Patterns of Overexcitability

Overexcitabilities: A New Way to Think About Talent?

Carol L. Tieso

Researchers and educators in the field of gifted education have been tantalized by the promise that Dabrowski’s Theory of Positive Disintegration, with its depiction of intensities or overexcitabilities (OEs), provides a means for identifying gifted students that is different than the usual standardized tests. Thus far, most information on OEs has been provided by a questionnaire, which is made up of 21 open-ended questions. In this study, the Overexcitability Questionnaire II (OEQII), a Likert-type survey for addressing the OEs, was used to distinguish between typical and gifted students, and various subgroups of gifted and talented students. Results suggest that there are several differences on the OEQII’s five subscales: Psychomotor, Intellectual, Imaginational, Sensual, and Emotional OEs for gender groups, elementary- and middle-school students, and typical and gifted students.

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Dr. Tieso’s current research interests include examining the impact of flexible grouping and curriculum differentiation models on students’ achievement and investigating patterns of Dabrowski’s Overexcitabilities in gifted, talented, and creative students. Her teaching interests focus on meeting the socioemotional needs of talented students and increasing the enrollment of culturally, linguistically diverse students in gifted programs. E-mail: cities@wm.edu

Background of the Study

The age-old debate over nature vs. nurture has captured the interest of many researchers and educators in the field of gifted education. Intelligence, creativity, giftedness, and the heritability of these characteristics has inspired debate and inquiry for a century and a half, and suffused the definition and identification of giftedness. Perhaps the most overlooked and underappreciated aspect of this debate lies in the affective domain. Hollingworth (1929) was among the first researchers to recognize and address an affective component in giftedness. Dabrowski (1964), through his work with genius and depravity during the rise of Fascism in Europe, identified five special kinds of intensities or characteristics that seemed to help determine to what level of moral development one would ascend. The characteristics recognized were psychomotor, intellectual, imaginative, sensual, and emotional OEs. The concept of Psychic Overexcitabilities grew out of Dabrowski’s original concept of development potential—a theory that evolved from his work with gifted individuals under conditions of extreme stress. More specifically, his theory comes from the rise of extremism between the first two World Wars and his rejection of the Freudian view that adult neuroses were brought on by childhood trauma.

Developmental Potential and the Overexcitabilities

Developmental potential (DP) is defined as a genetic endowment of traits which determine what level of moral development a person may reach under optimal conditions. Rather than discussing the “norm” of human behavior, Dabrowski was interested in studying the extremes of human personality; he focused his research on eminent, gifted, and creative individuals. He theorized that during times of great stress or crisis, individuals highest in emotional intensity, would suffer a more pronounced kind of pain than those of normal temperament. He further suggested that this pain would lead to a “positive disintegration” of one’s current developmental level to ascend to a higher level of moral functioning. Those with the most intense feelings (e.g., feelings of difference or inadequacy, inner conflict, or shame and guilt) could reach the highest level of development. The defining characteristics of DP are five forms of overexcitability and special talents and abilities. The five forms of psychic overexcitability were described by Dabrowski (1938) prior to the formulation of his theory of positive disintegration; they were described as “types of increased psychic excitability” and were introduced to denote a variety of types of nervousness he had witnessed in gifted and creative individuals (as cited in Piechowski, 1999). Nervousness is tension in the nervous system, and Dabrowski got the idea for describing the forms of overexcitability from his observations of children under tense situations in school. He noted that in the early part of the century, children had to stand up silently and respectfully when the teacher entered the classroom. But in that tense and silent atmosphere, some students squirmed restlessly in their seats; some were quiet but not paying a bit of attention; some sat upright and tense with their eyes closed; a few looked alert and expectant. Dabrowski interpreted this in the following way: the imposition of restraint provokes emotional tension, and this tension finds expression in several different modalities. Children that squirm in their seats release their tension psychomotorically; the daydreamers escape their tension through the world of fantasy or spontaneously create pictures and scenes as images of the sources of tension; the upright, tensed children feel the stress emotionally; and the alert ones get their minds going and are ready to put their wits to use. Dabrowski hypothesized that these characteristics of overexcitability were more prevalent in gifted individuals than in the general population, and he suggested that they may lead to higher levels of moral development in gifted individuals.

Silverman (1993) suggested that these intensities, often manifested by gifted and talented (GT) students and adults, may be expressed in displays of intense energy, enthusiasm, absorption in their chosen pursuits, vivid imagination, and strong sensual reactions to stimuli; but the gifted are also known to be emotionally vulnerable (Hollingworth, 1942; Silverman, 1994). They tend to react strongly to aesthetic, intellectual, emotional, sexual, and other stimuli. According to Piechowski (1999), “overexcitabilities feed, enrich, empower, and amplify talent” (p. 325). The term
overexcitability, rather than just excitability, was chosen to convey the idea that this is a special kind of excitability, one that is enhanced and distinguished by characteristic forms of expression. Dabrowski’s theory has engaged theorists, researchers, and educators in the field of gifted education for many years. Researchers, intrigued by the blending of affective and cognitive domains, have developed tools—first, the Overexcitability Questionnaire (OEQ) and, then, the OEQII—to help illuminate and measure heightened manifestations of overexcitabilities.

**Group Characteristics and Overexcitabilities**

Researchers, using an open-ended questionnaire, examined profiles of OEs among gifted individuals and found similar patterns among various subgroups. Several studies found differences in OEs among children and adolescents, with those students identified as gifted scoring higher than their nongifted peers (Gallagher, 1986; Piechowski & Colangelo, 1984). Some OEs were more prevalent in artists (Piechowski & Cunningham, 1985; Piechowski, Silverman, & Falk, 1985), and these tended to have greater strength in more creative, gifted adolescents than less creative ones (Schiever, 1985). Ely (1995) found no statistical differences between group means of creative students who had not been identified for gifted services and intellectually gifted students who had been identified for gifted programs. However, when she conducted a discriminant function analysis (DFA), she found that the linear function of Intellectual and Emotional OEs best predicted whether students were classified as creatively or intellectually gifted. In another study of gifted, near-gifted, and nongifted students, Breard (1995) found that the Intellectual and Emotional OEs best predicted group membership. Additionally, Miller, Silverman, and Falk (1994) found gender differences in which females had significantly higher Emotional and Sensual OE scores than males. In one of the few studies that examined profiles of OEs between gifted and typical students, Ackerman (1997) found that Grade 9 and 10 gifted students who were enrolled in two private schools were differentiated from their nongifted peers based on their higher Psychomotor, Intellectual, and Emotional OE scores, with Psychomotor providing the best predictor or giftedness.

Previous discussions (Ackerman, 1997; Ely, 1995; Nelson, 1989; O’Connor, 2002; Silverman, 1993) have described the role of the OEs as a means to describe the intensity often demonstrated by gifted, talented, and creative students. Gifted students, by nature of their maturation and intellectual asynchrony (Hollingworth, 1929; Lovecky, 2004; Silverman), may be more susceptible to these intensities, which then affect their reactions to and interactions with their world. Few empirical studies, however, have explored the utility of the OEs as a tool for uncovering evolving profiles of OEs for gifted students in elementary and middle school. The purpose of this study was to describe and explain differences between gender, age, and typical and gifted groups on the overexcitabilities and to illuminate issues that may affect patterns of OEs in elementary- and middle-school gifted students. Previous research on OEs has led to the identification of several questions about potential differences between groups:

1. Do males and females differ in mean OE scores?
2. Do elementary- and middle-school students differ in mean OE scores?
3. Do typical and GT students differ in their mean OE scores?
4. Do gifted, elementary-school students differ from their middle-school peers in their mean OE scores?

**Methods**

To address the research questions, a survey using a convenience sample of typical and gifted students was employed. Data were analyzed using descriptive and multivariate analyses and common post-hoc procedures.

**Sample**

The convenience sample consisted of 510 elementary and secondary students from five diverse school districts throughout the east coast of the United States. Making up the valid responses were 263 females and 217 males, 249 elementary schoolers and 231 middle-school students, and 184 typical and 296 gifted students. For the purposes of this study, students classified as GT were identified using a multifaceted state matrix. A minimum score on standardized tests of achievement, ability, or creativity represents the baseline for placement in GT services, so students classified as gifted were identified through similar measures. There is no delineation among students based on identification by ability or achievement scores (i.e., highly gifted, talent pool, etc.). Students identified as typical include some students with identified learning disabilities. The age of the participants ranged from 7 to 15 because some secondary students with learning disabilities were older than typical middle-school-age students.

**Procedure**

The OEQII (Falk, Lind, Miller, Piechowski, & Silverman, 1999) and a brief demographic questionnaire were administered to participants. The OEQII consists of 50 Likert-type items that measure each of the five OEs: Psychomotor, Intellectual, Imaginational, Sensual, and Emotional (Bouchet & Falk, 2001). It was adapted from responses by children and adults to an earlier questionnaire (OEQ) that used 21 open-ended interview questions (Piechowski et al., 1985). Means (with standard deviations in parentheses) for the five subscales of OEs from the original OEQ pilot study (N = 563 college students aged 15–62) were 3.35 (.79) for Psychomotor, 3.28 (.87) for Sensual, 2.86 (.83) for Imaginational, 3.50 (.79) for Intellectual, and 3.72 (.77) for Emotional. The pilot study was repeated with an additional sample of 324 students, 49% of whom were 17 years old or younger. Original alpha reliability estimates from the pilot sample using the original OEQ were .86 for Psychomotor, .89 for Intellectual, .89 for Sensual, .84 for Emotional, and .85 for Imaginational OEs (Falk et al., 1999).

For this study, researchers solicited assistance from preschool teachers enrolled in a university GT certification program. Local GT teachers invited their school colleagues and their gifted and typical students to participate in this study. The OEQII and demographic questionnaires were distributed to study participants during the falls of 2003 and 2004 and took approximately 15 minutes to complete. Informed consent and assent was solicited from parents and students prior to administration of the questionnaires. Participants were informed that their participation was voluntary and that they would not be punished in any way if they decided not to participate or to withdraw. Students were promised a small gift by returning completed questionnaires.

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**Data Analysis**

A multivariate analysis of variance (MANOVA) was determined to be the appropriate data analysis technique because the five subscales were moderately correlated ($r = .21 - .59$). The MANOVA was conducted to determine significance of the predictors. Follow-up univariate analysis of variance (ANOVA) was conducted to probe significant interactions between variables. Independent variables were gender (male or female), age (elementary or middle school), and GT status (typical or gifted). Dependent variables were the five subscales of the OEQII: Psychomotor, Intellectual, Imaginational, Sensual, and Emotional.

**Results**

Prior to conducting the MANOVA, the researcher screened the data for outliers and analyzed descriptive statistics for this sample. Two items on the OEQII were eliminated due to negative wording; students did not respond consistently to the items in relation to other questions of similar meaning. There is evidence that the two negatively worded items loaded on different factors, and there was no clear response pattern among subgroups of students. To examine whether outliers were integral to the results, means and medians were compared for gender, grade level, and gifted and typical students. No significant differences were found between means and medians so it was assumed that the outliers did not have theoretical meaning or influence on the quantitative results. Bivariate correlation coefficients between subscales of the OEQII demonstrated moderate correlations, so to protect against inflated Type I error rates, the decision was made to conduct an initial MANOVA rather than multiple univariate ANOVAs. Results are summarized in Table 1. Alpha reliability estimates for the five subscales (with the estimates from this sample in parentheses) are .86 (.80) for Psychomotor, .89 (.83) for Intellectual, .85 (.84) for Imaginational, .89 (.85) for Sensual, and .84 (.80) for Emotional (Table 2). Means and standard deviations for gender, age, and GT status groups are summarized in Tables 3 and 4.

For the multivariate analysis, Wilks' criterion was chosen as the test statistic. Results of the MANOVA suggest that scores on the OE subscales were significantly different for males and females, elementary- and middle-school students, and GT status groups (Table 5). Further analyses were conducted with the GT students only to provide richness of detail (Table 6). Additionally, there were significant interactions between grade level and gender groups, and grade level and GT status groups. After adjusting for multiple comparisons, ANOVA was used for post-hoc examinations of significant interactions and main effects.

**Gender**

MANOVA results suggest that there were significant differences on the composite OE subscales for males and females, $F(4, 468) = 23.20, p < .001$. There was a moderate association between the OE-subscale scores and...
Most to the significant multivariate result. There were no significant differences between typical, elementary- and middle-school students on the OE subscales.

**Typical and Gifted Students**

There were significant differences between typical and gifted students on the composite OE subscales, $F(4, 468) = 3.83, p < .01$. After adjusting for multiple comparisons, mean scores for typical and gifted students were significantly different on the Intellectual and Imaginational OE subscales with gifted students scoring higher on each subscale. In examining middle-school students only, typical students had similar mean scores on the Intellectual OE as their gifted peers. Mean scores for the Psychomotor, Sensual, and Emotional OE subscales were similar between gifted and typical, middle-school groups (Table 4).

**Interactions Between Variables**

Results of the MANOVA suggested significant interactions between grade level and other groups. There was a significant interaction between gender and grade-level group, $F(2, 468) = 2.56, p < .05$, suggesting that the OEs had different effects on males and females enrolled in elementary and middle school. Specifically, for the Intellectual OE, females scored slightly higher than males in elementary school, but lower than males by middle school. In addition, gifted, elementary-school males had significantly higher Intellectual OE scores than their typical peers; however, middle-school, gifted females' mean scores were similar to their typical peers. A graph of the relationship between gender and grade-level group is depicted in Figure 1.

There was also a significant interaction between grade level and GT status, suggesting that the OE subscales had different effects on typical and GT students in elementary and middle school. Gifted, elementary-school students scored higher than typical students on all five OE subscales. In examining mean OE-subscale scores for typical and gifted, middle-school students in elementary and middle school, the significant differences disappear; and in some cases, the gifted, middle-school students scored lower than their typical peers. There was no significant interaction between gender and GT status groups.

When the results from the sample of gifted students were analyzed separately, there was a significant difference between typical and middle-school students in elementary school. Gifted, elementary-school students scored significantly higher than their middle-school peers on the Imaginational and Sensual OE subscales. These two subscale scores appeared to contribute the most to the significant multivariate result. There were no significant differences between typical, elementary- and middle-school students on the OE subscales.

**Multivariate and Univariate Analyses of Variance for Overexcitability Measures**

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<th>Source</th>
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<th>F*</th>
<th>Univariate df</th>
<th>F*</th>
<th>Psychnomotor*</th>
<th>Sensual*</th>
<th>Imaginational*</th>
<th>Intellectual*</th>
<th>Emotional*</th>
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<td>.050</td>
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<td>.599</td>
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<td>.034</td>
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<td>.717</td>
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<td>5.09*</td>
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<td>.445</td>
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<td>.000</td>
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<td>.015</td>
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<td>.741</td>
<td>.576</td>
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**Table 5**

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<tr>
<th>Source</th>
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<th>F*</th>
<th>Univariate df</th>
<th>F*</th>
<th>Psychnomotor*</th>
<th>Sensual*</th>
<th>Imaginational*</th>
<th>Intellectual*</th>
<th>Emotional*</th>
</tr>
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<td>.741</td>
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**Table 6**

Gender, with a partial $\eta^2$ of .20. A follow-up ANOVA, adjusted for multiple comparisons, indicated that females scored significantly higher than males on the Sensual, $F(1, 509) = 43.56, p < .001$, and Emotional, $F(1, 509) = 71.60, p < .001$, OE subscales.

When the results from the typical and gifted samples were analyzed separately, there were significant differences between gifted and typical individuals in both gender categories. There were significant differences between gifted males and females on the composite OE subscales, $F(1, 288) = 13.86, p < .001$, with a partial $\eta^2$ of .19. After controlling for multiple analyses, a follow-up univariate analysis suggested that gifted females scored significantly higher than males on the Emotional and Sensual OE subscales. With respect to typical males and females, results suggested that males and females differed significantly on the composite OE subscales, $F(1, 288) = 11.30, p < .001$, with a partial $\eta^2$ of .24. A follow-up univariate analysis found that typical females scored significantly higher than males on the Emotional and Sensual OE subscales. Means and standard deviations for gifted and typical gender groups are summarized in Table 4.

**Elementary- and Middle-School Students**

When data from the full sample were analyzed, there were significant differences between elementary- and middle-school students, $F(1, 468) = 4.13, p < .05$, on the composite OE subscales. There were also significant differences on the OE subscales for gifted, elementary- and middle-school students, $F(1, 288) = 8.95, p < .001$. There was a moderate association between the OE-subscale scores and grade level, with a partial $\eta^2$ of .13. Probing the relationship between the individual OE subscales and grade-level groups revealed that gifted, elementary- and middle-school students differed in their responses with gifted, elementary-school students scoring higher on all subscales (Table 4). After adjusting for multiple comparisons, gifted, elementary-school students scored significantly higher than their middle-school peers on the Imaginational and Sensual OE subscales. These two subscale scores appeared to contribute the most to the significant multivariate result. There were no significant differences between typical, elementary- and middle-school students on the OE subscales.

**Interactions Between Variables**

Results of the MANOVA suggested significant interactions between grade level and other groups. There was a significant interaction between gender and grade-level group, $F(2, 468) = 2.56, p < .05$, suggesting that the OEs had different effects on males and females enrolled in elementary and middle school. Specifically, for the Intellectual OE, females scored slightly higher than males in elementary school, but lower than males by middle school. In addition, gifted, elementary-school males had significantly higher Intellectual OE scores than their typical peers; however, middle-school, gifted females' mean scores were similar to their typical peers. A graph of the relationship between gender and grade-level group is depicted in Figure 1.

There was also a significant interaction between grade level and GT status, suggesting that the OE subscales had different effects on typical and GT students in elementary and middle school. Gifted, elementary-school students scored higher than typical students on all five OE subscales. In examining mean OE-subscale scores for typical and gifted, middle-school students in elementary and middle school, the significant differences disappear; and in some cases, the gifted, middle-school students scored lower than their typical peers. There was no significant interaction between gender and GT status groups.

When the results from the sample of gifted students were analyzed separately, there was a significant interaction...
Means on the Subscales of the OEQII for All Students by Gender and Age

![Graph](Image)

Means on the Subscales of the OEQII for Gifted Students by Gender and Age

![Graph](Image)

between gender and grade level, $F(2, 288) = 3.03, p < .05$, suggesting that the relationship between gender and the OEs changes for gifted students in elementary and middle school. A histogram illustrates the dramatic decline in mean Imaginational OE scores for gifted females and the widening gap between gifted males and females on the Emotional OE in elementary and middle school (Figure 2).

Summary of Results

In summary, there were significant differences between males and females, elementary- and middle-school students, and typical and gifted students on the composite OE subscales. Females scored significantly higher on the Emotional and Sensual OE subscales than males. The mean OE scores for females dropped for elementary- and middle-school students on each of the OE subscales with the exception of the Emotional OE. Mean Psychomotor OE scores were significantly higher overall for elementary-school males than females. Mean OE-subscale scores were relatively stable for typical students (mean differences less than .17), but varied greatly for gifted students. There was a significant interaction between grade level and gender and GT status. Gifted, elementary-school students scored higher on all five OE subscales while typical, middle-school students scored higher on the Sensual and Imaginational OEs. There was a significant decline in mean Sensual and Imaginational OE scores for gifted, middle-school students when compared to their elementary peers.

Discussion

Results from this study support earlier research on potential differences between males and females, elementary- and middle-school students, and typical and gifted students on the OE subscales. There is also evidence of a departure from the conventional wisdom regarding the OEs and gifted students. Finally, there are new and important issues to be raised as a result of the examination of similarities and differences between gender- and grade-level groups.

Gender

The small amount of research that has been conducted thus far on gender differences has focused exclusively on differences between gifted females and males. In this study, males and females differed significantly on two OE subscales, Sensual and Emotional, which mirrors earlier results from samples of gifted students. Additionally, males had higher Psychomotor OE scores within the general sample and each of the subgroups (typical and gifted); however, the difference was greater for typical males and females than for their gifted peers.

In examining gender differences between typical and gifted students, different patterns emerge. First, typical males have higher mean Psychomotor OE scores than gifted males, which contradicts earlier studies that suggest that the Psychomotor OE may be the best predictor of giftedness (Ackerman, 1997; Tieso, in press). Gifted males have higher mean scores on all of the other OE subscales, which supports earlier research (Ackerman). In examining the mean differences between typical and gifted females, the gifted students had higher mean scores on all of the OE subscales except Sensual. This may be due to developmental changes occurring for females at the time of social and cultural stereotypes about females and emotionality.

In examining gender differences between typical and gifted students, different patterns emerge. First, typical males have higher mean Psychomotor OE scores than gifted males, which contradicts earlier studies that suggest that the Psychomotor OE may be the best predictor of giftedness (Ackerman, 1997; Tieso, in press). Gifted males have higher mean scores on all of the other OE subscales, which supports earlier research (Ackerman). In examining the mean differences between typical and gifted females, the gifted students had higher mean scores on all of the OE subscales except Sensual. This may be the result of increased awareness of others' perceptions of them as gifted individuals. Researchers have suggested that gifted students in general, and gifted
females in particular, may be more intro-
spective and perceptive with respect to
their social relationships and others' per-
ceptions of them as gifted individuals
(Lovecky, 2004; Piirio, 1992; Roeper,
1982). Earlier studies using the OEQ
found major differences between males
and females on the OE subscales with
 gifted females scoring significantly higher
on the Sensual and Emotional OEs than
gifted males (Miller et al., 1994). The
results from this study support these
earlier results.

The most critical issue raised by
these data is the precipitous decline in
Intellectual and Imaginational OE scores
for gifted females in elementary
and middle school. Numerous studies
have examined peer and social issues
related to gifted females and have found
that of the four groups (typical and gift-
ed, elementary- and middle-school stu-
dents), gifted, middle-school females
had the lowest levels of self-concept and
were least likely of all the groups to be
popular (Luftig & Nichols, 1990). The
only exceptions were cases in which the
gifted females were attractive. According
to Rimm (2002), gifted females viewed
social isolation as the most pressing
issue they encountered in school. She
suggests that many women in her study
also indicated that they intentionally and
frequently disguised their intellectual
ability, including scoring poorly on tests
and not completing class work, to com-
 pense for their lagging social status. In
examing the histograms for the Imagi-
national and Intellectual OEs, the drop
in mean scores for gifted females in ele-
mentary and middle school indicates that
they may not have their cognitive and
affective needs met, and consequently,
may tune out when they reach middle
school. Whatever the underlying causes,
it appears that middle school is an inhos-
pitable place for most gifted females.

Elementary- and Middle-School
Students

There were significant differences
between elementary- and middle-school
students on the composite OE subscales.
Elementary-school students scored sig-
nificantly higher than their middle-
school peers on the Sensual and
Imaginational OEs, and higher overall
on all OE subscales. In examining
results from the typical sample, there
were no significant differences between
typical, elementary- and middle-school
students, and this suggests that most of
the overall differences resulted from the
gifted sample.

There were significant differences
on the composite OE subscales for gift-
ed, post-hoc probing suggests that
gifted, elementary-school students
scored significantly higher on the Sensu-
al and Imaginational OEs, and higher
overall on all OE subscales. Examining
the histograms illustrates an alarming
result—all gifted, middle-school stu-
dents had lower mean OE scores than
their elementary peers. There are several
possible reasons for this drop. First, it
may be a result of the different types of
GT programs implemented in the state.
Gifted, elementary-school students are
identified in Grade 2 and begin receiving
services in Grade 3. Gifted services in
elementary schools are characterized by
resource-room pullout classes that focus
almost exclusively on enrichment. Gift-
ed, elementary-school students receive
instruction in what Renzulli (1978)
terms Type II training: general creativity
and thinking skills combined with spe-
cific instruction in how-to skills in order
to complete a Type III project (real-
world investigation of student interest-
based problem with requisite authentic
audience). Gifted, middle-school stu-
dents receive advanced content in an
academic area or no services at all. A
further complication is the fact that few
middle-school teachers, including those
who teach advanced or honors classes,
have had professional development ses-
sions in characteristics of giftedness or
research-based instructional methods
that have demonstrated success for gifted
students. The pressure to improve a
school's achievement test scores props
educators to forego the needs of gifted
students and instead focus on the rote
skills and factual knowledge needed to
avoid designation as a failing school.

An additional problem emerges
as a by-product of the current
thinking in middle-school education.
Administrators and teachers are
immersed in the middle-school philoso-
phy which suggests that students' devel-
opmental and maturational changes are
so significant that they cannot be exposed
to sophisticated and challenging content.
An additional obstacle concerns the
philosophical opposition to ability group-
ing on the part of most middle-school
educators. This, combined with a feeling
that there is no need to differentiate the
curriculum for GT students, creates an
atmosphere in which gifted, middle-
school students encounter "more of the
same" with less freedom than in elemen-
tary school. These issues have caused

One major result from this study
is that gifted and typical stu-
dents vary greatly in their OE profiles
in elementary school, but become much
more similar as they reach middle
school. For example, mean scores on the
Imaginational OE for typical and gifted,
elementary-school students were 2.73
and 3.16, respectively; mean Imagin-
national OE scores for middle-school,
typical and gifted students were 2.77
and 2.67, respectively. In the case of the
middle-school students, not only do the
scores converge, but they change order.
This may be due to the sometimes over-
whelming and always debilitating impact
of peer pressure on gifted, middle-school
students. Most gifted, elementary-school
students are able to successfully manage
this pressure due to participation in gift-
ed programs, which often celebrate gift-
edness and intellectual diversity whereas
gifted, middle-school students do not
often have that luxury. According to
Coleman and Cross (2002), the problem of
differentness "reaches its apex during
adolescence, with the internal pressures
to develop conflict with the social expec-
tations of peers and teachers" (p. 190).
Additionally, Coleman and Sanders
(1993) suggested that gifted, middle-
school students encounter demands for
more socially acceptable behavior and
crushing conformity. The result may be
the withdrawal of individuality in an
attempt to blend and fit in. Results from
this study suggest that patterns of mean
OE scores for typical students remain
fairly similar for elementary- and mid-
dle-school students, whereas the mean

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A ccording to Coleman and Cross (2002), gifted students face pressures that emanate from the mixed messages they receive in school. Further, since gifted students are typically more introspective and inquisitive by nature (Hollingworth, 1929; Silverman, 1994), they are more aware of the discrepancies in perception between their own and others’ perceptions of them as gifted individuals. This awareness triggers an attempt to manage their identities to balance their perceived and real selves (Coleman & Cross, 2002). Again, Coleman and Cross suggested that much of this pressure emerges from the feeling of “differentness” experienced by most gifted students. Some gifted students choose to maintain their identities; some choose to become invisible; whereas others turn to socially deviant or stereotypically different group identification such as the “Goths” or the “Stoners.” Coleman and Cross (1988) refer to this as the “continuum of visibility” that gifted students use to protect their self-concept and self-esteem. The gifted student’s placement on the continuum manifests the degree to which she feels different. According to Coleman and Cross, “the further one outdistances peers, and even teachers, in specific curricular areas, the more different one appears and the more one’s attention is directed toward managing that differentness” (p. 195).

Coleman and Cross (1988) further suggest that this differentness is exacerbated by the “mixed messages” gifted students receive from their teachers and peers. These include general messages about one’s role as a gifted individual. General messages may include the social constraint that a gifted student should stay with her same-age peer group; that the gifted student is, as Terman (1925) suggested, a social, athletic, and intellectual superstar; and that she should be “well rounded” and not focused too heavily on one area of endeavor. It is difficult to understand under what conditions a gifted student (e.g., with an insatiable appetite for everything scientific) could measure up to this impossible ideal.

Conclusions

The limitations of this study suggest that there is much more work to be done in this area. These limitations include a relatively small sample size, limited instrumentation, and the lack of definitive identification of the participants.

Typical and Gifted Students

In the literature that has examined OE patterns, there is little evidence thus far of definitive results comparing typical and gifted students. Results of this study suggest significant differences between typical and gifted students on the composite OE subscales. Gifted students have higher mean scores on all five of the OE subscales than their typical peers. Post-hoc probing suggests that the mean Intellectual and Imaginational OE scores represent a majority of the difference. These results mirror those of earlier researchers who found that gifted students had higher mean OE scores than their typical peers (Gallagher, 1986; Piekowski & Colangelo, 1984). There was also a significant interaction between grade level and GT status. Gifted, elementary-school students had higher mean scores than their typical peers on all OE subscales while typical, middle-school students scored higher than their gifted peers on the Sensual and Imaginational OE subscales. These results illustrate the affective concerns of many in the field of gifted education that some gifted students may struggle with the image of themselves as gifted, which to them means being different.
of the curriculum (Kerr, 1994). Third, the relationship between students’ sense of their own intelligence and their intensities should be examined. For example, do gifted females possess an entity or incremental theory of intelligence (Dweck, 2000)? If girls view their own intelligence in static terms, then their achievement is inextricably bound to their ability. These gifted females may be more susceptible to feelings that they have no control over their achievement so they may settle for appearing more similar to their typical peers in terms of relationships and culture (Kerr, 1994; Reis, 1987, 2002). If these issues can be disentangled and evaluated, then appropriate counseling, curricular, and enrichment interventions can be developed to address these critical concerns. If not, then the tempest raised in the 1990s by Pipher (1995) and M. Sadker and D. Sadker (1994) regarding females at risk may never be quelled.

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