

Society for Computers in Psychology

27th annual meeting
Philadelphia
November 20, 1997

I would like to thank this year's officers, members of the Steering Committee and others such as Nancy Duncan and Rob Sanford for their work in reviewing submissions and spreading the word. Special thanks go to President Margaret Anderson, last year's program chair John Krantz, and our two Secretary-Treasurers Sarah Ransdell and Chris Cozby for providing continued counsel and taking care of the many details required for a successful conference. Finally, thanks to each of the presenters and session chairs.

Wally Beagley, Program Chair for 1997
Alma College, beagley@alma.edu

Teaching on the Web

8:00 - 10:00 Salon I/J

Chaired by: John Krantz Hanover College
krantzj@hanover.edu

8:00 Salon I/J

Pushing the Electronic Limits: No Paper, No Pencils, No Books

Kent L. Norman
University of Maryland
kent_norman@mail.lap.umd.edu
<http://www.lap.umd.edu/SOC/>

To test the potential of a total electronic educational environment, a cognitive psychology course was taught in an electronic classroom in which the students were not allowed to use paper, pencils, or printed text at any time. All materials were on the WWW; all assignments were handed in electronically; and many discussions were computer mediated. The results indicated that current technology is quite able to support this environment and that most students perform quite well in it.

8:20 Salon I/J

Copyright Law and Multimedia or HTML based Educational Applications

David A. Washburn
Georgia State University and Center of Excellence for Research on Training at Morris Brown College
dwashburn@gsu.edu

Multimedia computers and the world-wide web may facilitate improved training or classroom instruction, but they also make it easier inadvertently to violate U.S. Copyright Law and the provisions for Fair Use. The integration of text, audio, and video into HTML documents, classroom presentations, or laboratory tutorials is governed by several little-known and poorly defined principles. These often-counterintuitive restrictions will be reviewed, and guidelines for the legal integration of copyrighted materials

into instructional software will be discussed.

8:40 Salon I/J

Social Psychology in Cyberspace: Using the World Wide Web to Teach Applications of Social Principles to Everyday Life

Richard C. Sherman

Miami University

shermarc@muohio.edu

<http://miavx1.muohio.edu/~shermarc/p324.htmlx>

The World Wide Web (WWW) is an exciting new tool for teaching college courses in psychology. The potential benefits stem from the wealth of information available, the ease of access, and the "hypermedia" richness of WWW documents. The WWW was introduced into an advanced course in social psychology using activities that entailed collaboration, knowledge sharing, and manipulation of information into new forms. The activities included web assignments associated with assigned readings, a Social Psychology and Humor project, a Social Psychology in the News project, and the development of a Web Tutorial. Both the strengths and weaknesses of using the WWW in this context are discussed.

9:00 Salon I/J

The Virtual Industrial/ Organizational Psychology Class: Three Years of Learning and Teaching in Cyberspace

Donald A. Hantula Temple University

hantula@astro.ocis.temple.edu

Describes three years of an Internet-based undergraduate I/O Psychology course. The virtual I/O course is an asynchronous, discussion based class which meets on a usenet group and uses the Internet as a library and sites for field trips. Design, implementation, and refinement issues are traced through the three iterations of the course, and student reactions and experiences are discussed.

9:25 Salon I/J

Teaching Introductory Psychology on the Web: Designing Courseware for Distributed Learning.

William S. Maki & Ruth H. Maki,

Texas Tech University

maki@ttu.edu

We taught a large survey course on the world-wide web using web browsers and electronic mail to replace lectures with hands-on laboratory exercises, literature searches, practice quizzes. We will (1) summarize the philosophical and practical rationale for the course, (2) describe the design and development processes, and (3) share some "lessons learned" and guidelines for aspiring developers of web courses.

9:45 Salon I/J

Teaching Introductory Psychology on the Web: Some Preliminary Evaluation Results

Ruth H. Maki & William S. Maki,

Texas Tech University rumaki@ttu.edu

We offered an on-line introductory psychology course. Instead of attending lectures, students participated in hands-on laboratory exercises, searched for textbook-related information on the web, took interactive practice quizzes posted to the web, used electronic mail to communicate with instructors and other students, and collaborated on group problem-solving exercises. Overall, student satisfaction with the course

was high, students learned as much as in lecture courses, and they had less computer anxiety than their peers.

Animation & Video

8:00 - 9:00 Room 407/408

Chaired by: Margaret Anderson
SUNY Cortland
andersmd@snycorva.cortland.edu

8:00 Room 407/408

GO_SOFT: Animation Software for Research and Teaching

Fernando A. Gonzalez, Harold H. Greene,
Amos Johnson Center of Excellence for Research on Training
James Larsen Georgia Tech Res. Inst,
harold@babbage.cert.atlanta.com

GO_SOFT, an MsDOS based software package for animating drawings and/or natural scenes is described. The software collects reaction time and accuracy data, so it is suitable for numerous research and teaching paradigms. The underlying structure of GO_SOFT is a series of C and assembly language routines, which can be modified by the advanced user to suit special data collection needs. The program gives the user quick access to real- movement displays and psychological data.

8:20 Room 407/408

Using Computers to Examine Iconic Memory Differences in Soccer Players

Stephen J. Anderson, Michael Beveridge and Martin A. Conway
University of Bristol, England
Stephen A. Dewhurst
Lancaster University, England
stephen.anderson@bristol.ac.uk

The advent of low-cost, high-performance personal computers means it is now possible to use and manipulate video footage in reaction time taskseasily and cheaply. This paper reports an experiment in which such a paradigm is used to examine whether the locus of expertise in soccer resides in acquired knowledge of the game or whether skillful soccer players have better developed iconic memory than poorer players.

8:40 Room 407/408

Digital video courseware: A new approach to teaching naturalistic observation

Dawn G. Blasko, Victoria A. Kazmerski, Eric W. Corty, & Carl A. Kallgren,
Penn State Erie, The Behrend College
dgb6@psu.edu

Presenting vignettes of animal and human behavior on a computer offers an ideal format for the difficult task of teaching naturalistic observation techniques. We will demonstrate a new interactive multimedia software program that teaches three observational research techniques using brief digitized video clips and model check sheets. The program follows the observation through reliability testing and data analysis. The development and use of the program, as well as the limitations of the technology, will be discussed.

Tutorial

9:15 - 10:00 Room 407/408

Using "Instructor II" to Create an Internet Handbook for Introductory Psychology

Ellen F. Rosen

College of William and Mary

Linda C. Petty,

Hampton University

efrose@facstaff.wm.edu

"Instructor II" is a multimedia authoring language which will create Web pages automatically.

Considerations of design and course objectives will be incorporated into a demonstration of the construction of web pages for a course in introductory psychology. A review of student reaction and achievement of course goals will be presented.

Statistics : Research & Teaching

8:00 - 10:00 Room 411/412

Chaired by: Richard Lehman

Franklin & Marshall College

R_Lehman@ACAD.FANDM.EDU

8:00 Room 411/412

Reexamining the Goodness-of-Fit Problem for Interval- Scale Scores

Richard A. Chechile

Tufts University

rchechil@emerald.tufts.edu

A classic data-analytic problem is the statistical evaluation of the distributional form of interval-scale scores. The investigator may need to know if scores originate from a single Gaussian distribution or from a mixture of Gaussian distributions or from a different probability distribution. The relative merits of extant goodness-of-fit metrics will be discussed along with a new statistic. Monte Carlo sampling results will be provided.

8:20 Room 411/412

Using Tree-Based Methods in Regression and Classification

Deirdre Mauren Baker Ching-Fan Sheu

DePaul University

dbaker@condor.depaul.edu

Tree-based methods are computer-intensive alternatives to regression and classification statistical procedures. This paper presents analysis of real data sets to illustrate the use of tree-based methods as implemented in S-Plus. We note that there is great flexibility in using the tree-based methods to explore the structure of the data and they sometimes lead to more accurate results.

8:40 Room 411/412

Sampling-based Bayesian Inference Using BUGS

Ching-Fan Sheu Suzanne L. O'Curry

DePaul University

csheu@condor.depaul.edu

We illustrate the applications of BUGS, a Bayesian computer program, using real data sets. The algorithm used in the program is a popular Markov Chain Monte Carlo procedure called Gibbs sampling. Bayesian analysis based on simulation has been applied to a wide range of complex problems (Gilks et al. 1996). The availability of a general purpose program like BUGS should facilitate important application of Bayesian inference in psychological research. <http://www.mrc-bsu.cam.ac.uk/bugs>

9:00 Room 411/412

The Viewing Order of Graphical Components: Clues about the Way People Read Graphs

Russell W. Jones, John W. Warner. & Cherie L. Cross

The University of Melbourne R

.Jones@edfac.unimelb.edu.au

Despite the multitude of applications for which graphs are used, and the frequency of their use, little is known about how graphs communicate information to a reader or the cognitive processes that are used by a reader to read and interpret the information presented within a graph. This paper describes the research methodology and results of an investigation into the viewing order by which a reader chooses to view the different components of a graph and the amount of time spent studying each of these components.

9:20 Room 411/412

Using Java in Introductory Statistics

Nancy E. Briggs & Ching-Fan Sheu

DePaul University

nbriggs@condor.depaul.edu

This paper demonstrates how to use Java programs in introductory statistics courses. We choose simple linear regression and Monte Carlo estimation as tutorial examples for implementation in Java.

9:40 Room 411/412

Dr Stat: A multimedia multilingual statistics tutorial

Nick Hammond & Annie Trapp

University of York, UK

Dirk Paul Flach

University of Amsterdam, The Netherlands

Eulogio Real Deus

University of Santiago de Compostela, Spain

nvh1@york.ac.uk

The Internet enables new possibilities for the development and delivery of educational software. To explore these possibilities, the European Union has supported the development of a multilingual version (in Dutch, English and Spanish) of Dr Stat, a large suite of multimedia tutorials for psychological statistics originally written in Dutch for use at Amsterdam University. We outline the content and educational design of Dr Stat, and discuss the potential of the Internet for enabling the development, delivery and maintenance of multilingual software.

10:00 - 10:15 Morning Break

Cognitive Research

10:15 - 11:30 Salon I/J

Chaired by: Paula Goolkasian
University of North Carolina, Charlotte
fp00pag@email.uncc.edu

10:15 Salon I/J

DSMAC: A Dynamic Interface For Investigating Sequential Multi-Attribute Choices

Gad Saad
Concordia University, Montreal

The DSMAC (Dynamic Sequential Multi-attribute Choice) interface permits investigation of behaviors in an optional stopping task. An individual decides after each piece of acquired information whether to make a choice between a pair of competing alternatives or acquire additional information. This process involves making decisions such as: what additional information is needed and whether information is sufficient to make a final choice. DSMAC consists of separate modules for constructing and running experiments. The bi-modular nature of DSMAC significantly reduces the set-up time required for constructing novel stimuli for new experiments.

10:35 Salon I/J

Message Size Constraints on Discourse Planning in Synchronous Computer-Mediated Communication

Claude G. Cech & Sherri L. Condon
University of Southwestern Louisiana (Universit  des Acadiens)
cech@usl.edu

Computer-mediated communication provides a rich environment for studying discourse processes. Using synchronous communication, we vary potential message length in a joint planning task. We discuss the data both in terms of low-level features involving word and line counts and high-level features involving discourse functions and management strategies. We consider whether on-line analyses of low-level features enable identifying structural aspects of a discourse. Such identifications promise simple but powerful techniques allowing the study of discourse processes through on-line intervention.

10:55 Salon I/J

A Neural Network that Identifies Abstract Nouns on the Basis of Linguistic Context Information

Katja Wiemer-Hastings
The University of Memphis
kwiemer@cc.memphis.edu

This paper examines the relevance of linguistic context for the semantic representation of abstract nouns. A multilayered, feedforward neural network is presented that was trained to identify six abstract nouns on the basis of semantic and syntactic features of their contexts in isolated sentences. Automatic Relevance Detection was used to estimate the relevance of the 53 input features. Directions for future research using this network in research on semantics are discussed.

11:10 Salon I/J

The effect of corpus size in predicting reaction time in a basic word recognition task: Moving on from Kucera and Francis

Curt Burgess & Kay Livesay
University of California, Riverside
curt@doumi.ucr.edu

Word frequency is one of the strongest determiners of reaction time (RT) in word recognition tasks and is an important theoretical and methodological variable. The Kucera and Francis (1967) word frequency count (derived from the 1 million word Brown corpus) is used by most (approximately 85%) investigators. Word frequency estimates from the Brown corpus were compared with a 150 million word corpus (newsgroup text gathered from USENET) using a standard word naming task with 32 subjects. RT was predicted equally well by both corpora for high frequency words. However, the larger corpus provided better predictors for low and medium frequency words. Furthermore, the larger corpus provides estimates for ~90,000 lexical items of current usage compared to the 5996 items in the Brown corpus.

Teaching Laboratories

10:15 - 11:30 Room 407/408

Chaired by: Walter Beagley
Alma College
beagley@alma.edu

10:15 Room 407/408

Using Micro-Computer Based EEG to Enable and Encourage Student Designed Projects

Gwyneth Hill Beagley & Walter K. Beagley
Alma College
beagleyg@alma.edu

The Physiological Psychology class at Alma College has employed BIOPAC Systems MP100 hardware with AcqKnowledge software and Macintosh computers to record and analyze electroencephalograms (EEG). After examining progressive changes in brain waves during sleep, students researchers have proceeded to study a variety of factors such as caffeine, cognitive tasks, and prior experiences. The simplicity of the system allows undergraduates to concentrate on experimental design and data analysis rather than instrumentation.

10:30 Room 407/408

The Simulated Psychology Lab: A Tool for Evaluating and Teaching Research Skills

Christian D. Schunn & John R. Anderson
Carnegie Mellon University
schunn@cmu.edu

This paper presents a computer environment called the Simulated Psychology Lab, and reports on research and instructional uses of the environment. First, the environment has been used to evaluate what scientific reasoning skills psychologists have. This serves to extend theories of complex problem solving. Second, the environment has been used to evaluate the effectiveness of several research methodology courses in psychology. Third, the environment could also be used effectively in classroom demonstrations.

10:50 Room 407/408

WebScholar: A Set of Java-Based Instructional Tools for Teaching Statistics and Research Methods on the Internet

Kavitha Srinivas & M. Jeanne Sholl

Boston College

srinivas@bc.edu

We introduce WebScholar, a JAVA- based set of educational tools developed by one of the authors to build a web-based laboratory course combining instruction in statistics and research methodology. JAVA applets are demonstrated that support mock research studies, graphing tools for data exploration, exercises in descriptive statistics, and simulations in inferential statistics. The merits of providing instruction over the net are discussed.

11:10 Room 407/408

The Ubiquitous Psychology Laboratory

Richard R. Plant, Nick Hammond, & Annie Trapp

University of York,

Will Stevenson

University of Cardiff,

Ruediger Oehlmann

University of Essex

r.plant@psych.york.ac.uk

This paper describes a methodology that allows classical psychological experiments to be run and re-executed using an appropriate WWW browser. These experiments have millisecond timing accuracy, independent of network speed and provide for high quality stimuli. The results of an evaluation trial to explore both the technical feasibility and the educational potential of this approach are discussed.

Simulation & Virtual Reality

10:15 - 11:25 Room 411/412

Chaired by: Doug Eamon

University of Wisconsin - Whitewater

eamond@uwwvax.uww.edu

10:15 Room 411/412

Teaching Psychology using Computer Simulations Based on Fuzzy Logic: a Beginner's Guide

David Reynolds

University of Windsor

One way to understand psychological, social, or neural systems is to simulate them. Using simulation, software provides a unified focus for understanding dynamic systems. Even simple simulations provide insight into dynamic nonlinear systems. In addition, working simulations in the context of fuzzy logic introduce students to fundamental concepts in the computational modeling of analog (more or less) systems.

10:35 Room 411/412

Microworlds for human experimental research: Realism, control, and accuracy

Nicholas DiFonzo

Rochester Institute of Technology,
 Donald A. Hantula
 Temple University,
 Prashant Bordia
 University of Queensland
 NXDGSS@rit.edu

Microworlds (MWs) are computer generated environments that participants interact with in the laboratory and that simulate field phenomena. 3 MWs are presented that investigated rumor in the stock market (BROKER), escalation behavior (INVESTMENT CHOICES), and foraging in Internet shopping (CYBERSHOPPER). These illustrate several methodologically superior benefits of MWs: capacity to study dynamic decision making phenomena, high experimental control, and improvements in data- collection. Experimental and mundane realism are explored; MWs increase internal validity via high experimental realism.

11:00 Room 411/412

Human Navigation in Virtual Environments

Noah Sandstrom, Scott Huettel, & Jordy Kaufman
 Duke University
 noah@psych.duke.edu

We discuss our methods for examining human navigational ability in virtual environments. By adapting a commercial software engine, we are able to design, create, and manipulate novel environments. This allows us to test human spatial ability using methods derived from animal research. We provide general instruction on the techniques used for generating these environments, coupled with an assessment of their advantages and disadvantages.

11:30 - 12:30 Salon I/J

Presidential Address

SCiP - past, present and future (?)

Margaret Anderson SUNY Cortland

Followed by Castellan Student Award Presentation and Business Meeting Open meeting, all are invited

12:30 - 1:30 Lunch Break

Experiments on the Web

1:30-3:30 Salon I/J

Chaired by Michael Levy
 University of Florida
 LEVY@nervm.nerdc.ufl.edu

1:30 Salon I/J

Validity in Internet and World-Wide Web Studies: What is Similar and What is

Different

John H. Krantz
 Hanover College
 Michael A. Smith
 Univ. of Toronto
 Reshaad Dalal
 Hanover College
 krantzj@hanover.edu

The Internet is increasingly being used as a means to conduct psychological research. A few studies have begun to test the validity of this medium. Studies have compared laboratory to Internet samples, compared Internet studies to published studies, or performed validity checks directly on the Internet data. This paper reviews these studies to come to some general conclusions about what types of Internet studies are valid and makes recommendations for determining the validity of future studies.

1:50 Salon I/J

Privacy of Subjects in Social Science Experiments Conducted on the Internet

Alison I. Piper
 Simmons College
 apiper@simmons.edu

Social scientists have long been concerned with the privacy of subjects in experiments. Researchers try to protect subjects' privacy, anonymity, and confidentiality while conducting valid, reliable experiments. Recently, investigators have begun to conduct laboratory and field experiments using the Internet. Experimenters, human subject committees, and professional organizations must consider the implications of this new venue for both the privacy of subjects and experimental validity.

2:10 Salon I/J

WRAP: Web-based Research Administration Project

Scott Ottaway & Dylan Martin
 Western Washington University
 ottaway@wwu.edu

An extension of a web-based protocol for administration of numerous experiments and large subject-pools will be discussed. The project uses simple HTML forms and CGI programs that automate record keeping tasks associated with the use of human subjects in research. Required resources, ease of implementation, customization, maintenance and limitations will be covered.

2:30 Salon I/J

Automated Group Assignment On The World Wide Web: CGI Scripting For Multiple Independent Variables In Time-Dependent Online Research

Robert H. Morrow & Adam J. Mckee
 The University Of Southern Mississippi
 rmorrow@ocean.st.usm.edu

We examine a method of automated group assignment via the information superhighway. The Common Gateway Interface (CGI) (language example: Perl) provides an advantage over static HTML pages in the manipulation of continuous variables such as time. In addition, this paper describes how the investigator can use a CGI counter to manipulate the number of subjects in any given independent variable condition without contacting the subjects. A working site will be demonstrated.

2:50 Salon I/J

The Making of a Self-Trust Questionnaire: Help from the WWW

Karen A. Pasveer & John H. Ellard

University of Calgary

kpasveer@acs.ucalgary.ca

A questionnaire designed to measure the concept of Self-Trust was constructed utilizing resources at both the University of Calgary (UC) and the World Wide Web (WWW). The investigation was composed of three waves of data collection, shortening the questionnaire from 72 to 20 items, validating it, and completing a confirmatory factor analysis. Through this process, the authors were able to construct a psychometrically sound questionnaire to measure a concept that has only recently been empirically defined.

3:10 Salon I/J

Using Web-based Electronic Questionnaires in a Correlational Study

Nicole English

University of Missouri

nenglish@cctr.umkc.edu

The author has created/used several Web-based electronic questionnaires, one of which was a "perception of visual illusions" test used as a part of an undergraduate experimental class project. Two versions of the test were created: one secured, one not secured (for participant confidentiality); Over 100 Subjects participated, solicited in person and electronically; Data was collected automatically in text files, which were subsequently cleaned up for analysis using SPSS. Subjects could be contacted electronically and given an URL for a web page to view the outcome of the study. Advantages & disadvantages of using this new media are evaluated.

Design and Use of On-Line Resources

1:30-3:30 Room 407/408

Chaired by: Darrell Butler

Ball State University

00dlbutler@bsu.edu

1:30 Room 407/408

Redesigning an Intranet Site: A Usability Engineering Approach

Frank M. Marchak & Brad Helies

TASC

fmmarchak@tasc.com

Designing an intranet site requires different design principles than those used for the internet; users tend to be knowledgeable of the domain, frequent visitors, and in a hurry to find information. We applied usability engineering principles to redesign our intranet to optimize these goals. A four phase approach was employed, involving card sorting, information mapping, visual design, and usability testing. We will present the processes involved and show the evolution of the new design.

1:50 Room 407/408

Can Psychological Principles be Used to Guide the Design of Artifacts?

Thomas T. Hewett
Drexel University
hewett@duvm.ocs.drexel.edu

This paper describes examples of using cognitive psychology to solve Human-Computer Interaction design problems. Included is an illustration of the misapplication of psychological knowledge, as well as an example of how the general superiority of cued vs. un- cued recall guided design of a computer-based memory aid. The goal is to understand when and how the results of psychological science may be useful in guiding the design of artifacts such as software and computing systems.

2:10 Room 407/408

Building a Cyber-Museum from the 1903 Eduard Zimmermann Catalog

Edward J. Haupt
Montclair State University
haupt@email.njin.net
<http://chss.montclair.edu/psychology/museum/museum.html>

Construction of a Web Site using images from a 1903 German (Leipzig) equipment manufacturer who provided much of Wundt's apparatus is presented. Methods for the efficient construction of such a site, including translation problems and a data-base catalog for images and captions to permit easier creation of .htm files are included. Future uses of the site, including preparation of transparencies and evaluation of the historical importance of the catalog are discussed.

2:30 Room 407/408

Building Computerized Decision Support Tools: Lessons Learned from CAHPS

Mark Spranca, David Kanouse, & Matthew Lewis
RAND
spranca@rand.org

We report on an interactive computer system which presents comparative health plan information to consumers. This computer tool was developed as a part of the Consumer Assessment of Health Plans Study (CAHPS). The purpose of the computer tool is to help consumers compare health plans and make more informed choices.

2:50 Room 407/408

Assessing the Quality of World Wide Web Sites

Carolyn L. Lee
Hanover College
leec@alpha.hanover.edu

Psychology undergraduates were encouraged to think critically about information on the WWW by designing a reliable quality rating system for psychological self-help sites. The rating system is described with illustrations of how it relates to site quality concerns raised by previous literature. Reliability of the system was assessed and yielded mixed results, suggesting that a reliable quality rating system may be difficult to establish.

3:10 Room 407/408

Searching the WWW for Information on Psychology

Ray Moeller & Darrell L. Butler,
Ball State University

d1mckb@iquest.net

00dlbutler@bsu.edu

As the size of the www grows, it becomes more difficult to separate relevant sources of information from irrelevant ones. Our research is examining two ways to help individuals search more effectively: Training using Boolean operators and scaffolding using a thesaurus.

Applied Research

1:30-3:20 Room 411/412

Chaired by: Doris Aaronson

New York University

doris@psych.nyu.edu

1:30 Room 411/412

Correlates of Computer Anxiety

P. Chris Cozby, John Reid, Jr., & Kevin S. Thomas

California State University, Fullerton

cozby@fullerton.edu

Computer anxiety: negative thoughts and concerns about one's abilities to use computers was studied in a group of college students taking a required computer course. Anxiety was related to higher levels of neuroticism, lower extraversion, and lower agreeableness. Students with high anxiety also scored lower on course exams. Anxiety was not related to conscientiousness, openness to experience, and gender.

1:45 Room 411/412

Evaluation of the SYNWORK1 Multiple-Task Work Environment

Robert W. Proctor & Dong Yuan Wang

Purdue University

David F. Pick,

Purdue Calumet University

proctor@psych.purdue.edu

SYNWORK1 allows up to four tasks to be performed concurrently. Experiments were conducted to evaluate performance of each individual task and all combinations at two presentation rates. At the slower default rates, the three experiment-paced tasks were not very demanding, and improvements with practice were due to the subject-paced arithmetic task. Doubling the presentation rates made the demands of all tasks more comparable. Certain important task characteristics cannot be easily modified with SYNWORK1.

2:05 Room 411/412

Reading Basic Sight Words: Do Children Perform Better for Computer or Printed Displays?

Larry D. Evans,

University of Arkansas for Medical Sciences

LDEVANS@achasc.uams.edu

Internet and World Wide Web popularity have increased children's access to information at school and home. While such information may appear more accessible to children, few studies have examined if children can locate, read, and remember information from computer displays as well as traditional page displays. This

paper reports the results for 20 lower elementary students who read published lists of basic sight words from computer and traditional page displays.

2:25 Room 411/412

A Four-Score Composite Program for Combining Standard Scores in Clinical Assessment

Larry D. Evans,
University of Arkansas for Medical Sciences
LdEVANS@achasc.uams.edu

Composite scores are routinely derived by test publishers as overall scores from multiple scales or subtests. Composite scores are less frequently derived by clinicians due to the complex equations, yet can provide clinicians with the ability to combine scores from more than one test, time, or clinician. This paper describes a computer program designed to calculate composite standard scores and corresponding reliability and validity coefficients from as many as four standard scores.

2:40 Room 411/412

CMC and Sociality on Campus: Internet Accessibility Effects

Diane J. Schiano & Herbert L. Coston
Interval Research Corporation
schiano@interval.com

Students in two residential university campuses differing markedly in networking infrastructure completed surveys on social communication practices, purposes and preferences. Benchmarks for direct ("in person") and computer mediated (CMC) communication were recorded, revealing some robust patterns. Online sociality is overwhelmingly through email (seen as cheap, fast and easy), which competes favorably with phone use when easily accessible. Comparative strategies for sociality on- and off-line, given high and low Internet access, are discussed.

3:00 Room 411/412

Exploring the relationship between speech behavior and depression: A computerized speech recognition approach

Gerardo M. Gonzalez
California State University, San Marcos
ggonz@mailhost1.csusm.edu

The purpose of this paper is to discuss the possibilities of using speech behavior and voice characteristics as objective measures for screening depression. The preliminary results of a pilot study will be reported. It is expected that the speech behavior variables (verbal response latency and verbal response patterns) of English and Spanish-speaking participants, interviewed with a computerized speech recognition program, will demonstrate a significant relationship with depressed mood and symptoms.

3:30 - 3:45 Afternoon Break

3:45-4:45 Salon I/J

Invited speaker

Modeling meaning in memory with the HAL model: From simple associations to knowledge

Curt Burgess

University of California, Riverside curt@cassandra.ucr.edu

The Hyperspace Analogue to Language (HAL) model encodes contextual experience in a representational form that cuts across traditional semantic, grammatical, and syntactic boundaries. Attempts to model subsymbolic representations have been limited for three reasons: contrived representations, narrow focus on one aspect of context (semantics, grammar, etc.), and not being truly "subsymbolic." HAL's vector representations avoid these limitations and capture contexts in which words occur. Therefore, HAL has explanatory power that captures a broad range of cognitive phenomena that call into question the notion of representational boundaries.

Commercial Symposium

4:50 - 6:30 Salon I/J

E-Prime - A cross platform Experiment Generator Studio for Computerized Behavioral Research

Organized by Walter Schneider
waltsch@vms.cis.pitt.edu

This symposium provides views of developing a cross- platform system for experimental research for Windows and Power PC based computing. The new system E-Prime is an open, extensible graphic system for precise (millisecond precision) computing across both platforms allowing between platform development, data collection, and analysis. The system includes 1) a graphic design environment allowing graphical selection and specification of experimental functions; 2) both factor table and procedural design of experiments; 3) a comprehensive E-Basic scripting language; 4) multi- threaded real-time engine; 5) extensive data analysis and translation system and 6) data auditing operations. This system incorporates lessons learned over the fifteen person year effort involved in the development of MEL Professional and PsyScope.

The goals and foundation of an experimental studio for Computerized Behavioral Research

Walter Schneider
 University of Pittsburgh & Psychology Software Tools Inc
 E-Prime experimental studio for specifying experiments

Brian MacWhinney
 Carnegie Mellon University

E-Prime - Factor Table specification of experiment conditions and complex procedures in E-Prime

Jonathan Cohen
 Carnegie Mellon University & University of Pittsburgh
 Jefferson Provost

Psychology Software Tools Inc.
 E-Prime real-time computing and E-Basic scripting language

Walter Schneider
 University of Pittsburgh & Psychology SoftwareTools Inc.

Anthony Zuccolotto
 Psychology Software Tools Inc

How a Department uses MEL Professional for research and can transition to E-Prime

Randy Engle
Georgia Institute of Technology
PsyScope/E-Prime for use in student laboratory classes
Jonathan Vaughan
Hamilton College

Commercial Presentations

4:50 - 6:30 Room 407/408

4:50 Room 407/408

A Guided Tour of The Psychology Place

Laura Maier
Peregrine Publishers
lauram@peregrine-pub.com
<http://www.psychplace.com>.

Laura Maier, Senior Editor at Peregrine Publishers, will introduce you to the diverse and expanding resources at The Psychology Place. The Web's social nature encourages collaboration, and its vast, ever-changing content invites active learners to explore. Activities and resources at the Psychology Place take advantage of the Web's immediacy and interactivity to provide a new learning environment for introductory psychology students.

5:10 Room 407/408

Superlab for Mac & Windows

Hisham Abboud
Cedrus Corporation
abboud@cedrus.cedrus.com
<http://www.cedrus.com>

Cedrus will be showing at SCiP, for the first time, a new book for teaching and some exciting new hardware products in various stages of development. All the new hardware is supported by SuperLab but can also be operated in conjunction with other programs. Also included will be demonstrations of the new versions of SuperLab for Macintosh and SuperLab for Windows.

5:40 Room 407/408

Introducing ERTSLAB

Jorg Beringer
BeriSoft Cooperation
beringer@berisoft.f.eunet.de
<http://ourworld.compuserve.com/homepages/berisoft>

BeriSoft is introducing a new student package called ERTSLAB. This is an experiment library browser for running ERTS experiments in a Win95 network environment.

6:00 pm room 407/408

Runword: An IBM-PC Software Package for the Collection and Analysis of Speeded Naming Responses

Christopher T. Kello
Carnegie Mellon University
Alan H. Kawamoto
University of California, Santa Cruz
kello@cnbc.cmu.edu

We offer a set of software tools that expands the available dependent measures of naming responses. Runword presents experiments written in a flexible, simple script language, and it can digitize and store vocalizations online, as well as calculate naming latencies more precisely than standard voice keys. Offline, it can extract acoustic measures such as the latency, duration, intensity, and pitch of various portions of the utterance. The user can listen to responses and add labels. (Runword is available for free to academic community.)