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Appendices

Appendix A Innovativeness Scale

Individual Innovativeness Scale (IS)

Directions: People respond to their environment in different ways. The statements below refer to some of the ways people can respond. Please indicate the degree to which each statement applies to you by marking whether you: **Strongly Disagree = 1; Disagree = 2; are Neutral = 3; Agree = 4; Strongly Disagree = 5**
Please work quickly, there are no right or wrong answers, just record your first impression.

- _____ 1. My peers often ask me for advice or information.
- _____ 2. I enjoy trying new ideas.
- _____ 3. I seek out new ways to do things.
- _____ 4. I am generally cautious about accepting new ideas.
- _____ 5. I frequently improvise methods for solving a problem when an answer is not apparent.
- _____ 6. I am suspicious of new inventions and new ways of thinking.
- _____ 7. I rarely trust new ideas until I can see whether the vast majority of people around me accept them.
- _____ 8. I feel that I am an influential member of my peer group.
- _____ 9. I consider myself to be creative and original in my thinking and behavior.
- _____ 10. I am aware that I am usually one of the last people in my group to accept something new.
- _____ 11. I am an inventive kind of person.
- _____ 12. I enjoy taking part in the leadership responsibilities of the group I belong to.
- _____ 13. I am reluctant about adopting new ways of doing things until I see them working for people around me.
- _____ 14. I find it stimulating to be original in my thinking and behavior.
- _____ 15. I tend to feel that the old way of living and doing things is the best way.
- _____ 16. I am challenged by ambiguities and unsolved problems.
- _____ 17. I must see other people using new innovations before I will consider them.
- _____ 18. I am receptive to new ideas.
- _____ 19. I am challenged by unanswered questions.
- _____ 20. I often find myself skeptical of new ideas.

Scoring:

Step 1: Add the scores for items 4, 6, 7, 10, 13, 15, 17, and 20.

Step 2: Add the scores for items 1, 2, 3, 5, 8, 9, 11, 12, 14, 16, 18, and 19.

Step 3: Complete the following formula: $II = 42 + \text{total score for Step 2} - \text{total score for Step 1}$.

Scores above 80 are classified as Innovators.

Scores between 69 and 80 are classified as Early Adopters.

Scores between 57 and 68 are classified as Early Majority.

Scores between 46 and 56 are classified as Late Majority.

Scores below 46 are classified as Traditionalists.

In general people who score above 68 and considered highly innovative, and people who score below 64 are considered low in innovativeness.

Sources:

Hurt, H. T., Joseph, K., & Cook, C. D. (1977). Scales for the measurement of innovativeness. *Human Communication Research*, 4, 58-65.

McCroskey, J. C. (2006). Communication research measures: Individual innovativeness. Retrieved December 31, 2004, from <http://www.jamescmccroskey.com/measures/innovation.htm>

Appendix B Perceived Organizational Innovativeness Scale

Perceived Organizational Innovativeness Scale (PORGI)

Directions: Organizations respond to change in different ways. The statements below refer to some of the ways members of organizations perceive their organizations' to be. Please indicate the degree to which you agree that the statement describes your organization. In the blank just before the statement, indicate whether you: **Strongly Disagree = 1; Disagree = 2; are Undecided = 3; Agree = 4; Strongly Agree = 5**

My Organization is:

- _____ 1. cautious about accepting new ideas.
- _____ 2. a leader among other organizations.
- _____ 3. suspicious of new ways of thinking.
- _____ 4. very inventive.
- _____ 5. often consulted by other organizations for advice and information.
- _____ 6. skeptical of new ideas.
- _____ 7. creative in its method of operation.
- _____ 8. usually one of the last of its kind to change to a new method of operation.
- _____ 9. considered one of the leaders of its type.
- _____ 10. receptive to new ideas.
- _____ 11. challenged by new ideas.
- _____ 12. follows the belief that "the old way of doing things is the best."
- _____ 13. very original in its operational procedures.
- _____ 14. does not respond quickly enough to necessary changes.
- _____ 15. reluctant to adopt new was of doing things until other organizations have used them successfully.
- _____ 16. frequently initiates new methods of operations.
- _____ 17. slow to change.
- _____ 18. rarely involves employees in the decision-making process.
- _____ 19. maintains good communication between supervisors and employees.
- _____ 20. influential with other organizations.
- _____ 21. seeks out new ways to do things.
- _____ 22. rarely trusts new ideas and ways of functioning.

_____23. never satisfactorily explains to employees the reasons for procedural changes.

_____24. frequently tries out new ideas.

_____25. willing and ready to accept outside help when necessary.

Scoring:

Step 1. Add the scores for the following items: 1, 3, 6, 8, 12, 14, 15, 17, 18, 22, and 23.

Step 2. Add the scores for the following items: 2, 4, 5, 7, 9, 10, 11, 13, 16, 19, 20, 21, 24, and 25.

Step 3. Complete the following formula. PORGI = 66 + total from Step 2 - total from step 1.

Scores can range between 25 and 125.

Organizations with scores above 110 are classified as Innovative.

Organizations with scores between 91 and 110 are classified as Early Adopter.

Organizations with scores between 71 and 90 are classified as Early Majority.

Organizations with scores between 50 and 70 are classified as Late Majority.

Organizations with scores below 50 are classified as Traditional.

Generally, Organizations which score above 90 are high in innovativeness. Those scoring below 50 are low in innovativeness. Those scoring between 50 and 90 are moderate in innovativeness.

Sources:

Hurt, H. T., & Teigen, C. W. (1977). The development of a measure of perceived organizational innovativeness. In B. R. Ruben (Ed.), *Communication Yearbook I* (pp.377-385). New Brunswick , NJ: Transaction Books.

McCroskey, J. C. (2006). Communication research measures: Perceived organizational innovativeness scale. Retrieved January 13, 2005, from <http://www.jamescmcroskey.com/measures/orginnov.htm>

Appendix C Perceived Characteristics of Innovating Scale

Perceived Characteristics of Innovating Scale (PCIS)

Directions: People respond to new technologies in different ways. The statements below refer to some of the ways people can respond. Please indicate the degree to which each statement applies to you by marking whether you: **Strongly Disagree = 1; Moderately Disagree = 2; Slightly Disagree = 3; are Neutral = 4; Slightly Agree = 5; Moderately Agree = 6; Strongly Agree = 7.** There are no right or wrong answers, just record your first impression.

- _____ 1. Using digital annotation software will enable me to accomplish tasks more quickly.
- _____ 2. Using digital annotation software will improve the quality of work I do.
- _____ 3. Using digital annotation software will simplify my work tasks.
- _____ 4. Using digital annotation software will improve my job performance.
- _____ 5. Overall, I find using digital annotation software will be advantageous in performing my job.
- _____ 6. Using digital annotation software will give me greater control over my work.
- _____ 7. Using digital annotation software will make me more productive.
- _____ 8. The use of digital annotation software is completely compatible with my current way of working.
- _____ 9. Using digital annotation software fits poorly with my current work practices.
- _____ 10. Using digital annotation software fits with my preferred work style.
- _____ 11. Using digital annotation software fits well with the way I like to work.
- _____ 12. Using digital annotation software will let me work the way I would like.
- _____ 13. It will be hard to employ my preferred work style when using digital annotation software.
- _____ 14. The use of digital annotation software is compatible with my past experience.
- _____ 15. I lack experience when it comes to things like using digital annotation software.
- _____ 16. Using digital annotation software is inappropriate for a person with my values regarding the role of technology.
- _____ 17. My values are in conflict with the use of digital annotation software.
- _____ 18. Using digital annotation software is completely consistent with my values.
- _____ 19. I believe that digital annotation software is cumbersome to use.
- _____ 20. It will be easy for me to remember how to perform tasks associated with using digital annotation software.
- _____ 21. When I use digital annotation software, it requires a lot of mental effort.

- _____ 22. I believe that it will be easy to get digital annotation software to do what I want it to do.
- _____ 23. Overall, I believe that digital annotation software will be easy to use.
- _____ 24. Digital annotation software is user friendly.
- _____ 25. Using digital annotation software improves my image within the organization.
- _____ 26. In my organization, people will gain prestige by using digital annotation software.
- _____ 27. People in my organization who use digital annotation software will have a higher profile.
- _____ 28. Having digital annotation software will be a status symbol in my organization.
- _____ 29. Because of my use of digital annotation software, I see myself as a more valuable employee.
- _____ 30. I would find it easy to tell others about the results of using digital annotation software.
- _____ 31. I think that I could easily describe the effects of using digital annotation software.
- _____ 32. I believe I could communicate to others the consequences of using digital annotation software.
- _____ 33. It will be hard to measure the results of using digital annotation software.
- _____ 34. The effects of using digital annotation software can be assessed precisely.
- _____ 35. It will be easy to determine the impact of digital annotation software.
- _____ 36. I have had many opportunities to try out digital annotation software.
- _____ 37. I know where I can go to satisfactorily try out digital annotation software.
- _____ 38. Digital annotation software was available to me to test adequately.
- _____ 39. I was permitted to use digital annotation software on a trial basis long enough to see what it could do.
- _____ 40. I can have digital annotation software for periods long enough to try it out.
- _____ 41. Supervisors in my organization expect me to use digital annotation software.
- _____ 42. Although it might be helpful, using digital annotation software is optional in my job.
- _____ 43. My decision to use digital annotation software is entirely up to me.
- _____ 44. The use of digital annotation software is mandatory in my school.
- _____ 45. My school requires me to use digital annotation software in performing my job.

Source:

Compeau, D. R., & Meister, D. B. (2003). The perceived characteristics of innovating: A reconsideration: University of Western Ontario.

Appendix D Outline of RepliGo™ Workshops

Workshop Outline

Demonstrating RepliGo™

- This is digital annotation [show highlighting]
- [Show commenting]

Survey Time 1

- The next thing to do is to take three brief online surveys
- The first will ask you for some demographic information
- The second will ask about your personal level of innovativeness, or willingness to change
- The third will ask you your perceptions of your school's innovativeness
- Please point your browser to [Survey 1 URL]

Introducing Digital Annotation Software

- RepliGo™ 2.0 from Cerience
- Originally designed for large corporations to make all their documents available to employees using handhelds and smartphones
- All versions of the reader are free to all
- Supports digital annotation
- Allows for viewing RepliGo™ files in a stand alone viewer or in a web browser
- RepliGo™ document creator required to make RepliGo™ files
- Adds a print driver and a converter button to the toolbar

Hands-on with RepliGo™

- [Use examples for each content area]
- Using the reader to annotate existing RepliGo™ files
- Using the converter to prepare electronic files to be read by the viewer
- Original document must be electronic
 - Web page, PDF, Word, Excel, PowerPoint, etc.
- If it can be printed, it can be made into a RepliGo™ file

Brainstorming

- How would you use your students' annotations?
- What barriers do you foresee?

Survey Time 2

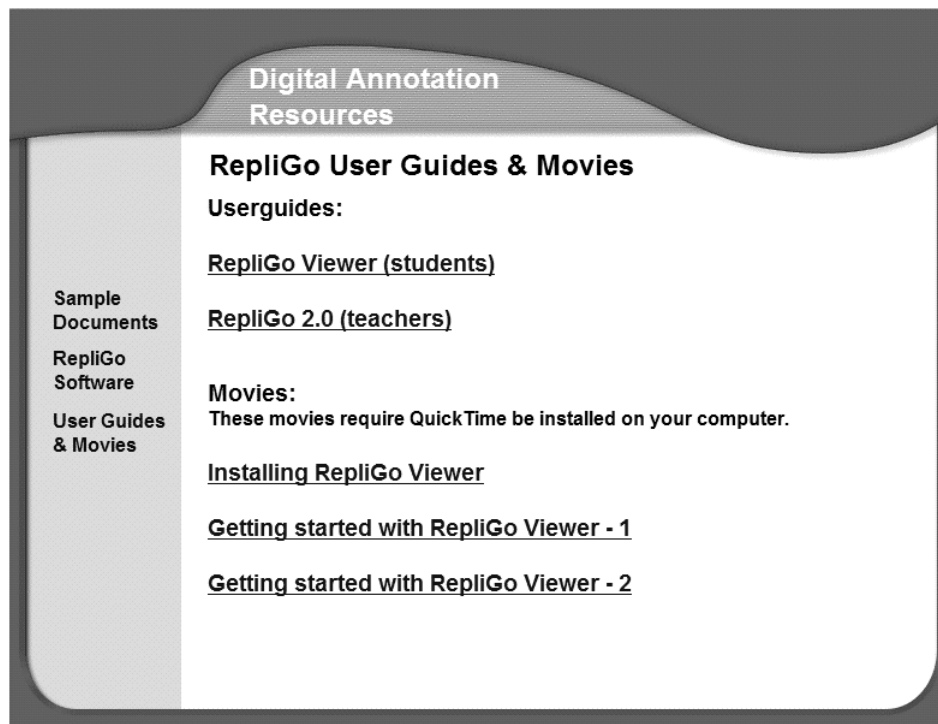
- You'll be asked some questions about what you think of digital annotation
- Then you will choose whether or not you will participate in the four-week trial
- If you chose to participate in the trial, you will be offered the opportunity to participate in the second phase of this study
- Please tell me what day/time is best for your follow-up interview,
- Please point your browser to: [Survey 2 URL]

Thank You!

- Drawings for gift cards
- Please contact me if you have any questions about this study

Appendix E Screenshots of RepliGo™ Software

Appendix F Screenshots of RepliGo™ Online Support Materials



Making RepliGo files with RepliGo 2.0

When converting documents use the RepliGo printer. This special printer is for converting files to RepliGo.

Directions:

1. Open your original document in its native application and launch the Print dialog (usually File > Print) and select the RepliGo printer. The conversion process takes over and creates a corresponding RepliGo document. See figure one.



Figure One: The RepliGo printer

2. In the dialog box that appears (see figure two):
 - a. Type the name of the document
 - b. Browse to the folder you want to save it in. Remember where this is for when you want to find it.
 - c. Click OK

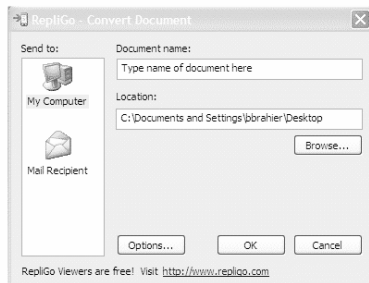


Figure Two: The RepliGo 2.0 convert document dialog box

For each document you want to convert, open it in its native application and repeat the steps above.

Your files will now be converted for viewing using RepliGo Viewer.

RepliGo Viewer Reference Guide

Installation

Note: You must be logged in with an Administrator account on the local machine to install RepliGo Viewer for Windows. Irving ISD students will have the software pushed to them by the school district and should not need to install it.

Step 1.

Download RepliGo Viewer for Windows from <http://www.iaproject.org/students/>

Step 2.

Quit all other applications.

Step 3.

Double-click the self-extracting executable file on your desktop computer. This file can be found in the directory you specified during the download process.

Step 4.

Follow the onscreen instructions.

Working with highlights

Highlights are stored as Comments. They are shown when the Comments tab on the left is clicked. You can pin open the Comments tab by clicking on the pushpin icon.



Text Highlighter tool: Use this tool to highlight text within the document. The highlighted text is automatically added as a new comment.



Comments buttons: Use these buttons to display and navigate various comments, highlights, and notes. Use the Add Note to add a text comments to the current page.



Find and Find Next buttons: Find text within the document. Use the Find Next button to move to the next match.



Bookmarks buttons: Use these buttons to display and navigate converted document bookmarks and personal bookmarks. Use the Add Bookmark to add a personal bookmarks to the document.



Text Select tool: Use this tool to select text from your document to paste into another application.

Send via E-mail

You can send the current document via e-mail. Choose File > Send... or click the Send Mail toolbar button. This will launch your default e-mail program and attach the current RepliGo document to the e-mail for sending. Simply type in the recipient's e-mail address, and click send.

Appendix G Phase 1 Follow-up Interview Protocol and Voicemail Prompts

Phase 1 Follow-up Interview Protocol

Tell me about your decision to adopt/not adopt digital annotation.

What made you decide the way you did?

Phase 1 Voicemail Prompt

Digital Annotation Workshop Follow-up Phone Call

Dial: (972) 504-6267

Say:

- First Name, Last Name
- Email address
- Spell the front end of your email
- I did/did not choose to participate in the RepliGo field trial
- What I saw in the workshop that had me choose this was...

Questions? Contact Barry Brahier at brah0002@umn.edu

Appendix H Phase2 RAT Taxonomy Interview Protocol

RAT Taxonomy Interview Protocol

What was your goal in using digital annotation in this instance?

What was interesting to you about this instance?

To what extent would you say using digital annotation changed

How you taught?

What you taught?

What students learned?

What else would you like me to know about this instance?

Appendix I Perceived Characteristics of the Innovation Definitions and Sample Data

PCI Definitions

Construct	Definition
Relative Advantage	the degree to which the innovation is perceived as being better than the other options – the comparison may be explicit (A is better than B) or implicit (A is better)
Compatibility with Current Work Practices	the degree to which the innovation is perceived as being consistent with the way the potential adopter <i>works now</i>
Compatibility with Preferred Work Style	the degree to which the innovation is perceived as being consistent with the way the potential adopter <i>would like to work</i> , even if that is not the way they work now
Compatibility with Prior Experience	the degree to which the innovation is perceived as being consistent with the prior experience of potential adopters
Compatibility with Values	the degree to which the innovation is perceived as being consistent with the existing values of potential adopters
Ease of Use	the degree to which an innovation is perceived as being easy to use
Image	the degree to which using the innovation is perceived to enhance one's image or status in the organization
Communicability	the degree to which the results of using the innovation can be easily communicated to others
Measurability	the degree to which the impact of the innovation can be measured
Trialability	the degree to which the innovation may be experimented with before adoption
Voluntariness	the degree to which adoption of the innovation is viewed as a matter of personal choice, rather than external pressure
Others Use	the degree to which potential adopters are aware of other people using the innovation

Source:

Compeau, D. R., & Meister, D. B. (2003). The perceived characteristics of innovating: A reconsideration: University of Western Ontario.

Sample Data

Julia, interview 1, paragraphs 1-3

Yesterday, or the day before, you attended the workshop and I think you chose to go ahead and give it a try. And what had you make up your mind about that?

Basically because with the other reading teachers and ESL teachers we've been talking all year about how to improve our reading comprehension scores because we've got kids that are, you know, pretty low. We're concerned about them on the TAKS test. And most of the research says that we need to get them interacting with the text and marking the text and digital annotation fits really well into that. It's a tool we can use to help them with marking the text and interacting with the text.

Current Work Practices

And anything specific about it as far as the qualities of interaction or what you were after... It sounds like you came in looking for something, and was there anything you saw specifically that helped you tip your mind that "I'll try this"...

I liked the fact that I can, I guess, elicit comments from them fairly easily in the comments section. I like that more than any of the other tools that we've been able to get a hold of.

Relative Advantage

Ease of Use

Was there anything else about the works itself, the surveys, any of the questions you had that didn't get answered.

No I don't think so

Appendix J Phase 2 RAT Taxonomy Self-Report

Phase 2 RAT Taxonomy Self-Report

What happened in your class today?

Describe the subject, the students, your intended outcomes, and how you and your students used digital annotation.

Comparing today to how you taught before using digital annotation:

Did the use of digital annotation change your instruction? How?
How would you have taught this topic before?

Comparing today to what you taught before using digital annotation:

Did using digital annotation change the topics you? How? What would you have taught before?

When you used digital annotation today, what did you notice about your students' learning?

What else would you like to say about the way(s) digital annotation was used in your classroom today? (Optional)

Appendix K Permissions to Reprint



S I M O N & S C H U S T E R

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Agnes Fisher
Director
Permissions Department

October 5, 2005

Barry Brahler
658 Overlook Drive
Roseville, MN 55113
Fax: 651-490-5485

Dear Barry Brahler:

In reply to your fax received this morning, you have our permission to use Figure 5-1 (A Model of Five Stages in the Innovation-Decision Process), p 170 from *Diffusion of Innovations, 5th Edition* by Everett M. Rogers, in your doctoral dissertation, to be submitted to the University of Minnesota. This permission is extended to all copies of the dissertation to meet degree requirements. Reapply for all subsequent uses.

The following acknowledgement is to be reprinted in the caption for the figure:

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Sincerely,

A handwritten signature in cursive script, appearing to read "Agnes Fisher".

From: Compeau, Deborah [DCompeau@ivey.uwo.ca]
Sent: Thursday, March 17, 2005 9:43 AM
To: Barry Brahier
Subject: RE: Seeking permission to use a figure
That's just fine.

Debbie

From: Barry Brahier [mailto:brah0002@umn.edu]
Sent: Thursday, March 10, 2005 11:51 PM
To: Compeau, Deborah
Subject: Seeking permission to use a figure

Hi Debbie:

Your figure 1 on p. 12 is one of those worth 2000 words it seems. It would be a big help to include it in my explanation of the evolution of the PCI.

May I have permission to include it in my dissertation? Here's how I intend to cite it, please make changes as you see fit (I need to use APA format though).

Note. From "The Perceived Characteristics of Innovating: A Reconsideration." by D.R. Compeau and D.B. Meister, 2003, p. 7. Copyright 2003 by Compeau and Meister. Reprinted with permission

Of course I'll be delighted to change it all once you're in press!

Let me know, and thanks again for all your contributions.

Barry

From: Action in Teacher Education [ate@ou.edu]
Sent: Friday, October 28, 2005 10:12 AM
To: Barry Brahier
Subject: Re: Seeking permission to reproduce a figure from ATE 24(4)
Dr. Brahier,

Thank you for your recent inquiry regarding the use of a figure from ATE 24(4). Dr. Chiodo, co-editor of Action in Teacher Education grants permission. Please see his message below.

Thank you,
Laura Beliveau
Editorial Assistant, ATE

Message from Dr. Chiodo:

Laura, just get back to him and say he is free to use the figure.

John

----- Original Message -----

From: [Barry Brahier](#)
To: ate@ou.edu
Sent: Saturday, October 22, 2005 6:42 PM
Subject: Seeking permission to reproduce a figure from ATE 24(4)

Hello:

I'm requesting permission to reproduce a figure from an issue of ATE. Would you please respond with either a statement of permission or the procedure for obtaining it?

The request pertains to Figure 1 in this article:

Hughes, J. (2003). Toward a Model of Teachers' Technology Learning. *Action in Teacher Education*, 24(4), 10-17.

Thank you, I'll look forward to your reply.

Regards,

Barry

Appendix L University of Minnesota Institutional Review Board Approval

Barry Brahier

From: irb@umn.edu
Sent: Wednesday, April 13, 2005 10:28 AM
To: brah0002@umn.edu
Subject: Notification of IRB Exempt Study

The IRB: Human Subjects Committee determined that the referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #1 INSTRUCTIONAL STRATEGIES IN EDUCATIONAL SETTINGS.

Study Number: 0504E68911

Principal Investigator: Barry Brahier

Title(s):
Innovation Adoption Profile (IAP) Project

Grant Title: An Exploratory Study Of The Meaningfulness Of Student Annotations To High School Teachers _____

The study number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.

For research in schools: Any changes to this research must be approved by the IRB and school district involved before initiation.

If you requested a waiver of consent or documentation of consent and you received this email, approval for the waiver has been granted.

Upon receipt of this email, you may begin your research. If you have questions, please call the IRB office at (612) 626-5654.

You may go to the View Completed section of eResearch Central at <http://eresearch.umn.edu/> to view further details on your study.

The IRB wishes you success with this research.