
RAMIFICATIONS OF INSTRUCTIONAL TECHNOLOGY FOR CRIMINAL JUSTICE EDUCATION

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Abstract

Online courses and developing technology in instruction have changed the nature of university teaching and are crucial to the future of criminal justice education. The integration of audio and visual material into instructional delivery in the form of canned lectures, pod casts, and elaborate online courses has created the potential for fully customized education. The ramifications of the continued development and adoption of technology in instruction hold the prospects of stimulating discussion on teaching, changes in curricula, and closer assessment of the quality of instruction in online and live courses. Doctoral programs may well consider producing graduates who are skilled in the latest technology in order to bolster their attractiveness on the job market. Resistance to these changes is sometimes based on unfounded contentions. In spite of the growth of online courses, there remain valuable qualities in live instruction and curricula, and faculties will likely seek a balance between the newer forms of teaching and live instruction in order to accommodate the advantages of both.

Key words: technology, instruction, criminal justice, education, online courses

INTRODUCTION

Financial concerns and emerging technology are creating many of the challenges facing educators in the coming decades. The future of criminal justice programs is filled with prospective changes that will affect many in higher education (Allen, 2008; Lemke, 1993; Wilet & Edwards, 2002). With shifts and vicissitudes in the international and national economy, the emergence of new security concerns, and the perpetuation of conventional crime problems on one hand, and the economic and organizational challenges facing colleges and universities on the other, criminal justice departments in higher education will be seeking survival strategies

just as vigorously as other academic departments with which they will compete for scarce resources. In this climate of transformation, an important ingredient will be the escalating instructional technology which will provide one of the tools to use to contend with the problems associated with academic maturation in the next few decades (Gumport & Chun, 1999). It is prudent to anticipate the possible ramifications for criminal justice education that emerging instructional technology and the associated applications represent. Much of the future of criminal justice systems will be shaped and influenced by those passing through criminal justice education programs and consequently the structure of that enterprise is crucial. The large enrollment environment is one place where technology has had a significant impact as far as serving numbers is concerned and consequently that is the primary setting for the ruminations that follow. The thoughts and observations are offered by one who had been teaching for over forty years in small and large enrollment environments, and has taught online courses during the last fourteen years. Most of the following discussion will focus on online instruction and delivery although the observations offered may apply more broadly in many instances.

Technology, broadly interpreted here includes online courses, video presentations, canned lectures, and the use of pedagogical tools such as Tegrity, has provided a learning environment that practically mirrors the large, traditional lecture hall and creates a virtual classroom. Although not all universities are at the same level of development and accessibility, today it is possible to create audio-visual presentations of class lectures and demonstrations, and much more (Hesel, 1992; Matthews, 1999). This might involve the inclusion of professionally or self produced DVDs; integration of audio-visual materials into classroom and online presentations; canned video lectures; expanded use of web instructional tools; clickers; or other strategies for delivering information or engaging students (Boulos, Hetherington & Wheeler, 2007). One can prepare a refined presentation that exceeds the normal features of the traditional lecture. The technology to create such presentations is available and will likely improve dramatically in the next ten years so that complete interaction and instant communication between faculty and student via the internet are available.

For many faculty members today, instructional technology begins with online instruction. Several years ago, online instruction was advanced and represented the cutting edge of teaching technology (Allen & Seaman, 2006; Kriger, 2001). Today it represents the first primitive step into the future. What lies beyond the conventional posting of lectures, other written materials, and assignments to be submitted online is a significant transformation of the way faculty members do their jobs and the rationale for doing it. The new technological forms will have significant consequences for structural features such as curricula and department organization. There are signs that this development is currently in progress. Online instruction is a given fact on most campuses today to the extent that some programs and universities exist entirely online. There are several compelling reasons that suggest the inevitability of advanced technological sophistication in instruction or explain its presence. The first is that technology is continuing to expand regardless of what use educational institutions may find for it. The world of electronic gadgetry is here with cell phones, I-pods, clickers, portable GPS systems and countless software

programs of all sorts for innumerable purposes. Higher education, like any other institution in society, tends to take what hammers are available and then go looking for nails to hit. There is a group among the teaching ranks in higher education that places emphasis on style while ignoring substance. It cannot resist the temptation of technological gadgetry and this group will feel compelled to indulge itself, simply because the toys are there.

In addition, it is important to recognize that today's students are generally well equipped to utilize these mechanisms. They have been socialized in a culture populated by electronic devices and they have become relatively facile in their uses. Students are able to communicate with others using this equipment and many students now favor electronic communication instead of face-to-face interaction. Putting the faculty who favor electronic delivery with a capable student constituency means that this form of instruction is well received by a substantial number of students.

The second reason is more pragmatic in that technology will be portrayed to be financially beneficial (Twig, 2003). Universities, acting in what they think is their best interests, will adopt the new technology because they perceive it to be financially advantageous to do so. More and more courses and curriculum concerns will be driven by the presence of technology. Universities whose resources and facilities are impacted heavily by an increasing student population can find some relief in online instruction. Online instruction will not only help to enroll widely dispersed student constituencies that cannot otherwise be reached, but it will also facilitate accommodation by reducing pressure for additional classroom space, dormitory rooms, etc. of on-campus students. This enrollment is critical for those institutions and programs that depend on student numbers for survival. Criminal justice courses and programs would appear to be one of the prime beneficiaries of this possibility. One of the main constituencies for criminal justice programs are practitioners in law enforcement, corrections, or the judicial system, and the ability to enhance educational credentials through online programs is appealing to fulltime, working personnel.

The emergence of technology and the necessity for financial prudence assures that the developments and innovations in educational delivery will continue. That being the case, what does it mean for university level education in general and criminal justice education in particular? Given that web courses and other newer forms of instruction are rapidly proliferating with important consequences for criminal justice programs, it would be wise to consider several primary aspects of the emerging technology and to speculate about what may be anticipated for criminal justice educators.

CONSEQUENCES AND RAMIFICATIONS

Assuming that criminal justice departments accept the inevitable, at least in principle, there are some immediate consequences that will be felt by academic departments as several factors converge producing results that if ignored may be detrimental. First, the technology expansion itself will call for more technical support. Departments may very well become

obligated to make budgetary provisions for a fulltime technical support person. The need for such a person will depend on the scale of involvement an academic unit chooses to pursue and the level of capability of the faculty members involved. As this issue is advanced, there will be questions raised concerning whether or not these services should be centralized or decentralized, matters that will have to be determined by the context in which they appear and the local political winds.

A second consequence will center on becoming able to compete. As more and more programs go online, the competition for students will escalate. Traditional universities and departments will be challenged by for-profit programs on the internet. The brick and mortar schools will try to develop incentives for students to enroll in their respective programs. Those incentives may be financial ones, the appeal of the web, the strength of institutional reputation, or the appearance of the “easier” curricula. The convenience of online instruction is a strong inducement and most certainly will be heavily emphasized. Students will seek alternatives to the very expensive, traditional college or university and search for the options that provide convenience and economy. The shortened, web-based program will appeal to this group.

Third, the national trend toward the reduction of fulltime, tenure earning faculty will continue. By using large enrollment online courses, more students will be able to be served more easily, and the need for fulltime teaching faculty, while not disappearing, will diminish slightly (Parry, August 14, 2009). (This does not necessarily mean a significant loss of fulltime faculty; critical instructional needs and the research obligation of the department will continue require fulltime staffing.) The reduction in tenure track positions will be assisted by publishers and independent entrepreneurs who will begin offering electronic packages for courses, if not for programs, thus reducing the need for a high number of fulltime faculty positions devoted to teaching large sections of undergraduates. Once these instructional packages are purchased, they need only to be administered.

Given this possibility, it is important to note that the same market parameters that now govern the publishing industry will prevail in the promotion of these instructional packages. This means that there will be a tendency to drift toward the least common denominator in terms of the quality and rigor imposed, and there will be strong competition in the market to promote and sell the products. It is also likely that if the electronic packages are like textbooks, they will undergo frequent revisions requiring their purchase in order to remain current. Publishers will tilt toward “dressing up” the product with a lot of bells, whistles and pretty pictures at the expense of content, while still charging a husky fee. Accompanying this will be a change in marketing strategies employed by publishers. Just as the textbooks for various courses are taken to reflect the quality of some courses, the adoption of instructional packages will be taken as an indicator of the quality of instruction provided by the faculty person. One possible result of this process could be the production and distribution of canned or packaged courses which if created by nonprofessionals might be filled with inaccuracies. As publishing groups assume the obligation for generating technology for teaching, it is possible that they may take on faculty persons as fulltime time authors to assist in the writing and development of their products. Among other things, the curriculum will likely be altered and the role of the faculty member

may change to include writing specifically for online learning. As a result of all this, at the very least questions will be raised about the level of quality of the packages being offered, and curriculum reviews and oversight will be difficult in the future.

One related result of the scrutiny to which online and canned courses will be subjected will be an effect on live courses offerings. As questions are raised about the quality of electronic offerings and the faculty labor invested in them, it will be logical to ask the same questions about existing live courses to determine whether or not they are of sufficient quality. The urge to expose lazy faculty who are abusing online courses will quite likely expand in application to all forms of instruction. This will make some people very uncomfortable and in the effort to establish some form of quality control there are likely to be critical discussions about the nature of teaching, conversations that would not otherwise transpire.

A fourth consequence is the likelihood that the technological imperative will also impact curricula in doctoral programs and the hiring process for newly minted PhDs. The prospects for the future role of the university criminal justice instructor will be the same as for any similar discipline that is strong on lecture technique and less concerned with laboratory instruction. The challenge may be addressed at either the individual or departmental level, or some combination of the two. At the individual level, when new hires are made, departments may be looking for technical pedagogical skills in addition to knowledge of the discipline and the ability to conduct research. A possible item included in future hiring materials may be a proficiency in the “canned” performance of the applicant in which he/she demonstrates mastery of current, cutting-edge instructional tools. Department hiring authorities may be asking applicants if they possess the requisite technical knowledge to be able to contribute to the instructional profile of the department, and this may include the abilities to teach online courses at a minimum, or perhaps work in a more advanced technological medium. If this situation transpires, doctoral programs will become obligated to offer some educational strategies to assist their graduates to become competitive in this area, as they sometimes do with PowerPoint and other graphic presentations programs. Consequently, we may witness an addition to the core curriculum, one that addresses this aspect of preparation. Doctoral programs may actually begin to teach their students how to teach.

A fifth impact, related to the preceding ones, is an additional dimension along which faculty members will become stratified. In many departments, there already exist numerous factors that divide faculty members into various groups, such as rank, research interests, quantitative skills, graduate teaching, grantsmanship, etc. The ability to adopt and manage successfully various forms of new teaching techniques could provide one more factor by which faculty members will draw distinctions among themselves. This would become more important at the teaching institutions but it would still remain significant at research universities as well.

SPECIAL CHALLENGE TO THE STATUS QUO

The preceding ramifications all assume a degree of utilization of newer technological forms for instruction. There are several ramifications of new instructional technology that precede the acceptance of these innovations. A major consequence of new technology on teaching and the traditional ways of delivering information will be the challenge to conventional instruction and resulting faculty reaction. It is important to consider this challenge further because it is critical to the development of technological instructional tools. For many years, the gold standard for instruction has been the live, face-to-face setting in the classroom with a small number of students. The reality for many departments in higher education, particularly those with large enrollments, is that Mr. Chips left the building a long time ago. Instructional style has transitioned from the small, intimate classroom to free form web courses that feature mostly text and email; to early web courses through Blackboard and WebCT; to narrated PowerPoint integrated into web courses; to audio and video attached to files; to canned video lectures or presentations. Each of these stages has brought us closer to complete simulation of the live classroom. What is now possible are full lectures that can be taped and viewed at any time supplemented by a variety of technological tools to support this initiative. In addition, students can communicate “face to face” with a video camera thus providing interaction. This comes very close to the current experience of a student in a large class listening to a lecture. Add to that the ability to download a presentation and carry it around on an iPod and there are some clear advantages to the new technology.

With advancing technology, significant problems are likely to emerge at the faculty level and one such question concerns the future role of the faculty member. Even with the early forms of web instruction, there were fears expressed of “faculty obsolescence.” This apprehension is represented in the notion that online courses would somehow render faculty members less meaningful or useful. Some apprehensions included speculation that faculty personnel would begin to completely disappear and would no longer be needed. This has not happened and these concerns have perhaps persisted due to the financial crisis facing higher education and subsequent hiring freezes and layoffs. In the current financial climate, there will be an increased initiative from university administrations to economize course offerings and to seek most production for the least investment, while offering the appropriate words to rationalize and defend the quality of what remains to be taught (Milam, 2010; Perez, 2009; Twigg, 2003). The latter is a matter of manipulating the smoke and mirrors, and most administrations are good at that.

As new instructional techniques merge with traditional pedagogical forms, resistance to change on the part of some faculty can be expected (Johnson, Aragon, Shaik & Palma-Rivas, 2000). The acceptance of online teaching, or other forms of instruction using cutting edge technology, has not been universal and there remain many objections and resistance to these new forms as they grow and develop. At the department level, it may be there are too many old dogs to which new tricks cannot be taught. The objections they typically raise include a

mistrust of the web, loss of face time with students, aversion to technology in general, lack of technical support, and other problems which they contend are difficult if not impossible to resolve (Dobbs, Waid, & del Carmen, 2009).

The presence of someone to perform the technical portions of the task as well as lead the faculty gradually to the new form of teaching and learning might ease some discomfort attendant the technical concern. This is problematic to an extent because given budget constraints, funding for such a position would likely come at the expense of a faculty position, something that most departments would seek to avoid. In addition, making the technician role compatible with faculty personnel may prove awkward.

The reluctance of some faculty to adopt the newer forms of delivery is understandable, but some of the arguments used to resist change and justify the status-quo are not sound. Some progress in persuading reluctant faculty is perhaps possible if a few of the myths about online teaching are confronted directly. For example, there are at least two substantial concerns often aired by those who oppose online courses, and by extension other less conventional forms of instruction. The first is the loss of “face-time” with students. Face-time is that time during which teacher and student interact in person and are actually communicating with each other face-to-face. The second is the prospect of cheating and plagiarism.

THE VALUE OF FACE-TO-FACE INTERACTION

Among the things that online teaching should require of participating faculty are examinations of what teaching is, what is expected from the students, what is expected from the teacher, and an assessment of availability of resources to support online instruction. For some faculty members, their aversion to online instruction or canned lectures rests with the belief that the live classroom setting is sacred ground upon which a unique dynamic of learning transpires. For them, this dynamic can only occur in the environment of face-to-face meeting with students (Parry, August 14, 2009; Shieh, 2009; Witta, 2005; Young, 2002). No doubt this is correct in some instances, particularly classes with low enrollments. Another perspective emerges upon close examination of conventional lectures delivered to classes with large enrollments. The reality is that for many large enrollment classes employing lectures, face-time instruction has become rote and routine, often each class very much like another one, and never straying too far from the traditional approach of the teacher in front of the classroom reciting the day’s lecture from slightly worn pages. Even if the faculty member has advanced to the use of PowerPoint displays, often the displays rarely change and only put up on a screen the tired old notes from years’ past. There are several reasons why this pattern is as common as it is. Faculty members can exist comfortably embracing this style because it is safe; requires little work and no innovation; and easily passes as acceptable. Students and others perceive this style to be the traditional classroom and when they experience it they are convinced they are getting what they expected to receive. The professor is seen as the fountain of knowledge and the students are regarded as vessels that need to be filled with wisdom. The students play the role of passive

learners primarily interested in getting through the course with an acceptable grade. This approach discourages genuine critical thinking, challenges to conventional wisdom, and development of independent thought and expression. None of these consequences should surprise any faculty member who teaches large enrollment classes because this approach to address large numbers of students is structured to produce those discouraging results. In such circumstances, neither the professor nor the students are very interested in anything beyond getting through the term by clearing the not too high hurdles that include several examinations and perhaps another assignment or two. Most instruction in the large, overcrowded classrooms filled with undergraduates begins with this model or some variant of it.

In spite of these characteristics of the large lecture, one of the first expressions of concern often uttered by those who resist online teaching is that the face-to-face classroom is better because it leads to teacher “getting to know” their students better, and leads to better communication. Sometimes it is claimed that the online courses lack the “human” element and that this is what is valuable in live courses. There is no question that there are contrasts between live and online courses, and that one of the many points of difference is the absence of “live,” face-to-face interaction between the students and the instructor. The claim that the face-time approach is superior due to the connection between students and teacher is questionable and warrants closer examination.

Keeping in mind that the form of instruction under consideration here is large enrollment undergraduate courses that do not involve significant or substantial mathematics or statistics, the claim that the teacher in the live class gets to know the student better than does the online instructor can be challenged. To begin with, teachers in large, live classes rarely get to know any more than a handful of their students, and few of those connections go beyond name and face recognition. Large classes do not lend themselves to significant familiarity between student and teacher. There are exceptions here and there across the educational landscape of teachers who make a point to learn the names of all the students in their classes of 100 or more, and learn to identify them sufficiently to be able to call on them in class. These herculean efforts are very rare, and even then there remains the question of how well the teacher knows the students beyond their names. The truth is that most teachers of large enrollment classes become acquainted with only a small number of students as they present themselves in class. When questions are solicited or discussions pursued in class, normally there are a handful of students who are willing to participate. The instructor becomes acquainted with these people to a limited degree, but not much more than the rest of the class many of whom are very reluctant to speak out in a class setting.

By comparison, the online teacher may be in a better position to draw out responses to students by engaging students in online discussions. Discussion boards in online courses permit students to draft thoughtful responses and to examine the responses of others carefully before replying. Likewise instructors can carefully craft statements to post to respond to students’ thoughts. Students learn there is less risk of embarrassment posting a message on a discussion board than speaking in class. As a result, the online teacher is probably able to reach more students in a significant way than the teacher in the live classroom setting. Many of those

students who would never participate in a live class discussion will contribute to online discussions and do so consistently throughout the term. To the extent that these discussions inform the teacher about the student, the online instructor is at least as well if not better informed about students than the instructor of the live course.

If the value of face-to-face instruction is to be found in the discovery and awareness of personal circumstances or the reading of cues related to understanding the course information, again the online course has something to offer as well. Being removed from the face-to-face form of interaction, students who may otherwise be inhibited from interacting are much more likely to express themselves about all sorts of things once they are able to do so online. There is a veil of semi-anonymity associated with posting a message online. The work of the student and the students' names are on the messages, but there is some electronic distance between themselves and others who are reading the messages. This space or distance is what contributes to the reduction of reticence for the shy or reluctant student allowing them to become more likely to participate. There is not as much fear of rejection or apprehension of being wrong in front of an instructor who is looking directly at you, not to mention a classroom filled with other students. To some extent, it was this problem many years ago that led to the adoption of the discussion group format for some large survey courses. Faced with increasing enrollments, some departments turned to large lecture classes numbering in the hundreds and provided the personal contact with graduate teaching assistants to lead smaller groups of 12 to 15 students once a week in discussion groups. The idea was to use these smaller group meetings to provide the personal value that was absent the large lecture hall approach. How well this worked as a pedagogical device is debatable. Nonetheless, faculty who oppose online courses or the emerging forms of instruction driven by technology on the grounds that the face-to-face experience in a large lecture setting affords a special and unique bond with the teacher do not have an unassailable argument.

Still, there is something intrinsically valuable in a small, live class where the faculty member is a teacher as opposed to a lecturer. The value of this form is in the nature of human interaction, the ability to see and react to subtle communication cues, the necessity and opportunity to respond and express thoughts verbally, quickly. It is learning the subtleties of speech and learning to read the expressions of others. It is learning that people respond differently when before an audience than when by themselves. It is realizing that once two people are engaged in an interaction, a new product is created that is more than the sum of its parts. This more personal form is that in which much of our interaction and communication takes place in institutional settings, it is the way much business is conducted, and it is the prevailing method of social discourse. One of the more valuable assets of live instruction in criminal justice is that it is a way to communicate and socialize students into one of its several professions (Hundersmarck, 2009). This is the result of interacting with a large number of people face-to-face and observing and practicing the standards of the profession. It is learning verbal communication and interaction skills contributing to the ability to manipulate concepts and elaborate them in communication with others; and immerse oneself in the discipline and

discuss matters germane to professional interests. When a student takes an online course, they do not receive this exact experience. There are compensatory virtues to be sure, but they do not replace that which is missing.

Are these features necessary? Do we really require these experiences in order to produce a well educated criminal justice student? That is a question that confronts faculty in general and especially those who teach the online courses and those that design curricula for academic programs. It is clear that while online courses and other newly developed instructional forms are administratively expedient and also provide a valuable asset to a curriculum, they should not necessarily be the only form of educational experience required of every student in spite of the growing use of advanced technology in instruction. The issue may not be that one must embrace either online or live instruction, adopting one at the exclusion of the other. While large face-time classes do not impart the qualities valued by those that support face-time instruction, a strong argument can be made that small enrollment face-time classes do. If there is significant value in these classes, degree programs should consider requiring a modicum of live, small enrollment classroom experiences. In addition, a requirement for all students to take some minimum number of online courses should be considered. It is abundantly clear that online instruction, and the new emerging forms of technology will continue to expand their roles in delivering instruction and a substantial amount of learning in the future will take place using these techniques. The well educated student will have to know how to negotiate these learning opportunities in order to continue learning. This experience will be valuable criminal justice systems employees who seek additional education or training while remaining fully employed.

Therefore, academic programs such as criminal justice must come to recognize that although administratively pleasing and fiscally prudent, online and high tech programs have limits as far as academic merit is concerned. Maintaining exclusively online programs maybe terribly convenient for students and administrators, but it is not necessarily in the students' best interests. Deployment of nontraditional forms of education will mean changes in the ways in which departments and faculty members do their jobs and organize themselves. On the other hand, there is no reason for faculty members to continue to resist online instruction based on the notion that large enrollment face-time courses are providing something so valuable as to justify a reluctance to accept the newer instructional technology. On the other hand, there are strengths and specific elements that are unique to small enrollment live classes which make them a valued experience as well.

CHEATING AND PLAGIARISM

A second major misgiving that is often cited by critics of nontraditional instruction is plagiarism and cheating, particularly on examinations (Lanier, 2006). Perhaps there is no place where the difference between live and online instruction more is evident than in the process of examinations. The standard testing procedure in the live class is the instructor carrying some printed exams into the classroom, distributing the exam, and announcing the time limit, perhaps

even putting the time on the white or black board, and collecting the exams at the conclusion of the period. There are some variations on this theme, but essentially the instructor is present to monitor the proceedings and can witness the students taking the exams. Taking exams online creates more opportunities for cheating and plagiarism, a major concern among many who teach online and definitely a point that is cited by those who refuse to accept online teaching as legitimate. Aside from the classes which require students to appear at a specific location at a specific time in order to take their examinations, or perhaps the small enrollment classes that can enjoy the luxury of substantial essay questions, the online situation is generally different, and the difference creates the necessity for further reflection concerning the nature and meaning of teaching as well as the strategies that are employed to evaluate performance. In the simplest form, as the one described above, online students will not be present at a common location during a specific time period. However, online exams are usually not administered at a single location because to do so would defeat one of their prime objectives, namely, to reach students who are dispersed geographically. Rather the students will be dispersed over a larger area and the time period may be very expansive. Students in this setting are generally not monitored and that in turn opens the possibility for plagiarism and cheating. Faculty are fearful, with good reason, that students will not do their own work on the other end of the exam, or they are fearful they will busy themselves finding the answers to questions by consulting outside sources. There is ample justification for these fears. The questions raised by this fact include assessing how much difference this makes, and what can be done to minimize it.

That being said, this challenge demands that the process of testing students online must be carefully considered. First, it must be acknowledged that plagiarism and cheating occur in most modes of instruction. The live class has its share of errant test takers in the form of “ringers,” crib-note carriers, and “copy-directly-from-someone-else” type cheaters. Added to that list are those who cheat by texting for answers. Thus, this form of misbehavior is not unique to online students. All instructors must come to grips with a single fact: Some students will cheat if you give them a chance. The problem in online courses is that if the instructor is going to use the conventional examination process, he/she must first accept that this is going to happen. The instructor must think of ways to make it difficult for students to accomplish this, develop strategies to make it less meaningful to cheat, or to account for it in some way, without eroding the integrity of the exam.

There are several initiatives available to instructors concerned about cheating on exams. Staying focused on the large class, one that is a basic survey type of course, and assuming that the testing will be through the use of multiple choice questions, there are several measures that can be used to reduce or limit certain forms of cheating. First, establishing a time limit for taking the exam is useful. That is, constructing the exam so that once a student opens the exam, it will remain open until a certain period of time has passed and after that time has expired no more answers will be accepted. This places the student under some obligation to know as much of the material as possible because by establishing this time limit the instructor has limited the amount of time a student may use for using outside sources to look up answers. The students

who have prepared properly will be able to move through the exam from one item to another without delay. Students often don't believe this until they experience it for themselves. For example, consider a fifty item multiple choice examination with a sixty minute time limit. Once a student has taken five minutes to look up an answer to an exam question, and another three minutes for another question, and another three or four minutes for a third question, they will come to realize that they have taken over ten minutes to answer three questions and that have 47 more questions to go and only fifty minutes to spend doing it. Clearly, that student is not likely to perform well. Instructors would do well to consider open book examinations to capitalize on this reality.

This simple strategy can be strengthened if the instructor has a large pool of test items to use for the examinations. The examination can be constructed so that the questions on the exam are drawn randomly for each student from a large pool of test items. This means that although there may be a few test items that are common to a few exams, for the most part each student has a different exam comprised of different items. This eliminates exam sharing because the each student is looking at different examination questions.

The above strategies do not eliminate the "ringer" form of cheating. The ringer will have to be a good student in order to pass the exams. As with all ringers, whether in live or online courses, they have to be proficient in the subject to be successful. For the most part, the online teacher will never know for certain who is on the other end of the electronic connection.

Recognition that cheating and plagiarism exist in both live classes and online instruction is the first step toward assessing how prevalent it is, whether it makes a great difference, and what can be done to minimize it. The conversations that faculty have concerning this issue is likely to be ongoing and never completely satisfying to anyone.

SUMMARY

Instructional technology is expanding at a rapid rate and will likely continue in the near future. These new technologies will alter the way many faculty people think about the teaching function and the way the departments are organized to accomplish their missions, particularly in the large enrollment setting. The new wave of instructional technologies will serve to challenge conventional forms of teaching. Faculty will be required to sort out what they wish to preserve of the traditional forms of instruction and what they desire to include from the new. In the process of transition, faculty members will be obligated to think more clearly about whatever form of instruction they employ. As these discussions transpire, some of the myths surrounding both the new and the traditional forms of instruction will be identified and challenged. Departments will be faced with pressures to adopt new technologies and offer a justification for modes of conventional teaching. Curriculum construction will reflect this process and what emerges may take any of several different forms. The forms that instructional patterns take will strongly influence the nature of the educational process and thus impact those entering criminal justice systems.

The implications of rapidly developing instructional technology are many for criminal justice educators. Consistent with general institutional budgetary initiatives, departments will be required to make curricular adjustments to comply with financial necessities while still maintaining an acceptable student hour production. It is likely that new technology will be involved in this process. The costs of instructional support for online instruction will become a recurring budgetary item. Education and training of faculty to participate in online instruction will likely become a regular feature within departments. On one hand, new faculty will be expected to possess a modicum of skill enabling them to assume the responsibility for online courses. On the other hand, criminal justice doctoral program will be challenged to include education for online instruction within their curricula. A further implication is that as experience with online instruction proceeds, more attention will be paid to “best practices” and the variation of success as it relates to different types of students.

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BIOGRAPHICAL SKETCH

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