Missing V. 7-3

Winter
1987
(never came)

LIBRARY - OTTAWA UNIVERSITY リーチョ OTTAWA, KANS. まる

THE

2

OCCULACY OF PI KAPPA DELTA

The FORENSIC of Pi Kappa Delta

SERIES 73

JANUARY, 1988

NO. 2

Penny Swisher Kievet, Editor 3804 S. Crane Independence, MO 64055

John M. Burt, Alumni Editor

REVIEW EDITORS

Don Brownlee, California State University - Northridge
Kris Bartanen, University of Puget Sound
Mike Bartanen, Pacific Lutheran University
Jeanine Congalton, California State University - Fresno
C.T. Hanson, North Dakota State University
Fran Hassencahl, Old Dominion University
Bill Hill, Jr., University of North Carolina - Charlotte
Edward Inch, Pacific Lutheran University
Gary Larson, Wheaton College
Anthony Schroeder, Eastern New Mexico State University
Leanne Wolff, Heidelberg College

CONTENTS

The Case for Regulation of Forensic Transfers	
by Michael D. Bartanen	
1 1 1 Ferencies Instruction	
by Paul E. King and Ralph R. Behnke	
The President's Page	
at a 1 the Committee Penort	
11 . 1 . 1	
- 11 O March Domont	
Constitution Revision Committee Report	2
Provincial Tournament Dates	•

THE FORENSIC OF PI KAPPA DELTA (ISSN: 0015-735X) is published four times yearly, Fall, Winter, Spring, and Summer by Pi Kappa Delta Fraternal Society. Subscription price is part of membership due. For alumni and non-members the rate is \$12.50 for one year and \$30.00 for three years. Second Class Postage paid at Independence, MO. Postmaster: send address changes to Penny Swisher Kievet, Editor, The Forensic, 3804 S. Crane, Independence, MO 64055.

PI KAPPA DELTA NATIONAL HONORARY FORENSIC FRATERNITY NATIONAL OFFICERS

- R. David Ray, **President**, University of Arkansas Monticello, Monticello, Arkansas 71655
- Terry Cole, **President-Elect**, Appalachian State University, Boone, North Carolina 28608
- Harold Widvey, Secretary/Treasurer, South Dakota State University, Brookings, South Dakota 57007
- Robert Littlefield, Province Coordinator, North Dakota State University, Fargo, North Dakota 58105
- Michael Bartanen, Tournament Director, Pacific Lutheran University, Tacoma, Washington 98447
- Bob Derryberry, Constitutional Revision, Southwest Baptist University, Bolivar, Missouri 65613
- Lance French, Student Member, University of Missouri St. Louis, St. Louis, Missouri 63121
- Linda Hummel, Student Member, Central College, Pella, Iowa 50219
- Gary Horn, Past President, Ferris State College, Big Rapids, Michigan 49307
- Jack Starr, Historian, University of Wisconsin-LaCrosse, LaCrosse, Wisconsin 54601

PROVINCE GOVERNORS

Lower Mississippi, Pat Garner, Harding University

Northwest, Kristine M. Bartanen, University of Puget Sound

Plains, Willis Watt, Ft. Hays State University

Southeast, Bill Hill, Jr., University of North Carolina - Charlotte

Colonies, Clarence Johnson, New Jersey Institute of Technology

Lakes, Leanne Wolff, Heidelberg College

Missouri, Gina Lane, William Jewell College

Northern Lights, Robert A. Ridley, Southwest State University

Pacific, Terry Winebrenner, Cal Poly-San Luis Obispo

THE CASE FOR REGULATION OF FORENSIC TRANSFERS

by Michael D. Bartanen

Dr. Michael Bartanen is an Associate Professor of Communication Arts at Pacific Lutheran University in Tacoma, Washinton. He is currently a member of the Pi Kappa Delta National Council and Executive Secretary of CEDA.

This essay represents only the views of Dr. Bartanen and does not represent a policy position of

either the Executive Council of CEDA or the National Council of Pi Kappa Delta.

While researchers have not documented the significance of forensics transfer students (students transferring from one four-year college to another four-year college), available anecdotal evidence suggests it is far from a rare occurence. The thesis of this essay is that the social and educational costs of unregulated student transfers justifies a more stringent policy to regulate and discourage transfer students. I will summarize the case for unregulated transfers; the arguments against; and some possible solutions to the problem.

THE CASE FOR UNREGULATED TRANSFERS

Freedom of association is a basic American value. This principle underlies the reasons commonly asserted for not regulating transfer students in forensics. The reasons justifying a lenient policy include the principle of freedom of choice and the perspective that forensics differs fundamentally from athletic activities which have stringent transfer policies. There are two arguments for unregulated transfers.

1. A Student should have freedom of choice and freedom of movement. There is no more important decision a person will make than deciding where to attend college and what subjects to study. Unfortunately, students may make an uninformed and inappropriate initial college choice. The ability to transfer, therefore, becomes an important educational ingredient which permits the student to remedy an earlier mistake. A student may deduce a number of personal reasons for transferring.

A major factor in transferring schools might be the presence of a forensics program that students perceive will offer them more chances to compete; a chance to compete in different events; or financial aid for competing. Transfer students argue that the opportunity to move to what they perceive to be a better forensics program justifies transferring. While this position may appear compelling it is based on an unsupported assertion that we can precisely define the characteristics of a 'good' forensics program.

¹ This essay addresses only student transfers between four-year colleges. Because transfers from community colleges to four-year colleges are a normal and expected part of the educational system the comments contained in this essay do not apply to community college transfers.

2. Debate and Sports are not analogous. Transfer and eligibility requirements are closely regulated in NCAA and NAIA athletic programs. An NCAA rule, for example, requires an athlete transferring to another school to sit out for a season before resuming competition. Opponents of eligibility and transfer rules in forensics oppose such sanctions because they assert that forensics is a curricular or co-curricular activity that differs from athletic competition.

THE CASE FOR TRANSFER REGULATIONS

In addition to developing public speaking and argument abilities forensics also develops social and interactive skills. Forensics students ought to learn life skills such as effective interpersonal communication; values like commitment and loyalty; as well as the particular arguing skills at the core of the activity. Forensics should be considered a defensible ingredient of a liberal arts education. This perspective underlies four arguments supporting regulation of forensics transfers.

1. The activity should support a communitarian ethic. Forensics educators are a diverse lot. Some teach primarily individual events. Others teach policy debate or value debate. Still others teach a combination of these activities. Some direct nationally active and competitive programs. Others concentrate their efforts towards on-campus or local competitions. Regardless of the nature of the competition and activities that individual teachers emphasize there ought to be an overriding communitarian ethic which binds these educators together. This ethic ought to take the form of mutual respect and support for the diversity of forensics.

The realization that there is no single 'ideal' forensic program should justify the communitarian ethic. There is no universal standard for defining what a proper forensics program ought to be like. Even studies of successful programs fails to discover any casual connections between program characteristics and educational or competitive successes (Hunt, 1987). Forensics educators are, first and foremost, a community of scholars committed to the need for creating skilled arguers in a dangerous world. Forensics educators have a duty to support the efforts of their colleagues even though they may have differing views of appropriate forensic activities.

Unregulated transfers of forensics students undermines communitarian values. Forensic programs which encourage or even tolerate transfer students are, whether they acknowledge it or not, allow students to make a value judgment about the comparative worth of the educational philosophy or social climate of another university and forensic program. This value judgment undermines the very strength of educational forensics as a means of teaching tolerance in argument and public speaking. We ask debaters and speakers to accept diverse opinions present in any aesthetic situation or public policy dispute and then, by

encouraging or permitting transfers, send a conflicting message about tolerance for other universities and forensic philosophies. We allow students to define a 'good' forensics program despite the absence of meaningful standards for helping them make that judgment.

2. The forensics activity should foster the values of commitment and loyalty. There have been several essays arguing that our culture overemphasizes the "rights" of the individual (Bellah, Maden, Sullivan and Tipton, 1985; Nisbet, 1984). Forensics ought to help students learn the importance of commitment and loyalty that necessarily balance individual rights.

An integral part of developing loyalty and commitment is the recognition that choices involve cost and that individual actions have effects on other people. The decision to transfer to another school and forensics program is not simply an isolated decision affecting a single student. A transfer affects peers, forensics coaches and students at the new school.

The peers of the transferring student lose a potential debate colleague, squad member and squad leader. If the transferring student was talented her loss may negatively affect squad success and morale. Students at the school the transfer student moves to may lose competitive and educational opportunites due to the presence of the new student. They might have fewer actual or perceived chances to participate or compete at their desired level. If the transferring student qualifies for scholarships or financial aid they may potentially suffer financially.

The activity of forensics should strive to promote group and socially oriented values. Unregulated transfers undermines the collective community-based perspective which gives the activity much of its health and vitality.

3. The activity should protect educational and financial investments. Forensics is an 'expensive' activity no matter how expense is measured. Forensics competition involves a significant commitment of time and energy by competitors and teachers which is a no less crucial cost measure than the financial costs of the activity.

In an era when colleges and universities seek to stretch educational dollars expensive programs are always under scrutiny. A program's inability to keep students in the program after investing time and money on them may signal to the university that the program is not worth the expense. Furthermore, spending money on a forensics student only to see that student transfer is money lost to the university. The program that the student transfers to receives the benefit of the transferring students training without needing to make the investment.

Such a policy also encourages programs to take the competitive shortcut of utilizing transfer students rather than making the more costly but educationally defensible investment in their own students. Very frequently transfer students are experienced individuals that ought to provide leadership within a forensics program. By transferring the student deprives the former school of the leadership benefits it sought to develop.

4. Forensics competition is a privilege and not a right. Not every college or university has a forensics program. Most colleges offering a forensics program have some forensic eligibility requirements, such as the need for a student to have a minimum grade-point and enroll in a certain number of classes in pursuit of a degree. Many colleges invest the forensic coach with the power to determine which students participate in forensics and who will participate in particular tournaments. All the major forensic organizations regulate the number of semesters that comprise a student's eligibility. Regulations, even if distasteful and unfair to some, are necessary to maintaining the competitive fairness of the activity.

Some students do have highly defensible reasons for transferring universities that are independent of reasons related to competitive debate. Unfortunately, the competitive atmosphere of forensics makes it difficult, if not impossible, to discern the difference between a legitimate educational purpose from simply a competitive reason for transfer. Having no policy on transfers creates an unhealthy paranoia and mistrust. Assuming that students do have valid reasons for transfer unrelated to forensic competition implies that they are probably capable of directing their efforts in other directions if forensics is unavailable to them.

While the case against transfer regulations is based on perceptions of the importance of personal choice and freedom, the case in favor of transfer regulations relies on the need for balancing the rights of the individual with the greater good of the forensic community.

SOLUTIONS TO THE PROBLEM OF FORENSIC TRANSFERS

Professor John Weistart reviewed the experiences of school districts in regulating transfer students. Weistart found that American courts give wide latitude to schools to limit the eligibility of transfer students. These courts have ruled that since education itself is not a fundamental right that as long as the regulations were not discriminatory against protected classes of individuals these regulations were not subject to review. Many of the reasons for athletic transfers discussed by Weistart are precisely the ones asserted to underlie non-restrictive transfer policies for forensics students.

We must forge a compromise in any situation where individual rights come in conflict with societal rights. Our current emphasis on "no consequences" for forensic transfers ferments an unhealthy situation for the activity. Creating a counter policy making it impossible for a student to transfer is similarly undesirable. There is a clear middle ground position: Students transferring from one four-year college to another four-year college should be ineligible to compete in forensics for two semesters. Exceptions could be made for students who have not previously competed for two semesters or students who are transferring from a university dissolving all aspects of their forensics program. The standard of the two semester waiting period corresponds to athletic eligibility rules as well as ones used frequently for interscholastic eligibility.

This policy could benefit both students and forensics programs. This policy would communicate to the student the gravity of their personal decisions and that change involves both benefits and costs. However this rule would not penalize students who believe they legitimately need to transfer colleges. Additionally, the rule might serve as a means of encouraging students to try and work out a solution to what ever problem or difficulty causing them to consider transferring schools.

This policy would also benefit forensics programs. The program that the student transferred from would have their investment partially protected. A transfer student would presumably reconsider transferring for frivolous or unscrupulous decisions knowing they would lose two semesters of eligibility. Additionally, this policy could insulate the program the student transfers to from charges of unfair recruiting.

The policy might also strengthen the perceived integrity of the forensic activity by encouraging a common commitment to fair play and by discouraging the practice of recruiting students from other school's programs.

There are a variety of ways of implementing this approach. First, forensic directors should celebrate their activity and the values that they support. Teachers can combat the effects of over-emphasized individuality by constantly confronting that perspective and educating students about its harmful effects. Teachers need to more vigorously and explicitly teach the values of commitment and loyalty and not assume that forensics competition automatically teaches those values.

Forensics programs ought to adopt participant codes of ethics which help to define a students ethical obligations toward the university, the program and the forensics activity. Most forensics educators strongly emphasize teaching students about competitive ethics and need to devote the same energy in promoting educational ethics.

Second, tournament directors ought to specify eligibility rules in hosting a tournament. A tournament director may freely specify standards for participation and there is no reason why these standards could not include a prohibition against unregulated transfer students.

Third, school officials from a school that a student has transferred from ought to actively pursue available remedies. Schools ought to investigate the circumstances behind student transfers. These schools ought to write letters to department chairs, deans and University Presidents encouraging universities to withhold eligibility for transferring students. They ought to investigate whether the transfer violated AFA or CEDA eligibility and transfer standards and make complaints and insist upon action by appropriate bodies.

This suggestion clearly violates the "11th Commandment" of forensics which suggests that "Thou shalt not criticize or make waves for other programs." A forensics director does, however, also owe responsibility to the university who pays for the forensics program and the private donors or states which fund the university to protect the investment made in students. It is troubling that the CEDA regulations, for example, allow the Director from the school that the student is transferring from to "waive" the requirement for a student to sit out. Since the Director is usually not an official or the school why should that person make a significant financial decision for the university?

Unregulated transfers are not the only ethical problem confronting forensics. It is a problem having the potential for undermining the social fabric of the activity. Even if only a few schools encourage transfers or recruit from other programs the damage done to other programs is unjustified. It is issues like unrestricted transfer policies which alienate the supporters of the forensics activity and contributes to concerns about its future health.

REFERENCES

- Bellahm, R., Madsen, R., Sullivan, W., and Tipton, S. (1985). Habits of the Heart Berkeley: University of California Press.
- Hunt, S. (1987). "The Characteristics of the Top Fifty Forensics Programs," unpublished study.
- Nisbet, R. (1984). "Besieged by the State: By Defending the Individual, Government Destroys the Fabric of Society," *Harpers*, 268, 49-53.
- Weistart, J. (1982). "Rule-Making In Interscholastic Sports: The Bases of Judicial Review." Journal of Law & Education, 11, 291-337.

MEDIATED FORENSICS INSTRUCTION

By Paul E. King and Ralph R. Behnke

Paul King is Assistant Professor of Speech Communication at Texas Christian University. Ralph Behnke is Professor in the Communication Department at Texas Christian University.

Project Delphi, an intensive study of the opinions of participants in the 1974 Developmental Conference on Forensics, listed as the top goal of forensics instructors: "Forensics programs should focus primarily on educating students, not just on coaching them through competition (Reinhard & Crawford, 1975, pp. 63-80)." Specifically, academic debate focuses on teaching students to communicate effectively and persuasively (Rowland, 1982; Church & Wilbanks, 1986, p. 288). The search for appropriate instructional methods and technologies to maximize both the efficiency and effectiveness of teaching arises as a consequence of the goals described above. In this report, a post-performance feedback model of forensics instruction is compared with two new forms of mediated instruction: instantaneous, on-line feedback and delayed, longitudinal feedback.

CONVENTIONAL TEACHING STRATEGIES

A post performance feedback model appears to represent contemporary forensics instruction most accurately. Typically, an entire performance, such as an extemporaneous speech, prose reading or debate, is presented with instructional feedback offered orally or in writing at the conclusion of the performance. Some instructors attempt to isolate individual communication behaviors or sequences of behaviors by interrupting performances. While this has the effect of increasing the immediacy of feedback, the repeated interruption of a speaker decreases the validity of rehearsal by making it dissimilar to final performance. However, the post-performance feedback model is usually selected as the default option by teachers of forensics.

One major drawback of post-performance feedback is that unwanted or incorrect communication behaviors are performed in their entirety before corrective feedback is introduced. As a result, the incorrect communication behaviors are thoroughly practiced and learned by the speaker. Guthrie's Contiguous Conditioning Theory (1952) suggests that relationships are formed by proximities in time. Rachlin (1976, pp. 80-81) states: "For many psychologists today, temporal continguity is still the key to learned behavior. When two events occur at the same time, or in quick succession, they become associated. The more there are of the contiguous occurences, the stronger the association." Post-performance feedback may not adequately reinforce desired or correct undesired behaviors.

A second potential problem with post-performance feedback is unique to written criticism. In rating an oral performance, the instructor is continually tom between the need to listen carefully and the need to write thoughtful and thorough critical comments. This is especially problematic in forensics competition, where time between speakers is short, and in both tournament and classroom debate where the instructor generates a flow sheet. A negative consequence of this "performance instructor's dilemma" (Behnke & King, 1984) is that instructors sometimes are forced to write terse and incomplete comments which are difficult for students to comprehend or appreciate. Thus, the quality and quantity of instructional feedback is substantially reduced.

A common rating error known as the exceptional performance effect, occurs when evaluation of a performance concentrates only on major peaks and valleys. The instructor's evaluation will tend to focus on only the most and least desired behaviors, while failing to create, within the student, an understanding of the montage of factors which characterize an effective performance.

Finally, post-performance instructional feedback reduces the effect of the audience. Since, as a rule, audience members do not evaluate presentations, they are less attentive and involved. Nonverbal audience feedback, therefore, is minimal, if not inappropriate, and speakers tend to adapt communication behaviors to the instructor rather than the audience.

MEDIATED INSTRUCTIONAL FEEDBACK

Vogel (1975) and Book (1985) suggest a useful framework, based upon level of immediacy, for distinguishing types of feedback: instanteous (simultaneous), immediate and delayed. Instantaneous feedback provides speakers with information during performance. Immediate feedback is oral or written criticism immediately following a presentation. Delayed feedback is defined as commentary which is reviewed after some significant passage of time.

Alternative approaches to forensics instruction allowing greater teacher flexibility in adapting feedback to the needs of both the student and the situation should be considered as possible supplements to traditional, post-performance commentary. The following description outlines two interesting supplemental instructional approaches: (1) instantaneous, on-line feedback, and (2) delayed, longitudinal feedback.

Instantaneous On-line Feedback

This form of feedback firmly places the performance instructor in the exciting position of commenting on what is happening rather than on what has happened. Both auditory feedback (Nyquist & Sulff, 1982) and televised comments (Behnke & Beatty, 1977) have been used for providing instantaneous instructional feedback during performance. The Communication Effectiveness Trainer (ComET) System allows the instructor to store a large number of anticipated reinforcing and correcting comments into the memory of a microcomputer (Behnke & Beatty, 1977). Then, during speech performance, the instructor can send instantaneous comments to a TV monitor mounted in the lecturn. The speaker glances at the screen from time to time, as if looking at notes, receiving helpful feedback from the instructor. Unique comments, not previously anticipated and stored, are created on the spot (by using the system's keyboard) and sent to the speaker's monitor.

The ComET System is very useful for correcting and reinforcing behaviors in the psychomotor domain. Speech performance behaviors may be conceptualized as either automatic or effortful (Hasher & Zacks, 1979). Effortful behaviors require conscious attention and thought, such as selecting a particular conversation topic, persuasive message strategy, or encoding a message by selecting specific language, while automatic behaviors are performed without attention when they have been developed as habits, or learned behavioral routines. Behaviors such as eye contact, gestures, vocal cues and movement are typically performed automatically and on-line feedback delivered by the ComET System has typically concentrated on these psychomotor behaviors. In debate instruction, the ComET System appears to be particularly helpful and appropriate since oral criticism occuring at the end of a round tends to concentrate on stock issues and reasons for decision. Interviews of students utilizing the ComET System for public speaking indicate that the system is perceived as helpful, easy to adapt to and use, and an effective motivational tool (Behnke & Beatty, 1977; King & Behnke, 1985).

The Student Response System (Derry & Behnke, 1983) is an instructional technology devised, in part, for on-line feedback in debate instruction. The system consists of thirty student terminals, a microcomputer enclosed in a lecturn, and a monitor which is viewed by the speaker. During oral performance, audience members rate the speaker on pre-established critieria, such as interestingness or persuasiveness. Members press buttons to indicate their perceptions of the speech and the speaker during the performance. Audience members provide feedback fifteen or twenty times during a five minute presentation. The computer continuously tabulates audience ratings, displaying them in the form of a continuous graph on the speaker's monitor. If audience interest, according to the ratings, begins to fall, the speaker is immediately aware

of it and must make the adjustments needed to regain the interest. The Student Response System seems particularly helpful in teaching speakers to be more sensitive to the feelings and judgments of their audiences. Speakers learn to associate low and high graph displays with the way audiences look and sound during those peaks and valleys. As speaker sensitivity to nonverbal feedback from audiences increases, reliance on the Student Response System is reduced.

Longitudinal Feedback

A second interesting use of the Student Response System involves the generation of delayed, longitudinal feedback. At the completion of a performance, the system generates a continuous graph indicating audience interest levels throughout the performance. If, for example, audience members rated speaker persuasiveness, the computer tabulates ratings every few seconds and compiles a longitudinal graphic presentation. This graph can be printed on paper to create a permanent record. Speakers may review the videotape or audio tape of the speech noting what was said or how it was said, at times when audience ratings were high, low or moderate, thereby reducing the exceptional performance effect. This approach allows forensics students to better plan, organize and document future performances. Most importantly, when ratings are obtained at frequent intervals, precise evaluations of the effectiveness of particular arguments, examples or evidence can be made on an empirical basis.

DEVELOPING AN INTEGRATED PERSPECTIVE

While it seems obvious that no single approach to instructional feedback will reap all of the rewards or overcome all problems previously outlined, an instructional strategy which incorporates all three feedback types (instantaneous, immediate and delayed) is most likely to be successful. In developing this integrated perspective, it is neccessary first to determine the type of feedback most appropriate to the forensic activity being taught. Second, a means of providing the feedback must be obtained.

Instantaneous feedback appears to be most appropriate to the development of those automatic behaviors called psychomotor skills (King & Behnke, 1982). For example, gestures, facial expressions and paralinguistics must accompany a spoken message during oral presentations; however, the speaker's thoughts must be on the meaning of the spoken message. If the accompanying nonverbal speaking skills are not well developed as habit, then attempting to monitor them (e.g., change expressions, manipulate gestures, alter vocal tone, etc.) could cause serious lapses in verbal content. The immediate, positive reinforcement available with instantaneous feedback provides for the conditioning of the automatic behaviors. Additionally, the potential for instant correction of unwanted behaviors prevents speakers from continuing to utilize and inculcate those incorrect behaviors.

Elaborated feedback which interrupts and impedes an oral performance is more appropriately offered as immediate feedback. Feedback immediately following a performance allows the instructor to comment while the performance is still clearly in the mind of the student. Not only would debaters recall, for example, which arguments were selected for use, but would be more likely to recall why those arguments were chosen. This allows for discussion and possible revision of conscious, effortful communication behavior.

Review of ballots used in tournament judging and the interest graph generated by the Student Response System are relevant examples of delayed feedback. Delayed feedback may be at least as effective as immediate feedback for helping students to recall involved, extensive quantities of information over long periods (Viau & Clark, 1987), and for learning from test-taking (Hail, 1984). In forensics instruction, improving the organization, support, and logic of messages may be facilitated by delayed feedback, especially when it becomes necessary to compare several performances over time.

In order to integrate a variety of feedback types into forensics instruction, methods for utilizing instantaneous and delayed, longitudinal feedback must be developed. Although the ComET and Student Response Systems are relatively expensive, alternative approaches can be devised. For example, comments during performance can be communicated to the speaker via bold letters printed on large flash cards. Since speakers strive to maintain eye contact with the audience, flash cards located in the audience are easy to watch and should not be disruptive. Longitudinal feedback can be obtained by using audience rating sheets with spaces labelled by letters of the alphabet. During presentation, the instructor or an assistant sits behind the speaker holding up a card at predetermined intervals (typically fifteen to thirty seconds). The letters on the cards correspond to the lettering on audience members' charts, helping to insure that members do not lose their place. Audience members write in numbers, one to five, indicating responses to the criterion. Following the performance, the speaker collects the rating forms and tabulates mean ratings for each time increment. Speakers then may view a videotape or listen to an audiotape while following and evaluating audience response to the presentation.

While inexpensive approaches to mediated feedback lack the speed and flexibility of electronic teaching aids such as the ComET System and the Student Response System, they provide essentially the same valuable information. In the long run, the cost of paper, time delays, and a lack of features may make paper and pencil approaches more expensive than electronic equipment; in the short run, they are less subject to the constraints of budget.