



Association for Educational
Communications and Technology

iTECH DIGEST

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Linking Research and Practice to Improve Learning

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Check out calls for papers, proposals, and participants. Get involved.

Journals – Page 5

Members have instant online access to a wide variety of journals.

Issues in Focus – Page 6

The column this month looks at the iPhone v. FBI case and related privacy issues.

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Teachers' First-Year Experience with Chromebook Laptops and Their Attitudes Towards Technology Integration

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There are...some types of laptops, which have some special ways for use. Chromebooks can be given as an example of laptops that are produced for particular use—they are affordable and useful mobile devices, which are very suitable for classroom settings. Their main distinction from regular laptops is being cloud based. That is, it is dependent on the Internet connection thereby employs cloud services. In other words, it requires an Internet connection in order to be operated with full functionality. Mainly, it uses the Internet connection to run programs or access files. This also makes Chromebook users meet online, share files and communicate mutually with its unique features. Because students are very familiar with web-based environments, Chromebook use may provide students numerous online opportunities for information access. It is important to note that new technologies, such as Chromebooks, require users to practice using new devices with their new features in order to become familiar with them so they can benefit from those for instructional purposes.

This article is excerpted from *Technology, Knowledge and Learning*, published online February 17, 2015. Read the full text by logging in at the AECT website, <http://aect.org/>, and clicking on Publications. Please note that all citations have been omitted from this excerpt.

The focus of the current study on teachers' use of laptops in educational settings led us to develop these research questions:

1. What is the relationship between teachers' years of experience, number of technological devices they have and their comfort level in teaching with technology?
2. To what extent did Chromebook integration change teachers' attitudes towards technology use?
3. What do teachers who used Chromebook laptops think about their instructional use of the laptops?

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Teacher Vision: Expert and Novice Teachers' Perception of Problematic Classroom Management Scenes

Charlotte E. Wolff, *Open University of the Netherlands*

Halszka Jarodzka, *Lund University, Sweden*

Niek van den Bogert, *Enhoven University of Technology, Netherlands*

Henny P.A. Boshuizen, *University of Turku, Finland*

Classrooms can be characterized as complex scenes. What a teacher notices and where a teacher fixates attention in the classroom is guided not only by the events occurring in the classroom, but also by the collection of experiences in classrooms, and the knowledge developing through these experiences....

The motivation driving our exploratory analysis was to understand the extent to which experience in the classroom influences teachers' visual perception and subsequent viewing strategies. The overarching question we investigated was: How does experience influence teachers' visual processing of the classroom?

1. Do experts and novices differ in their distribution of fixations when viewing classroom scenes?
2. Do experts and novices differ in terms of (a) areas they monitor and (b) areas where they do not look?
3. Do experts and novices differ in terms of word usage expressing mental/perceptual and action/event processing?

The first two research questions will be addressed by means of tracking participants' eye movements, and the third will be addressed by participants' verbalizations of their thoughts.



Discussion

This study investigated the question of how experts and novice teachers differ in their visual processing of the classroom. We considered multiple ways in which teachers' perceptual processing allows teachers to interpret cues, events, and interactions occurring in problematic classroom scenes. We compared elements of expert and novice teachers' visual processing to

determine (1) how distributed a particular expertise group's fixations were; and (2) which areas and features were repeatedly monitored and which were skipped in the search for classroom information. We also compared teachers' think aloud verbalizations to determine (3) how experts and novices differed in terms of word usage linked to cognition, perception, actions, and events.

Research Question 1. Consistent with research conducted in other professional domains, we found that teaching experience directly related to significant main effects of fixation dispersion across all videos, irrespective of the types of classroom problems depicted. As a group, experts' fixations were less spread out (i.e., more focused) than novices'....

Research Question 2. Experts consistently had more repeat fixations to specific, concentrated areas than novices did in all videos....

Research Question 3. In both types of classroom management scenes, experts more frequently used mental/perceptual words associated with complex thinking styles and also employed words denoting actions and events more frequently. We take this to mean that their thoughts are organized closely with their sensorial perception ('see'; 'hear') and their experiential knowledge and expectations of classrooms ('think'; 'want') in relation to the actions and events taking place in the video ('do'; 'happen'; 'move').

This article appears in *Instructional Science*, published online February 8, 2016. Please read the full article by accessing Publications on the AECT homepage at <http://aect.org/>. Citations omitted.



NOTES & NEWS

Please visit the AECT homepage for details and links.

CERTIFICATE ENDORSEMENT

AECT offers an endorsement for non-degree academic certificate programs in the field that are rigorous and aligned with AECT standards.

ROUTLEDGE BOOK PARTNERSHIP

AECT and Routledge will focus on major issues and subjects of high current interest—topics being discussed and debated across the academic community and in which the association and its members have a scholarly stake. More information will be forthcoming.

SUMMER RESEARCH SYMPOSIUM

“Educational Technology and Narrative: Story and Instructional Design” is the theme. Plan now to be in Bloomington, Indiana, July 20-21, 2016, for this important AECT leadership event.

Calls for Papers, Proposals, and Participants

Call for Contributions

AECT-Springer Online Major Reference Work, or MRW, offers theorists, researchers, and practitioners a unique opportunity to publish articles of substance in a “living” forum with the capacity to include interactive elements and to make ongoing modifications as new information emerges. Review the Call for Authors and consider developing a submission. The link is on the AECT homepage at <http://aect.org/>.

Call for Papers

The AECT flagship practitioner journal, *TechTrends*, is seeking manuscript submissions, including from international and newer authors. See the Instructions for Authors online by clicking on Publications on the AECT website: <http://aect.org>.

AECT’s premier research journal, *Educational Technology Research and Development (ETR&D)* also welcomes submissions on topics of interest from new and experienced researchers.

Call for Speakers/Writers

Looking for a keynote speaker or someone to write for your publication, or want to be that speaker or writer? Check out the new AECT Speakers/Writers Bureau at <http://aect.org/>.

Call for Manuscripts.

AECT, in collaboration with Springer, has announced a new series of books and monographs under the title, “Educational

Communications and Technology: Issues and Innovations.” The series will extend AECT’s ongoing publications with Springer and offer the Springer Briefs innovative format to AECT authors and contributors. More information for potential authors at <http://aect.org/>.

Call for Videos

“We Are AECT” is an opportunity to share how members define AECT. What’s your “elevator speech” description of AECT? Think of this project as making your “elevator video,” 3-5 minutes (or shorter, 15-60 seconds), something you might share on your smartphone with a new colleague who asks, “What’s AECT all about?” Complete directions can be found at <http://aect.org/>.

Call for Policy Briefs

AECT has created a series of policy briefs that set out association policies for reference by lawmakers and other policy makers. Consider drafting a policy brief. More at <http://aect.org/>.

**Don't miss the AECT
International
Convention in Las
Vegas, Nevada,
October 17-21.**

**See the article on
page 5 for keynote
details.**



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AECT Mission

The mission of the Association for Educational Communications and Technology is to provide international leadership by promoting scholarship and best practices in the creation, use, and management of technologies for effective teaching and learning in a wide range of settings.

Goals:

- Define the disciplines and professional activities that comprise the field of educational communications and technology.
- Serve and represent professionals in the field and support professional growth.
- Advance scholarship and practice that contribute to and enlarge the knowledge base of the field.
- Promote policies that ensure the humane and ethical use of educational communications and technology at all levels, from the personal through the international.

Teachers' First-Year Experience...continued from page 1



Because mobile technology has become so pervasive in children's lives, use of it for teaching and learning has become a must. In this study, we first aimed to examine the relationship of teachers' years of teaching experience and number of tech devices they have being related to teachers' comfort of technology use in their instruction. Also,

we studied whether teachers' attitudes towards technology use in their teaching changed after they taught a year with Chromebook laptops, as well as teachers' experience regarding their use of Chromebooks.

We found that teachers' years of teaching were not related to teachers' comfort of teaching with technology, whereas the number of technological devices teachers had significantly correlated with their comfort level of teaching. The second question yielded an interesting finding where teachers' attitudes towards technology use significantly decreased after teaching it for a year. The final qualitative section resulted in restrictions and recommendations of teachers.



It was important to utilize the qualitative part to this study so we could see why the implementation of laptop computers was successful or insufficient from the teachers' experience perspective. Teachers' answers revealed that they had some challenges during the first year implementation of the Chromebook laptops that led them to provide some suggestions to improve the quality of the implementation. They had problems with a variety of restrictions to lack of proper technical supports. Insufficient rules and polices allowed students to be distracted with the Chromebook laptops. Because of too many restrictions, lack of proper technical support and weak planning, both teachers and students felt disappointment.... Although these problems seem pretty well known, lack of fixes caused unpleasant educational outcomes, as happened in this example. Finally, teachers seemed to be part of a solution. Therefore, they provided some recommendations for their schools to improve the implementation. Teacher transcripts revealed that monitoring student use rather than blocking everything was one of their suggestions. They also stated the importance of better and proper teacher and student training before their implementation of Chromebook laptops as a solution to the problems they experienced during their first year.

Editor's note: Like most excerpts, this one cannot do justice to the full study. Readers are advised to consult the full text online.

Member Access Publications

Educational Technology Research and Development (ETR&D)

Bimonthly

ISSN: 1042-1629 (print)

ISSN: 1556-6501 (electronic)

Journal no. 11423

Springer US

TechTrends

Bimonthly

ISSN: 8756-3894 (print)

ISSN: 1559-7075 (electronic)

Journal no. 11528

Springer US

Instructional Science

An International Journal of the Learning Sciences

Bimonthly

ISSN: 0020-4277 (print)

ISSN: 1573-1952 (electronic)

Journal no. 11251

Springer Netherlands

International Journal of Designs for Learning

Semiannual

ISSN: 2159-449X

(electronic)

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Journal of Applied Instructional Design

Semiannual

ISSN: 2160-5289

(electronic)

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This is a partial list. Please visit the AECT website <http://aect.org/>, log on, and click on Publications for instant access to these and many other resources.



Three Keynotes!

Where better than in Las Vegas to witness a keynote by the world-famous **Cirque du Soleil**! This special keynote will take convention attendees into the technology-rich world behind the magic of a Cirque du Soleil show. Renowned for combining artistry and acrobatics in ways heretofore unknown, much of the artistry relies on exquisitely managed performance technology as well as highly trained physical performers. For a preview go to YouTube: https://youtu.be/Pmqz_gdiY8o. *AECT members will have an opportunity to purchase discount tickets to KÁ at the MGM Grand.*

A second keynote will feature **Philip Yenawine**, co-founder of Visual Understanding in Education (VUE), a nonprofit educational research organization that develops and studies ways of teaching visual literacy and using art to teach thinking and communication skills. He led in developing Visual Teaching Strategies (<http://www.vtshome.org>). Yenawine is the author of *How to Look at Modern Art*, *Key Art Terms for Beginners*, and six children's books about art.

A third keynote will feature **Barry Kudrowitz**, Assistant Professor of Product Design at the University of Minnesota Twin Cities. His work combines design, art, and entertainment. Barry (see <http://www.wonderbarry.com>) recently created a partnership called Popcorn Tuba LLP, which released a game for iPhone called *Word Bounce*.

Don't miss these keynotes. Register now: <http://www.aect.org/events/registration/>. The Early-bird discount ends May 18.

iPhone v. FBI—and Privacy Writ Large

The iPhone has been making news recently—and it's not about the release of a new version. Rather, the focus is on Apple's iPhone encryption software and policies and whether the FBI can order Apple to allow the agency the access it wants, in this instance to a terrorist's smartphone.

Apple currently is fighting a court order that would require the technology giant to create a way to help law enforcement gain access to a terrorist's iPhone but would ultimately result in such access being available for any phone. Apple and its competitors, such as Google, usually face off against each other in court over issues such as copyright, but in this instance they are likely to be allies because this case will affect the entire industry.

The order, under the 1789 All Writs Act, a law passed when American jurisprudence was in its infancy, may be issued when the courts have no other judicial tools available.

According to Jennifer Granick, Director of Civil Liberties at Stanford's Center for Internet and Society, quoted in the *Los Angeles Times*, "This is a new frontier." She went on, "I know of no other statutory provision that would arguably create an obligation for device manufacturers to help out the government."

Apple's attorneys are expected to argue that the order not only violates the All Writs Act but also constitutional provisions. The government is likely to rely mainly on arguments that the order is necessary for national security.

In some respects the national security aspect is overblown. Unlimited potential government access, which would be the ultimate result if the order prevails, would effectively treat all phone

users as potential terrorists.

Experts at the NATO Cooperative Cyber Defence Centre of Excellence have been taking a critical look at the case. According to legal researcher Lorena Trinberg, "From the perspective of international human rights law, anonymity and encryption are necessary for the exercise of the right to freedom of opinion and expression, and for the protection of the right to privacy, which are enshrined in Articles 17 and 19 of the International Covenant for Civil and Political Rights (ICCPR). However, these rights are not boundless, and both of them can be limited by law for one of the listed reasons, such as national security or public order."

Nevertheless, Trinberg continued, "The U.S. legal system is based on case law. Fact is that this case would cause a precedent. Consequently, it would open the door for many similar cases to be dealt with in the same way, as an unknown number of smartphones could not be decrypted by law enforcement authorities yet.

"Knowing this, more laws, in particular data protection laws might be breached afterwards once mighty governments feel tempted to use this software to access user data for more than law enforcement purposes. After all, it remains to be seen what legal developments on global level will follow upon this case."

Conceivably, were Apple to be compelled to do as the FBI demands, subsequent legal cases might well erode data privacy as it applies to individuals, such as students and educators, and institutions. Concerned educators would do well to watch this case for further developments.

