Enrichment and Acceleration: Best Practice for the Gifted and Talented

Article · January 2013

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I would like to discuss two books that are particularly useful for teachers, students and parents. Gifted Education Press has recently published (2013) Harry T. Roman's **STEAM Education for Gifted Students! Upper Elementary Through Secondary Levels: Combining _C_ommunication and _L_anguage _A_rts with _S_cience, _T_echnology, _E_ngineering and _M_athematics**. He presents detailed lessons for integrating STEM Education with Communication and Language Arts. Some examples of lessons are Critical Workplace Skills, Writing Away to Companies, Technology Reporting, Invention and Communications, Writing an Operating Manual, What Makes a Good Oral Presentation?, A Technical Paper, and The Teacher as Communicator. The book also contains sections for teachers to record their _Notes, Ideas and Reflections,_ and has many specific and practical lessons for teaching the gifted. Some of the Key Words and Concepts in his STEAM book are: How to Combine Communication and Language Arts with STEM Education, Presents Numerous Lessons and Examples with Special Exercises for Gifted Students, and Shows How Job Success in STEM areas is Closely Related to Good Communication and Writing Skills.

The second book is by Robert A. Schultz and James R. Delisle: **If I'm so Smart, Why Aren't the Answers Easy? Advice From Teens on Growing Up Gifted** (Prufrock Press, 2013). It is delightful and full of creative advice from gifted teenagers rather than from nagging parents and teachers. The authors say in their Introduction (p. 2) that they wanted to find out what statements or advice would be offered by gifted teens. They set up a web site beginning in 2003 that allowed teens from around the world to respond to questionnaires regarding beliefs, experiences and concerns (http://www.giftedkidspeak.com). The following chapters resulted from sifting through thousands of responses and compiling selected statements: What is Giftedness?, Friends, Peers, and Fitting in, What Do You Expect?, The Many Stories of School, Family Life, A Look Toward the Future, and Questions and Answers. . . Sort of. Here is one of my favorite quotes (in Chapter 1): "Giftedness is having exceptional abilities and being

motivated enough to use those abilities to create wonderful things." (Girl, 13, Iowa, p. 6). I strongly advise parents and teachers to read this book for insights into how gifted students view their life and world.

Articles in this Issue:

❗Echo H. Wu of Murray State University addresses some of the issues involved in using enrichment and acceleration to achieve best practices for educating gifted students. I should emphasize that this article in not just a review of the literature, but is instead a well-reasoned discussion of the history of these educational methods, wherein Dr. Wu shows how various elements can be effectively combined to produce the best possible differentiated programs for the gifted. I would like to welcome her as the newest member of our National Advisory Panel. Her knowledge and understanding of gifted education will help to focus **GEPQ** on topics related to improving this field.

❗Stephen Schroeder-Davis engages in a rigorous analysis of some of the current barriers that prevent students from becoming intellectuals. He first shows how poor reasoning is fostered by enemies of the scientific method who have fixated on interjecting faith and politics into such areas as Darwin's Theory of Evolution. Stephen presents an even more compelling argument when he critiques Content Standards and the High Stakes Testing Movement as being detrimental to reasoning and problem solving skills.

❗R. E. Myers provides wonderful examples of how teachers can use lessons on Success and Loyalty to stimulate gifted students' creative thinking.

❗Harry T. Roman defines the major characteristics of STEM Education, shows how training in STEM areas can lead to career success, and reviews critical employee skills necessary for STEM related fields.

❗Michael Walters discusses the great Russian-American writer, Vladimir Nabokov.

Maurice D. Fisher, Ph.D., Publisher

Enrichment and Acceleration: Best Practice for the Gifted and Talented
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Providing appropriate services and programs for gifted and talented students in schools is one of the most important issues in gifted education. Without careful and specific services and program design, other efforts such as defining giftedness and identifying the gifted may turn out to be meaningless.

Special services for gifted students have been introduced to North American schools about a century ago (Kulik, 2003), and enrichment programs and acceleration opportunities are among the most effective services for this population. While acceleration may not be a common practice in the US school systems, various enrichment programs are far more generally provided to gifted students in different states.

The purpose of this paper is to review the literature regarding enrichment and acceleration programs for gifted and talented students, to consider the pros and cons of heterogeneous and homogeneous settings of learning, and to discuss the best practice in providing programs for gifted students. There are two main foci of this paper, with the first focusing on the roles and advantages of enrichment and acceleration, respectively, and the second specifically focusing on options and values of homogeneous and heterogeneous settings in providing services to the gifted and talented. It should be noted that, although the definitions of acceleration and enrichment may vary according to different researchers and resources, the author of this paper adopts the simplified notions of them, where enrichment can be seen as "horizontal" programs within same grade levels that include academic modifications on speed, depth and breadth regarding learning content, process and products, while acceleration can be referred to as "vertical" programs that include different levels of grade skipping, early entrance to school or college.

Enrichment

Enrichment "refers to richer and more varied educational experiences, a curriculum that is modified to provide greater depth and breadth than is generally provided" (Davis & Rimm, 2004, p.120). Enrichment programs may include within-class ability groups, special classes in and outside of schools, special schools, after-school activities, and Saturday as well as summer enrichment programs. Such programs are supposed to broaden classroom activities and curriculum, and to include more material and information that is not in regular classroom study (Piirto, 1999). Davis and Rimm (2004) provide a useful list of categories concerning enrichment programs as follows:

- Maximum achievement in basic skills, based on needs, not age
- Content and resources beyond the prescribed curriculum
- Exposure to a variety of fields of study
- Student-selected content, including in-depth studies
- High content complexity- theories, generalizations, applications
- Creative thinking and problem solving
- Higher-level thinking skills, critical thinking, library and research skills
- Affective development, including self-understanding and ethical development
- Development of academic motivation, self-direction, and high career aspirations
- Development of computer skills

All the above categories of issues may be addressed within enrichment programs, such as individual instruction, independent study, research, field trips, and various creative projects (Davis & Rimm, 2004). In comparing acceleration, enrichment programs are normally offered to gifted students without them skipping grade(s), and thus may bring fewer difficulties for the school administration than acceleration does. The students would either stay with their same age peers in heterogeneous settings, or study part-time with academic peers in homogeneous settings. Besides differentiated instruction and curriculum that teachers may offer to the gifted in regular classrooms, other enrichment programs, such as extra-curricular activities, can provide gifted students with more advanced learning opportunities in different ways (Olszewski-Kubilius & Lee, 2004; Schenkel, 2002). In order to challenge students and encourage the growth of giftedness and talent, appropriate enrichment program design is very important, and

additional resources, material and information are particularly critical to these gifted students learning under heterogeneous settings (Schiever & Maker, 2003).

No matter what type of enrichment programs a school can offer to the gifted, it is essential for school administrators and teachers to be aware of the needs of these students, and to be well-equipped with skills and strategies on how to implement such enrichment programs. Within regular classrooms or after school activities, these programs can certainly provide students with various opportunities to extend their learning experience. It can help foster their learning interests, nurture their giftedness and talents in one or more different areas, develop expertise in certain areas, and increase their achievements (Roberts, 2005).

Although enrichment programs are widely used as the major strategy for teaching gifted and talented students, according to research (see Johnsen, Witte, Robins, 2006), those from economically disadvantaged families and backgrounds are frequently underrepresented in gifted programs and services. Also, it seems that the extent to which an enrichment program can be valuable to gifted students relies heavily on issues such as school teachers' and administrators' understanding and concepts of giftedness. Additionally, other issues such as broad or narrow use of identification procedures, utilization of programming, and input or influence of parental and community support systems can be all important factors that have impact on the implementation of enrichment programs. Deliberate and unambiguous design of such programs is the key to meet the needs and nature of the gifted.

Acceleration

Compared to enrichment, acceleration is another good practice and option of programs for gifted and talented students. It implies moving faster through academic subjects and content, allowing students to skip grades and instructions, so as to learn at a level that best matches their academic abilities (Davis & Rimm, 2004). Many researchers in the gifted area (see Feldhusen, 2003; Gross, 2004; Shore, Cornell, Robinson & Ward, 2003; VanTassel-Baska, 2003) have addressed this issue. It is recognized that acceleration is most beneficial for exceptionally gifted and talented individuals, and the extent of it should suitably match the individual students' particular needs.

Normally, acceleration can include grade-skipping and early entrance to kindergarten, school or college, in which students' learning occurs at a higher than normal level to receive advanced instructions suitable to their ability or potential (Schiever & Maker, 2003). However, sometime only one or two years of grade-skipping is insufficient for exceptionally gifted students (Robinson, 2003). More advanced acceleration or a unique accommodation may need to be offered to individual students, e.g., early entrance to colleges, or online distance learning courses which present valuable opportunities for some gifted and talented students, especially those who live in rural areas (Davis & Rimm, 2004).

The publication of *A Nation Deceived: How Schools Hold Back America's Brightest Students* by Colangelo, Assouline and Gross (2004) drew much public attention to acceleration as intervention for the gifted, and one of the types of acceleration that is suggested in the book is subject-specific acceleration (Southern & Jones, 2004). Such subject-specific acceleration can be one of the most cost- efficient and effective ways for schools to offer to the gifted. However, teachers are normally resistant to employing this strategy with gifted students (Vialle, Ashton, Carlton, & Rankin, 2001) due to some concerns regarding issues such as potentially harmful social-emotional or adaptation effects that may be unfounded from research (Gross, 2002). Indeed the decision-making on choosing various forms of acceleration has remained one of the most controversial practices in education (Kanevsky, 2011).

It is interesting to know that, according to the study by Wells, Lohman and Marron (2009), girls are more likely to be accelerated than boys, and students on the West and East coasts of the US are more likely to be accelerated than students living in the middle of United States. An analysis of over two hundred students who skipped one grade between kindergarten and grade 7 conducted by Kuo and Lohman (2011) also reports interesting results. They find that female, white and higher socio-economic status students are more likely to skip in early years.

The advantages and disadvantages of acceleration can both be obvious. For some gifted children, acceleration may be the only way for them to meet not only their academic needs, but also social-emotional and psychological needs, and they may like school much better with adequate accommodation (Heinbokel, 2002). Gross (2004) strongly suggests that a grade-skipping acceleration program should be provided to gifted children, especially those who are profoundly gifted, since these children usually get along much better with older children who are more compatible with themselves in many aspects. Furthermore, the research by Howley (2002) has found that acceleration is a very good option for the gifted, especially in small school districts where additional services are minimal and the resources and programming are not demanding. However, one of the negative aspects of acceleration can be that, although research strongly supports the effectiveness of acceleration as program and curriculum options, parents and educators may feel

reluctant to accept the acceleration practice because of their assumption that such a program would disrupt the healthy development of children (Muratori, Colangelo, & Assouline, 2003). Some educators are concerned about school administration and scheduling issues, or the potential increase of parents' awareness and more requests for acceleration (Howley, 2002). It is also a common concern, not only for teachers and parents but also for researchers, that advanced acceleration may cause social-emotional problems. Apparently, acceleration has been one of the most researched but yet underused strategies for meeting the needs of the gifted (Colangelo et al., 2004). Teachers who are critical in recommending acceleration and getting the strategy started are usually reluctant, as they seem to have more negative attitudes regarding outcomes of acceleration than positive ones (Rambo & McCoach, 2012).

Integration of Acceleration and Enrichment

Enrichment and acceleration are crucial for advanced learning and intellectual development, which distinguish the nature and needs of gifted and talented students (VanTassel-Baska, 2010). These two types of services and programs are frequently discussed as though they are exclusive (Piirto, 1999). Some researchers (e.g., Shore et al., 1991) argue that these two different programs would best serve gifted students when integrated within each other. Feldhusen (2003) combined the two programs and argued that "acceleration may be the wrong description; the right descriptors would simply be educational services and opportunities to meet their academic needs" (p.56). Kulik & Kulik's (1992) meta-analysis of grouping programs for the gifted finds that when used in tandem with ability grouping, acceleration is more effective than enrichment programs in students' learning.

One of the most influential program models, the *Schoolwide Enrichment Model* (SEM) initiated by Renzulli (1977) and later together with Reis (see Renzulli & Reis, 1997) integrated both enrichment and acceleration programs. Renzulli and Reis (2002) described the model as follow:

> "The Schoolwide Enrichment Model is an organizational plan for delivering enrichment and acceleration through an integrated continuum of services… …Services provided by the model range from general enrichment for both wide-ranging and targeted subgroups to highly individualized curriculum modification procedures for rapid learners and first-hand investigative opportunities for highly motivated individuals and small groups. The model also includes a broad array of specific grouping arrangements based on commonalities in abilities, interests, learning styles, and preferences for various models of expression" (p. 19).

The authors suggest that the SEM should be viewed broadly "as an umbrella" that covers various types of enrichment and acceleration services for targeted groups and subgroups of students. One of SEM's components, the Enrichment Cluster is highly recommended by Renzulli and Reis, "in which knowledge utilization, thinking skills, and interpersonal relations took place in the real world" (Eckstein, 2009). In such Enrichment Clusters, "students are guaranteed that at least some time every school week is devoted to the kinds of learning that make schools more engaging, enjoyable places," and "educators have created a time and a place within the overall weekly schedule that focuses students' attention on authentic learning applied to real-life problems. These two characteristics – authentic learning and real-life problems – are fundamental qualities of enrichment clusters" (p.1, Renzulli, n.d.).

Feldhusen (2003) also suggested enrichment and acceleration should be used as integrated programs. He pointed out that since many precocious children have the ability and the motivation to read far beyond their age levels, schools need to provide students with, first, higher level and more challenging materials, which is an enrichment program, and second, overall grade advancement, namely, acceleration options. Swiatek & Lupkowski-Shoplik (2003) discriminate the two concepts, and advocate that while enrichment programs need to be accommodated for the main body of gifted students, acceleration programs should be provided to highly gifted students, and it is the schools' responsibility to encourage such programs.

Research has provided evidence supporting both enrichment and acceleration. However, implementing these programs with the most efficiency and effectiveness requires a careful assessment of students' academic abilities as well as their social-emotional readiness for whether they should stay with peer groups, or they should be moved up (Feldhusen, 2003). Without scrupulous consideration, either program may become a superficial approach that cannot offer authentic help to gifted students.

Heterogeneous and Homogeneous Settings

Similar to whether to choose enrichment or acceleration programs, the issue concerning the value of heterogeneous and homogeneous settings for gifted students has also been controversial for many decades. The dilemma may first stem from the conflict between equity versus excellence (Passow, Monks & Heller, 1993). It should be stressed that here the word "equity" does not mean equal education in terms of content and process of learning, but equal opportunities for students to fulfill their potential

and to achieve excellence. Therefore, just as it is essential to provide special programs for disabled children, proper treatment such as pullout programs or individual classes are certainly appropriate in meeting the academic as well as social-emotional needs of gifted and talented children (Rosemarin, 2001). The key questions might be what kinds of treatments or programs are more suitable for certain students, and whether we should provide services for the gifted within regular classrooms, namely heterogeneous settings, or we should offer them opportunities to study in special classes or schools, namely homogeneous settings.

Some researchers (see Feldhusen, 2003) argued that it is more appropriate to group gifted and talented students in homogeneous settings, providing them with uniquely designed classes, advanced curricula and a speedy instructional pace. In that way, not only can these students benefit from the academic challenges from such advanced programs, but they can also interact with others who are from the same or similar ability levels, who may well have comparable intellectual and social-emotional characteristics. Robinson (2003) strongly suggests that schools, especially those in large districts, should offer rigorous special classes to highly gifted students, whose needs can hardly be challenged within regular, heterogeneous classroom settings. With specifically designed curricula, these self-contained classes "are the easiest, least expensive, and most effective way to meet the needs of the brightest students while, at the same time, enabling them to profit from the stimulation and support of other bright students" (p.262). The *Growing Giftedness Model* proposed by Bernal (2003) even says that highly gifted students should work with one another and with adults in full-time programs rather than in part-time gifted programs, since only in such a way, can these gifted students be provided with truly differentiated instruction and guidance to develop their potential to the highest possible levels. Accordingly, homogeneous programs are highly recommended by some researchers as the preferred and the most proper programming options for developing the abilities of exceptionally gifted children.

In accordance with the popularity of homogeneous settings, the results of a study conducted by Hertzog (2003) on the impact of programs as perceived by gifted students themselves also indicate that these students enjoy learning more in homogeneous classes or schools than in heterogeneous settings. This study reveals that one of the most significant differences between regular and special classrooms is the behavior of the students and the enthusiasm and characteristics of the teachers. The gifted students in this study indicated that teachers in the special programs are more competent and enthusiastic when compared to teachers in regular classrooms. These students also articulated that they enjoy the advanced learning much more when being together with their academically compatible peers. They further explained that they preferred full-time gifted programs since they believed that part-time programs may put them in awkward situations where they are not easily accepted by their same age peers.

While homogeneous programs seem to have great value for gifted students' rapid growth in special areas, research has also indicated the positive impact of programs for the gifted in heterogeneous settings. The study by Barone & Schneider (2003) reveals that an open-ended, flexible learning and teaching environment occurring in regular classrooms can benefit the learning of gifted students, as well as other children. The researchers point out that one of the merits of such a within-class program is that gifted students can take advantage of the available heterogeneity of experience, knowledge, and skills, and get to know their own strengths, which may help enhance their further learning. Wu's (in preparation) observation also suggests that when special classes or schools are not available, which is not uncommon in many states and countries, educators' strategic planning and teaching within regular classrooms can positively facilitate and promote advanced learning outcomes of gifted students.

One of the gifted programs in heterogeneous settings is ability grouping, which seems to be especially popular for many schools in the United States. Some research studies (Kulik & Kulik, 1992; Robinson, 2003; Slavin, 1993) indicate that, within-class grouping has proven to be popular with classroom teachers, and has led to positive outcomes of student learning particularly in elementary and middle schools. Various grouping options have been found beneficial for different individuals in different ways, and the options can be varied from full-time placement in enriched or accelerated gifted programs, to part-time enriched instruction in certain subjects, or to pull-out grouping and within-class ability grouping (Rogers, 2002). All of these program options possess both strengths and weaknesses which should be respectively taken into account in designing programs for individual students.

Reflecting on the advantages and disadvantages of both settings, it is not easy to make a final decision on which one is more appropriate and more beneficial for the gifted. On the one hand, although homogeneous settings seem to be favorable to many gifted students, such programs have a distinct drawback that they may involve a substantial amount of energy, time and money. In addition, homogeneous settings could be more difficult for schools and administrators to implement, and sometimes are even purposely avoided for gifted students. In some other situations, it may be financially impossible to offer such programs to these students. On the other hand, heterogeneous settings where there are wide ranges of abilities and interests, suitable ability grouping can be of great value in challenging students at appropriate levels (Kettler & Curliss, 2003; Reed, 2004). However, to the highly or profoundly gifted students who need more deliberate accelerated programs, same grade level grouping programs may not be

adequately challenging (Rogers, 2002), as within-class and cross-class grouping appear to benefit more the slower students than the gifted students (Kulik, 2003).

Preferably, the best programs for the gifted are those that can meet the specific needs of each gifted student individually. However, whether it is good to offer homogeneous or heterogeneous settings for these students is a decision that involves many aspects. It may depend on individual students in terms of their personality or social-emotional maturity, and it can also depend on individual teachers who may or may not have the capacity to offer suitably differentiated programs within heterogeneous classroom settings. In addition, it can certainly depend on individual schools or systems where funding support may or may not be available.

Summary

As all gifted students have their unique giftedness and talent in peculiar areas, it is essential that these students be provided with individually designed programs to match their own learning needs. Research has not only made available abundant evidence of the value of different enrichment and acceleration programs for the gifted and talented, it has also offered positive outcomes and significant implications for future research and practice. As clearly expressed by students involved in gifted programs in Hertzog's (2003) study, specifically designed programs (especially those that address the diverse nature of gifted population) are much needed to better serve the young generation. In considering the options, educators need to make wise decisions on whether to choose enrichment or acceleration programs, and whether to offer these programs in heterogeneous or homogeneous settings.

Academic services and programs for gifted and talented children should not be inflexible. A specific answer to the question of whether we should change gifted children in order to fit the programs, or whether we should change the programs to fit the children is that, yes, we do need to provide flexible programs to match the various needs of gifted and talented youth (Olszewski-Kubilius, 2003). Some highly gifted students may need acceleration programs to fully develop their potential, while some moderately gifted students may best be served with enrichment programs by putting them into ability groups within or outside the regular classrooms. Renzulli (2012) mentions that "g[G]ifted education, like all other specialized areas in the arts and sciences, is constantly in search of its identity" (p.158). The choice for either enrichment or acceleration program for the gifted has also been part of such a "search of identity" as different school systems in different countries, states and counties would have their own guidelines and programs for implementing teaching and practice in gifted education. Nevertheless, no matter where it is, school administrators and teachers need to be aware of the importance as well as the differences among various options of educational programs, so that they can be better equipped to assist gifted students' learning, and to facilitate their full development of potential.

Enrichment and acceleration program models, and various groupings in and out of classes should all be carefully considered where necessary. As long as we pay attention to the different needs of gifted and talented students, our efforts in defining giftedness as well as identifying the gifted and talented will not lose their great value, and gifted education as a whole can eventually be meaningful to all the parties, including students themselves, teachers, parents, communities, and the entire society.

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