



## **From the SIGHC Chair**

All,

Welcome to the January 2009 newsletter of SIGHC. It's hard to believe that this is already the fourth year of SIGHC newsletters. Spring is just around the corner and with it comes a host of ISTE and SIG activities. We have SIG officer elections soon, and are planning on having some professional development activities in a couple of months, hosted by Tony Vincent. And of course, NECC 2009 in DC promises to be a great conference.

Finally, I'd like to take this opportunity to introduce and welcome Mischelle Grubbs, who has graciously offered to serve as our interim secretary until the elections are completed. Mischelle has written a brief intro below.

Happy reading...

Mark van 't Hooft  
Chair SIGHC (soon to be SIGML!)  
[mvanthoo@kent.edu](mailto:mvanthoo@kent.edu)

## **SIGHC News**

### **Interim Secretary**

Hi everyone, I am Mischelle Grubbs and will be the interim secretary for SIGHC. Following is just a little bit about me. Please feel free to e-mail me to chat or if you happen to be attending the PETE&C, stop in on Wednesday to see my presentation. The following is just a little bit about me.

Born and raised in Pittsburgh, Pennsylvania, I share my home with my husband Tom, a dog named Lady and 2 cats, Widget and Yoda. I have a grown daughter Becky who constantly challenges me not to act my age! I have been involved with technology since Radio Shack introduced their first Tandy computer. Turning that love into a career has taken me further than I could have possibly imagined in what seems to be a short amount of time.

I am presently pursuing my Masters in Instructional Technology at Duquense University at night while working for the North Hills School District. Here at North Hills we are beginning to explore the amazing learning potential of incorporating handhelds, iTouches, Palms, and response systems in our classrooms. It is really an exciting time to be an educator!

### **SIGHC Elections**

As you read this newsletter the call for nominations for SIG positions has been closed, and elections are just around the corner.

- Chair Elect (Term 2009-2010, followed by the Chair term, 2010-2012).
- Secretary/Communications Officer (Term 2009-2011).
- Member at large (Term 2009-2011).

Specific information about responsibilities for each of these positions can be found at <http://sig-handbook.iste.wikispaces.net/Volunteer+Structure>

### **SIGHC Award**

The SIGHC Award Committee, headed by Veronica McGowan and Cathy Risberg, has been working hard on the proposal, that is scheduled to be submitted sometime in April. This award, to be given out at NECC in 2010, will be the first award ever given out by the SIGHC. The deadline for submitting our proposal is July 15, 2009.

Thanks to those who've provided the Award Committee with feedback. If you have any questions about our proposal, please contact Cathy Risberg at [minds-that-soar@comcast.net](mailto:minds-that-soar@comcast.net). Thank you!

Cathy Risberg

### **SIGHC Name Change**

The name change to SIGML has been pretty much approved so be on the look out for a new logo, etc. The member survey so far has been very, very positive. It now looks like the official unveiling of the new name will happen at this year's NECC conference.

### **New Newsletter Sections**

We are still interested in adding a couple of feature sections to the newsletter, as requested by our members. We haven't gotten any responses yet to our calls, so please let us know if you are interested in contributing to one of these sections, or serve as a section editor. Remember that this publication is for you, SIGHC members, and only you can help us improve it.

- ***Member spotlight***: if you would like to be interviewed about all of the exciting things you are doing with mobile devices for teaching and learning, let us know. Interviews can be done by phone, email, Skype, IM, etc. Please contact Mark van 't Hooft ([mvanthoo@kent.edu](mailto:mvanthoo@kent.edu)) if you are interested in being featured or would like to help out (as a section editor).
- ***Mobile technology trends***: featuring some of the latest trends in mobile devices and education. **Note that this is not a place for vendors to advertise!** However, we are open to a variety of pieces here, including member submissions, interviews, reviews, etc. More guidelines about this section are forthcoming. Please contact Mark van 't Hooft ([mvanthoo@kent.edu](mailto:mvanthoo@kent.edu)) with questions or if you are interested in helping out (as a section editor).

## **SIGHC Communication Tools**

### **ISTE Community on Ning**

ISTE recently launched a networking community on Ning. SIGHC has its own group set up on this networking site at <http://www.iste-community.org/group/sighc>. We invite you to join and use this site for any community activities and networking related to mobile learning. You will need to register on the main ISTE Ning site (<http://www.iste-community.org/>) to access the SIGHC Ning.

## SIGHC Wiki



The SIGHC wiki continues to grow, and we always welcome more participation. Please go to <http://sighc.iste.wikispaces.net/space> to register (free!) and check it out. Just create a user name and password for yourself and start adding content. If you have ideas for topics that should be added to the wiki, please let us know, or add them yourself! Some topics we could add include:

- Mobile phones
- Podcasting
- Assessment
- Informal learning
- Research

We really want the wiki to be a resource for all of you!

### SIGHC Website ([www.iste.org/sighc](http://www.iste.org/sighc))

And of course, if you have updates for the SIGHC website, please send them to Mark van 't Hooft ([mvanthoo@kent.edu](mailto:mvanthoo@kent.edu))

### SIGHC Discussion Listserv ([sighc-discussion@iste-listserver.iste.org](mailto:sighc-discussion@iste-listserver.iste.org))

We've had a discussion listserv for a while now and we've had some questions about why it's not being used. First of all, make sure that you sign up for the listserv using the SIG Manager tool (<http://www.iste.org/inhouse/membership/myprofile/sig-manager/index.cfm?>). Note that you will need to be logged on to the site using your username and password. You would also log into the SIG Manager tool if you want to unsubscribe from the listserv.

Second, if you have questions, stories, links, articles etc. related to the use of mobile devices for teaching and learning, please post them to the listserv. Somebody has to get the discussion started. If you would like to volunteer to post something to the discussion listserv on a regular basis (say, once per month), please contact the SIGHC Chair Mark van 't Hooft at [mvanthoo@kent.edu](mailto:mvanthoo@kent.edu).

### SIGHC Announcement Listserv

If you are a SIGHC member, please make sure you are subscribed to this listserv as well as we use it to make announcements related to the SIG, including elections, newsletters, and NECC events. Note that only SIG officers can post to this listserv. Everybody else should post to the discussion listserv.

## NECC News



### **NECC 2009**

Information about the 2009 conference is available here (<http://center.uoregon.edu/ISTE/NECC2009/>). The reviews are done and acceptance/rejection notices have been sent out.

SIGHC will have a forum, a sponsored session, and the annual business meeting at NECC 2009. This year's SIGHC picks will be posted on the SIGHC wiki shortly.

### **SIGHC Forum**

Based on the survey responses and our business meeting at NECC, we have come up with what we think is an awesome forum for the 2009 NECC conference.

Title: Mobile, Connected, and Learning with Cell Phones.

Date and Time: Tuesday, June 30, 2009, 3-5 pm

Location: World War II Memorial, Washington DC.

Description: Join SIGHC at the World War II memorial in DC for a hands-on activity with camera phones, the web, and QR codes. Bring your phone!!

Presenters: Thomas McNeal and Mark van 't Hooft

**We will need volunteers to help us run the event, so if you're interested in helping out, please contact Mark van 't Hooft ([mvanthoo@kent.edu](mailto:mvanthoo@kent.edu)). Volunteers will be asked to participate in a brief meeting on Monday to prepare for the event, and help out during the Forum on Tuesday, June 30, 2009 (3-5 pm). And who knows, there might be cool t-shirt in it for you!!**

## **Feature Articles**

Are you doing some cool stuff with mobile devices? Do you have any good stories to tell? Fellow SIGHC members would love to hear from you! Please submit your ideas and stories to the newsletter. Heck, we'll even help you write up your story if need be! Please contact any of the SIGHC officers for details (contact info is at the end of the newsletter)! This month we have a very interesting contribution from Lisa Johnson from the Jefferson County Public Schools in Louisville, KY, and another one from Patrick O'Grady, Chris Dede, and Rebecca Mitchell from Harvard University.

### **The 180 Degree Classroom: Where Students Don't Study....They Teach**

Lisa Johnson

Early in his educational journey, José Alfaro learned from Settimo Rossoni, his mentor in El Salvador that, "If you want to learn... study. If you want to learn more....teach."

Luckily for his students, Mr. Alfaro took his mentor's advice and has devoted his life to doing just that--learning through teaching. In fact, he is allowing that philosophy to permeate his classroom.

Instead of teaching Precalculus concepts to his students, Mr. Alfaro requires them to teach each other. Not only does his plan require the distribution of learning, but also the transformation of the traditional classroom environment through the distribution of teaching. Almost every aspect of his classroom is a 180 degree transformation from what one remembers about high school math class. His classroom offers a glimpse into the not-so-far-off future of public education, and gives hope for those of us who not only know what public education has become, but also know what it has to offer.

The physical environment is unlike that found in the majority of high school math classrooms. Technology is in the hands of students, models of student understanding are posted on the walls, and students are required to work together. Every student has an iPod Touch, and every group has an HP TabletPC and internet chat headset. The posters on the walls aren't just homework problems written large enough for everyone to see from across the room, but they include text which explains the process demonstrated by the problem. Since the students work together on a daily basis, the desks are arranged in groups—just as they are in other content areas.

Student time in class is spent participating in one of two activities, neither of which entails listening to Mr. Alfaro explain a math problem or taking notes. Students either create video lessons using their TabletPCs, iTouches and teacher as resources, or work together to tackle projects and problems posed by Mr. Alfaro. The student-created videos are then posted in ANGEL, the district's Learning Management System, for viewing outside of class on the iTouches.

While students prepare and learn from the video lessons they create, José focuses on providing just-in-time learning opportunities and classroom experiences which incorporate their new learning. For those of us who have been involved with education long enough to have witnessed the gradual transformation away from the teaching of concepts to the teaching of tests, seeing a teacher spend time involved with students in project-based learning opportunities is truly exciting. When students ask for help with their understanding of a concept through the course of creating a video lesson, the explanation has much more meaning than if they had received the same information during the course of a "lecture."

Homework assignments have been transformed from post-engagement individual practice to anywhere/anytime learning experiences. Students use their iPods to view the designated video lessons created by their peers prior to coming to class, and assess their understanding of the material covered in the module by taking an online quiz. What better way to address all learning styles than to let the learners with those various styles create the lessons?

Teacher preparation has shifted from planning lectures to providing just-in-time instruction for the purpose of enhancing the student-created video lessons. No longer does student understanding hinge on the words of one person. The thought, "I wish I had done this....or said this," doesn't enter into the teacher's reflective process. That question becomes a part of the student creative process. By planning the script for their videos, students can edit and re-work their content until they are completely satisfied with the final product.

Assessment shifts from grading papers to monitoring student progress. Through using an online quiz tool, students demonstrate their understanding of material presented in the assigned video lesson as part of their daily homework assignment. As students enter the classroom, Mr. Alfaro can tell the concepts each student needs help with before they even take their seats. This helps him know which topics to cover in detail during the cooperative project of the day.

With the advancement of technology and the popularity of online learning communities, the role of “traditional” education can easily be (if only theoretically) called into question. However, Mr. Alfaro’s classroom has proved that by turning 180 degrees, there can still be a “traditional” classroom where all students want to be. In fact, it’s an ingenious way to allow students in a traditional school the experience of learning in a non-traditional way.

### **A Study of the Efficacy of an Augmented Reality Curriculum**

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Rebecca Mitchell, Harvard University, mitchere@gse.harvard.edu

#### Purpose

The Handheld Augmented Reality Project (HARP) is part of a three-year federal grant through the U.S. Department of Education Star Schools initiative. HARP is a collaborative effort between Harvard University, the University of Wisconsin, and the Massachusetts Institute of Technology to study the efficacy of Augmented Reality (AR) technology and curricula for the instruction of math and language arts at the middle-school level.

This project has as its primary objective to design and study engaging and effective augmented reality learning environments using wireless handheld computers equipped with global positioning system (GPS) receivers. In order to do this, HARP personnel have developed an AR curriculum called *Alien Contact!* and a subsequent curriculum called *Gray Anatomy* that incorporates many of the lessons learned from formative evaluations of the earlier curriculum. The purpose of this proposal is to describe the results of research done during the Spring of 2008 on the efficacy of AR curriculum on students' academic outcomes.

The theory that learning occurs most effectively in authentic setting is not new. Hendricks (2001) stated that complex social interactions are at the heart of learning. Brown, Collins and Duguid (1989) more precisely defined this thinking through their belief that individuals' interactions with their social teams lead to their adoption of learned behaviors. This phenomenon, which Hendricks (2001) called situated cognition, is different from practices in traditional educational settings. There is ample research to substantiate that social interactions are important for accomplishing challenging learning tasks. Bandura (1977), Vygotsky (1978), and Scaife and Bruner (1975) found that observation of and assistance from others at times precedes, and always interacts, with human cognitive development. Bandura (1977, p.12) highlights the importance of “symbolic, vicarious, and self-regulatory” processes in social learning, as compared to a psychological view where learning is a matter of an individual “performing responses and experiencing their effects”. Bandura elaborates on his theory that learning is a social process, explaining that we learn everything vicariously before we learn it directly because it is the only way we can “acquire large, integrated patterns of behavior without having to form them tediously by trial and error. The harder the task to be learned, the more we must learn it through observation first.

Hendricks (2001) found evidence to support the idea that practices based on situated cognitive theory can have significant impacts on immediate learning. Klopfer, Yoon and Rivas (2004) focused on the use of technology to facilitate situated learning environments – particularly through the use of handheld and wearable computing devices. Through the use of “participatory simulations” they found that students were more motivated, engaged and excited by the process of participatory learning than they are by more traditional means of learning.

There is strong evidence that cooperative learning is better for stimulating intrinsic motivation than competitive learning (Gehlbach, 2007). Classrooms that focus on cooperative learning make students responsible for one

another's outcomes (Gehlbach, 2007). Social learning approaches may be more likely to foster intrinsic motivation, the form of motivation most likely to positively influence persistence, because it is the most self-directed form of behavior regulation and taps into our innate desire and capacity to seek out challenge and explore (Ryan and Deci, 2000). Later research by Klopfer, Yoon, and Perry (2005) substantiated these earlier findings as to the impacts of simulations. More recently, Rosenbaum, Klopfer, and Perry (2007) placed their participatory simulations within the context of augmented reality.

### Augmented Reality

Squire and Jan (2007) define augmented reality as "games played in the real world with the support of digital devices (PDAs, cellphones) that create a fictional layer on top of the real world context" (p. 6). Squire and Jan focus on place-dependent AR games, which require participants to come to specific locations to work through the game. Alternatively, place-independent AR games are designed to overlay game elements on a map of any physical location.

In AR environments, students interact with virtual and physical objects, people, and environments. Unique capabilities of AR include the amplification of real world environments, the ability of team members to talk face-to-face while interacting simultaneously in the virtual environment, and the capacity to promote kinesthetic learning through physical movement through sensory spatial contexts. In the form of AR that the authors of this article studied, students utilize GPS-enabled wireless devices that allow them to engage with virtual information superimposed on the physical world. For example, students may be guided by a map of D.C. on their handhelds to walk up to the Lincoln Memorial. When they arrive, an image may appear of the Memorial itself containing architectural specifications or a movie may become accessible which talks about famous events in history which have occurred at this location or asks them to perform a particular task. By infusing digital resources throughout the real world, augmenting students' experiences, improving their recognition of patterns, critical features, background information, and reinforcing what they are learning through multiple sensory experiences (i.e., hearing about the memorial from an expert, seeing it with their own eyes, and even possibly touching a feature of the memorial itself while seeing that feature explained up close on their handheld device). Unique capabilities of AR include the amplification of real world environments, the ability of team members to talk face-to-face while interacting simultaneously in the virtual environment, and the capacity to promote kinesthetic learning through physical movement through sensory spatial contexts.

In addition, the current software developed to facilitate the delivery of AR curricula allows authentic team interactions and collaboration. This is due to the fact that the technology provides individuals within a team of students the ability to take on different roles within the augmented reality environment, thus allowing each individual to interact with the virtual elements in different ways than their teammates. While students may arrive at the same physical location as their group, a different artifact, interview, or task will appear on their handheld device than on their teammates' who holds a different role. This is more authentic as a collaborative tool due to the fact that individual students within a team must collaborate and share information in order to progress through the game. The frequently seen suboptimal practice that team work is "turned over" to an individual student within the team to complete is not possible with this pedagogical approach; each individual must participate for the team to be successful.

### Methods

A pre-test/post-test, control group design was used to conduct this research. A total of 128 sixth-grade students at three schools were randomly assigned to either a control or treatment group. All students completed a one-week curriculum called *Alien Contact!*, which was designed to deliver math and/or ELA content, and is based on a scenario involving aliens crash landing near the school. There are, however, several different iterations of *Alien Contact!*, which can be implemented as a stand-alone ELA curriculum (focused on Latin & Greek root words), a stand-alone math curriculum (focused on ratios & proportions), or a combined ELA & math curriculum (covering both areas). Regardless of the iteration, this curriculum includes two data-gathering sessions and three data analysis/reporting sessions. A total of 31 students completed *Alien Contact!* as an ELA curriculum. An additional 31 students completed the math version of *Alien Contact!* The remaining 66 students completed the combined math & ELA version of *Alien Contact!*

Within each iteration of the curriculum, the only difference between the control and treatment groups was that the treatment group used the GPS-enabled handheld computers in the outdoor setting during the data collection activities. The students in the control group used a board-game version of the game in place of the GPS-enabled handheld computers.

In order to determine the efficacy of AR as an instructional tool, pre- and post-tests were administered to each student covering the appropriate content.

### Data Sources and Results

The *Alien Contact!* curriculum was designed based on Massachusetts Comprehensive Assessment System (MCAS) standards. All content assessments used for either pre- or post-testing were designed using released items from the Massachusetts Department of Elementary & Secondary Education. Pre-tests were administered by the teachers of the classes before the *Alien Contact!* curriculum was started. Equivalent forms of the pre-test were administered as post-tests after the curriculum had completed. The math pre- and post-test included 16 questions, while the ELA pre- and post-test consisted of 22 questions.

### Results

The data were analyzed in two ways to answer two specific questions, 1) Was there statistically significant growth from the pre-test to the post-test, and 2) were there statistically significant differences between the control and treatment groups on post-test performance. As the students could receive the AR instruction as an ELA curriculum, a Math curriculum or a Combined curriculum (both ELA and Math), there data were analyzed for each of these three groups.

A comparison of means utilizing a t-Test was performed for each group to determine if the difference between pre-test and post-tests were statistically significant. In every case, there was a statistically significant difference between the pre- and post-tests. Differences between the math pre- and post-tests for the students participating in the math curriculum (one-sample  $t(30) = 15.38, p = .000$ ) and the combined curriculum ( $t(63) = 25.19, p = .000$ ) demonstrated significant growth. Likewise, differences between ELA pre-and post-tests for those students participating in the ELA curriculum ( $t(28) = 21.45, p = .000$ ) and the combined curriculum ( $t(62) = 28.38, p = .000$ ) also showed significant growth.

However, when comparing the mean performance of students on the post-tests, there was no statistically significant difference between treatment and control groups. The difference in math post-test performance between the treatment and control groups was non-significant for those students participating in the math curriculum ( $t(29) = 1.484, p = .149$ ) and the combined curriculum ( $t(62) = -0.252, p = .802$ ). Likewise, differences in ELA post-test for those students participating in the ELA curriculum ( $t(27) = 0.845, p = .405$ ) and the combined curriculum ( $t(61) = -0.608, p = .545$ ) also showed no significant differences.

There are several caveats that must be discussed before the educational importance of this study can be determined. The first of these is that, although the students within the sample were randomly assigned to the treatment and control groups, the schools that chose to participate were selected through convenience sampling. These schools wished to be involved with the *Alien Contact!* curriculum, and may not be representative of all schools.

Second, the *Alien Contact!* curriculum, as it was implemented, may not be long enough in duration to truly demonstrate the impact of AR curriculum on the academic performance of students.

That being said, these results would indicate that the *Alien Contact!* is helping students learn the content (as can be seen by the statistically significant difference between pre- and post-test results), however, this difference is no larger than that seen through the use of the board game version of the curriculum. Further analysis is needed in order to determine whether this is due to a weakness in the AR design, the length of the curriculum itself, technological issues, or something else. In addition, further research is needed to determine how this technology impacts non-academic factors, such as affect.

## References

- Bandura, A. (1977). *Social Learning Theory*. New Jersey: Prentice-Hall.
- Brown, J.S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18, p. 32-42.
- Gehlbach, H. (2007, April 30). *Liking and Cooperation*. PowerPoint Slides on Self Perception presented in T405 Social Dimensions of Teaching and Learning. Cambridge, MA: Harvard Graduate School of Education.
- Hendricks, C. (2001). Teaching causal reasoning through cognitive apprenticeship: What are results from situated learning? *The Journal of Educational Research*, 94(5), p. 302-311.
- Klopfer, E. Yoon, S., & Perry, J. (2005). Using Palm technology in participatory simulations of complex systems: A new take on ubiquitous and accessible mobile computing. *Journal of Science Education and Technology*, 14(3), p. 285-297
- Klopfer, E., Yoon, S., & Rivas, L. (2004). Comparative analysis of Palm and wearable computers for participatory simulations. *Journal of Computer Assisted Learning*, 20, p. 347-359
- Rosenbaum, E., Klopfer, E., & Perry, J. (2007). On location learning: Authentic applied science with networked augmented realities. *Journal of Science Education and Technology*, 16(1), p. 31-45
- Ryan, R. & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Scaife, M. and Bruner, J. S. (January 1975). The capacity for joint visual attention in the infant. *Nature*, 253, 265-266.
- Squire, K.D., & Jan, M. (2007) Mad city mystery: Developing scientific argumentation skills with a place-based augmented reality game on handheld computers. *Journal of Science Education and Technology*, 16, 1, 5-29.
- Vygotsky, L. S. (1978). *Mind in Society. The Development of Higher Psychological Processes*. Harvard University Press: Cambridge.

## Member News

The APAL Foundation is developing a new program for guiding English language and communication skills with Internet telephony. A major goal is to promote web and mobile connections for learners using applications to select, hear and say words, then receive feedback from focused speech recognition. Our website is [www.ElGuides.cc](http://www.ElGuides.cc). We need knowledgeable consultants interested in the general field and/or any specific technology.

Thank you,

E. L. Lotecka, PhD,  
Program Director  
APAL Foundation  
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## Events

### **Mobile Learning Conference 2009**

This conference will be held in Washington DC (February 16-17, 2009), and promises to be a very good one. According to Shawn Gross, the Conference Organizer: "We have an incredible list of speakers and attendees representing US and international school systems, policy makers and executives from the education technology and wireless industries." Some recently added speakers include:

- Nicholas Negroponte, Founder and Chairman, One Laptop Per Child
- Alec Ross, President Elect Obama Transition Team Member, Technology, Innovation and Government Reform
- Mohammad Ally, President, International Association of Mobile Learning
- Keith Krueger, Executive Director, Consortium of School Networking
- Liz Kolb, Doctoral student at the University of Michigan and Author of From Toy to Tool: Cell Phones in Learning

- Mark Schneiderman, Senior Director, Education Policy, Software & Information Industry Association (SIIA)
- Karen Billings, Vice President, Education Division, Software & Information Industry Association (SIIA)
- Kathleen Norris, Regents Professor in the College of Information, Library Science & Technology, at the University of North Texas and co-founder of Go-Know.
- Elliot Soloway, University of Michigan and co-founder of GoKnow.
- Mark Nieker, Director, Mobile Learning Institute, Pearson Foundation
- Dr. William Rankin, Director, Mobile Learning Research, Abilene Christian University
- Tom Greaves, Chairman of The Greaves Group
- David Whyley, Learning2Go (United Kingdom)
- Susan Patrick, President and CEO of iNACOL.

Please visit the conference website at <http://www.mobilelearning09.org> for details and registration information.

### Job Postings



Research Professorship  
Position 997940

The Research Center for Educational Technology (RCET) at Kent State University seeks a distinguished scholar to serve as RCET Research Professor with tenure. Working with and mentoring an exceptional staff, the RCET Professor will lead RCET's research on the impact of technology on teaching and learning as well as follow her/his own research interests.

We seek a person with an outstanding record of research, with experience in a research center, university or other academic institution and with a record of success in attaining grants and working with funding organizations. Highest consideration will be given to candidates with research interests in technology integration, learning and assessment; understanding of school reform; ubiquitous computing and/or learning in virtual environments.

Established in 1999, RCET is an independent, non-profit research and education center at Kent State University. In addition to research on teaching and learning, RCET's activities include (1) operation of a unique technology-rich classroom with a research laboratory attached for selected K-12 teachers and their students and (2) an on-line multimedia journal. Additional information about RCET can be found at <http://www.rcet.org>.

For a complete description of this position and to apply online, visit our jobsite at <http://jobs.kent.edu> to complete an academic data form. Qualified applicants should submit: (1) a cover letter addressing special interest in the position, related qualifications, research interests and future directions; (2) a current vita; (3) three recent publications and (4) contact information for three professional references, including telephone numbers and e-mail addresses. Items may be submitted to [dcook@kent.edu](mailto:dcook@kent.edu) or may be mailed to **Dr. Dale L. Cook, Director RCET and Summit Professor, 323 Moulton Hall, Kent State University, Kent, Ohio 44242-0001; Telephone: 330-672-0611.**

Review of applications will begin upon receipt and will continue until the position is filled.

All documents submitted to Kent State University for employment opportunities are public records and subject to disclosure under the Ohio Public Records Law.

## **And Finally...**

As always, thanks to everybody who contributed to this month's newsletter. Don't forget to participate by submitting articles, or adding content to the SIGHC wiki ☺. Its success is depends on YOU!

If you have any news or info for a future newsletter, please send it to Mark van 't Hooft (until an interim Secretary has been put in place). Until the next issue...

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