

Iowa Academy of Education

Minutes

Fall Meeting 2011-10-28

Call to Order. President M Kolen called the meeting to order at 9:45 AM, 2011-10-28 and welcomed the members present. T. Andre was appointed Secretary Pro Tem.

Members Present: T. Andre, D. Bills, R. Brennan, P. Hlebowitsh, D. Jepsen, M. Kolen, C. Peterson, G. Phye.

Discussion of Technology in Education Articles.

David Jepsen led a discussion of two articles from the New York Times dealing with the lack of effects of educational technology (primarily computer-based digital information processing technologies) on standardized test scores. (In Classroom of Future, Stagnant Scores, M. Richtel, 2011-9-3; Inflating the Software Report Card, T Gabriel & M Richtel, 2011-10-8). D. Jepsen indicated that he would like the discussion to 1) Identify issues relevant to the articles, 2) Assemble relevant research and theory relevant to the articles, 3) Construct suggestions relevant to the issues, and 4) the discussion potentially would lead to communications with Iowans via radio or other media with respect to the issues. Both articles indicated that the educational technology industry promotes educational technology heavily and makes claims about the importance of technology for learning and that significant educational funding has been devoted to educational software and hardware. Evaluations of the impact of technology using standardized test scores as the criterion measure and contrast between classes using and not using technology have not demonstrated consistent gains as a result of the use of technology.

A wide ranging and lively discussion ensued. This description provides an overview of issues discussed, but fails to capture the full subtleties of members' views. Several members concurred that two serious issues involved the nature of the independent variable and dependent variables used in the research cited. In one of the articles, all forms of educational technology are lumped together; the manner in which the educational technology is used in specific classrooms is not identified, so it is not clear what is being contrasted. The nature and relevance of standardized tests as criterion measures was questioned. It is possible the learning the technology was designed to enhance was not assessed with these criterion measures. Given changes in the requirements of workplaces, the ability to use digital technologies and software itself could be viewed as an appropriate dependent variable. It was pointed out that dependent and independent variables represent broader constructs; dependent variable issues were related to general constructs of the purposes of education. The sense of the discussion was that the randomized controlled research models used by the What Works Clearinghouse (<http://ies.ed.gov/ncee/wwc/>) which form the basis of the articles oversimplifies the complexities of education and yields a less than adequate scientific

understanding of educational processes. More effective research would be theoretically driven and include a more comprehensive mediator/moderator variables and a wider range of dependent measures reflective of the range of socially and individually useful educational outcomes.

Comments related to the purpose of education issue included the following.

Given the requirements of many jobs, should schools teach algebra two or use of spreadsheets? There has been a reduction in the teaching of consumer math in favor of teaching algebra two. What knowledge is most worthwhile (noted as a fundamental curriculum issue)? Some research shows that upper elementary children now type at 60/70 words per minute. This change isn't reflected in the research discussed in the articles. The Common Core has standards for technology use; use of technology is seen as a "21st Century Skill."

D. Jepsen asked if there were any "axioms" or generalities that could be identified from the discussion or about the issue of digital technology use in education. It was proposed that the "Success with any technology is dependent on ability of teacher to use it." An example from the research on class size was given. In the class size research, changes in classroom size didn't pay achievement dividends. Different teachers used smaller class size differently. Some teachers taught small classes in the same way they taught large classes. Others took advantage of smaller classes to change teaching approaches to take advantage of opportunities smaller class sized provided. Thus the discretionary judgment of teachers interacted with class size to determine effects. It may be the case with use of digital / computer technology and education. The fundamental issue is that "The difference making power of technology resides in the professional judgment of the teacher." What is the evidence that could support this statement? The issue of the difference making power of "technology" (or any instructional method) is relevant to the "normative power of the school." What are the desired goals of the school? Any tool might influence only some of the normative goals.

Other issues raised in the discussion included:

Social issues related to the digital divide (differential access to technology as a function of income or social status) could also be related to the findings on the effectiveness of technology.

Does or should technology manualize instruction? That is, does it remove the effect of intelligence, i.e. the professional judgment of the teacher?

The pace of change in technology is faster than pace of change in teaching/ learning and our ability to research.

Professional development issues related to teacher competence and belief relevant to utilize technologies and fidelity of treatment issues.

The resources related to schools for hardware / software maintenance is an issue.

The nature of what is meant by “technology” and differences among researchers, teachers/educational practitioners, and the public in what is meant by technology.

We talk about technology as if we know what we mean? The discussion of technology what do people mean? Do people think hardware is claim?

The issue of the fallacy of generalizing from central tendencies to the individual.

The appropriateness of the double-blind randomized control research methodology for educational research.

The issue of social roles technology influence and the idea that human relationships are the basis of all learning?

D. Jepsen will utilize the discussion to explore developing a panel discussion on Iowa Public Radio. The discussion would involve 2-4 members of the Academy.

B. Brennan provided a short overview of his paper “Utility Indexes for Decisions about Subscores” which had been distributed to the membership.

The fundamental issue is that test users often want subscores on tests, but subscores may not be sufficiently reliable to justify their reporting or use. The paper provides a method for evaluating conditions under which total test scores provide a better estimate of individuals’ subscores than would a score based solely on items purporting to directly assess the subscore. Bob explained the paper and then led a discussion of the meaning and usefulness of the paper. The paper provides criteria for assessing when to report subscores and when the total score might be a better estimate.

Item 9 Business Meeting Agenda.

Because P. Hlebowitsh had to leave during the noon hour, this item was move to this point on the agenda. P. Hlebowitsh led a discussion of Occasional Research Papers and the role of academy members in communicating to the public.

P. Hlebowitsh reviewed the history of occasional research papers and indicated that papers were available on the department website. He raised the issue of increasing public dissemination of occasional research papers and the work of the Academy members. Possibilities might include giving talks at state educational conferences, to the Department of Education staff, and/or an annual Iowa Academy of Education lecture at the Regents’ campuses. These efforts were seen as part of the responsibility of members to share their expertise with the academy and others.

Adjournment for Lunch

The meeting adjourned for lunch. During lunch members of the Academy shared correct activities.

P. Hlebowitsh is a full time administrator. He has been working with colleagues on analyses related to large database to focuses on data on issues of classroom control. Some of the emerging findings are that teachers perceive differences in across race. Perceived control is lower in lower SES/underrepresented groups. He is also working on a curriculum paper.

D. Bills is also a full time administrator. Since the Spring Academy meeting, he visited Estonia for a week to give a talk to a European Youth in Transition conference. The talk focused on school transitions such as the transition from school to work. In Estonia, he also taught graduate class in Tallinn during the week. He is Head Editor of the Sociology of Education journal. A paper will be published in December that cites Mike Kolen. He organized a conference on social stratification research. He is writing a paper on why working adults go back to school.

M. Kolen is on developmental leave this semester. He is working on the third edition of his book on test equating. He has a contract with the College Board to do psychometric research for the Advanced Placement tests. He and his research group make recommendations to College Board about Advanced Placement. An interesting part of the work, from psychometric perspective, is the analysis of the constructed response parts of the Advanced Placement tests. In addition, he has published a couple of chapters.

C. Peterson is also an administrator. She reported that ISU has submitted a proposal to the Board of Regents to combine parts of the College of Human Sciences into a School of Education. She is involved in a long term research and evaluation program on early Head Start. The research group is seeking funding to re-interview participants as they leave high school (data collection began as they were infants [or pre-infants] with some parents interviewed prior to the child's birth).

R. Brennan is also an administrator of the Center for Advanced Studies in Measurement & Assessment. He is working on a contract with the College Board related to with equating and other issues involving the SAT and PSAT. He worked on the reliability paper reported at IAE. He is also a consultant with a consortium working on Common Core assessments.

T. Andre is co-PI on a NSF informal science education grant, based at North Carolina State University, that will begin Jan. 1 and explore the motivations of "master hobbyists" in science related hobbies. He is also working on a team that is exploring whether and how best to integrate physical activity into mathematics learning to enhance both physical activities levels and academic learning. He recently returned for a Road Scholar trip to New Zealand and Australia grant. On the trip, he visited the Australia School of the Air (ASA) (<http://www.assoa.nt.edu.au/>), which provides education to youth living on stations (ranches) in the Australia outback. Initially, in 1950, the School used two way radio and postal services to provide education to students at outback stations who did not have access to schools. The

School still provides education to such students, but the technology has changed to utilize digital technology (two way audio-video over the internet and computer technologies.) Mentioning ASA seemed especially apropos given the discussion of technology at the IAE meeting. The ASA's use of technology provides educational access to students who would not be able to attend schools using the technology of building, classrooms, and blackboards and perhaps illustrates the ways in which context relates to questions of the effectiveness of technology.

D. Jepsen, since his retirement, in addition to serving as Executive Director for IAE, has been teaching and writing about religion through his church. In addition, he has written an article on baseball that will be published in the Wapsipinicon Almanac.

(<http://www.wapsialmanac.com/>) He wants to publish in the Iowan magazine.

<http://www.iowan.com/> .

G. Phye is working with State Department of Education (DOE) Microsoft project which has provided significant financial resources for spending on hardware and technology for education related to improving learning of core content. He is involved in data collection and evaluation and is working with Iowa DOE on the education insight database. He is working on growth curve algorithms for data as a way of presenting longitudinal analyses of data for presentations to teachers, administrators, and school boards. He is working on a paper on dynamic assessment putting it in the context of problem solving in to cognitive framework. He is also working on a paper related to working memory / cognitive load and educational practice.

Business Meeting

1. Call to Order. President M Kolen called the meeting to order at approximately 1:00 PM.

2. Approval of Minutes. It was moved and seconded to approved the minutes of the Spring, 2011 IAE meeting. The minutes were approved.

3. Treasurer's report. D. Jepsen gave Treasurer's report. IAE has changed financial advisors, but is still with the same group and same investment plan. The return on the investment plan was satisfactory. The portfolio balance increased and the Academy has sufficient cash on hand to handle obligations. Cost for the Fall meeting were less than expected. It was moved and seconded to accept the report. The motion passed.

4. Executive Director's Report. D. Jepsen presented the Executive Director's Report. As a result of missing a deadline, IAE was dissolved as a corporation by the State of Iowa. The process to reinstate IAE as a corporation is underway. The Executive Director worked on organizing for the fall meeting, along with President M. Kolen, prepared materials for the meeting, coordinated with the investment consultants, and filed applications and a biennial report with the Iowa Secretary of State.

5a. Membership Committee Report: D. Bills, Chair of the Membership Committee, gave the report. Several members have left Iowa. The committee will work on soliciting recommendations and nominations of new members. The membership is not limited to regent's institution. Members should begin thinking about possible new members. Criteria for membership are provided on the IAE webpage <http://www.education.uiowa.edu/html/iae/>.

5b. Urban Committee Report. G. Phye presented the report. An institution sent in a nomination for the Urban award. However, the nomination was not recommended by IAE. Members should consider potential nominations for this award. The committee will solicit nominations during the Spring.

6. Emeritus Status for Elizabeth Whitt. Elizabeth Whitt has moved out of state and requested emeritus status in the Academy. It was moved and seconded to grant emeritus status. The motion passed.

7. Meeting attendance. There was discussion about the issue of meeting attendance and the implications for quorum and future meetings of IAE. It was recommended to explore having consistent dates that members could plan on for the fall and spring meetings. The last week in Oct/first week in Nov were seen as likely dates for Fall. The Executive Director will work on this issue and contact members.

9. Nomination of Officers.

Deborah Gallagher will serve as President of IAE.

9a. President-elect: Gary Phye was nominated and elected President Elect.

9b. Secretary. The Executive Director will work with Deborah to nominate a Secretary.

9C. Committee Chairs

Membership committee: D. Bills, UI, will serve as chair. G. Stefanich, UNI and T. Andre, ISU will serve as members.

Urban Award Committee: G. Phye, ISU will chair the Urban committee. M. Kolen, UI, will serve as one member. D. Jepsen and G. Phye will work to appoint a member from UNI.

10. Other Business. No additional items of business were introduced.

11. Spring meeting. The Spring meeting will be hosted by ISU. G. Phye and D. Jepsen will work to determine the date and announce it as soon as possible. Business items and research presentations will be solicited.