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Sharon Reitsma Zonnefeld

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This paper explores the implications of a Biblical worldview on gifted students' motivation and uses this Biblical worldview as a framework to evaluate classroom constructs, such as high level questions, promotion of learning as hard work, cooperative learning, Theory of Multiple Intelligences, RtI (Response to Intervention), and student choice, that are known to influence gifted students' motivation. Teacher personalities and tendencies, as well as students' family relationships, early learning and stimulation, personal characteristics, and emotional state are also discussed in relation to gifted students' motivation and achievement. A review of the relevant literature was conducted to ascertain the relationship of these key factors to gifted students' motivation. Implications for Christian teachers' classroom practice are discussed.

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Gifted Students: What Motivates Them

by

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Abstract

This paper explores the implications of a Biblical worldview on gifted students' motivation and uses this Biblical worldview as a framework to evaluate classroom constructs, such as high level questions, promotion of learning as hard work, cooperative learning, Theory of Multiple Intelligences, RtI (Response to Intervention), and student choice, that are known to influence gifted students' motivation. Teacher personalities and tendencies, as well as students' family relationships, early learning and stimulation, personal characteristics, and emotional state are also discussed in relation to gifted students' motivation and achievement. A review of the relevant literature was conducted to ascertain the relationship of these key factors to gifted students' motivation. Implications for Christian teachers' classroom practice are discussed.

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Gifted Students: What Motivates Them?

A typical classroom contains many different types of students. Diverse family and cultural backgrounds, various interests, and unique personalities are evident. When observing a classroom, it also quickly becomes evident that students' abilities and achievement levels are not all the same. Some struggle to reach a basic level of competence; others appear to already know the material before the lessons begin. Those who surpass their peers in ability are generally termed "gifted." Many gifted students embrace their abilities and apply them toward high achievement. However, as many as 63 percent of gifted students are reported to be underachievers (VanTassel-Baska, 2000). Clearly, a high number of students lack the necessary motivation to fully develop their giftedness. Though capable of high achievement and creativity, they produce only average work quality.

Merenheimo (1991) described an "ideal" gifted student. She spoke of autonomous learners who demonstrate a high level of self-confidence because their needs are being met. These learners manage to make the institution of schooling work for them and enjoy positive attention and support from those they care about. They advocate for themselves freely and appropriately. Unfortunately, according to Merenheimo (1991), only about 10 percent of gifted students can be described this way. The remaining 90 percent, though they learn to adapt to the system of education and become competent adults, have lost their creativity and autonomy and rarely make full use of their gifts and talents. In their quest to fit in, they have become underachievers.

At first thought we may believe gifted learners becoming competent adults is a noble achievement, but we ought not to be satisfied with that. What would it take to reverse the

statistics that Merenheimo stated and see 90 percent of gifted students termed "ideal?" We must teach them, along with all our students, to make full use of the gifts with which they have blessed.

Much has been written about how to best engage gifted students and spur them on to fully applying their giftedness. The bulk of the literature, however, appears to come from a secular viewpoint with no direct application of a Biblical worldview. As stated in Colossians 3:17, whatever we do is to be done in the name of the Lord Jesus and for his glory. Christians have a high calling to use the gifts and talents with which they are blessed to serve the Lord. This lends itself to a unique perspective on the importance of helping gifted students put their giftedness to work. We must consider how a Christian school teacher best does that in his or her classroom. If a Biblical worldview encompasses our thoughts, actions, and responses to all things, that worldview must offer a distinctive viewpoint on motivation and engagement of gifted students.

Analyzing what researchers have discovered about the motivation of these students provides some insight into what teachers and families can do to increase it. Certain classroom constructs, such as high level questions, promotion of learning as hard work, cooperative learning, The Theory of Multiple Intelligences, RtI (Response to Intervention), and student choice have been identified as having a positive effect on gifted students' motivation. In addition, particular teacher qualities, student behaviors, and student backgrounds have been noted in the research as supporting a motivating and fully engaging classroom experience for gifted students.

Purpose

The purpose of this research is to establish a Biblical perspective on the motivation of gifted students. In this context, teacher and student behaviors and background experiences that promote the motivation and resulting engagement of academically and creatively gifted students in the general education setting will be identified.

Problem

Many gifted students appear to lack motivation and do not fully engage in the general education classroom.

Research Questions

1. How does a Biblical worldview relate to the engagement of gifted students in the general education setting?

2. What classroom constructs contribute to the engagement of gifted students in the general education setting?

3. What student background experiences contribute to the engagement of gifted students in the general education setting?

Definition of Terms

In the context of this paper, the following terms are used as defined below. Unless otherwise noted, definitions are those of the author.

Acceleration: A strategy of progressing through education at rates faster or ages younger than the norm ("Gifted Glossary," n.d., para. 2)

Biblical worldview: Using Scripture "to assist us in developing a framework of conviction that can be applied in various settings. Scripture is to guide our conscious development of our thinking about life and practice" (Watson, 2007).

Convergent thinking: the process of finding a single correct answer

Cooperative learning: students working with their peers to accomplish a shared or common goal. True cooperative learning creates both individual accountability and positive interdependence in which **e**ach group member depends on each other to accomplish a shared goal or task. Without the help of each member the group is not able to reach the desired goal (Dahley, n.d., para. 2).

Critical thinking skills: "self-guided, self-disciplined thinking which attempts to reason at the highest level of quality in a fair-minded way" (Elder, 2007)

Differentiation: modifying curriculum and instruction according to content, pacing, and/or product to meet unique student needs in the classroom

Divergent thinking: the process of generating several, varied, and diverse options

Enrichment: activities that add or go beyond the existing curriculum. Activities may occur in the classroom or in a separate setting.

Extrinsic motivation: external incentives (such as money, grades, or prizes) offered to a person to encourage performing a given task

Gifted student: federal definition as stated in NCLB: "students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or

leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities (P.L. 100-297)" Many states also require students to be in "the top 5%, 99th percentile, or two standard deviations above the mean on standardized tests of intelligence" (Jolly, 2005).

Heterogeneous learning groups: grouping students by mixed ability or readiness levels.

High achiever: a student who earns high grades and scores high on standardized achievement tests in comparison to their peers

Higher level thinking skills: derived from Benjamin Bloom's Taxonomy. "There are six levels within the taxonomy that move from basic to high levels of thinking. Levels include knowledge, comprehension, application, analysis, synthesis, and evaluation" ("Gifted Glossary," n.d., para. 10).

Homogeneous learning groups: grouping students by need, ability, or interest. Although variations between students exist in a homogeneous classroom or group, the intent of this grouping pattern is to restrict the range of student readiness or needs that a teacher must address.

Incremental intelligence: a theory of intelligence which states that the more effort that is expended the greater the capacity for intelligence

Intrinsic motivation: a highly desired form of incentive that stems from a person's internal desire for self-satisfaction or pleasure in performing the task itself (Lewis, 2011, para. 1)

Motivation: degree of invested attention and effort in various pursuits (Christensen, 2007)

Positive reinforcement: attention or reward gained from doing something right

Underachievement: a discrepancy between a student's potential and actual performance

Literature Review

A Biblical Perspective

Foundational to a Christian teacher's understanding of gifted students' motivation and engagement is a Biblical perspective of the child and giftedness. Christian school teachers must help their gifted students recognize their unique gifts and talents are from the Lord and to be used for his service. Vos (1998) emphasized helping gifted children understand the I Corinthians 12 concept of the body of Christ being made up of many parts, each needing and serving the others. She stated, "The school should provide opportunity for maximum development in specific areas of giftedness but it should also help the gifted child to see his or her dependence upon fellow students and teacher in other areas" (p. 12).

Despite the fact that many Christian schools' mission statements include phrasing that indicates a desire to hone each student's God-given potential, Stob (2008) cautioned that talent should never be developed for self-realization, but rather for service. Like the parable of The Talents (Matthew 25), God gifts individuals with talents for the purpose of building his kingdom.

Schelhaas (1992) agreed, adding "These gifts are from God for the use and strengthening of all" (p. 23). She emphasized teaching gifted students that they are to develop their unique areas of giftedness in order to fill others' gaps. She promoted gifted and talented programs which follow the model of a classroom she described: A student whose legs did not work and needed to use a wheelchair joined the class and became the impetus for a school year in which students were encouraged to do as much as possible independently. When they were "stuck," however, they should seek the aid of a fellow student's gift. For example, the student in the

wheelchair required the assistance of someone who could carry her lunch and open the door, but she was able to offer her excellent penmanship when the class needed posters or invitations.

A classroom that laughs with those who laugh, struggles with those who struggle, and celebrates when students excel exemplifies the biblical definition of community (Van Dyk, 1997). Christian teachers should guard against the tide of individualism which promotes an every learner for himself mentality. Instead, Van Dyk (1997) proposed a classroom without fear. "...a place where the learning of one affects the learning of another, not in a negative but in a positive way, where the students take responsibility not only for each other's learning but for each other's lives" (p. 91).

Fennema (1994) provided another perspective when he said, "Children are created with and for a divine purpose, that of worshiping their Creator with their entire being and with all of their actions. Christian teachers are to serve as guides for children to assist them in personally discovering this purpose for their existence" (p. 27). His insistence that all activities (all would include a gifted student's motivation to participate fully) are to be an act of worship provides a meaningful reason for a student to fully engage. If a child is a believer in Christ, he or she then begins to act in a new way that seeks God's glory.

While one might imagine that the above mentioned motivators would suffice, Fennema (1994) was careful to point out that Christian students need to be taught to recognize the power of the Holy Spirit. He said, "The Holy Spirit must be viewed as the prime motivator within the school. He is the source of insight necessary for truth to be known. He is the source of proper desires and attitudes" (p. 26). He insisted that daily prayer for the Holy Spirit's presence and motivating power should be a part of every child's experience. Van Dyk (1997) also was quick

to point out that the rather idyllic classroom described above requires the involvement of God's Spirit, regularly sought through prayer.

Are there rewards for gifted students who engage in risk-taking and problem-solving? Once again the Parable of the Talents gives some insight. In the parable, the servants who developed their talents were invited to share their master's happiness. So, too, students in learning environments in which teachers push and challenge them often exhibit happiness. They are equipped for leadership which will allow them to make an impact for God's kingdom (Stob, 2008).

Understanding a Biblical perspective on giftedness and motivation enables the Christian teacher to evaluate the wide body of research with a Godly focus. He or she can then determine the theories and classroom constructs that honor the giftedness of their students while maintaining the integrity of the classroom community as a whole made up of many parts. Following is a review of constructs identified as having a positive effect on gifted students' motivation and resulting engagement and achievement.

Promotion of Learning as Hard Work

Gifted students frequently have not faced a true challenge. Thus, when they do encounter a situation in which they need to expend a lot of energy to accomplish a goal, they shy away. Teachers must create the kind of environment in which students feel safe enough to take risks without fear of summative evaluation. Students need to know that it is okay to try, fail, get feedback, and try again multiple times (Hargrove, 2005). Great teachers help their students recognize that learning takes a lot of effort.

Phillips and Lindsay (2006) agreed, stating that gifted students' motivation is adversely affected when they are bored by slow pace and inadequate or inappropriate challenge. The resultant demotivation sometimes leads to underachievement. Inappropriate challenge can be defined as "repetition, the next page in the book, and additional, unrewarded work and unplanned activity" (Phillips & Lindsay, 2006, p. 59). Teachers of gifted students must remember that these students tend to think and understand quickly and have above average memory skills. Thus, lessons should be differentiated accordingly.

McAllister and Plourde (2008) took this a step further, indicating that, if teachers don't offer a challenging learning environment, gifted students are actually incapable of learning. They noted, "[r]esearch of the gifted brain shows that stimulation of students' interests and abilities through an appropriate level of challenge is required for learning to take place" (p. 40). Citing research by Stepanek (1999), they concluded there is a physical cause for the lack of motivation and learning in gifted students. In order for the brain to release enough of the chemicals needed for learning (such as dopamine, noradrenalin, serotonin, and other neurochemicals), tasks must be sufficiently challenging.

Indeed, when teachers use a challenging and engaging curriculum to draw in their gifted students, there is a greater likelihood that they will stay motivated and embrace the value of the learning experience. According to Donahue (2010), putting their unique gifts and skills to work is a major motivating factor.

What a student believes about his or her "smartness" is of great consequence to his or her motivation. Some students believe in what is termed the *incremental* theory−the more effort that is expended the greater the capacity for intelligence. Other students believe the *entity* theory of

intelligence which says that intelligence is fixed and uncontrollable. Gifted students must be taught that intelligence is incremental because, as Dweck & Leggett (1988) repeatedly discovered,

> children who believe intelligence is increasable pursue the learning goal of increasing their competence, whereas those who believe intelligence is a fixed entity are more likely to pursue the performance goal of securing positive judgements of that entity or preventing negative judgements of it. (pp. 262-263)

Helping students believe that intelligence is incremental is also important because unlike most students who experience challenging curriculum throughout their schooling, gifted students frequently don't encounter sufficiently challenging material until high school or college. Average students typically develop the ability to persevere when things become difficult. Gifted students, however, often have such a fear of failure by the time they get to high school that they are unable to take the necessary learning risks and end up joining the ranks of underachievers (McAllister & Plourde, 2008).

Stob (2008) concurred, noting that gifted students who are not challenged do not learn to handle small failures and become less and less likely to step outside of the learning boxes they put themselves in. When a curriculum is not sufficiently challenging, and the teacher assumes that gifted kids are smart enough to do well on their own, students are not afforded the opportunity to take baby steps toward understanding that intelligence is incremental.

Children who have become accustomed to schooling without challenge become frustrated when they are faced with a challenging situation. Sometimes they put unreasonable pressure on themselves to succeed; sometimes they perceive this pressure from others. Either way, the stress

impedes their ability to take learning risks (Bain, Bliss, Choate, & Brown, 2007). (Note that similar fears about school failure have also been observed in children who are not identified as gifted.) Stob (2008) insisted that "success, and the self-esteem that comes along with it, are not achieved by doing well what comes easily but by overcoming obstacles" (p. 3).

One obstacle gifted students often face is developing the organizational skills necessary for long term academic and life success. Many of these students have never had to study for a test or work for long periods of time on writing a paper, and thus have not learned the management skills of budgeting time, planning, and perseverance (Stob, 2008). A challenging curriculum at an early age is more likely to demand better organizational skills, which then can be developed alongside the academic learning.

Classrooms in which positive constructive feedback, positive teacher and peer support, student independence, self-directed learning, and lack of competition are evident will likely develop intrinsic motivation in students, while learning environments in which there is a pressure to measure up to expectations decrease such intrinsic motivation (Montgomery, 2001; Phillips & Lindsay, 2006). Learning for its own sake is generally considered to be intrinsic motivation; students who are motivated extrinsically are typically spurred toward achievement by rewards or fear of punishments. Intrinsic motivation, according to Montgomery (2001), results in increased time-on-task and higher quality of work.

Hennessey (2004) added, when writing about gifted students with high levels of creative skills, that "[i]ntrinsic motivation is conducive to creativity, and extrinsic motivation is usually detrimental" (p. 11). In fact, her review of past studies discovered five common motivators which consistently lowered intrinsic motivation and creativity: expected reward, expected

evaluation, competition, surveillance, and time limits. In contrast, creatively gifted students tend to build intrinsic motivation when they are able to exercise choices and flexibility in their learning. Hennessey (2004) cautioned teachers to take a hard look at the incentives in place in the classroom, evaluating the use of grades and peer competition carefully. In their place, educators must work to build the interest, excitement, and curiosity that fuels intrinsic motivation.

Related to intrinsic and extrinsic motivation is goal orientation. Performance goal orientation focuses on outperforming peers so the learner has a positive perception of oneself while a mastery goal orientation focuses on task completion, understanding, and appreciation of what one has learned. Students who embrace a mastery goal orientation have an intrinsic motivation that, as noted above, is likely to result in increased time on task and higher work quality.

One might conclude that extrinsic motivation is always negative. Not so, according to Phillips and Lindsay (2006). They proposed that both intrinsic and extrinsic motivations are necessary for maximum achievement, noting that the competition in extrinsic motivation allows the gifted individual to see comparisons between himself or herself and peers. Judgments can then be made about the quality of his or her work.

Despite the acknowledgement that any kind of motivation can play a role in gifted students' achievement, researchers generally agreed that intrinsic motivation plays a more significant one (Phillips & Lindsay, 2006). Hunt and Seney (2001) concurred, noting that an optimal learning environment for the gifted student is one in which it is safe to be smart. They encouraged building a classroom climate where risk-taking, exploration, and growth are not only

accepted but expected. "Teaching gifted learners to be risk-takers means letting them be open to criticism, give input, work under unstructured situations, and defend their ideas" (Hunt & Seney, 2001, p. 53). Creative problem-solving, role-playing, and debate are helpful strategies for developing students' risk-taking abilities. Encouraging teachers to strive for this type of classroom environment, Van Dyk (1997) insisted,

> ...they need to be increasingly trained to be alert to uniqueness, to the diversity of learning styles, to ways of creating classroom conditions attuned to such variety, and especially to ways of constructing collaborative, caring, accepting, and inviting classrooms. (p. 147)

Challenging work that requires academic engagement helps gifted students understand at an early age that learning is incremental-very connected to their efforts. Overcoming obstacles along the way should be viewed as a positive thing that will strengthen the students' willingness to take learning risks. Merenheimo (1991) summed this point up well when he concluded, "Pupils should observe things from various perspectives and feel that hard work produces joy and strengthens self-confidence" (p. 127).

High Level Questions

Using high level questions is a natural area in which gifted students can be challenged to work hard. The concept of higher level thinking skills, popularized by Bloom's *Taxonomy of Educational Objectives,* was originally developed with the gifted student in mind (Hunt & Seney, 2001). Though their use for students of all ability levels has now become a point of emphasis, they continue to be crucial for encouraging gifted students to think independently and

transfer academic skills to other areas. The types of questions teachers use in their classrooms have been shown to have an effect on gifted students' motivation for learning.

Aren't all questions good ones? Does it really matter what kind they are? In 1982, Wassermann (1982) observed that high achieving students have "become gifted lesson-learners—excelling at the lower-order cognitive tasks found in traditional textbook and workbook exercises." She concluded that "our teaching is decreasing their autonomy and is substantially disabling them as problem solvers" (p. 621).

Hargrove (2005) suggested an answer to this quandary, stating "[o]ne key to engaging and challenging students is asking provocative questions and providing guidance as students struggle with answers" (p. 31). She encouraged teachers to follow the model of Socrates, who was known for never asking just one question. Instead, he would ask his students follow-up questions that would help them discover answers for themselves. She also advocated avoiding questions with "pat answers," suggesting, instead, that teachers force gifted students to grapple with bigger issues in the discipline and the world in general.

Montgomery (2001) agreed, discouraging the use of "closed" questions that have one factual right answer in favor of "open" questions that develop cognitive stretch. "Why?" and "What do you think?" questions fall into this category, as well as compare and contrast questions. When, where, and who questions can elicit cognitive stretch if they are modified to more open-ended versions such as "When do you think...? and "Who do you think...?" Questioning techniques are a way to, as noted by Wasserman in the earlier quote, increase gifted students' autonomy and enable them as problem solvers.

The ability to develop a variety of different solutions to a problem is crucial if gifted students are to become competent, confident, and productive thinkers. However, some students' creativity is hindered by the fact that they are accustomed to always giving right answers (McDonald, Moore, & Freehill). They are uncomfortable when situations are more open-ended and become annoyed by those who appear to be unable to make up their minds.

Unfortunately, divergent thinking skills are rarely taught, or even needed, in many of today's classrooms (Sessions, 2006). Instead, convergent thinking, the process of finding a single correct answer, is emphasized. There are a number of reasons for this phenomenon, including "the tradition of instruction as knowledge..., the need to cover broad curriculum, low expectations of student abilities, large numbers of students, lack of planning time, and the culture of teacher isolation" (Sessions, 2006, p. 4).

Some may believe then that teachers should do away with questions and learning activities that require a single correct answer; however, both convergent and divergent thinking skills are necessary for effective problem-solving. Creative thinking with multiple solutions is the best start for the process, but eventually students must be able to analyze, select, and refine their ideas until they come to one workable solution.

Educators should seek to improve their students' divergent thinking skills. Additionally, the combination of convergent and divergent thinking skills should be enhanced. Creativity training programs are available that appear to hone students' ability to generate several, varied, and diverse options. One such program, whose success with the general student population has been documented in twenty-two studies (Sessions, 2006), is Creative Problem Solving (CPS).

More recent research indicated that CPS may have a positive effect on the divergent thinking skills of gifted students as well (Sessions, 2006).

CPS was first initiated by Osborn in the 1950s and further developed in the 1980s by his colleague, Parnes, as a generalized approach to working through challenges and opportunities. The brainstorming concept now familiar to most people was first introduced as a component of the CPS model. CPS was promoted and used in the business world and eventually encouraged in the education realm, particularly for gifted students. In recent years, the use of this set of strategies has been promoted as useful for all students, not just those identified as gifted (Giangreco, Cloninger, Dennis, & Edelman, 2005).

CPS training involves lessons in sensing problems and challenges, fact-finding, problem-finding, idea-finding, solution-finding, and acceptance-finding. Learning to use CPS is considered to be fairly easy, since the steps involved are skills most people already use. CPS takes these innate skills and teaches students to use them purposefully and in new ways. The program centers around learning to alternate between divergent and convergent thinking skills. At beginning points in the process, CPS users solicit free-wheeling, broad ideas and defer judgment, while subsequent steps require filtering the ideas and making judgments about them (Giangreco, Cloninger, Dennis, & Edelman, 2005).

Eberle and Stanish took Osborn and Parnes' problem-solving techniques and adapted them for use with elementary age students in *CPS for Kids* (1996). It provides a series of learning activities that teach the skills of sensing problems, fact finding, problem finding, idea finding, solution finding, and acceptance finding. Once the skills are learned, students can use blank worksheets to apply the CPS strategies to solve real life problems. Gifted students who

have used these materials reported that CPS is fun, and they were able to apply their new skills in other curriculum areas. Moreover, assessment data gleaned from Pretests and Posttests available from *CPS for Kids* indicated that divergent thinking skills improved with the training (Sessions, 2006).

Seney (2001) pointed out that CPS lends itself to the improvement of critical thinking skills because of its unique combination of divergent thinking and convergent thinking. CPS mimics the relationship between critical thinking and processing. Ultimately, students will master making judgments, then critical thinking, and finally high-level thinking skills even beyond Bloom's Taxonomy. It appears that CPS is one way to encourage gifted students to think independently and use their problem-solving skills in both academic and other life situations.

Cooperative Learning in Homogeneous Groups

Independent thinking skills are certainly important for gifted students. However, attention must also be given to the manner in which they work with and relate to their peers. High-ability students can be prone to underachievement because they sense peer rejection of their abilities and have a low level of academic self-esteem. Research by Johnson, Johnson, and Taylor (2001) indicated that when students work in cooperative groups their academic self-esteem improves. When gifted students work together, their perceptions of peers' support and acceptance improves and they are more likely to excel academically.

Horner's (2000) research confirmed this. When she studied the motivation of her high-achieving 5th grade students, she discovered a significant increase in test scores for the majority of the participants when they engaged in cooperative learning groups to master language arts objectives. The researcher attributed the rise in scores to more active participation when

involved in the cooperative groups. Students who were typically passive during whole group lessons were willing to assume leadership roles within the smaller cooperative learning group. Students also took greater responsibility for their own learning and relied less on the teacher for direction.

Johnson, Johnson, and Taylor (2001) expanded on this idea when they compared the achievement and attitudes in groups of gifted students who worked individually and in cooperative groups. They discovered that gifted students generally engaged in more higher level thinking and had a higher level of self-esteem when they worked cooperatively than when they completed learning tasks individually. Hunt and Seney's 2001 study confirmed this, also finding increased academic performance and more positive attitudes when students worked in homogeneous groupings.

Ability grouping is encouraged by Phillips and Lindsay (2006). Following their research of fifteen gifted students in England, they suggest that the psychological benefits of learning with students of similar intellect are significant. Interviews with students, parents, and teachers indicated that discussion and argument formulation in such groups is a positive and motivating experience, particularly when not only students of similar but of superior intellect are involved.

Cooperative Learning in Heterogeneous Groups

There is significant disagreement as to whether the use of cooperative learning as an instructional strategy is beneficial for gifted students when they are grouped with students of varying academic abilities (Patrick, Bangel, Jeon, & Townsend, 2005). On the negative side, some researchers have found that gifted students working in heterogeneous learning groups develop negative attitudes toward their peers and learning in general, unhappy with the

perception that they are being "used" as a teacher, that the material to be learned will be too easy, and that the teacher and peers do not appreciate the unique skills and abilities the gifted student can contribute (Cross, 2002).

Acknowledging that there are a limited number of well-conducted studies in regard to the effectiveness of heterogeneous cooperative learning groups for gifted students, researchers did note that there are a few quality studies in existence that indicate gifted students do make academic gains when placed in these learning environments (Patrick et al., 2005). Those who advocated that cooperative learning in heterogeneous groups can be beneficial for gifted students stressed that for this to occur, cooperative learning must be used as intended. While cooperative learning has become generally accepted as an important instructional strategy, many teachers are not using the methodology correctly (Huss, 2006). Teachers commonly mistake group work as cooperative learning. True cooperative learning creates a positive interdependence in which students cannot complete the activity without soliciting input from other group members. Too often the assignments involve learning rote information and basic skills. Instead, "[h]eterogeneous groups should be reserved for challenging, creative, open-ended, and higher order thinking tasks" (Huss, 2006, p. 20). When used appropriately, cooperative learning can be a valuable learning tool for all students, including the gifted ones.

Patrick, et al. (2005) agreed, noting that gifted students are often bored and resent having to tutor others in cooperative groups, because the material emphasizes low-level skills. But when high-level thinking is required in activities that, for instance, require students to justify and explain their ideas, learning is promoted in gifted students as well as their more average group members.

Teachers must remember that gifted students are not all the same. While they have advanced knowledge in some areas, they often underachieve in others or hold misconceptions that limit complete understanding. When heterogeneous groups are carefully constructed, they afford an opportunity for all group members, both the gifted and those not identified as such, to teach one another (Patrick, et al., 2005). Teachers who provide a format for proper accountability in these groups lessen the likelihood of resentments about who is doing what within the group.

Teachers must also model positive interaction patterns for students who will engage in cooperative learning. Students must be taught how to thoughtfully justify and reason, using supporting arguments. Students are also able to learn interpersonal skills which help them appropriately question others' arguments, but all of these skills must be explicitly taught. It is unlikely any of this will happen without direct instruction (Patrick, et al., 2005). Again, when cooperative learning is set up appropriately, the negative perceptions gifted students have about it are significantly less.

As discussed earlier, gifted students often struggle with academic self-esteem. When gifted students worked in homogeneous groups, self-esteem improved. Other researchers have discovered that gifted students who engage in heterogeneous learning groups are frequently viewed more positively by their peers. This reinforcement from peers may be related to the academic achievement gains that were reported in these same students (Bain, Bliss, Choate, & Brown, 2007).

How do the types of cooperative learning groups compare to one another in terms of academic effectiveness for gifted students? Researchers noted, based on a 2001 review of twelve studies by Neber et al., that the highest achievement gains are made by students working

in homogeneous groups, followed by students in heterogeneous groups, with students working individually making the smallest gains (Bain, et al., 2007).

As one considers how to best implement cooperative learning strategies for gifted students, teachers should be aware that cooperative learning groups can be of particular concern for gifted girls (Gavin, 2000; Heilbronner, 2009). Girls often end up taking on more passive roles, such as being the recorder, while the boys in the group tend to assume the more dominant positions of thinkers and doers. Teachers are encouraged to consider same gender groups to avoid this stereotype threat or assign the roles in mixed gender groups so all students have equal opportunity to develop their abilities.

When grouping students for cooperative learning, teachers must take into account students' unique qualities and create groups with complementary qualities. Gardner's Theory of Multiple Intelligences offers some insight into understanding these qualities and the motivating factor associated with working within those areas of exceptionality.

Theory of Multiple Intelligences

Howard Gardner's Theory of Multiple Intelligences espouses the idea that people have eight areas of intelligence: verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, and naturalist. While it is believed that everyone typically possesses all eight, there are usually one or two that are more prominent (Donahue, 2010). When lessons were created which matched students' dominant intelligences, their motivation for learning increased.

Donahue (2010) observed that gifted students in her classroom were not participating and not completing their work. They were, in effect, underachieving. Realizing her students did not

see value in the assigned tasks, and therefore were not motivated to complete them, she was led to work toward making classroom activities more enjoyable for them. She sought to identify her students' intelligences, soliciting input from them as to the type of learning they would find most enjoyable. Incorporating this information into her lesson planning resulted in increased participation and work completion.

Hunt and Seney (2001) advocated a similar approach, insisting that academic achievement, attitude, and behaviors will improve when students' unique learning styles are taken into account. They noted that "[m]ost gifted students prefer little structure, less supervision, more independence, flexibility in learning, and real life experiences to lectures, discussions, and more small group or individual self-designed instructional opportunities" (p. 49).

RtI (Response to Intervention)

While cooperative learning in mixed ability groups and multiple intelligences configurations, when used correctly, can serve gifted students well in some instances, these students will also need learning experiences that are matched to their distinctive abilities. Response to Intervention, commonly known as RtI, offers a model for identifying and providing those experiences. RtI has become a widely recognized format for the implementation of services to students in need of remediation. Increasingly, RtI is being used a model for gifted education services as well. RtI is still a relatively new practice and its implementation has not been standardized. However, the methodology essentially revolves around taking a collaborative approach to identifying and meeting student needs, using a tiered system of supports and services to deliver the right instructional level (Coleman & Hughes, 2009).

Traditionally, as a student's learning needs are identified to be more different than the average student, support services become more fragmented. In the RtI model, however, a more intense need will bring into play combined services, such as general education and gifted education teachers working collaboratively to meet the needs of the student.

When RtI is used as the format for gifted education, emphasis is placed on nurturing the capabilities of all students and providing opportunities to demonstrate mastery of curriculum objectives. General education teachers are responsible for differentiating instruction at this level, known as Tier I. At this level, there is generally no formal identification of giftedness—just a keen awareness that some students will be performing above grade level and a commitment to providing appropriate challenges for those students.

Early intervention is key in RtI's approach. Coleman and Hughes(2009) maintained it "is critical in order to prevent problems, to mitigate the impact of existing problems, and to ensure that strengths do not diminish" (p. 16). For gifted children, RtI involves nurturing a child's potential in their areas of strength. As noted earlier, gifted students often do not face a true challenge until well into high school or college. Tier I intervention can and should occur very early in gifted students' learning careers, encouraging them to use their giftedness to become accustomed to the concept of learning as hard work.

At the Tier I level, teachers are encouraged to use research-based instructional practices to differentiate the curriculum within the regular classroom setting. Flexible grouping, compacting the curriculum, higher level thinking, flexible pacing and scheduling, independent studies, student record keeping, and learning stations are suggested as practices that have proven effective (Hughes, et al., 2009). Teachers should keep baseline data, apply an intervention, and

collect follow-up data to determine whether or the not the intervention has been successful or needs to be modified.

Tier II intervention typically involves collaboration between the regular classroom teacher and the gifted education specialist. Based on assessment data, the gifted education teacher may provide instruction to small groups of students within the regular classroom. This level of service generally includes more detailed assessments to clearly identify the students' strengths and needs.

Not until Tier III does RtI seek a formal identification of giftedness. At this point more detailed, standardized assessments will be conducted and more intense and potentially more individualized services may be prescribed with the gifted education teacher often taking on a more defined role in the identified student's instruction.

One advantage to the RtI approach is the label of "gifted" is not necessary for a student to receive services (Hughes, et al., 2009). For many years formally identifying a student as "gifted" was the only way a student would qualify for special services. If a particular student did not meet a certain score on an aptitude or achievement test, he or she would not be considered for gifted education programming. RtI advocates that, if a student displays the behaviors associated with giftedness on formative and curriculum-based assessments, he or she should be considered for enrichment and/or acceleration. Sometimes these less formal assessments indicate untapped ability and achievement. The RtI model welcomes this type of student and the opportunity to nurture the potential for giftedness—whether or not they perform at the level formally designated as "gifted."

Locating appropriate assessments can be a challenge within the RtI model. Above grade-level assessments are often necessary to determine what gifted students actually know (Hughes, et al., 2009). If, for instance, a student scores in the 95th to 99th percentile on a 4th grade test, he or she has demonstrated the content for that grade level has been mastered. That performance does not, however, indicate at what level his or her knowledge tops out. He or she may be performing at a 5th grade level or even a 10th grade level. In order to appropriately plan instruction, teachers need to know the student's actual level of knowledge (Hughes & Rollins, 2009).

RtI for gifted learners is a strengths-based model. Unlike when the strategy is used for remediating struggling learners, the point is not to get students to become more like their peers. Instead, the goal is for the gifted student to continue making learning progress. He or she may potentially need support at a higher Tier, essentially becoming more unlike his or her age peers. RtI revolves around the question, "How can we assist this child in making achievement gains when the standard curriculum is not appropriate to do so" (Hughes & Rollins, 2009)?

Choices

A way of adapting the standard curriculum to better serve the gifted student is to remember that freedom of choice is particularly motivating for gifted learners. Though the teacher sometimes has difficulty giving up total control over students' learning, it is important for gifted students to have, at least to some degree, the opportunity to choose what they are going to study, how they will study it, and how they will demonstrate their learning (Phillips & Lindsay, 2006; Seney, 2001). Teachers should carefully monitor the degree and kind of freedom granted, as students will vary widely in how they are able to manage that freedom. Phillips and Lindsay

(2006) cited three separate studies confirming increased motivation as a result of promoting choice and independence in gifted students' learning. They suggest these choices can come in a variety of formats (including not only class work, but also extra-curricular or out of school community opportunities).

Product, or the avenue by which learning is demonstrated, is an area in which gifted students should be provided choices. Stephens and Karnes (2001) expected that the products of gifted students would demonstrate a high level of creativity and would be abstract, indicating learning that included not only knowledge, but application, analysis, and synthesis. Product design can be an excellent integrative activity for gifted learners. Students "become responsible for their own learning, thus fostering independence and accountability. Moreover, product development allows learners to explore, investigate, design, and formulate their own ideas, feelings, and thoughts, which encourage risk-taking and stimulate creativity" (Stephens & Karnes, 2001, pp. 182-183). As mentioned earlier, attention to students' unique learning styles contributes to higher motivation. A natural place to tailor learning to individual learning style is in product choice.

Still, gifted students should be encouraged to move beyond their preferred type of product. Using a student's strengths to build skills in other areas is recommended (Stephens & Karnes, 2001). For example, a student gifted in writing might be encouraged to include illustrations or design a set for a performance. The area of strength can be the foundation for branching out into other areas of product.

Teacher Personality and Tendencies

The classroom constructs described have been shown to have a positive effect on gifted students' motivation. The most benefit from utilizing these constructs comes, however, from teachers of gifted and talented students who demonstrate unique characteristics. These highly effective teachers typically value the giftedness of their students, are highly intelligent themselves, and are flexible with classroom activities and management (Hunt & Seney, 2001). Mills (2003) agreed, adding that highly effective teachers of the gifted often hold advanced degrees in a content area and have high levels of enthusiasm, self-confidence, and ability to apply knowledge.

Other studies of highly effective teachers of the gifted confirmed these observations and showed these teachers frequently have similar personality styles as those of their students (Mills, 2003). Both tend to score higher in the intuition and thinking dimensions of the Myers Briggs Type Inventory (MBTI). Those who score high in these areas typically are innovative, big-picture thinkers who prefer abstract reasoning and are skilled in identifying patterns and themes. They excel at creativity and analytical decision-making.

The only significant personality difference noted in the aforementioned study was that gifted students generally scored higher in the perceiving range of the MBTI, while highly effective teachers of the gifted scored higher in the judging range. This finding may indicate that teachers prefer more structure and organization than do their students. Mills (2003) did caution that this could be attributed to developmental differences rather than actual personality difference.

In addition to these personality traits, effective teachers of the gifted have a unique understanding of the social and emotional needs of their students. Hunt and Seney (2001) indicated that gifted students' cognitive abilities often far outpace their physical and emotional development. This discrepancy can result in inner tension and a feeling of being out of place. Because of this reality, their teachers are often called on to serve in a counseling role to support them in their stresses and social challenges (Phillips & Lindsay, 2006).

When asked what qualities they want in their teachers, gifted students said they want teachers who "are flexible; have a good sense of humor; do not expect perfection; are willing to help; make learning fun and do not stick to the textbook; understand the pluses and minuses of giftedness; are inspiring; and do not pretend to know everything" (Hunt & Seney, 2001, p. 55). While it is unclear whether meeting students' desire for these teacher qualities actually increases their motivation, it has been shown that a teacher's classroom approach has an effect on students' motivation or lack thereof (Phillips & Lindsay, 2006).

The teacher characteristics desired by gifted students parallel the traits identified by the Hunt and Seney (2001) and Mills (2003) studies of effective teachers of the gifted noted above. Valuing the giftedness of their students, flexibility with classroom activities and management, enthusiasm, and ability to inspire appear on both lists. Perhaps this is another confirmation that teachers with these characteristics will be more effective in their work with gifted students.

Teachers and the wider school environment play a major role in gifted students' motivation for classroom learning. Other factors influence it as well. Family relationships, early stimulation and learning, individual student characteristics and emotional state also contribute to gifted students' desire to fully engage in the school learning experience.

Family Relationships

Notable in the research is the effect of the home environment on the motivation of gifted students. All of the highly motivated gifted students in a fifteen person research sample made note of close family relationships (Phillips & Lindsay, 2006). All gave credit to their parents, and half mentioned the influence of older siblings who had demonstrated high achievement. One might think that references to older siblings might indicate an unhealthy sibling rivalry, but such was not the case. Instead, siblings were discussed in a manner more akin to a role model. Interestingly, this research group did not identify anyone other than family members (not even teachers) as role models who motivated them in their academic learning. In addition to immediate family members, some members of the Phillips and Lindsay research sample mentioned extended family members as important in encouraging them to excel in both their academic and other activities. This would indicate that maintaining meaningful relationships with grandparents, uncles, and aunts can have a positive effect on gifted students' motivation to succeed.

None of the aforementioned research sample members indicated any negative feelings regarding their families' expectations. Even the two participants who mentioned they felt some parental pressure to achieve said that it did not create stress for them. Phillips and Lindsay (2006) summed up their findings: "Evidence was strong...that support generally from the home background, across all aspects of the students' lives, had been important in maintaining their motivation and quite probably for encouraging its development from an early age" (p. 69).

Csikszentmihalyi & Csikszentmihalyi (1993) found that close parental relationships add to the creativity needed for gifted people to fully develop their abilities. They described

"complex" families that have both a high degree of stimulation and a high degree of support as being the optimal family environment for nurturing this creativity. Stimulation generally results in the curiosity and interest which drives motivation, while support will typically produce the perseverance and self-acceptance which maintains it. Students in this type of home environment describe their parents as having high expectations but providing plenty of freedom.

Children from complex families reported feeling generally happy and alert throughout the day, even when doing such mundane activities as studying or doing chores. Children in other types of families, such as those that have a high degree of stimulation but a low degree of support, reported happiness and alertness when involved in leisure or interaction, but did not identify these emotions when involved in more unpleasant but necessary activities. More positive feelings of well-being correlate strongly to high class rank—around the 12th percentile (Csikszentmihalyi & Csikszentmihalyi, 1993). These findings are supported by Phillips and Lindsay (2006), who reported that gifted students' progress and achievement often follow early childhood experiences that offer parental support and encouragement with recognition and purposeful praise.

Rimm and Lowe (1988) observed that gifted underachievers have a high incidence of homes in which the parents do not cooperate with one another in setting clear guidelines for standards, limits, and expectations. These homes are frequently described as rushed and disorganized with little time for game playing or shared interests. They often include a lack of parental leadership and a high degree of parental manipulation. In addition, it appears that these students' parents, particularly the fathers, had not relayed the value of their own careers and jobs, even though most of them had high level professional careers. For instance, one parent complained frequently to his son that he did not like his career choice as a medical doctor. A

male student in the study reported that he did not know what his father did and that his father was not very intelligent. In reality, the father was a very successful engineer. None of the parents in the research sample of underachieving gifted students made efforts to involve their children in their professional interests.

Among the mothers in the sample, almost all of them were full-time homemakers. There was, however, a marked difference in their perception of that role between the mothers of the underachieving gifted students and those who were achieving as expected. Mothers of the underachieving students typically expressed frustration at their inability to pursue professional opportunities while mothers of the eminent viewed their role as a homemaker very positively.

Census Bureau statistics indicated that children whose parents are married to each other, as well as those from families in which the parents completed high school, are more likely to be identified as gifted (Fields, Smith, Bass, & Lugaila, 2001). These findings suggest that the stability of the home and parental academic achievement have an effect on children's ability to maximize their learning potential.

Many gifted and highly motivated individuals, however, do not come from ideal home situations. Leonardo de Vinci was an illegitimate child who hardly knew his mother; Michelangelo's father was described as a failure; and several respondents in Csikszentmihalyi & Csikszentmihalyi's (1993) study of creative people lost a parent early in life. Despite the tragedy of their early lives, these individuals became renowned artists and Nobel Prize winners in Chemistry and Peace. How can that be?

Apparently, creative achievement often comes out of the need to deal with tragedy early in life. Csikszentmihalyi & Csikszentmihalyi (1993) explained,

> Children growing up in atypical and adverse circumstances tend to develop feelings of marginality, which results in unconventional thinking, and, if the child has the talent and the opportunity to use it, originality. Children growing up in difficult circumstances will try to escape from the painful situation by submerging themselves in some unusual, often solitary interest. This motivation in turn leads to a full investment of psychic energy in the area of talent, often a strong desire to succeed. (p. 190)

Positive feelings of well-being have been associated with a high class rank; however, highly motivated, gifted individuals who had to deal with great difficulty in early life often deal with unhappiness and pessimism. Their motivation frequently comes from a need to fix what is wrong in their lives rather than enjoyment of the learning process (Csikszentmihalyi & Csikszentmihalyi, 1993).

Early Learning and Stimulation

Supportive home environments often include significant language stimulation such as talking to infants and regularly reading to children from a young age. There appears to be a correlation between early language stimulation and later motivation for cognitive learning (Fowler, Ogston, Roberts-Fiati, & Swenson, 1993). Parents trained by researchers presented language stimulation activities to their infants, beginning at 2-4 months of age. While playing and caring for them, they did cognitively-oriented language-labeling activities. As adolescents, these children were more likely to be involved in special programs, earn high grades, and be good writers than children of similarly educated parents who did not receive the early language stimulation.

Rimm and Lowe (1988) cautioned that while child-centered early stimulation and praise is appropriate and even desirable, parents of gifted children should be careful not to put too much adult status on children. They stated, "Dependence on too much positive reinforcement may reduce intrinsically motivating behaviors" (Rimm & Lowe, 1988). Conveying too much "specialness" often makes adjustment to a school environment difficult.

Early learning and stimulation for gifted children does not always, however, correlate to higher achievement later in life. Rimm and Lowe (1988) found that, among their research sample of gifted underachievers, all of them had received early enrichment experiences. Unfortunately, as the children became older, their parents had failed to communicate a love for learning and pleasure in work. Home learning opportunities, such as Science Fair projects and game playing, were not encouraged. Instead, these families fell victim to over-involvement in outside lessons and activities which resulted in a sense of disorganization and hurriedness.

Student Characteristics/ Emotional State

As previously noted, intrinsic motivation is generally believed to have a more positive effect on a student's level of academic achievement than does extrinsic motivation. Certain classroom constructs promote students' intrinsic motivation; however, students' personal characteristics also contribute to its development. Csikszentmihalyi & Csikszentmihalyi (1993) agreed that students who are motivated by external factors such as money or status are less likely to fully develop their talents in school than students who learn for the sake of learning. This intrinsic motivation includes getting satisfaction from solving problems, being curious about challenging material, and simply enjoying the subject matter. Albert Michelson, who was awarded a Nobel Prize for Physics, exemplified this attitude when questioned about his

motivation for spending a lifetime working on the development of precise measurements for the speed of light. He said simply, "It was so much fun" (Csikszentmihalyi & Csikszentmihalyi, 1993).

Gifted students sometimes experience stress and anxiety because of their unique abilities. While a bit of anxiety can actually motivate students to work hard, too much can inhibit maximum learning (Phillips & Lindsay, 2006). Sometimes the anxiety results from parental or teacher expectations that are too high too soon. Regardless of the origin, gifted students must learn to cope or run the risk of excessive stress and underachievement.

High intellectual ability is not always valued by the peer group, leading some gifted students to hide or play down their abilities or purposely underachieve in the hope of fitting in better. Others can struggle with making appropriate choices between peer acceptance and academic achievement. Good interpersonal skills are crucial if gifted students are to appropriately cope with negative peer comments, potential bullying, and other difficult social challenges. Students who attend schools where excellence is promoted as both acceptable and desirable are more likely to develop these skills (Phillips & Lindsay, 2006).

Discrepant giftedness is somewhat common among gifted students. A student may demonstrate giftedness in one area but be only average or even below average in others. Teachers do a disservice to such students and add extra stress when they think that differentiation is not needed in the area of giftedness because the student needs improvement in the average and below average areas (McDonald, Moore, & Freehill, n.d.). Declining motivation is evidenced in such students when they are expected to excel in all areas prior to being challenged in their area of giftedness.

According to Phillips and Lindsay (2006), students who have not learned to navigate the above mentioned stressors are likely to experience declining motivation. "Strength of internal motivation and determination to succeed are likely to make the difference between maintaining high levels of achievement and underachieving" (p. 61).

Desire, ability, and opportunity for independence seem to be key factors in whether gifted students will achieve as expected. Rimm and Lowe (1988) confirmed the importance of independence when they reported that underachieving gifted students are usually dependent on their parents for homework help. In direct contrast, they noted, "As children, achievers not only handled their own homework independently but typically learned beyond school requirements" (Rimm & Lowe, 1988).

Gifted students often face challenges their more average peers do not need to navigate. Promoting gifted students' independence and ability to manage stress contributes to their motivation and is likely to lead to higher overall achievement. Celebrating their curiosity and helping them experience fun in their learning encourages them to value their giftedness and may help them deal with the stresses often associated with giftedness.

Discussion

Summary

Many gifted students appear to lack motivation and do not fully engage in the general education classroom. As a result they become underachievers. This research was conducted to establish a Biblical perspective on the motivation of gifted students. In that context, classroom constructs, teacher characteristics, and student behaviors and background experiences that promote the motivation and resulting engagement of academically and creatively gifted students

in the general education setting have been identified and explained. Promotion of learning as hard work, high level questions, cooperative learning, the Theory of Multiple Intelligences, RtI (Response to Intervention), and student choice have been shown to have a positive effect on gifted students' motivation. Research showed that teachers who effectively motivate their gifted students frequently have personality traits that mirror those of their students. Gifted students who maintain a high level of motivation typically come from supportive families who provide early language stimulation and model satisfaction with their chosen careers and callings, though some highly motivated gifted students do come from difficult home situations. Intrinsic motivation and the ability to navigate the stresses associated with giftedness, such as unusually high expectations and difficult peer relationships, are traits commonly observed in gifted students who are highly motivated. Teachers who differentiate according to the unique characteristics of their gifted students and work to understand and support the exceptional qualities associated with giftedness may have an effect on the motivation and resulting achievement of their gifted students.

Conclusion

Over the course of nearly 20 years in the classroom, I have had the privilege of working with a number of students who demonstrated a level of academic and/or creative giftedness. Some were formally identified as gifted and talented learners. Others had no formal designation but displayed the characteristics of giftedness nonetheless. Despite the clear presence of above average abilities, some of these students seemed disinterested in learning and did not fully engage in classroom learning experiences.

My colleagues share my concern. I often hear frustration over students who do not seem interested in working up to the ability they seem to possess. A frequent topic of conversation among our staff is that of meeting the needs of the most able students. Some teachers feel that gifted students should be able to do well on their own. After all, if they are truly gifted, they should have what it takes to excel without much teacher intervention. Others want to do what they can to best serve the gifted students, but feel they do not have the time, resources, or expertise it takes to plan learning activities that will fully engage their gifted students.

Reviewing the related literature has provided a new level of insight into the challenges gifted students face. Some of my perceptions about gifted students and the most appropriate practices relative to their learning have been validated. Others have proved to be inaccurate or only partially true. Ultimately, the literature review has sharpened my resolve to know each of my student's unique characteristics and work to create learning experiences that build curiosity and desire to learn.

Implications

What then are the implications for daily classroom practice? In light of the literature review, it appears there are places in which changing, modifying, or refining practice are in order.

Analyzing the topic of motivation from a Biblical perspective leads us to reflect on the daily classroom routine of prayer. While prayer plays a major role in the spiritual climate of Christian school classrooms, Fennema's (1994) insistence that specific daily prayer for the Holy Spirit to provide the necessary learning motivation provides an impetus to make that request each morning as teachers begin the day with their students. Acknowledging God's understanding of

our inability to do right on our own and his provision of a Special Helper, the Holy Spirit, should encompass multiple scenes throughout classroom life. We should recognize that we need the Holy Spirit's help not only to speak truth even when it means consequences will follow, or to respond in love to a classmate's cruel words, but also to persevere when we don't feel like doing our best. A simple thing, yes, but the single most influential factor in whether students will embrace and use the gifts with which they have been blessed.

Schelhaas (1992), Van Dyk (1997), and Vos (1988) all advocated for thinking of the classroom as a community in which the members value and utilize one another's gifts. Christian school teachers will endorse this idea as a distinctly Biblical principle. But endorsing the idea and explicitly teaching it are not one and the same. Too often we assume that our students will "catch" what we believe, whether we specifically address it or not. Actions often do speak louder than words. However, if we truly value a community of learners that values and celebrates one another's gifts, we must intentionally train our students to work toward that type of classroom climate.

One tangible way to do this is to include the concept in the teaching of expectations when the school year commences. Students want to know what they should expect in our classrooms. They want to know what routines and rules will characterize their year. Teachers must train students to expect different students to be doing different things. No one should be surprised when a small group of students gathers with an associate or support teacher to do something different than the rest of the class. A student shouldn't wonder why a classmate's assignment looks different than his or her own. Students should expect that a collaborative assignment will require the input of all group members.

If that is to happen, the teacher must clearly explain from the very beginning that this will be the norm in the classroom. Vos (1988) explains this with the I Corinthians 12 concept of the various body parts coming together to serve the whole. Certainly this metaphor could be used to teach the students about the classroom climate and expectations for differentiation and respect for all learners.

Sometimes teachers make the mistake of creating a "mind your own business" mentality when students are curious why others are doing something different than they are. Instead, students should know ahead of time to expect exactly that. They already know that some students are more or less able in various areas. Teachers need to provide proactive specific instruction from the very first day so students will know how to respond when they observe their classmates doing unique learning activities and assignments. When students are afforded the opportunity to understand why we do what we do and what behaviors we expect, they are far more likely to respond respectfully and lovingly.

What about using giftedness to serve one another? Developing a classroom inventory of "helper skills" may be a practical way to embrace the concept. Students could collaboratively determine areas in which they can offer their gifts for the use of the entire class. Students gifted with organizational skills could be called on to intervene when the classroom library gets chaotic. Someone with sharp technology skills can be enlisted when classroom computers will not cooperate. A gifted reader can serve as a researcher when the class has a Science question for which no one has an answer. Such would be a classroom in which the unique gifts of its members, as in the I Corinthians metaphor, are celebrated and utilized.

Wasserman's (1982) comments about high achieving students becoming disabled as problem solvers because teaching focuses too much on the rote activities associated with textbook and workbook exercises raise serious questions. Though her caution came nearly thirty years ago, this continues to be a problem in many of today's classrooms. Workbook exercises have their place. They provide an avenue of practice for mastering many skills. We must remember, however, that the skills practiced are often already mastered by our gifted students. For many of them, repeated practice of an already mastered skill is a recipe for poor work quality and poor attitude.

Rather common in elementary classrooms is the practice of having all students complete the same assignment and then providing something extra to challenge gifted students. A difficulty with this philosophy is the assumption that all gifted students are fast workers. They are not. Many, in fact, have perfectionist tendencies that may cause them to take a longer time than expected to complete an easy task. Some exceptional students will never get to the extra more challenging work. If we consider our classrooms to be communities of learners in which gifts are shared for the benefit of all, we must acknowledge that everyone's needs are not the same. To assume that the same activity is appropriate for all students negates the belief that different gifts have been given to different students.

Assignments must serve a learning purpose for all students. Implementing the RtI model seems a practical way to meet the needs of our gifted learners. Tier I support, in which the classroom teacher looks for students who may be able to demonstrate mastery prior to instruction and differentiates instruction and learning activities accordingly, should be common in all classrooms. Especially in early elementary, where it is often difficult to accurately determine whether a student is truly gifted, this approach serves students well. It really does not matter if a

student is gifted or not, if he or she is demonstrating mastery of objectives, differentiation needs to occur. Sometimes we get too hung up on identification. Tier I of RtI reminds us that continued learning is the goal for each student, regardless of where he or she starts in that learning process.

Unfortunately, the types of questions common in workbooks dominate many classroom lessons as well. Too many of our questions require only the most basic thinking levels. Students should learn to expect a follow-up, "Why?" or "Explain your thinking," or "Why does that matter?" or "If that's true, then what about....?" or "How could you use that information to...?" When students demonstrate excellent thinking skills and synthesis of ideas across the curriculum, these skills should be used as a model of what good students do. Sadly, already at an early age, some gifted students have fallen into the complacent habit of tuning out and believing they already know everything. Sometimes, in fact, the students most skilled in high level thinking are not among those one would consider gifted. Therein lies an opportunity to be the community of learners Van Dyk (1997) speaks about. All students can and should be learning from one another and celebrating the gifts with which they have been blessed. Each needs consistent instruction in what good thinking looks and sounds like as well as a clear expectation that they will use these thinking skills.

Teachers who aspire to create an atmosphere of high level questioning and problem-solving need to discipline themselves to think this way as well. Educators who are learners themselves, who read, explore, and expand their own thinking are much more likely to model it for their students. Hunt and Seney (2001) talked about developing a classroom in which it is safe to be smart. Sharing one's own excitement for learning about the world God made is one way to demonstrate that.

Expecting high level thinking skills and making sure that the assignments given are challenging from the start are good starting points to communicating that learning should take a lot of mental effort. Some gifted students panic when they were given a task that truly challenges them. They are so accustomed to being able to easily meet the expectations that they do not have the perseverance skills necessary to take on the more challenging task. Here again is an opportunity to be a community of learners-modeling for one another that learning is hard work that requires perseverance.

When students, gifted or more average, demonstrate hard work in their learning, we should celebrate it as a class and highlight it as what good learners do. Teacher modeling should appear here, too. Young children often believe their teachers know everything. We should help them begin to understand that most of what adults know and are able to do is the result of hard work and perseverance, a character quality noted in 2 Peter 1:6 as resulting from self-control and leading to godliness. All of these practices will promote the idea of incremental learning and hopefully create the positive constructive feedback, positive teacher and peer support, student independence, self-directed learning, and lack of competition that is conducive to intrinsic motivation (Montgomery, 2001).

Implementing lessons from Eberle and Stanish's *CPS for Kids* (1996) appears to be a good starting point in helping students build their problem-solving skills. Some artists instinctively know the artistic principles that lend themselves to pleasing artwork. But others, when taught these principles, are able to create surprisingly good work. Similarly, some students seem able to problem solve and demonstrate excellent thinking skills on their own, while others need explicit teaching if they are to develop and consistently use their problem-solving skills.

CPS for Kids offers a framework in which to do that. A challenge comes in adding "another thing" to an already full curriculum. It can be very difficult to find time within a school's curriculum to teach the *CPS* lessons as they are written. The program asks that the skills be taught in isolation first, and then applied to real life situations. Since many classrooms have no "extra" time in the school day, the skills must be directly integrated into other curricular areas. Of course, integration is the end goal anyway, but teaching the skills becomes more challenging due to all the variables a real world scenario includes. Students would likely master the concepts more quickly if they were able to learn them in a more controlled situation.

One should analyze whether the cooperative learning practices in our classrooms reflect the best practices of higher level thinking skills that require the input of all members. Sometimes they do, oftentimes they do not. Too often these lessons are simply group work with no need for interdependence. The most able students do all the work, become frustrated with group members who do not or are unable to contribute, and end up demotivated in their learning. The stage for true collaborative learning should be set in the early elementary grades. Though the learning tasks become more complex, the process and need for all group members to engage should be essentially the same at all levels from early elementary on up. If the foundation of a community of learners in which all members are needed is laid correctly, it is possible that all students, the gifted, those with more average skills, and struggling learners, will use those cooperative skills throughout their schooling, and ideally throughout their lives.

While working to create a classroom community, teachers also need to make every effort to know their students as individuals. Discovering each student's unique personalities, interests, and areas of giftedness or challenge should be every teacher's goal. This information allows teachers to design learning activities that are more interesting and motivating to students. Choice

is advocated as a motivating factor. Providing options for the learning process or the product of learning allows learners to embrace their personal bent and utilize their gifts to meet their challenges. Making these choices may even be an avenue for developing the problem-solving skills we want to see demonstrated in our students.

One will notice that gifted students have not always been singled out in these comments. As classroom constructs that benefit gifted students are analyzed, it becomes apparent that in most instances, what is good for gifted students is good for all students. Honoring their unique characteristics, providing choices, true collaborative work, promotion of learning as hard work, high level questioning, problem-solving development—constructs from which all students can benefit—should characterize instruction for all learners.

Teachers are individuals who bring varied personalities to the classroom. While they ought to embrace the distinctive characteristics endowed on them, they should work to develop the traits that gifted students find helpful. Valuing the giftedness of students, flexibility with classroom activities and management, and enthusiasm are skills that should be continually honed. It has been noted that to be an effective teacher of the gifted, one must also understand the emotional needs of gifted students. If our classrooms are to be communities in which we laugh with those who laugh, struggle with those who struggle, and celebrate when students excel (Van Dyk, 1997), this understanding is essential. Once again, these are traits that should characterize all teachers, both effective teachers of the gifted and of their more average peers.

God has placed primary responsibility for training children on the parents. Though they may delegate some of that responsibility to the school, they are ultimately held accountable for teaching their children. It follows then, that the participants in Phillips and Lindsay's study

spoke exclusively of their families' influence on their motivation. While teachers are called to teach diligently to the best of their ability, one should never underestimate the power of the home environment. Praying for students' homes should be a regular part of a Christian teacher's responsibility.

Consider whether our Christian schools can or should become parent mentoring facilitators. Experienced Godly parents, possibly those whose children have already passed through elementary or high school, could be paired with parents of students just entering elementary or high school. Teaching the next generation could well include teaching Godly parenting that sets clear limits while demonstrating love and encouragement.

Sometimes the classroom teacher may be called on to do the mentoring. Helping gifted students' parents understand their children's unique characteristics and guiding them in modeling love for learning and work may sometimes be necessary. Teachers can share the appropriate research on gifted students' home environments to encourage them to provide appropriate amounts of stimulation and support while maintaining a home environment that carefully avoids over commitment to outside activities and helps students develop independence in their learning responsibilities.

Students are responsible for the attitudes they exhibit. However, teachers can influence them. Fennema's call to prayer is, once again, the primary means of influence. Students should hear their teachers regularly praying for the Holy Spirit to motivate them to use their gifts and talents. Teachers cannot control how a gifted student responds to the inevitable stresses of learning, but they can offer encouragement and understanding. In addition, they may be able to

coach students to use strategies proven effective by other students who have faced similar challenges.

Gifted students, like all students, are created by God with their unique abilities and characteristics. A more clear understanding of their characteristics and what motivates them in their learning honors them as his image bearers. Teachers can make a gifted student's school experience more enjoyable and more motivating by creating a supportive, community-oriented classroom in which the Holy Spirit's motivating presence is evident and it is safe to be smart.

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