



# The Florida Senate

*Interim Project Report 2004-125*

*January 2004*

Committee on Criminal Justice

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## POTENTIAL CRIMINAL JUSTICE BENEFITS OF HIGH SCHOOLS' USE OF MULTIMEDIA RESOURCES ON FORENSIC SCIENCE AND THE CRIMINAL JUSTICE SYSTEM

### SUMMARY

High schools' use of multimedia resources providing information on forensic science and the criminal justice system may benefit the criminal justice system. These resources can provide students with information that increases their understanding of the criminal justice system. The better their understanding of that system, the more able they are to positively interact with it.

Use of such multimedia resources can provide school resource officers with opportunities to teach in the classroom and interact with students, which helps build trust between them and increases students' understanding of the challenges and complexities of law enforcement. Additionally, research indicates that certain multimedia resources may help prevent antisocial behavior.

Multimedia resources provide a viable means for the courts and criminal justice agencies to impart useful, course-related information when time or other constraints make live presentations at the schools or students' visitation to the courts and agencies difficult or impossible.

Multimedia resources provide a means and an opportunity for the courts and criminal justice agencies to educate students about criminal justice careers in Florida.

This report provides a "snapshot" of the use or possible use of such multimedia resources in the high school classroom. It focuses on use of these resources in five high schools, four of which have law magnets or academies, and details comments and suggestions made by teachers at those schools regarding the use and benefits of multimedia resources on forensic science and the criminal justice system. These teachers'

comments and suggestions should be reviewed and considered by the Department of Education, school districts, universities and colleges, police academies, the courts, the Florida Bar, and state and local criminal justice agencies to determine if any action should be taken by them.

### BACKGROUND

#### Preface: Staff's Focus and Review Parameters

This report focuses on the possible benefits to the criminal justice system of high schools' use of multimedia resources providing information on forensic science and the criminal justice system. Staff focuses on possible benefits to the criminal justice system because of this committee's review of matters and issues relevant to that system. However, the use of such multimedia resources in the classroom is dependent on how they benefit students in terms of enriching learning or facilitating the teaching of the students' curricula.

Staff's discussion of "multimedia" is of multimedia made accessible or delivered by means of an electronic technology. "Multimedia resources" include both multimedia in a "pre-canned content"<sup>1</sup> and interactive multimedia, which is primarily computer-mediated multimedia.

Staff chose to look at high schools because most of the content of the multimedia resources on forensic science and the criminal justice system reviewed is at the high school level. The focus on law magnets or academies was partially due to time constraints and partially due to the likelihood that these schools would be the primary users of such resources because of their law or

<sup>1</sup> Kellerman, Anne. "Educators studies involving using media and multimedia." (August 10, 2000) ([http://www.suite101.com/article.cfm/multimedia\\_education/45711](http://www.suite101.com/article.cfm/multimedia_education/45711)).

criminal justice orientation,<sup>2</sup> which is not to suggest that such resources are not used or would not be used in other schools. This report details the comments and suggestions of teachers from five high schools, four of which have law magnets or academies, regarding the use and benefits of multimedia resources on forensic science and the criminal justice system.

Forensic science is the application of science to criminal and civil law. Criminalistics, a major practical application of forensic science, involves finding, identifying, and evaluating evidence at a crime scene. Staff's discussion of "multimedia resources" distinguishes between resources on forensic science and resources on the criminal justice system only because the teaching of forensic science in the high school classroom is a fairly recent development that has gained nationwide attention.<sup>3</sup>

### Defining "Multimedia"

There are numerous definitions of the term "multimedia," many of which only associate the term with computer-mediated multimedia. However, for the purpose of this report, staff refers to multimedia resources made accessible or delivered by any electronic technology, which acknowledges the technological antecedents of computer-mediated multimedia resources, some of which are still very much in use in the classroom, such as the VHS videotape. The term "media" includes, but is not limited to, text, graphics, animation, sound (audio) and the visual (video).

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<sup>2</sup> An important component of law-related education (LRE) is student interaction, as evidenced by such activities as workgroups, guest lecturers, job shadowing, internships, mock trials, and field trips. Interactivity is also being emphasized in the development and design of multimedia, particularly computer-mediated multimedia.

<sup>3</sup> See "Lured to a life of crime-scene investigation/Interest in forensic science has surged in the wake of 'CSI's' popularity," *Fresno Bee* (January 6, 2003); "Clued in students' interest in forensic science is surging, and it's no mystery, what with the popularity of TV's CSI shows and the lure of high-tech crime solving," *Orlando Sentinel* (December 3, 2002); "High-Schoolers Queuing for Clues/Teens Examine Mock Crime Scenes," *Daily News of Los Angeles* (December 1, 2002); "Forensics a Hot Topic for Science Classes," *The Commercial Appeal* (Memphis, Tennessee) (November 14, 2002); "Students Use TV-Inspired Forensics," *The Associated Press News Service* (October 24, 2002).

"In 1962, Merriam-Webster defined the word 'multimedia' as an adjective to mean 'using, involving, or encompassing several media.'" At that time, the term "multimedia" most frequently referred to "a systematic approach – such as a method of teaching – where the traditional ways of imparting information, by printed material or lecture, was enhanced by flipcharts, live television programs, film, or overhead projection."<sup>4</sup>

"In the 70s, 'multimedia' more often referred to multi-projector slide presentations." In the 80s, videotape emerged and solved some of the problems with projectors: relatively "rudimentary" programming; "unwieldy" presentations (large amounts of equipment were required, which made transportation and set-up difficult); and "pinpoint accuracy of adjustment to produce the effects desired...." "Rapid progress in the medium [videotape] improved visual and sound quality until film, until then the standard of the television industry, was overtaken and bypassed for videotape's ease of use and adaptability." The use of VHS videotape in TV monitors "provoked the wholesale conversion of audiovisual media from photo-reliance to live action and, eventually, digitized or computer enhancement that continues to integrate and improve almost on a daily basis."

"The 90s advent of desktop, laptop, and 'palmsize' computers allowing interactivity, sophisticated 'user-friendly' graphics programs, new sound technology, scanners, video and film capture, and, of course, the Internet, has brought multimedia into its own. No longer an adjective, it is a well-respected noun with uses not yet fully explored."

### Children's Exposure to Multimedia

It is inarguable that today's children are immersed in and intimately familiar with multimedia. "Children are growing up in a media-saturated environment. Current estimates suggest that the 'average' American child between 2 and 18 spends 5 [hours] and 48 [minutes daily] with electronic media and 44 [minutes daily] with print media (Roberts et al., 1999). Television still dominates children's media landscape, accounting for 3 [hours] and 25 [minutes] of watching videotaped or live programming. Music, computer use, movies, and

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<sup>4</sup> Megrail, Carol. "What is Multimedia?" (June 1, 1999) (<http://www.suite101.com/article.cfm/542/20977>). The discussion of the history of multimedia provided in this report is from this source.

video games account for the rest of the electronic media diet.”<sup>5</sup>

### Classroom Uses of Multimedia Resources

There are numerous multimedia resources and websites with multimedia resources on forensic science and the criminal justice system, and/or lesson plans to integrate such multimedia resources. Some offer free multimedia; others must be purchased or are accessible by paying a fee. A representative sampling of multimedia resources and websites that provide them include: Court TV; Street Law, Inc.; PBS Video; Nova (and Nova Teachers); “Justice by the People” (the American Board of Trial Advocates); Social Studies School Service; MarcoPolo Education Foundation; A & E Television Networks (and A & E Classroom); Discovery Channel School; Access Excellence; “Evidence: The True Witness” ([www.thinkquest.org](http://www.thinkquest.org)); “DNA Detectives” (Dolan DNA Learning Center, Cold Spring Harbor Laboratory); “An Introduction to Forensic Firearm Identification” ([firearmsID.com](http://firearmsID.com)); “Forensic Geology: The Pool of Sand” (Montesano School District, Washington); [whyfiles.org](http://whyfiles.org); Xcursion Central (Riverdeep Interactive Learning); Forensic Science (<http://renoir.vill.edu/~ysp/Teacher/Webpages/Forensics/forensic.html>); “Which Dog Did It?” DNA Fingerprinting Laboratory (Office of Biotechnology, Iowa State University); “Interactive Investigator” (Virtual Museum Canada); “Bones and the Badge” (<http://projects.edtech.sandi.net/kearny/forensic/>); New York Times Learning Network; “CSI: Crime Scene Investigators” (CBS.com); FBI Youth; the Biology Project, BioTECH Project, and BioREACH Project (University of Arizona); ENC Online (Eisenhower National Clearinghouse for Mathematics and Science Education, Ohio State University); and “Virtual DNA Fingerprinting Laboratory” (Partnership for Plant Genomics Education, University of California, Davis).<sup>6</sup>

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<sup>5</sup> Gentile, Douglas A. and Walsh, David A. “A normative study of family media habits.” *Journal of Applied Developmental Psychology*, Vol. 23, Issue 2 (March 2002). Bracketed insertions provided by staff provide full text of terms abbreviated in the article.

<sup>6</sup> A few examples of Florida-produced multimedia include: “Life Inside,” a video with curriculum, produced by the Florida Department of Corrections; “Crime and Consequences” and “Rethinking Violence,” videos produced by the State Attorney’s Office in the 4th Judicial Circuit; “Shattered Lives,” a video produced by the State Attorney’s Office in the 18th Judicial Circuit; the “Straight Talk” website (Leon County Sheriff’s Office and other supporting sponsors) and disks of Leon County school resource officers’ PowerPoint presentations; a CD-ROM on forensic science produced by the Columbia

It is unclear to what extent Florida courts and criminal justice agencies produce or provide multimedia resources on forensic science and the criminal justice system.<sup>7</sup> Inquiries from staff to state and local criminal justice agencies produced some lists of resources, which appear to consist primarily of videotapes with prevention-oriented or intervention-oriented content.

Multimedia resources have been produced by multimedia departments and film departments in high schools. For example, ARTEC Academy at Miami Senior High School has written, produced, directed and edited public anti-drug messages. School districts with multimedia resource centers may also assist high schools in the production of multimedia resources for use in the classroom.<sup>8</sup>

Recently, Cable in the Classroom (CCC) funded three education/cable projects with research and evaluation components to assess the benefits of using Court TV-provided multimedia resources in the high school classroom. One of these projects is referred to as “Project I2J: From Investigation to Justice.” The pilot project is currently taking place in high schools in Dayton, Ohio, and Leon County, Florida.

Project I2J uses broadband and multimedia resources to address teaching standards for high school physical science and social studies curricula. It is based on “Forensics in the Classroom,” a free, three-unit curriculum. The units can be downloaded as PDF files. The curriculum combines standard lab experiments with easy-to-complete forensic techniques. Students use clues and investigative methods to solve three mysteries. The curriculum was developed in partnership with the American Academy of Forensic Sciences.

Additionally, Project I2J is based on “Homicide: Life on the Street: Lessons in the Law,” a curriculum added to Court TV’s “Choices and Consequences”

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County Sheriff’s Office; “Not Free,” a video produced by the Pasco County Sheriff’s Office.

<sup>7</sup> The website of the Florida Law-Related Education Association (FLREA) does list some multimedia resources. While all of them are relevant to law-related education, only a few provide information that appears to be useful to a teacher of a high school *criminal justice* course.

<sup>8</sup> Department of Education (DOE) staff told committee staff that there are means to make multimedia resources prepared by a school in one location accessible to schools in other locations and that assistance is available for developing multimedia resources.

educational initiative. The curriculum uses clips from the television show "Homicide: Life on the Street" as a multimedia learning device, and includes print and online lesson plans. Court TV and Street Law, Inc., a non-profit law-related education service, partnered to develop the curriculum.<sup>9</sup>

According to CCC, "[b]oth curricula offer experiential learning opportunities using cable technology all in the real-world context of a courtroom, crime scene, or scientific laboratory, encouraging thematic learning, team teaching and a synergy among subjects that are often taught in isolation."<sup>10</sup>

In addition to using some of the multimedia resources previously described, some teachers at the law magnets and academies used law enforcement videos, a software program that teaches trial techniques, a software program identical to the program used by law enforcement for witness identification, and the Firearms Automated Training System (FATS).

Teachers at the schools staff visited or surveyed stated that they believe multimedia resources can benefit students. The benefit of multimedia most frequently cited by teachers was that it makes the class work more "real" for students. Regarding multimedia use in the teaching of forensic science, Veronica Harris, a teacher at Dr. Phillips High School, remarked that multimedia "authenticates instruction; students are willing to accept and appreciate its scientific relevance." Sue Ricks, a teacher at Boone High School, stated that multimedia allows her students to "see many of the procedures modeled in the video that we do not have resources for in the classroom." Kim Davison, a teacher at Boone High School, stated that multimedia "enhances the learning experience with students of varying learning styles." Other benefits cited include

observing practical demonstrations of what students are studying in class, providing students with the ability to put into practice what they have learned, and enhancing students' interest in the subject matter.

While these teachers indicated that multimedia resources can benefit students, it is uncertain if their opinion is representative of the opinion of high school teachers in all of the law magnets or academies or of high school teachers in general. In discussions with staff, Dr. James Marshall, one of the researchers for Project I2J, remarked that "[t]he bottom line with any curriculum is that teachers have to want to do it - and that means they have to see value, and believe that their efforts to implement will payoff. In these days of accountability, that typically means gains on high stakes tests. If they don't see a direct correlation, there are other things they'll do which yield a predictable result."<sup>11</sup> In a similar vein, Cable in the Classroom recently remarked that "[w]ithout stronger proof that technology can transform classroom teaching and learning, some teachers remain reluctant to integrate technological tools and content into the curriculum. So far a comprehensive scientifically grounded accumulation of such evidence is incomplete."<sup>12</sup>

Teachers made several suggestions that they thought might further the use of multimedia resources. They suggested providing more high-school level multimedia resources. A frequently cited concern was finding high-school level multimedia resources (as well as textbooks) on forensic science and the criminal justice system. Teachers also indicated that there were few multimedia resources relating specifically to the Florida criminal justice system. Several teachers wondered if the Florida Department of Law Enforcement (FDLE) and other criminal justice agencies would be willing to produce such multimedia resources. Another suggestion was hyperlinks on each agency's website to multimedia resources available on the Web.

Teachers suggested providing more multimedia resources on criminal justice careers in Florida. Most career information appears to be obtained through

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<sup>9</sup> Comcast Cablevision of Tallahassee has partnered with Court TV to provide the broadband capability. James Marshall, a professor at San Diego University, and Kathryn Radosso, a faculty member at the Fielding Graduate Institute, are conducting the research. Findings of this research were not available at the time this report was completed.

<sup>10</sup> "Three Education Demonstration Projects to Examine Educational Impact of Technology and Content," *News Release, Cable in the Classroom* (March 5, 2003). See "Students getting a shot at the law," *Tallahassee Democrat* (April 23, 2003).

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<sup>11</sup> E-mail from Dr. Marshall to staff, dated December 12, 2003.

<sup>12</sup> See note 9.

student-initiated research, guest speakers, field trips, and teachers' lectures.<sup>13</sup>

Teachers suggested providing more funding for computer resources and multimedia projectors<sup>14</sup> and for repair and replacement of them, as needed.

Teachers suggested providing better information on available multimedia resources on forensic science and the criminal justice system, particularly free or inexpensive resources. They indicated that they have limited time<sup>15</sup> to seek out multimedia resources and review and evaluate them to determine if they are content appropriate and consistent with Florida standards and the curriculum. Teachers were unaware if DOE provided any catalogue of standards-based multimedia resources, especially free resources that could be accessed by any teacher.<sup>16</sup>

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<sup>13</sup> Criminal justice is an increasingly popular choice of majors for college and university students. In 2002, Noel-Levitz, an operating division of Sallie Mae, a leading educational lender, surveyed higher education institutions. Seventeen percent of the 330 responding institutions reported an increased interest in specific programs after the events of September 11, 2001. The program that generated the greatest student interest was criminal justice. Sixty percent of those stating an increase in student interest reported an increased interest in criminal justice. "The Impact of September 11 on College and University Enrollment." *Noel-Levitz Research Report* (February 2003) (Research Study by Noel Levitz and Sallie Mae).

<sup>14</sup> Multimedia projectors can be important assets for teachers who want to use multimedia resources on the Web or conduct Internet research. The projectors are particularly useful when classrooms are small or there are a large number of students in the classrooms. Debra Mitchell, a teacher at Boone High School, stated: "As more teachers get multimedia projectors in their classroom, the benefits [of multimedia] will reach more students. Teachers can model research skills using the [I]nternet and videos and DVDs can also present information in unique ways to enhance student learning."

<sup>15</sup> Limited time was a frequently cited concern regarding multimedia use. Some teachers' comments to staff appeared to indicate that the type of multimedia resources that are not likely to be used in the classroom are those that simply duplicate written materials in the class and/or those which have so many "bells and whistles" that it is difficult for teachers and students to quickly access the information they need.

<sup>16</sup> The need for better information was also cited regarding information on funding, networking opportunities, and staff development/training opportunities.

Teachers suggested providing more opportunities for "networking" among the law magnets and academies about teaching forensic science and criminal justice-related courses. They indicated that it would be useful to meet and discuss curriculum development, best practices, instructional materials, resources, technology issues, funding issues, and other matters of common interest. Within this forum, issues involving use of multimedia resources could be discussed. Ed Asper, the lead teacher of the law magnet at Miami Senior High School, suggested a pilot project involving the schools discussed in this report. DOE, school districts, state and local criminal justice agencies, the courts, and others could partner with the schools. He also suggested a survey of the teleconferencing capabilities of schools and agencies. Max Loden, the program coordinator for the Criminal Justice Academy at Pinellas High School, suggested the creation of a committee of professionals (forensic investigators, law enforcement professionals, and teachers) to develop resources for teaching forensic science and the creation of a committee of LRE teachers to develop resources to be used in high school teaching. Rod Larsen, a teacher at West Orange High School, suggested a listserv or users group for teachers of forensic science, if adequately funded. Other suggestions offered were a summit and regional conferences.

Several teachers stated that they needed stronger working relationships and more significant or better contacts with the courts, some universities, police academies, and criminal justice agencies to discuss various issues, including the need for more multimedia resources. They suggested a contact directory of resource persons and a list of guest speakers who would be available to speak in the classroom on various topics. The agency most frequently mentioned in reference to developing more significant or better contacts was FDLE. Regarding universities, some Orange County teachers indicated they did not have any significant contact with the forensic science faculty at the University of Central Florida, which is the site of the National Center for Forensic Science.

Science teachers interviewed or surveyed indicated that use of multimedia resources on forensic science might be improved if there was a course in forensic science, and they suggested that DOE consider establishing such a course.<sup>17</sup> Teachers stated that they are currently

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<sup>17</sup> Rod Larsen, a teacher at West Orange High School, is currently going through the process of seeking approval of such a course.

integrating information and multimedia resources on forensic science into various science courses.

Students interviewed by staff stated that forensic science interested them, and that interest was confirmed by science teachers interviewed or surveyed by staff. Most of the teachers credited the interest in forensic sciences to television shows like "CSI" and "Forensic Files." Benefits of forensic science mentioned by teachers include its interdisciplinary nature, career opportunities available, its usefulness in promoting understanding of the impact science can have on criminal cases and the practical application of science, and its usefulness in promoting writing and reading skills and higher-level critical thinking.<sup>18</sup>

Teachers suggested more staff development opportunities/training in their subject areas<sup>19</sup> (technological training was not mentioned). While all of the teachers interviewed or surveyed were experienced teachers, few of them had previous experience as law enforcement officers or in some other criminal justice-related profession. Science teachers hoped that FDLE might be able and willing to provide teaching seminars by crime lab professionals. Some teachers also indicated it would be beneficial to have time off for extra study, stipends to attend seminars, and summer workshops with stipends and/or college credit.

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<sup>18</sup> Deborah Wasylik, a biology teacher at Dr. Phillips High School, noticed that terminology and materials on DNA taught in her course were frustrating for her students who were not "avid readers." Ms. Wasylik used a Discovery Channel forensic science show, Court TV Web resources, and crime-scene software developed by the University of California, Davis, to create an "investigative unit that had students solve a murder." While students were not relieved of the obligation to read, the reading "became less of a chore." For this "unusual teaching technique," Ms. Wasylik was awarded the "the top reading and technology award given by the International Reading Association..." "Crime pays big for teacher," *Orlando Sentinel* (May 5, 2003).

<sup>19</sup> FLREA provides LRE training and networking opportunities for LRE teachers, which were mentioned by a few teachers. It is possible that FLREA was not more frequently cited as a resource because teachers were focusing more specifically on opportunities for training and networking related to forensic science and criminal justice-related courses rather than more generally on opportunities for LRE training and networking.

### The Possible Benefits to the Criminal Justice System of High Schools' Use of Multimedia Resources

To the extent multimedia resources on forensic science and the criminal justice system can provide students with a better understanding of the criminal justice system, the criminal justice system benefits. The more youth understand the criminal justice system, the more able they are to positively interact with it. "Young people who understand the law, the legal system, and their role in obeying existing laws and influencing the passage of new laws have a vested interest in practicing good citizenship. Valuing their roles as citizens and feeling connected to democracy help youth understand why they should obey the law."<sup>20</sup>

Use of multimedia resources in law-related education courses can complement textual materials used in those courses. The multimedia resources reflect how law is actually encountered, which is not simply through written text. "The way people encounter the law is often through images, sounds, or filmic representations."<sup>21</sup>

Use of multimedia resources can benefit school resource officers (SROs) and students. According to the Center for Prevention of School Violence, teaching LRE is a crucial role that SROs fill in the schools. Several of the lessons in "Homicide: Life on the Streets: Lessons in the Law" can be taught by SROs.<sup>22</sup> Teaching these lessons benefits the SROs in their other roles as law-related counselors and law enforcement officers by providing opportunities for interaction between the SROs and students, which helps build trust

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<sup>20</sup> Nessel, Paula A. "Youth for Justice." *Juvenile Justice Bulletin* (April 2001), Office of Justice Programs, U.S. Department of Justice.

<sup>21</sup> Tait, David and De Young, Robert. "Displaying the Law: A Cross-disciplinary Learning Experiment Using the Internet and Multimedia Technology." *International Review of Law Computers & Technology*, Vol. 14, No. 2 (2000).

<sup>22</sup> "Major Al Watson of the Leon County Sheriff's Office, likes Project I2J because he thinks it will spur teachers to use the school resource officer in the classroom more frequently.

"Any time we can get the SROs into the classroom with the children, we like that," he said. "It helps them to see that law enforcement is their friend, first of all. And that we're people just like anybody else."

"Students getting a shot at the law," *Tallahassee Democrat* (April 23, 2003).

between them and increases students' understanding of the challenges and complexities of law enforcement.<sup>23</sup>

Research indicates that certain multimedia resources may have a positive impact in the prevention of antisocial behavior. For example, a study of the anti-violence initiative, "Choices and Consequences," which was developed by Court TV in association with Cable in the Classroom and others, found that it had a positive impact on antisocial behaviors, even though a short-term intervention. The researchers found that the initiative "increased students' ability to empathize with fellow teens across a variety of emotionally charged situations," was effective in reducing verbal aggression, and held constant and prevented increases in physical aggression.

A videotape used in the curriculum "showed teenagers appearing in court in trouble with the law." The researchers found that "[u]se of actual courtroom footage of young people likely increased the potential for students to empathize with the people and situations featured in the curriculum." Teachers in the study stated that "one of the reasons they found the curriculum so useful is that their students were fascinated by the videotapes and became emotionally involved in the subject matter as a result."<sup>24</sup>

Multimedia can provide a viable means for the courts and criminal justice agencies to impart useful, course-related information to the schools. Teachers can use the multimedia resources whenever they determine they are appropriate and useful. The resources are not a replacement for guest speakers and live interaction, but rather a means to present useful, course-related information when time or other constraints make live presentations at the schools or students' visitation to the courts and agencies difficult or impossible. Additionally, multimedia, such as television shows like "Forensic Files" or virtual field trips on the Web, can provide teachers and students with access to sites which would otherwise be difficult to access or be inaccessible.

<sup>23</sup> See "Classroom Interaction Builds Trust Between Cops, Youth," *Street Law News Online* (Fall/Winter 2002) ([http://www.streetlaw.org/newsletter/fall-winter\\_02/sro.html](http://www.streetlaw.org/newsletter/fall-winter_02/sro.html)).

<sup>24</sup> Wilson, Barbara J. et al. "The Choices and Consequences Evaluation: A Study of Court TV's Anti-Violence Curriculum." Center for Communication and Public Policy, University of California, Santa Barbara (1999). All references to and quotations from this study are from this cited source.

Finally, multimedia provides a means and an opportunity for the courts and criminal justice agencies to provide students with interesting and relevant information on criminal justice careers in Florida.

## METHODOLOGY

Background information and findings are based primarily on site visits to and interviews with teachers and students at four schools which have either a law magnet or academy: the Legal and Public Affairs Magnet, Miami Senior High School; the Center for Law, Finance and Criminal Justice, William R. Boone High School, Orlando; the Law, Government and Public Service Academy, West Orange High School, Winter Garden; and the Criminal Justice Academy, Pinellas Park High School, Largo.

Information and findings are also based on responses to a survey by the described schools and one additional school, which staff was unable to visit, but which provided information and assistance to staff: Dr. Phillips High School in Orlando.

Information was also obtained from Dr. James Marshall, San Diego State University; Annette Boyd Pitts, the Florida Law-Related Education Association; Anita James, Comcast Cablevision; Carolyn Wapnik, Cable in the Classroom; Lee Tenebruso, Court TV; Mike Odom, Leon County School District; the Florida Department of Corrections; Tom Berlinger, the Florida Sheriffs Association; the Office of the Sheriff in Columbia County, Leon County, Hernando County, and Pasco County; the Florida Prosecuting Attorneys Association; the Office of the State Attorney in the 4th and 18th Judicial Circuits; research papers and news articles.

## FINDINGS

- To the extent multimedia resources on forensic science and the criminal justice system can provide students with a better understanding of the criminal justice system, the criminal justice system benefits. The more youth understand the criminal justice system, the more able they are to positively interact with it.
- Use of multimedia resources in law-related education courses can complement textual materials used in those courses. The multimedia resources reflect how law is actually encountered, which is not simply through written text.

- Use of such multimedia resources can provide school resource officers with opportunities to teach in the classroom and interact with students, which helps build trust between them and increases students' understanding of the challenges and complexities of law enforcement.
- Certain multimedia resources may have a positive impact in the prevention of antisocial behavior.
- Multimedia can provide a viable means for the courts and criminal justice agencies to impart useful, course-related information to schools when time or other constraints make presentations at the schools or students' visitation to the courts and agencies difficult or impossible.
- Multimedia provides a means and an opportunity for the courts and criminal justice agencies to provide students with interesting and relevant information on criminal justice careers in Florida. Film and multimedia departments at high schools might be able to produce multimedia resources.
- The courts and criminal justice agencies have a wealth of information and specialized knowledge that could benefit high schools students and might be shared with students by means of multimedia resources.
- In the opinion of teachers interviewed or surveyed for this report, multimedia resources on forensic science and criminal justice can benefit students. Given the limited scope of this report, no conclusions can be made as to whether this opinion is representative of the opinion of high school teachers at all law magnets or academies or of high school teachers in general.
- Teachers have limited time and many demands on that time. Requiring teachers to use any multimedia resource would likely be counterproductive, but making multimedia resources more accessible, available, "user-friendly," and inexpensive might encourage use of multimedia resources in the classroom to the students' benefit.
- There is an identified need for additional academic research to assess the benefits of using multimedia in the classroom, such as the research funded by Cable in the Classroom (CCC) on the use of Court TV-provided multimedia resources in high schools in the Leon County School District.
- If outcomes of the CCC-funded research are positive, other school districts may wish to consider using the Court TV-provided resources in the high school classroom.
- Teachers interviewed or surveyed for this report made several suggestions that they believe might further the use of multimedia resources on forensic science and the criminal justice system:
  1. Provide more high-school level multimedia resources, especially resources that are standards-based and include lesson plans and worksheets.
  2. Provide more multimedia resources on the Florida criminal justice system and criminal justice careers in Florida.
  3. Provide funding for computer resources and multimedia projectors and for repair and replacement of them, as needed.
  4. Provide better information on available multimedia resources on forensic science and the criminal justice system, particularly free or inexpensive resources.
  5. Provide more opportunities for "networking" among the magnets and academies about teaching forensic science and criminal justice-related courses (see "Background" section for more detailed suggestions).
  6. Develop stronger working relationships and more significant or better contacts with the courts, police academies, some higher educational institutions, and criminal justice agencies.
  7. Establish a course in forensic science.
  8. Provide more staff development opportunities/training in teachers' subject areas (see "Background" section for more detailed suggestions).

## RECOMMENDATIONS

Staff recommends that the Department of Education, school districts, universities and colleges, police academies, the courts, the Florida Bar, and state and local criminal justice agencies review and consider the comments and suggestions made by teachers in this report regarding the use and benefits of multimedia resources on forensic science and the criminal justice system to determine if any action should be taken by them.