create a whole (deductive reasoning)</p> <p>Details can't come without language. They are symbiotically related.</p> <p>Language and details are ON the page. These are the simplest elements to explore. The shift then goes on to the next layer of depth.</p>	
<p><b><u>Patterns</u></b> – repetitions, predictability</p> <p>What are the recurring events?  What elements, events, or ideas are repeated over time?  What was the order of the events?  How can we predict what will come next?</p> <p>Patterns must be built / constructed. The deeper students go the more construction there is. This is problem solving. The ability to look for patterns arms students to problem solve. Patterns are not always seen the same way. Patterns are the weaving together of details to get the whole. When students explain their thinking, it is Metacognition.</p> <p>Language and Details allow students to measure the answer.  Patterns allow students to measure the process to the answer.</p>	<p><i>Slide C130</i></p>

Patterns are BETWEEN the lines.	
<p><b><u>Trends</u></b> – forces that enable students to see something and the context in which it happens.</p> <p>Context: Where and When it takes place effects the Why.</p> <p>What ongoing factors have influenced this study? What factors have contributed to this study?</p> <p>Trends are OFF the page. Students must use secondary sources.</p>	Slide CI31

<p><b><u>Unanswered Questions</u></b> – We know what we know and we pursue that which we don't know.</p> <p>In the realm of what is known, we accept things that are considered fact. Students are only <u>consumers</u> of knowledge.</p> <p>When we move into the unknown, students note ambiguities, discrepancies, gaps, missing pieces. Students become <u>producers</u> of knowledge.</p> <p>What is still not understood about this area/topic/study/discipline? In what ways is the information incomplete or lacking in explanation?</p> <p>Answers can be found by looking BETWEEN the lines and OFF the page.</p>	Slide CI32
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<p><b><u>Rules</u></b> – the stated and the unstated we go through in the process of explaining things.</p> <p>Rules connect students to details, patterns, and unanswered questions.</p> <p>How is this structured? What are the stated and unstated causes related to the description or explanation of what we are studying?</p>	Slide CI33
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<p><b><u>Ethical Considerations</u></b> – represents the dilemmas,</p>	Slide CI34
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<p><i>controversies, issues, or good vs. evil.</i></p> <p>Helps students understand everything is fraught with conflict. Conflict is not necessarily bad.</p> <p>Teachers are not asking students to solve the conflict or resolve the issue, but rather to identify issues to predict how to abate something in the future.</p> <p>What dilemmas or controversies are involved in this area/topic/study/discipline? What elements can be identified that reflect bias, prejudice, or discrimination?</p>	
<p><b><i>Big Ideas</i></b> – <i>generalizations, the big picture</i></p> <p>If students don't get the big idea, facts are useless.</p> <p>What overarching statement best describes what is being studied? What general statement includes what is being studied?</p> <p>Big ideas are unknown, unfamiliar, and abstract.</p>	<p>Slide 35</p>
<p><b><i>Complexity</i></b> – <i>the concept of broadening the learner's understanding of the area(s) under study by asking students to make connections, relationships, and associations between, within, and across disciplines</i></p> <p>Helps us look at purpose and understand recurring events, elements, and ideas that are repeated over time in order to predict and generalize from one discipline to another.</p> <p>Elements of complexity:</p> <ul style="list-style-type: none"> <li>• Look at ideas/information <u>over time</u> – past present, and future.</li> <li>• Look at ideas/information from <u>different points of view</u></li> <li>• Look for connections <u>among/between</u> ideas/information/disciplines</li> <li>•</li> </ul>	<p>Slide CI36</p> <p>Slide CI37</p>
<p><b><i>Over Time</i></b> – <i>relationships between past, present, future, and within a time period.</i></p> <p>Looks at how the passage of time affects the study.</p>	<p>Slide CI 38</p>

<p>Determines what is revealed when this study is examined over a specific time period. Examines what different perspectives time provides in understanding this study.</p> <p>How are the ideas related between the past, present, and future? How are these ideas related within or during a particular time period? How has time affected the information? How and why do things change or remain the same?</p>	
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<p><b><i>Points of View</i></b> – multiple perspectives, opposing viewpoints, differing roles and knowledge</p> <p>Looks at how viewing things from different perspectives helps understand an event, body of knowledge, or set of ideas. Examines how the consideration of opposing viewpoints leads to a better understanding of an event or issue.</p> <p>What are the opposing viewpoints? How do different people and characters see this event or situation?</p>	<p>Slide C139</p>
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<p><b><i>Interdisciplinary Connections</i></b> – within disciplines, between disciplines, and across disciplines</p> <p>Determines common elements among the Topics from the different disciplines. Looks at how a particular idea relates to all of these topics across the disciplines. Examines how each of these topics contributes meaning to this idea.</p> <p>What are common elements among topics from different disciplines? How does the idea/topic/concept relate to other disciplines? How do topics/ideas from across the disciplines contribute meaning to this idea?</p> <p>The elements of depth and complexity should be evident, as appropriate, in the teaching/learning process with the teacher as the facilitator and the student as the investigator.</p>	<p>Slide C140</p> <p>Use Handout #8 Questions for D&amp;C</p>
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<p><b><u>Activity</u></b> – <i>Relationships between TEKS and Depth &amp; Complexity</i></p> <ul style="list-style-type: none"> <li>➤ Read the TEKS example for your appropriate level (elementary or secondary)</li> <li>➤ Highlight any terminology that indicates depth and complexity</li> <li>➤ Draw an icon in the column labeled <i>Elements of Depth and Complexity</i>. (There may be various ways of looking at the elements. There is no “right answer.”)</li> <li>➤ Share and discuss findings with the table group.</li> </ul>	
<p><b><u>Novelty</u></b> – <i>the concept of gaining a personal understanding of the area under study or constructing meaning or knowledge in an individual manner.</i></p>	<p>Slide CI 41</p>
<p><b><u>How is a Differentiated Classroom Configured?</u></b></p> <p>Large group instruction Small group instruction Individual instruction</p> <p>The State Plan emphasizes the occurrence of all three configurations.</p>	<p>Slide CI42</p>
<p><b><u>Characteristics of a Differentiated Classroom</u></b></p> <ul style="list-style-type: none"> <li>● Students and teachers accept and respect one another’s differences.</li> <li>● The teacher provides challenging instruction motivating students to work at the highest possible level.</li> <li>● It involves meaningful learning that focuses on essential understandings.</li> <li>● The teacher is a facilitator who helps students become self-reliant learners.</li> <li>● Flexible grouping is evident.</li> <li>● The teacher uses a variety of strategies to connect instruction to student needs.</li> <li>● Assessment is an ongoing diagnostic tool that guides instruction.</li> <li>● Students are often given choices about topics they wish to study or ways they want to demonstrate what they have learned.</li> </ul>	<p>Slides CI43-46</p>

<p><b><u>Where do we Start?</u></b></p> <ul style="list-style-type: none"> <li>● Take notes on each student each day.</li> <li>● Pre-assess before introducing any new content</li> <li>● Include all student work in the assessment process.</li> <li>● Create one lesson per unit.</li> <li>● Differentiate one product per six weeks.</li> <li>● Use multiple resources.</li> <li>● Establish class criteria for products.</li> <li>● Give students more choices.</li> <li>● Develop and use one learning contract per six weeks.</li> </ul>	<p><i>Slide CI47-48</i></p>
<p><b><u>Steps in Developing a Differentiated Unit of Study</u></b></p> <ol style="list-style-type: none"> <li>1. Choose a unit theme.</li> <li>2. Identify the major concepts.</li> <li>3. Select the topics for study.</li> <li>4. Organize facts under the topics.</li> </ol>	<p><i>Slide CI 49</i></p>
<p><b><u>Structure of Knowledge</u></b></p> <p>The structure of knowledge use critical content (topics and facts) as a tool to help students understand concepts and “big ideas” that transfer through time and across cultures.</p> <p>Phenix (1986) says, “The distinctively human goal in learning is to expand meanings beyond particulars to the larger patterns of understanding.” “The purpose of these patterns. . . is to guide the selection of learnable content so that it will exemplify the characteristic features of the disciplines.”</p> <p>The guide for the selection of content is known as the “Structure of Knowledge” which has 5 levels:</p> <ol style="list-style-type: none"> <li>1. <u>Themes</u>: Themes are universal ideas, broad-based concepts such as patterns, relationships, change. These represent important experiences and struggles that are an integral part of life. Selection of a broad-based theme that goes across all the disciplines is the driving force of the curriculum. A universal theme with generalizations can serve as the organizing element for the content.</li> </ol>	<p><i>Slide CI50</i></p> <p><i>Use handout #11 Structure of Knowledge</i></p> <p><i>Use Handout #12 Themes</i></p>

<p>2. <u>Generalizations</u>: Generalizations of a theme are statements that explain ideas and concepts. Generalizations are summaries of thought, :What do I understand as a result of my study?” A generalization statement includes 2 or more concepts in a sentence that transcends time. Generalizations should: (1) be universal truths; (2) go across time, cultures, and disciplines; (3) be simply stated; and (4) encompass at least two concepts.</p> <p>3. <u>Concepts</u>: Concepts are anchor points that are timeless. A concept is an organizing idea; a mental construct. 15-30 major concepts structure the content of each discipline.</p> <p>4. <u>Topics</u>: areas of specific study such as Civil War, oceans, measurement, etc.</p> <p>5. <u>Facts</u>: Facts are the tools for understanding concepts and generalizations.</p>	<p><i>Use Handout #13 Concepts</i></p> <p><i>Slide CI51 Slide CI 52</i></p> <p><i>Slide CI53 Slide CI54-55</i></p>
<p><b><u>The Value of utilizing the structure of knowledge:</u></b></p>	

<ul style="list-style-type: none"> <li>● Engages the personal intellect and emotions of the student; increases motivation for learning.</li> <li>● Requires a higher level of thinking.</li> <li>● Teaches students how to see patterns and connections between facts and ideas.</li> <li>● Provides relevant focus for content study.</li> <li>● Facilitates the transfer of knowledge.</li> <li>● Meets different ability levels.</li> <li>● Creates a brain schema for processing new information.</li> <li>● Places responsibility for learning on the students.</li> </ul>	
<p><b><u>Glasser Percentages:</u></b></p> <p>We learn . . .</p> <ul style="list-style-type: none"> <li>● 10% of what we read</li> <li>● 20% of what we hear</li> <li>● 30% of what we see</li> <li>● 50% of what we see and hear</li> <li>● 70% of what is discussed with others</li> <li>● 80% of what we experience personally</li> <li>● 95% of what we teach someone else</li> </ul>	<p><i>Slide CI56</i></p>
<p><b><u>Clumping the TEKS</u></b></p> <p><b>Purpose:</b> To demonstrate that TEKS can and should be taught together in natural connections vs. teaching TEKS in isolation (a form of compacting)</p> <p><b>Materials:</b></p> <p>Table sets of grade level TEKS in four core areas (other TEKS can be made available)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Show example with 5ht grade Science TEKS</li> <li>2. Participants look through TEKS, listing all concepts, topics, and facts.</li> </ol>	<p><i>Slide CI57</i></p> <p><i>Use Handout #14 Clumping TEKS</i></p> <p><i>Slide CI58 Slide CI59</i></p>
<p><b><u>Differentiated Lesson Planning</u></b></p> <p>What you want students to know, understand and be able to do.</p> <p>Show example using 5<sup>th</sup> grade science TEKS</p>	<p><i>Slide CI60-62</i></p> <p><i>Use Handout #15 Lesson Design; Handout #16 Differentiated</i></p>

	<i>Lesson Plan; and Handout #17 Generating Differentiated Tasks</i>
<p><b><u>Summary</u></b></p> <ul style="list-style-type: none"> <li>● The content of curricula for gifted students should focus on and be organized to include more elaborate, complex, and in-depth study of major ideas, problems, and themes that integrate knowledge within and across systems of thought.</li> <li>● Curricula for gifted students should allow for the development and application of productive thinking skills to enable students to reconceptualize existing knowledge and/or generate new knowledge.</li> <li>● Curricula for gifted students should enable them to explore constantly changing knowledge and information and develop the attitude that knowledge is worth pursuing in an open world.</li> <li>● Curricula for gifted students should encourage exposure to, selection, and use of appropriate and specialized resources.</li> <li>● Curricula for gifted students should promote self-initiated and self-directed learning and growth.</li> <li>● Curricula for gifted students should provide for the development of self-understanding and the understanding of one's relationship to persons, societal institutions, nature, and culture.</li> <li>● Evaluations of curricula for gifted students should be conducted in accordance with the previously stated principles, stressing higher level thinking skills, creativity, and excellence in performance and products.</li> </ul>	<i>Slides C163-68</i>

APPENDIX M  
CURRICULUM AND INSTRUCTION FOR GIFTED LEARNERS PART II  
WORKSHOP OUTLINE



<p><b>Purpose:</b> The participants will receive an overview of the skills used to differentiate instruction for the gifted learner.</p> <p><b>Time:</b> 6 Hours</p>	<p>Slide CII1, CII2</p>
<p><b>Narrative</b>—In order for the teacher to differentiate instruction for students he/she must understand something about the world of thinking skills. The term “skill” generally relates to a single procedure while a combination of skills may be considered “strategies”.</p> <p>These skills and strategies compose what the students, and the teacher, do with the content they address in class. For the most part, students do not come into the classroom knowing the processes of thinking. The skills and strategies must be taught as any other skill is taught. The steps are the standard ones of instruction.</p> <ol style="list-style-type: none"> <li>a. Defining the skill</li> <li>b. Recognizing an example</li> <li>c. Applying the skill</li> <li>d. Evaluating the process (after Beyer 1991)</li> </ol> <p>The steps in the skills and strategies may be taught in isolation, but the application needs to be taught in content. The actual processes, which are generally addressed in gifted programs, are listed below.</p>	<p>Slide CII3</p>
<p><b>PROCESSES</b></p> <p>Processes are the skills necessary to understand and apply content. Processes may be divided into four categories.</p> <ul style="list-style-type: none"> <li>• Foundation Skills</li> <li>• Higher Order Thinking Strategies</li> <li>• Research Skills</li> <li>• Affective Skills</li> </ul> <p>To understand how these processes apply in the advanced classroom, some basic definitions and a common understanding of terms must be established. (Note: Some of the material for definitions is found in the work of Barry K. Beyer in his work <i>Developing a Thinking Skills Program</i>)</p>	<p>Slide CII4</p>
<p><b>Foundation Skills</b></p> <p>Foundation skills refer to those skills established by a school district or state agency, which define what all students must know in order to advance from one level or course to the next. Foundation skills include both cognitive and basic thinking</p>	<p>Slide CII5</p>

<p>skills. The basic thinking skills generally addressed in the state of Texas include those skills identified in the work of Dr. Benjamin Bloom and particular reasoning skills.</p>	
<p><b>Higher Order Thinking Strategies</b>  Higher order thinking strategies consist of any number of strategies that are more complex than the skills and generally include those skills in the operation. While all children might benefit from addressing these strategies, they are generally taught in a program designed for advanced learners. They include, but are not limited to: critical thinking, creative thinking, problem solving/decision making, logical reasoning and conceptualizing.  A definition of each of the strategies is included below.</p>	<p>Slide CII6</p>
<p><b>Critical Thinking</b>  Critical Thinking is a series of operations designed to judge the authenticity, worth, or accuracy of something. Critical thinking may include distinguishing between fact and value claims, distinguishing between relevant and irrelevant information, determining accuracy of a statement, identifying bias and fallacies, recognizing inconsistencies in an argument and determining the strength of an argument.</p>	<p>Slide CII7</p>
<p><b>Creative Thinking</b>  Creative Thinking is a series of operations that examines new patterns, relationships combinations or products. When taught in the classroom, these operations frequently are described as fluency of thought, flexibility of thought, originality and the ability to elaborate.</p>	<p>Slide CII8</p>
<p><b>Problem Solving/Decision Making</b>  Problem Solving/Decision Making are thinking strategies which involve a complex plan for resolving problems and situations where there are solutions that can be objectively determined as correct or preferable to any other solution.  These strategies are closely related and involve many of the same skills.</p>	<p>Slide CII9</p>
<p><b>Logical Reasoning</b>  Logical reasoning involves the use of inductive, deductive and analogical reasoning strategies.</p>	<p>Slide CII10</p>
<p><b>Research Skills</b></p>	<p>Slide CII11</p>

<p>Research skills are those search skills that increase a student's exposure to data, extend or elaborate on content and assist in the development of some sort of presentation of the data.</p>	
<p><b>Affective Skills</b> Those skills relating to belief systems and attitudes toward learning</p> <p>While there is no accepted list of which skills and processes should be included in a course of study for advanced learners, there seems to be general agreement that these categories are critical to a program. The combination of skills and strategies are included in a Scope and Sequence in order to establish how processes, and, indirectly, content is modified for the advanced learner. This definition of skills, strategies and content becomes a critical part of the instructional model for the gifted. It defines the continuum of learning essential to any well-planned instructional program.</p> <p>Several sample Scope and Sequence documents are included to illustrate how the skills are interwoven into curriculum.</p>	<p>Slide CII12</p>
<p><b>In the beginning was Bloom's ...</b></p> <p>Probably the most commonly utilized method of expanding thinking skills in the classroom is Bloom's Taxonomy. Dr. Benjamin Bloom and his associates sought to classify the kinds of questions found in the classroom and in doing so, unintentionally, created a framework, which allowed the modification of processes and content. The skills found in the taxonomy are foundational skills in that they create the basic building blocks of thinking. Additional thinking skills, whether simple or advanced, critical or creative, inductive or deductive, find their roots in the taxonomy. Its importance is such that it is recommended instruction in all classrooms under Texas' Professional Development Appraisal System (PDAS).</p>	<p>Slide CII13</p>
<p><b><u>Bloom's Taxonomy</u></b></p> <p>Refer to the "Facilitating the Understanding of Depth and Complexity" handout. Note in the <i>Thinking Skills</i> column that Bloom's descriptors are listed.</p> <p><b>Overview:</b> Participants will review the levels of Bloom's Taxonomy and apply the levels to their classroom.</p> <p>Every teacher uses most of the levels of Bloom's Taxonomy</p>	<p><i>USE HANDOUT # 1A</i></p> <p><i>– 1C, 2A – 2F</i></p>

<p>every day. For years the taxonomy was taught as the single most efficient way to force higher-level thinking. Now it is seen as a foundational level for teaching thinking. In examining the questions built on Bloom's, it should be noted the single inclusion of some particular verb does not necessarily mean the question has been elevated to the next level of the taxonomy.</p> <p>For example, everyone would recognize a question like "Name the causes of the Revolutionary War" as a knowledge level question. Asking the student to "Name the causes of the Revolutionary War in your own words" does not necessarily move the question over into the Comprehension category. Another approach might be "Select three causes from the list provided and compare and contrast British and Colonial views of the incident. Include how that incident lead to the Revolution."</p> <p>Often, it is assumed that any question that asks the student to respond "in his or her own words" is always a comprehension question, and everyone that is asked to evaluate something is an evaluation question. The reality is that many questions that appear to be advanced are only advanced knowledge level questions when the teacher has given the answer he expects to see on the test. The intent of the question should always be examined.</p> <p>Review the levels of Bloom's with the participants. Note the difference in the levels of questions illustrated in the Questioning handout.</p>	<p><i>Use Handouts #4a – 4f</i></p>
<p><b><u>Activity:</u></b></p> <p>In their groups, direct the participants to generate a list of questions appropriate for their grade level or content area using all the resources provided.</p>	<p>Slide CII14</p>

## CLASSROOM CONNECTIONS

Critical thinking is the broad term for a collection of thinking skills that include inductive, deductive and evaluative thinking skills. Review with the participants the steps in each of the thinking skills areas. Review the use of a matrix in the application of thinking.

Proceed through the packet and discuss the steps in each. In the groups, lead the participants in a discussion of where the skill could be used in their classes. Upon completion of this instruction, apply the skills to the samples offered in the activities portion of the Critical Thinking Skills package.

In closing the critical thinking portion of the workshop, mention should be made of metacognition. Metacognition is a process of examining the way people think about their thinking. It may be divided into planning, monitoring and assessing. While this sounds somewhat circular, it relates to the way people examine and control their thinking processes. It addresses the ability to plan, evaluate and change the directing of an activity if the evaluation indicates the thinking is not producing the results originally hoped for. One classroom activity that might involve metacognition is the keeping of a journal in which the student is asked to evaluate the connection between behavior and thinking.

APPENDIX N  
CURRICULUM AND INSTRUCTION FOR GIFTED LEARNERS PART III  
WORKSHOP OUTLINE

<p><b><u>Overview</u></b></p> <p>Over the course of the 2 previous sessions we have examined two of the three content elements that can be differentiated.</p> <p>In Part I we analyzed the content we teach according to the elements of depth and complexity.</p> <p>In Part II we examined the process skills that students need to have to be successful with the content.</p> <p>Today we will determine the evidence we are willing to accept as documentation of mastery of the unit content.</p>	<p>Slide CIII1</p>
<p><b>Evidence of Understanding</b></p> <p>Because understanding develops as a result of ongoing inquiry and rethinking, the assessment of understanding should be thought of as a collection of evidence over time instead of an event. When the goal is deep, enduring understanding, we need to rely on more complex assessment methods to determine if the goal has been reached.</p> <p>Given the focus of the state goal, our units should be anchored by performance tasks or projects. This type of assessment provides evidence that students are able to use their knowledge in context, a more appropriate means of evoking and assessing enduring understanding.</p> <p>More traditional assessments, such as quizzes and tests, are used to round out the picture by assessing essential knowledge and skills that contribute to the culminating performances.</p>	<p>Slide CIII2</p>
<p>Assessment of enduring understanding must be grounded in performance-based tasks and projects that are as authentic as possible. Authentic tasks have certain characteristics. An assessment task, problem, or project is authentic if it</p> <ul style="list-style-type: none"> <li>• Is realistic. The task replicates or simulates the ways a person’s knowledge and abilities are tested in the real world.</li> <li>• Requires judgment and innovation. A plan must be designed, and the solution must involve more than following a set routine or procedure, or plugging in knowledge.</li> </ul>	

<ul style="list-style-type: none"> <li>• Asks a student to “do” the subject. The student has to carry out exploration and work in a subject.</li> <li>• Replicates or simulates the contexts in which adults are tested in the workplace, community, and home. Authentic contexts involve specific situations that have particular constraints, purposes, and audiences.</li> <li>• Assesses a student’s ability to efficiently and effectively use a repertoire of knowledge and skills to negotiate a complex task. Performance is more than simply the sum of drills.</li> <li>• Allows appropriate opportunities to rehearse, practice, and consult resources; obtain feedback on performances; and refine performances and products.</li> </ul>	
<p><b>Products</b></p> <p>Products are the method by which students indicate that they have completed a study or performance. Examining the State Plan gives a good indicator of what a product should look like.</p>	<p>Slide CIII3</p>



<p style="text-align: center;">STATE GOAL FOR SERVICES FOR GIFTED STUDENTS</p> <p>Students who participate in services designed for gifted students will demonstrate skills in self-directed learning, thinking, research, and communication as evidenced by <b>the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experience, or environment. High school graduates who have participated in services for gifted students will have produced products and performances of professional quality as part of their program services.</b></p>	<p>Slide CIII4</p>
<p><b>Narrative:</b></p> <p>It is very clear from the State Goal that the closing element of a unit of study should be the development of a performance or product. It is equally clear that waiting until the senior year to introduce the skills necessary to produce such a product is much too late. Product-related skills must be introduced and expanded upon from kindergarten until the senior year in order to prepare the student for a successful development. Student products should be innovative and should mirror the work done by professionals in the field. Products should be advanced in relationship to other students of the same age, experience, or environment.</p> <p>There are two Principles of Differentiation that address student products.</p>	<p>Slide CIII5</p>

<p><b>Encourage the development of products that challenge existing ideas and produce “new” ideas.</b></p> <p>Challenging curriculum must produce products that are advanced in relation to other students of the same age, grade, or environment. These products should reflect the use of information and not a recitation of previously achieved facts. If the student completes an independent study, one of the criteria used to evaluate that work might be has the work contributed to the body of information currently available to users of that information. For example, a study of stem cell research might include a survey of current attitudes toward that research thus expanding the body of knowledge.</p>	
<p><b>Encourage the development of products that use new techniques, materials, and forms.</b></p> <p>For many students who complete an independent study or a guided research project, a written format may be appropriate; however, it quickly becomes apparent that some forms of projects beg for a different presentation format. I have provided a list of possible products for you in your packets. Along with this list is a scope and sequence of products for kindergarten through 12<sup>th</sup> grade. Choosing an appropriate presentation mode is a critical part of any differentiation for gifted learners. If a student has written a piano piece to accompany <u>Lord of the Flies</u>, the presentation of that piece is the best way to evaluate its success.</p>	
<p><b><u>Product elements</u></b></p> <p>Visual Oral Written Kinesthetic</p>	<p>Slide CIII6</p>

<p><b>Product Guidelines</b></p> <p>The standards for developing products will help ensure that the task is appropriate for gifted learners:</p> <ul style="list-style-type: none"> <li>• The task should be meaningful to both the teacher and student.</li> <li>• The task should be framed by the student</li> <li>• The task requires the student to locate and analyze information as well as draw conclusions about it.</li> <li>• The task requires students to communicate results clearly.</li> <li>• The task requires students to work together for at least part of the task.</li> </ul> <p>Show “bullying” video from Breckenridge as an example of a task that meets the above criteria.</p>	<p>Slide CIII7</p> <p>Possible products handout</p> <p>Bullying video from Breckenridge</p>
<p><b>Selecting Products</b></p> <p>In selecting products, two basic guidelines should be followed:</p> <ul style="list-style-type: none"> <li>• Products should demonstrate what a student learns about the content and concepts.</li> <li>• Products should reflect the student’s knowledge, understanding and application of skills (processes).</li> </ul>	<p>Slide CIII8</p>
<p><b>Suggestions for the development of student products:</b></p> <ul style="list-style-type: none"> <li>• Most of the product development time should be in class or within the school day.</li> <li>• Student work and progress should be closely monitored.</li> <li>• Timelines should be developed and adhered to.</li> <li>• Teachers should provide a guidebook which would include how to develop a proposal for study, possible resources, product or method of presentation to be developed and a timeline for implementation.</li> </ul>	<p>Slide CIII9</p>
<p><b>Performance-based assessment</b></p> <p>Because enduring understanding develops as a result of</p>	<p>Slide CIII10</p> <p>Performance tasks handouts</p>

<p>ongoing inquiry and rethinking, assessment should be thought of as a collection of evidence over time instead of an event. When the goal is enduring understanding, we need to rely on more complex assessment methods to determine if the goal has been reached.</p> <p>Performance-based assessment involves complex challenges that mirror the issues and problems adults face. The challenges are authentic. Ranging in length from short-term tasks to long-term, multistaged projects, they require a tangible product or performance.</p> <p>The key elements of a performance-based assessment can be summarized in the acronym GRASPS: goal, role, audience, situation, product or performance, and standards.</p>	
<p><b>Evaluating Performance Assessments: Rubrics &amp; Checklists</b></p> <p><b><u>What are rubrics?</u></b></p> <p>Rubrics are guidelines to quality. They specify evaluation criteria and describe each value point on a scoring scale. This means that a rubric is a scoring guide that describes the requirements for levels of proficiency as students respond to learning tasks, open-ended questions, or stated criteria. The purpose is to answer the question, “What are the conditions of quality, and to what degree has the student progressed toward that level of quality in the task?”</p> <p>Although the same criteria are considered, expectations vary according to the student’s level of expertise. The performance level of a novice is expected to be lower than that of an expert and would be reflected in different standards. (Schlock, 2000)</p> <p>A rubric enables teachers to clarify to students what is expected in a learning experience and what to do in order to reach higher levels of achievement. To be effective, rubrics must be shared with students prior to beginning the task so they know the characteristics of quality work and have a clear target to aim toward.(Kingore, 2002)</p>	<p>Slide CIII11</p>
<p><b><u>Who benefits from rubrics?</u></b></p> <p>Teachers – Carefully constructed rubrics are relevant to instruction and guide teachers in designing lessons that enable</p>	<p>Slide CIII12</p>

<p>students to reach higher levels of proficiency. Rubrics provide a standard for the grades in the grade book.</p> <p>Students – Rubrics provide students with a clearer view of the merits and demerits of their work than grades alone communicate. Rubrics communicate to students that students are responsible for the grades they <b>earn</b> rather than to continue to view grades as something someone <b>gives</b> them.</p> <p>Parents – Rubrics more concretely explain to parents the student’s levels of proficiencies and learning needs. Rubrics communicate more clearly the standard behind grades so parents understand why a child earns certain grades.</p> <p>Rubrics provide teachers, students, and parents with standards of excellence instead of relying on more subjective decisions. As Popham stated: “Rubrics represent not only scoring tools but also, more importantly, instructional illuminators.(Kingore, 2002)</p>	
<p><b><u>Why use rubrics?</u></b></p> <p>One reoccurring difficulty in education is the subjective nature of assessment and evaluation. A rubric defuses this dilemma by providing a shared standard of quality. Rubrics are essential to help ensure consistency and fairness in evaluation. Without a rubric, a grade of “A” may not mean the same thing in different classes.</p> <p>The ongoing process of constructing effective rubrics invites professional conversations among grade-level teams and across grade levels. These conversations clarify instructional priorities. Together, educators determine the key attributes of learning tasks and discuss which criteria can be measured and taught. Thoughtfully developed rubrics make an important contribution to the quality of instruction.</p> <p>Rubrics are standard in real-life situations. Increase parents’, students’ and other professionals’ confidence in rubrics by reminding them of the large number of situations in which rubrics are consistently used. Rubrics have been successfully used for years in the Olympics, Wall Street stock analysis, beauty contests, state and national level tests, and many professional competitions.</p> <p>Rubrics can be used for both goal setting and evaluation. First,</p>	<p>Slide CIII11</p>

<p>provide a copy of a rubric and have students set goals before they begin the work by checking the levels they intent to achieve. Then, when the task is complete, the students use the same rubric copy for self-assessment with a second color of pen by marking their achievement level. Finally, teachers use the same rubric copy and a third color of pen to mark their evaluation of the achievement. Many teachers found that students' achievement increased when they used a rubric to goal set their intended level of success before they began the task. Setting their own target increases the students' determination to reach it. (Herman, Aschbacher, &amp; Winters, 1992; Kingore, 2002)</p>	
<p><b><u>Characteristics of rubrics</u></b></p> <p>Effective rubrics:</p> <ul style="list-style-type: none"> <li>• Reflect the most significant elements related to success in a learning task and</li> <li>• Enable students and teachers to accurately and consistently identify the level of competency or stage of development.</li> <li>• Help teachers grade students' work more accurately and fairly.</li> <li>• Encourage students' self-evaluation and higher expectations.</li> <li>• Are shared with students prior to beginning the task so they know the characteristics of quality work.</li> <li>• Provide more information than just a narrow checklist of skills or attributes.</li> </ul> <p>Carefully constructed rubrics are instructionally relevant and guide teachers in designing lessons that enable students to reach higher levels of proficiency. Rubrics provide students with a clearer view of the merits and demerits of their work than grades alone communicate. Rubrics also more concretely explain to parents the child's levels of proficiencies and learning needs. Thus, rubrics provide teachers, students, and parents with standards of excellence instead of relying on ore subjective decisions. (Kingore, 1999)</p>	<p>Slide CIII13</p>
<p><b><u>Components of rubrics</u></b></p> <p>Rubrics have two critical components in their design: the evaluative criteria and the levels of proficiency. The first component determines the characteristics of quality work on a specific task. Teachers have to think precisely about these</p>	<p>Slide CIII14</p>

<p>criteria to analyze the many facets of the learning task and communicate clearly to students which characteristics are most significant to success.</p> <p>(go over examples on slide)</p> <p>A second critical component of rubrics is the determination of the specific levels of proficiency or degrees of success for each part of a task. Teachers have to carefully analyze questions of quality so they can delineate what represents competency at different levels. The levels of proficiency are used to distinguish acceptable from unacceptable responses. (Kingore, 1999)</p> <p>(go over examples on slide)</p>	<p>Slide CIII15</p> <p>Slide CIII16</p>
<p><b><u>Types of rubrics</u></b></p> <p>Holistic – a scoring rubric that uses only a single scale that yields a global or holistic rating. All of the evaluative criteria are aggregated into a single qualitative score.</p> <p>Analytical – A rubric with two or more separate scales.</p> <p>Developmental – holistic rubric especially useful with younger children. It takes the form of a poster in order to eliminate the need for paper copies and so that it can be placed where it is easily viewed by everyone in the classroom. The rubric is developmental because it begins with one level of proficiencies and then increases the levels over time as skills develop.</p> <p><b>Which one is better?</b></p> <p>No one type is better than the others. All have a place in authentic assessment, depending on:</p> <ul style="list-style-type: none"> <li>• Who is being taught? Because there is less detail to analyze in the holistic rubric, younger students may be able to integrate it into their schema better than the analytic rubric.</li> <li>• How many teachers are scoring the product? Different teachers have different ideas about what constitutes acceptable criteria. The extra detail in the analytic rubric will help multiple grades emphasize the same criteria (Schlock, 2000)</li> </ul> <p>Holistic scoring is often more efficient, but analytical scoring systems generally provide more detailed information that may</p>	<p>Slide CIII17</p> <p>Show poster example of holistic rubric</p> <p>Show poster example of analytical rubric</p> <p>Show poster examples of developmental rubrics</p>

<p>be useful in planning and improving instruction and communicating with students.</p>	
<p><b><u>Guidelines for Construction</u></b></p> <ol style="list-style-type: none"> <li>1. Consider your definition of a quality performance. Discuss with other professionals the characteristics that distinguish quality from mediocre work.</li> <li>2. Collect samples of rubrics as models to adapt for your needs.</li> <li>3. Determine potential criteria by collecting examples of a wide quality range of students' work and then analyzing attributes common to performances at different levels of proficiency.</li> <li>4. As often as appropriate, limit the number of criteria so the rubric fits on one page. Lengthy rubrics appear more overwhelming and, therefore, less used.</li> <li>5. Write descriptors for the degrees of proficiency exhibited in students' work.</li> <li>6. As often as possible, accent what to do in the proficiency levels of each criteria on the rubric rather than just relating what is wrong or calculating the number of errors.</li> <li>7. Initially, develop a rubric using expanded descriptors to communicate your intent clearly to your colleagues.</li> <li>8. As much as possible, avoid generalities such as good-better-best or little-some-frequently.</li> <li>9. Ask others to read your rubric and offer suggestions.</li> <li>10. The process of creating rubrics is difficult and show. It is often developmental – as soon as your finish a rubric and use it once, you immediately know ways you want to change it. (Kingore, 1999)</li> </ol>	<p>Slide CIII18 Guidelines handout</p>
<p><b><u>Aids for Designing Rubrics</u></b></p> <p>Rubric Generator</p> <p>Rubrics and More (demonstrate software)</p> <p>Web sites for rubrics and checklists</p> <p><b>Rubrics:</b></p> <p><a href="http://rubistar.4teachers.org">http://rubistar.4teachers.org</a></p>	<p>Slide CIII19</p> <p>Rubric Generator handout</p> <p>Show preview of "Rubrics and More" CD</p> <p>Web sites handout</p>



<p><a href="http://www.teachervision.com/lesson-plans/lesson-4521.html">http://www.teachervision.com/lesson-plans/lesson-4521.html</a></p> <p><a href="http://www.teach-nology.com/web_tools/rubrics">http://www.teach-nology.com/web_tools/rubrics</a></p> <p><a href="http://school.discovery.com/schrockguide/assess.html">http://school.discovery.com/schrockguide/assess.html</a></p> <p>PROJECT-BASED LEARNING CHECKLISTS:</p> <p><a href="http://www.4teachers.org/projectbased/checklist.shtml">http://www.4teachers.org/projectbased/checklist.shtml</a></p> <p><a href="http://www.rainbowtech.org/CyberLib/assess.htm">http://www.rainbowtech.org/CyberLib/assess.htm</a></p>	
<p><b><u>State Goal</u></b></p> <p>Students who participate in services designed for gifted students will demonstrate skills in self-directed learning, thinking, research, and communication as evidenced by the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experiences, and environment.</p> <p>(Review the state goal, stressing the advanced products.)</p> <p>In our state, we haven't had a consistent way to determine whether gifted and talented students demonstrate the skills described in the state goal, but now we have the Performance Standards Project. We have said we wanted something for years, and today you will learn about one way to determine the extent to which your students demonstrate the goal.</p>	<p>Slide CIII20</p>

<p><b>Table Discussion</b></p> <p>Discuss the following questions:          –“If districts were asked to send in advanced products, what would they send?”          –“What criteria would be used to evaluate these products?”          –“What do we have to start with in our district?”          –“Who would be interested in learning about this?”</p> <p>Choose a reporter and discuss the questions on the slide.</p> <p>(Give groups about ten minutes to discuss and then have each group summarize their discussion for the large group.)</p>	<p>Slide CIII21</p>
<p>Part of G/T program evaluation – one of the areas that districts are required to evaluate in their gifted programs is curriculum and instruction. Performance standards provide an excellent means to determine success/failure of programs in this area.</p>	
<p><b>Performance Standards</b>          Grade 12, 8, and 4 implemented          Other grades in development          (Peebles, 2004)</p>	<p>Slide CIII22</p>
<p><b>Why do we need Performance Standards?</b></p> <p>The Performance Standards Project started in 1999 as a rider from the State Legislature. The primary question legislators asked was, “What are we getting for our \$60 million?” You can tell a lot from the data the state collects, such as the numbers of students served and the qualifications of their teachers; however, there was no way to determine the quality of work and the levels of achievement of gifted and talented students.</p> <p>Originally, the Legislature thought that a multiple choice test, like a Super TAKS, would do it. However, because of the efforts of many people, instead we get to look at what students actually do. This opportunity provided by the Legislature also gives us the opportunity to look at and improve services to gifted and talented students in the state.</p>	<p>Slide CIII23</p>

<p style="text-align: center;"><b>What is the Performance Standards Project?</b></p> <p>The Performance Standards Project (PSP) is designed to assess what is happening in schools for G/T students. Districts may learn that they need to change some of what they are doing. They may need different professional development, more contact time, or additional resources for students.</p> <p>The Performance Standards may very well become the next accountability system for gifted programs.</p>	<p>Slide CIII24</p> <p>Show intro to TPSP DVD</p>
<p><b>Dimensions</b></p> <p>The standards for the performance standards project are organized by dimensions. The dimensions are defined somewhat differently for exit level and eighth grade, and the scale is higher at exit level than at eighth grade.</p> <p>Why are the dimensions different? The expectations are greater at the exit level. Students are expected to develop a product that is the result of a long-term study. Grade 8 and 4 projects typically take about six weeks.</p>	<p>Slide CIII25</p>
<p><b>Scoring</b></p> <p>At the exit level, the dimensions are grouped by the three main components of projects:</p> <ul style="list-style-type: none"> <li>•The product gives us information about content knowledge and skills, innovation and application, analysis and synthesis, relevance and significance, and professional quality.</li> <li>•The process record informs us on the student's knowledge and skills methodology and use of resources, ethics and unanswered questions, and multiple perspectives.</li> <li>•Presentation and Q&amp;A looks at the professional quality and communication.</li> <li>•The exit level has a five-point scale and an incomplete. The four and five levels on the scale are very high.</li> <li>•At the 8th and 4th grade levels, scores are given on each of the individual dimensions. There is a four-point scale, but the high end at eighth grade is not as high as the high end at the exit level and the high end at 4th grade is not as high as the high end of 8th grade.</li> </ul>	<p>Slide CIII26</p>

<p><b>Tentative Findings</b></p> <p>It is important to review the rubrics periodically with students and use them for formative assessment. The rubrics provide a road map to a better product.</p> <p>Asking challenging questions is critical. Students may ask questions that no one knows the answers to, that have multiple correct answers, or that may not even be answerable. Questions may change along the way.</p> <p>If students do not have a great deal of interest in the topic, they will have a hard time sticking with it.</p> <p>We will discuss each of these in more detail.</p>	<p>Slide CIII27</p>
<p><b>Characteristics of High-End Projects</b></p> <p>Review slide.</p> <p>Ask participants to brainstorm examples of this kind of project they have seen.</p>	<p>Slide CIII28</p>
<p><b>Guidelines for Significant Questions</b></p> <ul style="list-style-type: none"> <li>•May have more than one correct answer</li> <li>•May puzzle professionals in the field</li> <li>•May lead to other questions</li> <li>•May be controversial</li> </ul>	<p>Slide CIII29</p>
<p><b>Topics worth studying</b></p> <ul style="list-style-type: none"> <li>•Student already knows something about it. <ul style="list-style-type: none"> <li>•Student wants to know more.</li> </ul> </li> <li>•Topic is of interest to others.</li> <li>•Outcome of studies can be helpful to others.</li> </ul>	<p>Slide CIII30</p>
<p><b>Putting it all together</b></p> <p>Now we will look at videos of two students who completed projects. This video was developed to help you understand all that goes into an exit-level project. After viewing both segments, we will rate the participants using the scoring criteria.</p>	<p>Judges training video Judges score sheet</p>
<p><b>Grade 4 tasks</b></p> <p>Review contents of slide and the handout of summaries of</p>	<p>Slide CIII31 Tasks handout TAKS chart</p>

fourth-grade tasks	
<b>Grade 4 performance</b>	Slide CIII32
Now direct participants to the sample fourth-grade project on the center of the table.	Sample 4 <sup>th</sup> grade project
Show video of 4 <sup>th</sup> grade performance	4 <sup>th</sup> grade project video
Review units for grades K-3 from website.	
<b>Secrets of Success</b>	Slide CIII33
<ul style="list-style-type: none"> <li>•Independent research skills need to be taught throughout the K-12 curriculum for G/T students.</li> <li>•Undifferentiated advanced courses do not necessarily produce professional products.</li> <li>•Students enjoy having the opportunity to do in-depth projects.</li> <li>•Mentors in the student’s area of study are critical at the exit level.</li> </ul>	Research Scope & Sequence handout
<b>Additional Information</b>	Slide CIII34
<b>Closure</b>	Slide CIII35
Have tables review criteria for rubrics and compare to Performance Standards. Discuss how to implement Performance Standards in classroom.	
Workshop Evaluation Form	

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