ADDRESSING ADOLESCENT NEEDS FOR SOCIALIZATION

IN THE DISTANCE LEARNING ENVIRONMENT

by

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ABSTRACT

One important aspect of adolescent education, regardless of the learning environment, is learning acceptable human interaction, socialization styles, and cooperation mechanisms. However, when adolescent students attend cyber schools, they no longer receive those traditional opportunities to gain the human interactions required for such socialization during school. This analysis examined the importance of such learning experiences and then considered Utah's Electronic High School, a cyber program model that provides both independent learning and human interaction. This program's success lies in part in its hybrid requirement that students participate in local traditional programs along with cyber classes, so that they still acquire some socialization.

INTRODUCTION

During adolescence, students accomplish the final stages of self-definition that carry them into adulthood. Students test their personalities and behaviors in various situations against the expectations and reactions of others. As others respond to their behaviors and choices, adolescents redefine and hone their actions and reactions enough to form behavior episodes that stabilize their personalities. This period of growth and self-definition proves extremely important in preventing

the emotional traumas adults experience when they have missed this stage and must define themselves by growing through normally adolescent developmental stages during adulthood (Ho, Lempers & Clark-Lempers, 1995; Field, Lang, Yando & Bendell, 1995; Liu, Kaplan & Risser, 1992; Pabon, Rodriguez & Gurin, 1992; Ford, 1992).

However, by its very nature, cyber distance learning negates the opportunity for participating adolescents' to fulfill those socialization growth needs by eliminating the regular interaction they experience during traditional high school attendance. However, how Utah has provided that learning experience while utilizing a cyber high school demonstrates a model for other states interested in developing a program providing the "best of both learning worlds."

ADOLESCENT SOCIALIZATION

Typical adolescents define both themselves and their future actions through interaction over the prolonged periods provided by their school careers. Because school is an environment that provides long-term, consistent-exposure to others of the same age, it provides opportunities for interaction with large numbers of diversified people not available to adolescents at any other time. They define their interactions with members of their own sex through both organized sports and

other cooperative, after-school activities. They define their interactions with adults in part through their interactions with teachers, honing their behaviors with individuals prepared to be tolerant, consistent, and to encourage the growth required for them to achieve adulthood as smoothly as possible. This exposure also prepares them to work side-by-side with older adults after graduation (Ho, Lempers & Clark-Lempers, 1995; Field, Lang, Yando & Bendell, 1995; Liu, Kaplan & Risser, 1992; Pabon, Rodriguez & Gurin, 1992; Ford, 1992; Wilson & Wilson, 1992).

They both learn about and hone their talents and abilities through classroom and after-school activities that give them exposure to multiple cooperative and individual working environments, as well as to a myriad of skill exposures that let them both identify interests and grow in those interests. Further, the ever-increasing numbers of cooperative and team-building activities high schools are incorporating into their curricula both help them prepare for employment by learning cooperation and teach them the power collectives can create in accomplishing goals (Ho, Lempers & Clark-Lempers, 1995; Field, Lang, Yando & Bendell, 1995; Liu, Kaplan & Risser, 1992; Pabon, Rodriguez & Gurin, 1992; Ford, 1992; Wilson & Wilson, 1992).

THE MOVE TO ALTERNATIVE EDUCATIONAL OPTIONS

However, growing numbers of parents are removing their adolescents from those public school environments where the mechanisms for them to gain continuous peer experiences, requiring the development of one or more new mechanisms to provide socialization experiences necessary for adolescents' healthy development. Some parents feel the current educational environment is unsafe because of gang, violence, or drug issues. Others feel the locally provided education is less stimulating or less demanding than the education they wish their children to experience, offering less developmental options or failing to rise above the "teach to the lowest common denominator" mode. Many parents tailoring their children for admittance to the most prestigious schools or preparing them for acquisition of large scholarships express this particular concern most often (Bowen & Bowen, 1999; National Center for Educational Statistics, 1998; Kapel & Kapel, 1983; Marshall & Valle, 1996).

Some wish to expose their children to children of a certain background -- perhaps a certain economic level, religious background, or perhaps simply allowing for the avoidance of individuals who are members of certain economic, ethnic, or religious groups. Others wish to increase their children's mobility so they can

travel as a family because they find it difficult to adhere to the traditional school schedule because of employment or other family interests. Still others wish to increase their children's mobility because they anticipate moving in and out of a number of educational districts and want to ensure their students a steady, quality educational experience (Bowen & Bowen, 1999; National Center for Educational Statistics, 1998; Kapel & Kapel, 1983; Marshall & Valle, 1996). However, regardless of the reasons these parents have chosen alternative education methods, the result has been an increased demand for the development of alternative educational systems and programs to use in educating their adolescents.

As a result, America has experienced both a resurgent increase in private school enrollments and a corresponding increase in the number of private schools operating throughout the country. It has also resulted in the creation of a number of other "in real life" (IRL) alternative educational programs, or programs where students physically attend a facility outside of their home to complete school requirements. Such programs include charter schools and cooperative schools. These programs continue adolescents' interactions with others in the school setting, but they also have some significant drawbacks. One is the often preclusive cost of such programs. Costs for attendance at a private school in Utah, for example, can range from $200 to $500 per month per child (personal

communication, B. Harrison, June 16, 1999; personal communication, L. Zarndt, May 12, 1999).

Another is the experience level of some teachers in schools where costs are not preclusive for many families. Because private schools do not have the same educational requirements as public schools in order for them to be accredited within the state and do not necessarily even have to be accredited for students to attend them, a number of teachers within those institutions will not have the accreditation required for teachers within the public school systems. Although this allows a certain amount of freedom that can permit good quality teachers who know their individual subjects but may not have all requirements for teaching to teach, it however provides no guarantee that teachers will meet what state administrators consider the minimum requirements for teachers to be effective (personal communication, B. Harrison, June 16, 1999; personal communication, L. Zarndt, May 12, 1999).

As a result, home schooling, already the choice of a growing group of parents concerned about both their children's exposure to unhealthy and unsafe elements within the school district and about the quality of their children's educations, has become the choice of a number of parents who find themselves unable to pay high private school costs. Those parents have increasingly enrolled their adolescents in

correspondence schools provided by a number of distance education institutions running the gamut from such names as A Beka to Johns Hopkins to ensure their children get effective, comprehensive educations (personal communication, B. Harrison, June 16, 1999; personal communication, L. Zarndt, May 12, 1999).

However, unlike traditional high school programs, these programs do not incorporate interaction with other individuals on a consistent basis. In fact, there is normally no interaction with others within the programs at all. These programs can also involve unwieldy costs. Correspondence school provided materials for pre-high school students can cost upward of $300 per child per year for parents who purchase institutionally developed programs, and high school level programs often cost approximately $200 per class. Since students must normally take at least six classes per year to graduate in the standard four-year period, the cost of such programs can be over $1,200 per year with texts and incidental expenses (Marshall & Valle, 1996; personal communication, B. Harrison, June 16, 1999; personal communication, L. Zarndt, May 12, 1999).

Online Resources

However, today's technological evolution has allowed parents to cut such costs, and others to choose online education programs as an alternative to developing their own programs using either public school resources or costly

correspondence programs. In addition, parents either concerned with providing their students a number of varying educational opportunities or unable to otherwise provide their students enough challenging or thought-provoking materials have a large selection of online resources on which to draw. These resources are prepared by everyone from school teachers to government and private agencies. They include web pages and chat facilities designed to assist parents with teaching about any subject, as well as opportunities for students to both chat with other students around the world and to get pen pals from around the world from whom they can learn. These opportunities help legislators and administrators meet their goal of preparing students for the global information age now such a prevalent concern (Bertram, 1999; Grim, 1998; Saccardi, 1991; Lambe, 1989; Hazari & Schnorr, 1999; Schulman & Sims, 1999; McQueen & Fleck, 1999).

In addition to other online resources, a number of online private schools have evolved, providing parents with another alternative education choice. These programs often parallel previously existing correspondence programs, consisting of the same classes previously offered now transferred to the new online venue. Although they are substantially the same programs, these online versions provide students with the opportunity to gain insight into class information that may be

troubling them more quickly through online correspondence than through correspondence by mail. They also provide students with the opportunity to turn in materials more quickly online, allowing them to meet course requirement deadlines more effectively (Bertram, 1999; Grim, 1998; Saccardi, 1991; Lambe, 1989; Hazari & Schnorr, 1999; Schulman & Sims, 1999; McQueen & Fleck, 1999).

Students in such online programs, however, do not receive the inherent socialization opportunities students attending IRL institutions receive, while they still have the same socialization requirements necessary for them to succeed as adults. As a result, the parents of those adolescents carry the burden of providing them with both an environment and opportunities that allow them to acquire the appropriate socialization. They must also provide them with opportunities to learn to self-define and both identify and develop skills in areas in which they may be interested, things normally occurring within traditional educational environments (Burgess, 1973; Boehm, Schontel, Marlowe & Rose, 1995).

Socialization—A Historical Perspective

Prior to the development of public education, parents provided to their children with whatever enrichment activities they received because there were few other sources for enrichment. With the greater time required to be spent within

families to guarantee their members' survival -- earning a living and caring for family members -- opportunities for such enrichment activities tended to be limited. Instead, socialization took place through family interaction and during life-maintaining and money-earning activities, and individuals' opportunities to develop creative skills and talents were limited to those that were also functional in nature -- sewing, carpentry, and similar activities.

However, since the advent of the public school system, school demands and time constraints have usurped previous socialization routes while providing others and expanding on them to allow students to develop in new ways not previously possible. In addition, in recent years, demands on parents' time have increased as many parents work outside the home today and few families have home-based or family businesses like those that once provided socialization routes for participating adolescent family members. As a result, many of today's parents have passed responsibility for providing their adolescents with socialization opportunities to the schools in which they enroll them. Even those who do not enroll them in such schools are less able to provide their adolescents with opportunities for socialization, since the majority of adolescents are involved in school-related social lives and have neither the time nor the opportunity to interact

significantly with non-school members. As a result, parents tasked with the responsibility of providing opportunities for socialization to their children are finding it increasingly difficult to either create opportunities or identify existing opportunities for their adolescents to experience socialization with their peers (Gay, 1988; Whitbeck, Hoyt, Miller & Kao, 1992; Wilson & Wilson, 1992; Hoge, Smit & Crist, 1996).

Online Students' Socialization

As discussed earlier, online resources include web sites created by government agencies, private organizations, and teachers around the world providing both information about those agencies or those teachers' areas of interest, current scientific and government developments, and educational materials for use in learning about the topics discussed on those sites. These sites are often interactive, providing students opportunities to learn through the application of logic or through simulation of real-life circumstances. They also provide students numerous opportunities to both learn and apply strong reading and communications skills (Bertram, 1999; Wolcott, 1999; Scott, 1999; Gaskins, 1995).

In addition, students can also enter chat rooms and interact with students and others. These opportunities to both vocalize and discuss facets of the materials they are learning allow them to take ownership of that material and retain it better for more extensive periods of time. Often, they can post questions about topics of interest on many bulletin board sites both connected to those web sites and listed through news groups applicable to their areas of interest to gain information that might not otherwise be available. Used properly, these opportunities greatly enhance their online learning options as they can gain insight from others who may be more informed than they are, although they must learn to be selective about the information they accept as fact. Their educational opportunities, therefore, can be greatly expanded beyond those available within traditional high school environments unless those high schools are effectively equipped with both internet resources and adequate time for students to avail themselves of those resources (Bertram, 1999; Wolcott, 1999; Scott, 1999; Gaskins, 1995).

However, in the aftermath of Littleton, the wholesomeness of both living in large measure within and gaining socialization from today's cyber world has come into question. The Littleton killers attended school IRL, but gained most of their socialization in the cyber world. Given their negative life choices even with IRL school attendance and in-person interactions, their actions have caused parents and

educators to question how much more at risk students are who have both their school and personal activities centered around the cyber world?

With students who attend traditional schools busy with school-related activities and friends after school is dismissed daily, how many other options than the cyber world will cyber-based non-traditional students have? Will students developing negative attitudes who might find positive channels for developing life-coping skills were they in a traditional educational environment dealing with a mix of youths with a mix of attitudes and outlooks be able to gain the positive experiences they need on the "web" versus potentially developing them within the traditional classroom? Will they instead on the web find reinforcement for their negative attitudes and sink farther into unhappiness, discontent, and destructive behaviors because that is what they seek out and therefore find exclusively, rather than being forced to be exposed to other points of view in more traditional educational environments? This aspect of adolescent online education and interaction requires further study, particularly in light of its potential negative societal impact.

Whatever the results of research into adolescent socialization in the cyber world, it appears prudent at this time to conclude that parents who place their adolescents within a distance learning environment must make great efforts to

ensure ample opportunities for those adolescents to both find and adequately define themselves in relation to others and their futures within their real-life communities. Utah has developed and successfully provided such an online hybrid program for over four years.

Utah's Electronic High School

Utah's Electronic High School (EHS) evolved five years ago as a result of Governor Mike Leavitt's call for alternative education programs to meet both state students' changing needs and the state's stringent financial limitations. Utah, with one of the nation's highest per capita state taxes and the highest overall under-18 student enrollment in the country, faced particular education funding challenges. Although the state channeled over 43% of its available budget into education, student-to-teacher ratios remained among the highest in the country. The state had also begun recently experiencing an insurgence of out-of-state business and immigrating residents, and those individuals had high academic expectations (personal communication, J. Chubb, March 16, 1999).

In addition, Utah had long faced the challenge of maintaining its "required small schools," schools located in areas across the state that had low populations but where there were no other available educational facilities that would allow the

state to avoid maintaining small, isolated schools for the region's students. The high costs involved in maintaining a significant number of such "small schools" that, although servicing few students still had to maintain full laboratory facilities, computer resources, and physical education and sports facilities, drained large amounts of state funds. As a result, a debate about how to provide residents in such areas with maximal educational opportunities that qualified as equal education while not breaking the state's education budget had been ongoing for over thirty years. Utah needed an alternative, and online education became part of that alternative (personal communication, J. Chubb, March 16, 1999).

Since EHS's "doors" opened four years ago, its teachers have taught over 2,000 students using its simple class completion method. As students enroll in classes through an online form, they can access class syllabi posted on the applicable class pages, as well as assignments and resources they need to complete those assignments. They can work on those materials at any time that fits their schedules, and can then either e-mail their assignments to their teachers or send them by regular mail. They can take tests either online or at local school sites, when required. However, EHS minimizes the use of tests, and instead favors the use of completed assignments and the creation of class portfolios, sent to teachers by mail, phone, or e-mail (personal communication, J. Chubb, March 16, 1999).

Since one of the state's goals in developing EHS was to ease the state's financial burdens for education, program designers have minimized school expenses. Therefore, the program has only a small central office and maintains only four full-time employees (including the principal). It draws its teachers from full-time teachers throughout the state, whom it pays stipends for teaching

in the online environment based on the number of students enrolled in their courses at any given time. This has allowed the state legislature to limit its costs per enrolled student in the EHS to a small $500 per year (personal communication, J. Chubb, March 16, 1999).

EHS maintains a central computer record of students' activities and grades and forwards that information upon request to the students' local schools and the students' parents. Since it is electronically based, paperwork and administrative handling are minimal. The school provides an easy-to use, low-cost, minimal-staff, minimal-facility, and minimal-maintenance educational alternative that guarantees adolescents throughout the state access to quality education, regardless of location or individual time constraints.

The EHS program, like any other program where face-to-face encounters are minimal or nonexistent, has the potential for fraudulent public use. Older individuals, returning students, and even high school graduates could easily enroll

for courses. However, Utah has opted to view these occurrences when they occur as positive rather than negative. Therefore, no age requirements exist for individuals to be eligible to participate, and state staff do not investigate whether or not students have otherwise completed high school. Instead, Utah officials take the attitude that individuals normally enroll in such programs as part of their plans to improve their economic futures. By providing such advancement opportunities, Utah's legislature feels it is investing not only in its residents' futures, but also in their ability to contribute financially to the state's well-being at some future date (personal communication, J. Chubb, March 16, 1999).

The program also provides educational services to students across the country who choose to enroll. However, Utah legislators feel cannot afford to supplement such nonresidents' educations. Therefore, to ensure nonresidents report their addresses accurately, each new student is required to mail in the first assignment. Based on that postmark, out-of-state students who wish to continue in the school and who have not identified themselves as such during enrollment are assessed the $500 fee for yearly program participation normally paid by the state legislature for in-state students. For many out-of-state students' parents, this $500 fee is still less than would be required by other programs. Given the educational quality of

Utah's EHS, therefore, a number of parents nationwide feel enrollment in the EHS is worthwhile (personal communication, J. Chubb, March 16, 1999).

The EHS and Socialization

The EHS addresses students' possible tendencies to choose negative reinforcements in the cyber world by creating positive cyber experiences and activities for students. One service this program provides is a cyber chat room and bulletin board service for each individual class and for the school as a whole where students can meet to discuss assignments and assist each other in positive role definition and fulfillment. These cyber chat rooms can be occupied by any enrolled individual, teacher, or the principal at any time. By directing students to positive cyber activities and providing these cyber chat rooms, the program gives students positive cyber participation options they might not otherwise acquire (personal communication, J. Chubb, March 16, 1999).

As part of its effort to maximize student socialization at some location, EHS does not itself grant a diploma. Rather, EHS is designed both to supplement in-state high school students' normal educational options and to offer the opportunity for completion of these courses at other-than-regular times or in other-than-normal manners. Although most of students' courses can be completed through EHS,

certain activities -- such as science lab requirements -- must be conducted during certain hours at local schools when such opportunities are made available or through other educational options like tutoring or home schooling. As a result, parents are given maximal opportunities to use both cyber and IRL educational opportunities to provide their adolescents with rounded educations (personal communication, J. Chubb, March 16, 1999).

EHS Program Benefits

The EHS offers numerous benefits. Since the state pays for students' course work, parents can provide their children quality educational alternatives without incurring great cost. Students can complete their educations at accelerated rates, which in Utah can gain them scholarship funds to be used at state schools -- $1,000 when graduation is completed a year ahead of schedule. Students in remote, smaller school areas can gain access to classes and opportunities those schools could not otherwise provide. Students can choose alternatives to regular classroom participation, which permits them to complete school regardless of their personal circumstances. And, as a result of online students' absence from classrooms, teachers have smaller classroom student numbers to assist. This allows teachers more one-on-one time for both traditional classroom students and

cyber students, who receive responses and feedback to each assignment from their cyber teachers (personal communication, J. Chubb, March 16, 1999; personal communication, J. Barber, April 3, 1999).

Perhaps most important, although EHS does allow students the benefits of program acceleration, flexibility, and abundant available resources in the cyber world, it does not fully replace the interaction that normally takes place within a school environment with a cyber life. Enrolled students are still considered part of their local school population, and they are eligible for participation in those schools' activities. They are also required to take certain classes through non-cyber alternatives, allowing them to interact with peers and adults IRL (personal communication, J. Chubb, March 16, 1999).

EHS and Other Educational Programs

A limited number of studies have examined the effectiveness of home schooling, comparing it to the effectiveness of traditional school environments. Some question the ability of the average student to participate successfully in such a home-based, self-paced program. One such study (Bracey, 1999) attempts to prove that studied home school students begin their educations with more highly educated parents and more affluent families than those of average students.

Bracey contends these factors constitute the reason home schooled students score higher on standardized tests than average students. Based on this analysis, programs such as EHS would prove less than satisfactory, since this program is designed as an elective alternative for students whose family environments would fall outside Bracey's defined home schooling group. In fact, the EHS environment is designed not to have the parental instruction upon which Bracey builds his analysis of home schooling's effectiveness. However, Bracey's study appears disorganized, his sources remain unclearly cited, and his conclusions, therefore, remain unproven.

In contrast, Duvall, Ward, Delquadri & Greenwood (1997) examined the effectiveness of home schooling to teach special education students. They identified that home schooled students' test scores and responses to teachers, as well as teachers' teaching methods and structured socialization activities proved home schooling can be as effective, if not more effective, than traditional school environments for special needs students. In addition, the ability of home schools to utilize flexible teaching techniques proves an additional benefit for participating students. EHS maximizes flexibility for its students by providing them with both a number of assignment choices with which to fulfill class requirements and with flexible, self-determined scheduling. It also minimizes parental instruction,

although it continues concerned home schooling parents' involvement by providing opportunities to assist, encourage, and coach their students.

It also provides another important developmental opportunity for EHS students -- self-determination and self-discipline. Students in the program determine their own schedules, many of their supplemental resources and research, and choose assignments and portfolios that allow them to determine their own paces and foci for study. These individualization opportunities give students an opportunity to self-define that alternative home schooling or traditional schooling programs may not because of their required structures or logistical issues (Schechtman, 1993; Wilson & Wilson, 1992; Liu et al., 1992).

Planning, Organization, Administration, and Curriculum

EHS' planning, organization, administration, and curriculum prove simpler than the processes involved in the administration of other innovative and home schooling programs. A quick analysis of the factors involved in programs in both traditional schools and other home schooling designs illustrates this greater simplicity.

All traditional school programs, including smart schools, site-based management, learning communities, and privatization, involve the recruitment and motivation of teachers and community members to allow effective program planning and organization. Further, all encompass the use of, and often the development of, training programs to adequately prepare them to fulfill their new planning and organization roles. Teachers can also require additional training to support the new school philosophies, visions, and methods introduced -- the different curricula requirements to meet community cultural needs, the different teaching philosophies involved in students' self-teaching and teachers' functioning as facilitators, and more (Fiske, Reed & Sautter, 1991; Murphy & Schiller, 1992; Molnar, 1996; Finn, Manno, Bierlein & Vanourek, 1997; Giardina, 1998; Battisch & Solomon, 1997; O'Neil, 1997; Schaps & Lewis, 1998; Moore-Steward, 1998; Krall & Jalongo, 1998).

The coordination of schedules, of volunteer hours, of supplies, and of other resources can prove challenging in terms of both time and money. Further, the development of curriculum to address newly introduced agenda and priorities can prove challenging in terms of not just time and money, but also of resources and knowledge-gaining research time. All of this adds to the administration's requirements to both provide adequate supplies of course materials, to oversee

activities, and to constantly update and motivate school and community members to both stay involved and innovative (Fiske et al., 1991; Mitchell & Cunningham, 1990; Murphy & Schiller, 1992; Molnar, 1996; Finn et al., 1997; Mathan, 1996; Pipho, 1997; Schutz, 1999; Giardina, 1998; Battisch & Solomon, 1997; O'Neil, 1997; Schaps & Lewis, 1998; Lewis, 1995; Moore-Steward, 1998; Krall & Jalongo, 1998).

More common home school programs include those in which parents develop their students' curriculum, based both on individual states' requirements for student achievement and on parental desires for their students' educations. In these cases, this development can involve lengthy reviews of materials and consideration of various aspects of students' personalities and learning styles. Further, parents' maintenance of school records, including attendance sheets, assignments and tests completed, and any projects and portfolios, can be labor-intensive and complicated. However, perhaps most unwieldy are parents' requirements to instruct their students, remaining flexible to meet their students' changing educational needs and speeds as they progress, often without any specific training or guidance other than their own learning experiences (Marshall & Valle, 1996; Taylor, 1997; Wagenaar, 1997; Holtrop, 1996; Metts, 1996; Dahm, 1996; Lines, 1996; Nelsen, 1998).

Home school programs in which parents contract with other services to provide curriculum and, sometimes, even grading can prove less difficult, although the cash outlay and accompanying financial logistics can prove difficult for many parents. However, even with these programs parents provide the bulk of the instructional activity. Therefore, although curriculum development is no longer their responsibility, the bulk of the planning, organization, and administration of their students' learning activities still remains their responsibility (Marshall & Valle, 1996; Taylor, 1997; Wagenaar, 1997; Holtrop, 1996; Metts, 1996; Dahm, 1996; Lines, 1996; Nelsen, 1998).

EHS provides self-contained activities structured from teachers' normal classroom instructional designs, including lecture materials and reading assignments students normally receive. Class assignments also parallel those given, so little additional teacher curriculum design must take place, and none is required of the parent. Students experiencing problems are encouraged to email their teachers to gain assistance. Parents function as only one of several educational resources. Students, therefore, benefit from using their own initiatives, traditional resources, and parental assistance to get the best of both home schooling benefits and traditional schooling resources (personal communication, J. Chubb, March 16, 1999; Bracci, 1999; Braun, 1999).

Further, the curriculum is developed from the state's base requirements and, because students are still assigned to a base high school, they can receive guidance on their choice selections toward graduation completion from either their base high schools or the EHS principal. Organization is equally simple because it involves minimal full-time staff located in one suite of offices in the state education building supplemented by teachers on as-needed bases from around the state (personal communication, J. Chubb, March 16, 1999; Bracci, 1999; Braun, 1999).

Finally, EHS provides all the benefits of a web-based education. Such educations allow students from different cultural backgrounds the opportunity to learn about their own cultures as they learn about the cultures in which they find themselves. They also offer the potential opportunity for students from minority groups to gain assistance in learning and understanding assigned materials through on-line translation and other computer-based facilities. Finally, they make the world the learning classroom, allowing students to gain information on cultures and perspectives that help them understand evolving societal challenges (Chen, Mashhadi, Ang & Harkrider, 1999; Collis, 1999; Slowinski, 1999; Joo, 1999; McLoughlin, 1999).

EHS and Cooperation and Collaboration

A number of challenges may yet face EHS's program, but one significant challenge becomes obvious at this time. Pre-public school education incorporated opportunities for adolescents to learn to work with others through life-based cooperative and collaborative activities. Today's public and private schools have increasingly incorporated such cooperative and collaborative interactions into their curricula. However, like correspondence programs, EHS's cyber program has not as yet incorporated similar activities. Instead, EHS designers hope such experiences will be gained through adolescents' other learning environments, an assumption that may or may not have merit depending on which classes students must attend outside the cyber school.

At present, classes taken outside the environment are not those designed to provide student cooperation and collaboration. Such interactions prove both possible and easy to facilitate in such a program, as evidenced by college and graduate programs such as those currently conducted by Walden University where on-line collaborations between students are incorporated into classes and conducted through email and other media. In addition, collaborations occur during residency days, days in which students are required to attend face-to-face classes

to round out the on-line learning experience, allowing such students the benefit of both group and individual learning. EHS as yet has no plans for the incorporation of such activities into its curriculum, perhaps because it already requires students attend a certain number of classes in residence at local schools in order to qualify for graduation.

CONCLUSIONS

The traditional smokestack school paradigm considers technology a teacher, while the modern information technology paradigm sees technology rather as a resource and facilitator (McKenzie, 1993). Although Utah's EHS students' long-term activities, educational successes, and life adjustment have yet to be examined and students' opportunities to learn cooperative and collaborative interactions have yet to be addressed, the program offers numerous advantages. They include lowered costs for both schools and parents, flexible schedules, quality education, opportunities for accelerated learning, and more.

As episodes like Littleton illustrate, one important advantage is that, even in the cyber environment, its emphasis on human interaction and adolescent socialization continues to exist. Although many see technology as the needed

panacea to cure all evils -- allowing cost cutting, compensating for local physical or personnel resource shortages, and allowing the student to control the speed of educational advancement -- society cannot afford to forget the need to provide positive social interaction. Utah's EHS provides both positive cyber opportunities and the opportunity for maintained IRL opportunities that gives its students, perhaps, the best of both worlds.

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