Social/Emotional Needs

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Technology and the Unseen World of Gifted Students

The social and emotional development of gifted students can be influenced by many factors. Genetics, experiences, learning, family values, perceptions, and interactions all contribute to the development of gifted children. Under the heading of experiences is students' use of computers.

This column will highlight some of the most common and some of the least well-known uses of computers by gifted students. The potential effects of using these technologies will be discussed using two stages of Erikson's theory of Psychosocial Development as a framework.

For almost two decades, children have had increasing opportunities to use computers. Many homes have one or more computers, and virtually all schools in the United States have at least one. It is common for schools to have one or more computer labs. For example, the Indiana Academy for Science, Mathematics, and Humanities will be providing every student a laptop computer with wireless Internet access. Student access to personal computers has clearly been enhanced over the past 20 years.

Times have also changed in terms of the nature of the personal computers to which students have access. From the early days (circa 1982) of home computers with 16k of memory and no hard drive, to today with the 1.25 gigahertz dual processors and numerous inexpensive, yet powerful peripherals, technology has changed. The evolution in the technological capacity of computers parallels the growing options available to students. For example, just imagine the difference between the original game of *Pong* and the newer strategy game called *Deus Ex*. A similar evolution of opportunity and impact on students exists as the Internet has evolved. After word processing, the first and most common use of computers has been electronic mail (e-mail). Gaming is also very popular among children.

When trying to understand the development of our gifted children interfacing with computer-based communication technologies, we can only speculate. At this point in history, very little research exists that attempts to address the questions listed below. Consequently, this chapter is based more on my observations and experiences running a residential high school for academically gifted students and, to a small degree, involvement with my own children.

Four Types of Communications Technologies

E-Mail

People of all ages and backgrounds use e-mail to communicate with others. Issues associated with time and distance are easily surpassed using this technology. Messages are sent with or without attachments. Pictures and even full-motion video can be passed from one to another around the world requiring very little time. For example, a baby can be born in Houston, TX, at 3 a.m., and moments later grandparents in Hawaii can download and print pictures of the newborn child. These opportunities, while recent to adults (over the past 20

years), are common to the children of today. This fact means that our children are growing up with greater facility with computer-based technologies than their parents, a fact that should not be underappreciated.

Instant Messaging

Instant messaging, in some ways a more limited form of e-mail, is quite common today, with students communicating with multiple "buddies" at one time in real time. Because of technological enhancements, these interactions go on while other computer activities are being carried out. It is similar to being on the telephone, but with many people at once. Increasingly, students use this communications technology while doing homework. In essence, gifted students separated by varying distances communicate while engaging in other activities.

Chat Rooms

Chat rooms tend to be made up of people with some interest in common. They communicate often without knowing the other people with whom they are "chatting." The chat rooms range from being relatively public to being extremely private. One's involvement may be a single event, a regular pattern, or an ongoing compulsion.

Online Diaries or Journals

The final example is online diaries or journals, which are less common than the previous examples. Online journals take many forms. Some are relatively confidential, with only chosen outsiders able to view the materials. At the opposite end of the continuum are journals open to everyone. Details revealed using this form of communication run the gamut from relatively innocuous information to descriptions of the most personal kind.

Erikson's Theory of Psychosocial Development

Before highlighting salient parts of the experience of engaging people through these forms of technology, I want to use Erik Erikson's (1963) theory of Psychosocial Development to provide some parameters. His theory is important because it establishes a framework for understanding the typical psychosocial developmental patterns of people. A second important feature of Erikson's theory is its claim that a person's id is free from internal conflict, but susceptible in its development to psychosocial conflict, not internal psychosexual conflict as Freud had claimed. Erikson believed that conflict arises from a person's interaction with his or her environment, not merely the internal forces of the person. Consequently, the culture in which a person lives is important to his or her psychosocial development, a position I have espoused for 20 years.

Erikson's theory includes eight developmental stages. During each stage, a crisis must be resolved in order for a person to develop without carrying forward issues tied to the previous crises. During the infancy stage (first year of life), Erikson posits that the primary crisis to be resolved is one of trust vs. mistrust. He described the task to be resolved during the second year of life (toddler) as autonomy vs. shame and doubt. The preschooler stage (years 3–5) includes initiative vs. guilt as the primary crisis. Elementary school stage includes competence vs. inferiority as the crisis to be resolved. Adolescence is the period when the individual must refine his or her sense of identity or struggle with role confusion. During early adulthood, intimacy vs. isolation is the crisis to be resolved. Generativity or despair is the crisis to be resolved during middle adulthood. The final developmental crisis was called integrity vs. despair.

According to Erikson, as the individual negotiates a crisis at each stage of development, a basic strength or virtue emerges. He described eight basic virtues that he believed emerge across a person's psychosocial development: hope, will, purpose, competence, fidelity, love, care, and wisdom, respectively. Because this chapter focuses on school-aged children, only the third (competence vs. inferiority) and fourth (identity vs. role confusion) psychosocial crises will be discussed.

Experiences and Benefits

The following is a list of experiences and benefits that I feel comfortable reporting as part of using computer-based communications technologies. Generally speaking, the experience of using e-mail, instant messaging, chat rooms, and online diaries falls into four major categories: freedom of expression, control, power, and feeling connected. Each of these four also contains nuances that vary across people. For example, for some gifted students, freedom of expression includes a greater sense of empowerment rooted in the immediacy and control of the expression; it can also serve as a catharsis. Others experience feelings of excitement and joy to have convenient outlets for expression when they perceive that much of their lives are controlled by adults (parents and teachers). Remaining anonymous when communicating can create feelings of safety and power. Crossing age groups often creates feelings of being adult-like, as well as a sense of rebelliousness. Other feelings associated with using these forms of technologies include privacy, immediacy, ownership, imagination, freedom, utility, and feeling the belonging that comes from participating with others of similar interest. Perhaps the greatest experience that comes from these forms of interaction is a greater sense of connectedness and,

therefore, acceptance. Many gifted children have commented on their surprise at finding other people "like me."

With the experiences and benefits possible from using these forms of computer-based communications technologies, what are the ramifications for the social and emotional development of gifted students relative to Erikson's third (competence vs. inferiority) and fourth (identity vs. role confusion) crises of development? While it is too early to tell and there is far too little research currently available, we can say that we are immersed in a culture wherein these kinds of interactions are increasingly common to our young gifted population. It is reasonable to assume that these behaviors will increase to the point where future generations of gifted students have a large portion of their relationships created in this virtual world. It is easy to see positive potential in the development of competence in the use of these technologies. For example, communicating with others via technology requires a modest degree of skill. Typing, navigating the Internet, word processing, composing, analyzing, and generally expressing one's thoughts and feelings are skills that can be enhanced using these forms of communication. All these examples are indicative of skills that can lead to an increasing sense of agency and positive self-concept.

We can imagine how the positive experiences and benefits of engaging in these communication technologies could positively affect a gifted child's identity. Having outlets for expression that allow for valued interactions with others that provide information and build relationships are important aspects to the development of one's identity. Arguably, the most important benefit of using computer-based communications to interact with others is the feeling of being connected (part of a community) and gaining a sense of belonging. From those feelings, acceptance is often the next step of development to emerge. It is very important in the lives of gifted students to feel accepted. This allows them to move forward in life not feeling aberrant or detached from society. Moreover, as Erikson described in his theory, several virtues can develop as the crises are resolved. The virtues he proposes are, therefore, potentially tied to the benefits of the students' use of these communications technologies. The outlined experiences and benefits can assist in resolving the crises at the two stages of development discussed, potentially influencing the emergence of the virtues of hope, will, purpose, and competence.

If these Eriksonian crises can be positively affected by the use of these technologies, why do adults carry around so much worry and concern about (gifted) children using them? There are several reasons for this. Most adults did not grow up with access to computers and therefore do not have the facility for, and comfort level with, using them in this manner. A second reason is that the adults' role in the children's upbringing can seem diminished when they cannot participate with the children. There is a great fear of the unknown, and due to the media's portrayal of children being exploited at the hands of the unscrupulous, adults' worries are enhanced. In a nutshell, adults' unfamiliarity causes them to feel cautious and somewhat impotent.

Unanswered Questions

The social and emotional development of gifted children is clearly being affected by the use of these communication technologies. How they are being affected is only now beginning to emerge. Below I have listed numerous unanswered questions about how the use of these computer-based communications technologies affects gifted students' social and emotional development.

- What are the effects on the social and emotional development of gifted students of brief encounters with others they do not see? For example, what are the effects on their identity formation, friendship formation, and issues of self?
- What are the effects of short- and long-term interactions when anonymity is ever-present among some or all of the participants?
- What are the effects of new relationships and friendships emerging from these modes of communication?
- How does building relationships using these technologies translate back into school?
- How does building relationships using these technologies affect the third (competence vs. inferiority) and fourth (identity vs. role confusion) crises of Erikson's theory?
- What direction can be provided to adults about the use of communications technologies in raising and teaching gifted students?

As with most aspects of guiding the social and emotional development of gifted students, until these questions are answered, it is important that we stay involved with our children and use common sense about setting limitations and providing safety for them. We also need to support our children's interests and learn about them to the extent that we can. Having faith in them, while at the same time realizing that they are children, is always good advice. And, some time in the near future, answers to these questions will provide additional guidance for us as we attempt to guide our gifted students' social and emotional development. GCT

Reference

Erikson, E. H. (1963). Childhood and society. New York: W.W. Norton.