Christopher Carlson

EDET 626 Classroom Research

University of Alaska Southeast

December 6, 2013

"My Screencast Service & Research wasn't popular. Why?"

Chris Carlson

Abstract

The purpose of this Action Research study was to discover the effectiveness of using screencasts for teachers in regards to professional development. The study was designed to test the application of informal screencasts customized to meet the learner's specific demand. The process would incorporate a small group of teachers from the Fairbanks School District to submit questions they had regarding the technology they used in the classroom. I would then make a short informal screencast that sequenced the steps for the participant. The participant would complete a pre and post-survey located on my website which would be used to ascertain the effectiveness of using screencasts for Professional Development. The pool of research regarding the use of screencast is favorable to the effectiveness of screencast but the environment for this study was not supportive towards a similar outcome. Due to time constraints and lack of interest from a random pool of teachers, I was unable to field participants for the research. My focus then turned to researching how our district used formal pre made screencasts for Professional Development purposes and found very similar results from a three year period where the district used a service called "Atomic Learning".

Introduction

According to Hurford and Read, the use of screencasts for learners creates a new path of learning for strong "self managers" but can distance some learners to needed professional development. (2011) As I took the first steps towards implementing my action research, the results of the study mentioned above became more relevant as I quickly found those who enjoyed the use of screencasts as a means to developing

new skills had their own sources while those who needed were less technologically savvy needed a more human approach. The initial research question, “can the use of screencasts effectively support he Fairbanks School District’s adopted technology and encourage teachers to apply them?” failed due to two major setbacks. First, the amount of time for the proposal to be approved by the “Research and Accountability” department would take too long for the research to go into effect so I decided to look elsewhere for participants. Second, my search came up with no participants. In order to find out why my initial research failed to launch, I looked into our district’s experience with using screencast for professional development.

From 2010 to 2012, the Fairbanks School District purchased a license for Atomic Learning, (**http://www.atomiclearning.com/**) and offered the service to teachers for added software and online support. The screencasts were professionally made and covered hundreds of different topics. After two years, the school board decided to cancel the subscription because there was little interest in the service. It ended up costing the district $7.00 per viewing. (Unruh 2013) The exact data for this was unavailable because once the district dropped the service, all quantitative data became unavailable. I acquired this fact through an interview with the district’s professional development coordinator. When asked why the service was discontinued Alica Unruh, the coordinator for Professional Development, stated that the only staff using the service were the instructional technology teachers. That’s ten teachers out of 900 but some teachers did use the service. There is a screencast for almost every task available on Youtube and the popularity of making and using screencasts seems to be growing.

Literature Review

A screencast is defined in Ruffini's article, Screencasting to Engage Learning (2012) as "a digital video and audio recording of what occurs on a presenter's computer screen." This definition could include instructional video conferencing where the instructor is using interactive VNC software to control different computers. However, these only deliver instruction once where the traditional screencast can be paused, saved, restarted, and shared so wI didn't consider VNC software for this action research. There is a wealth of research and resources regarding screencasts due to the growing popularity of online learning programs and the need to increase computer literacy. Michael Ruffini points out that screencasts can offer a teacher the option of delivering instruction that can be tailored to a specific audience that is customized to support specific standards and environments. The screencast can be tailored to meet a student's specific learning needs for both traditional and distance learning. (2012) Belward, Higgins, Mullamphy, Ward (2010) points out that screencasts can be formatted to fit on any type of video device and can be accessible at any time and place that offers an adequate internet connection. The screencast can be paused and replayed by the learner for a clearer and more embedded understanding all the while controlling the pace that best fits their learning style. There is mention by these authors that screencasts can also deliver learning programs to smaller institutions that might not be able to mobilize a team of educators due to limited budgets. (2010) Dana, Havens, Hochanadel, & Phillips (2010) argue professional development by simple text disregards the effect emphasis and intonation has on our interpretations. In other words, the recipient of an email delivering critique might assume that what is being read is harsh while all the while the au-

thor meant it to be funny or sarcastic. This issue touches on some teachers' reluctance to utilize distance learning or screencasts because a particular part of how we communicate is lost. The overall methods for data collection were questionnaires, qualitative interviews and focus groups. Furthermore, Steve Kolowich, in an article for Higher Ed states that there is higher rates of drop outs with online courses than traditional based classes. He blames the "retention gap" of distance learning to a lack of human touch. This can be solved by incorporating audio and video into the learning platform. Audio is already embedded so by apply more video of the presenter or making the screencast live as a video conference might elicit more interest. (2013)

Peterson (2007) used a beta group of three students to deliver screencast instruction while the traditional course was between cycles. The small group affirmed that screencast were an effective delivery methods but he concluded that the conclusive result would be known when the full version using screencast comes out. Belward, et al. (2010) enlisted surveys to elicit information from anonymous groups of respondents after viewing screencast designed to meet a variety of learning needs. The survey was designed using mostly multiple choice questions and some open ended questions. Ruffini (2012) exhibited how a Google Form can be embedded below a screencast which is filled out before and/or after the screencast. This serves two purposes. It offers an opportunity to the learner to develop deeper imprinting of the information and it offers valuable feedback to the producer.

The results from the research seems to weigh heavy on the positive effects of screencasts. Belward, et al. stated that almost 70% of the participants found the

screencasts to be “extremely useful” (2007) while almost 30% of them found it to be “quite useful”. This left a couple of them not at all impressed with the delivery method.

Methodology

Participants

The participants will be the Professional Development Coordinator, Instruction Technology Coordinator, and six Instructional Technology Teachers that took part in interviews and an online survey. The ITTs work at a minimum of three school which they divide their time within a five day work week while Fridays are spent in content coach meeting at the main district office. The participants shared information and experiences regarding teacher development with technology through the use of screencasts as well as time spent supporting teachers face to face with troubleshooting. All participants will share similar workday structure and environment in order to reduce differences created by uncontrolled variables. All names including any identifying information will be withheld from publication.

Materials

Participants responded using either face to face interviews and/or gave their response using a survey created using Google Forms. All graphs were created using Apple Numbers.

Procedure

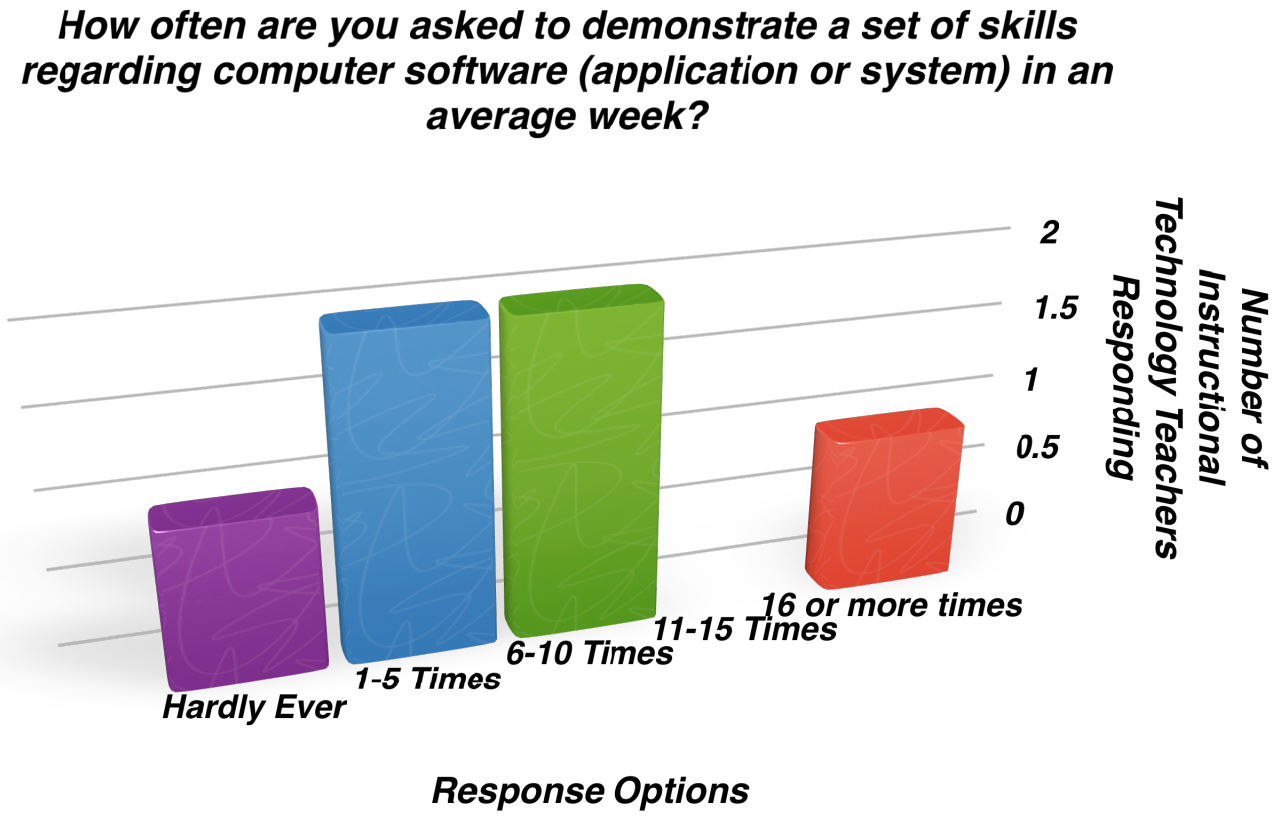
The revised purpose of this action research study will be to ascertain the reasons behind the lack of interest towards the use of Atomic Learning while the School District held a license for the program. I interviewed both the professional development and the instructional technology coordinator why the district canceled the license and both re-

sponded with similar results. It was not the best use of funds when only a small percentage of staff were utilizing the resource. They speculated that the ease of finding instructional screencasts on Youtube were well known while many teachers did not have past experience with Atomic Learning's platform. When asked if there was data available regarding the use of Atomic Learning, they informed me that since they were no longer paying for the service that the data was not available. In order to get an idea of how instructors responded directly to Atomic Learning, the Instructional Technology Teachers received a survey asking specific questions regarding their own experience with Atomic Learning and the feedback they received from teachers at the time of it's application. The survey contain three questions and offered one place for their point of view regarding Atomic Learning's poor attendance:

1. How often are you asked to demonstrate a set of skills regarding computer software (application or system) in an average week?
2. Do you ever use screencasts (pre-made or custom) to explain a skill set?
3. How often did you utilize Atomic Learning with teachers when directly assisting teachers with their technology needs?
4. Please offer your reasons for why Atomic Learning saw poor attendance.

Results & Analysis

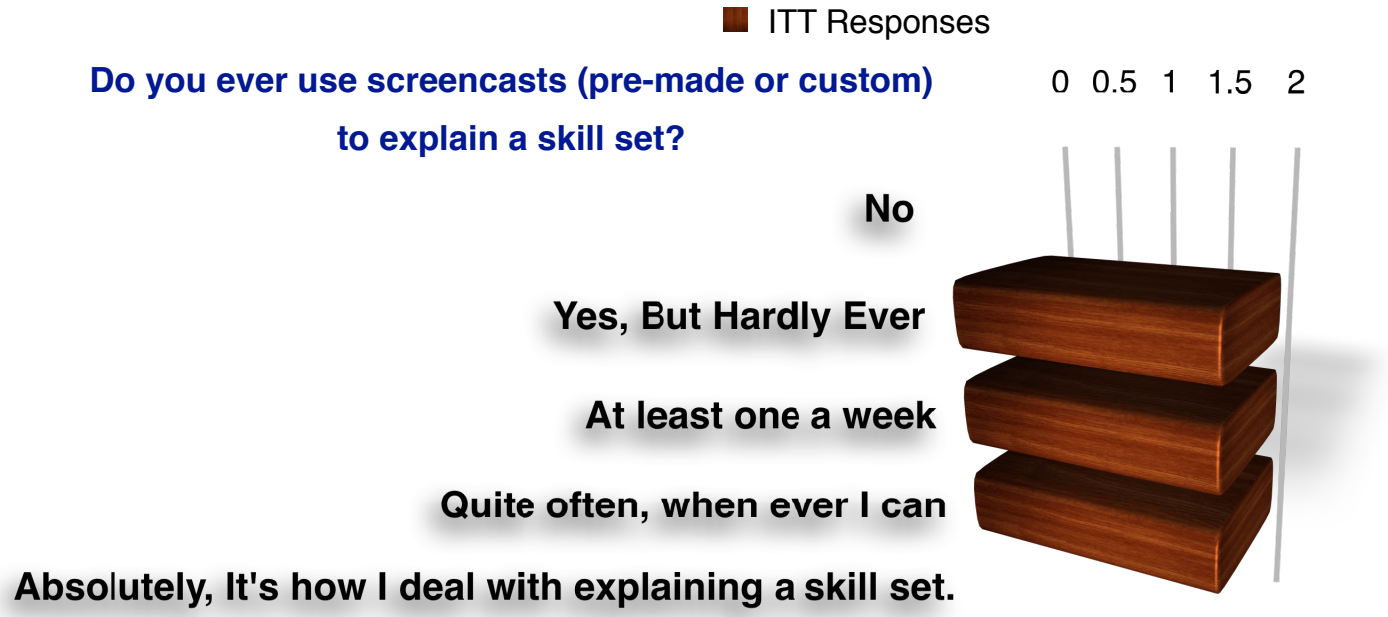
The graphs below depict the responses from six Instructional Tech. Teachers.



Graph 1

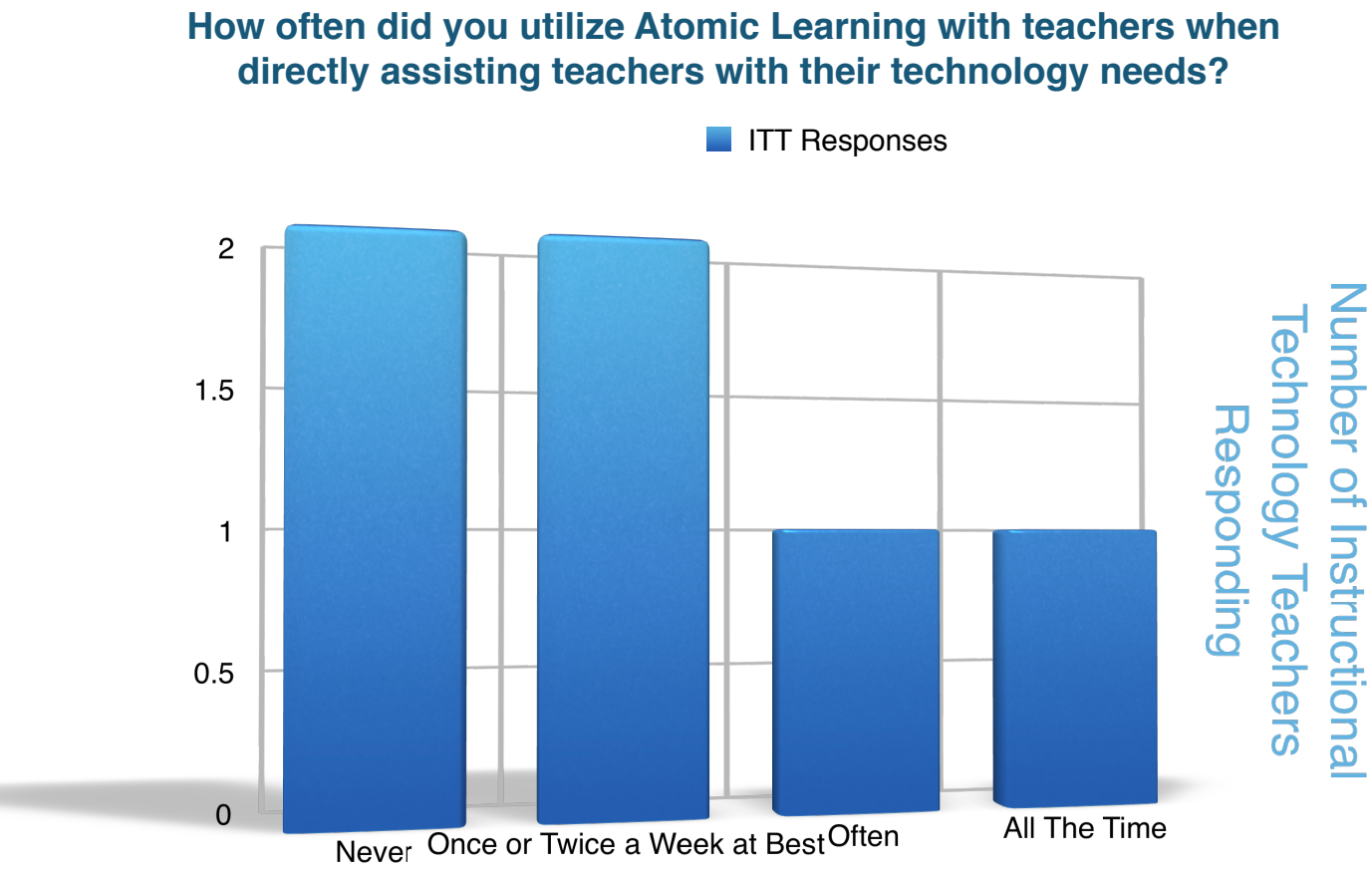
Four out of the six made up the medium value of the responses for this question while one rarely received requests while one other fielded a great deal more. It is reasonable to determine a need for ongoing development in technology skills.

Graph 2



This graph shows a even distribution of responses showing that the ITTs are using screencasts to instruct but not on a grand scale. The question was asked to ascertain the promotion of screencasts by the ITTs. An argument can be made that ITTs use screencasts due to the lack of face time between multiple schools but using them exclusively would be ineffective for every situation where issues are more organic than a set of steps. Its also possible that the ITTs are obliged to be included in the classrooms and simply issuing a screencast to solve the problem sends the wrong message.

Graph 3



Response Options

Four out of the six ITTs never used Atomic Learning or only twice a week at best while two of them used it quite often as a reference. What's unknown and would have been a valuable question would be, "How much instruction did you give regarding navigating Atomic Learning?" From this graph we can tell that it was indeed being utilized but when you consider how many teachers (minimum 45 teachers for one ITT) an ITT supports, this does not add up to a great deal of screencast promotion.

Point-of-Views

Participants	Please offer your reasons for why Atomic Learning saw poor attendance
ITT A	Website wasn't user friendly and there were no insentives.
ITT B	So many possibilities-some people like the human touch, lack of understanding of the operational environment for computer applications, lack of knowledge to search for what they are trying to learn, time- to little or it takes to much time to watch, lack of confidence in technology, the I break or am afraid of technology, etc.
ITT C	time issues
ITT D	Lack of time
ITT E	Was not an ITT when it was in use. Did not know about it as a teacher.
ITT F	Forgot about it. It was too many clicks away. Alternatives were more readily available.

These responses help paint an image of what possibly happened when Atomic Learning was used in the district. All of these responses point to a larger problem then Atomic Learning provided with a large and sometimes cumbersome search and browse platform. Teachers did not have the amount of time it takes to immerse in self-managed technology training. They didn't feel motivated to pursue the extra effort to incorporate Atomic Learning in their prep.

Conclusion

Does this mean that screencasts do not have a purpose in regards to professional development. We have to consider differing learning styles when applying a broad strategy and promote tools in a way that is effective. Atomic Learning was not

issued along with a campaign. It was introduced at staff meetings and utilized by the Instructional Technology Teachers but the resource and training was not developed fully beyond that. For many teachers, instruction came from people in a room and not a voice from the screen. It is possible that future screencast will have a more visual scheme with the instructor showing the steps in real time as a video records the person as well as the screen. My initial research question was based on a style of screencast that are relatively new and the concept of custom screencast tailored to a very defined issue is not fully understood by many whom I asked to participate.

Hearing from the coordinators and ITTs regarding this important issue, it is apparent that a service like screencast must be developed with an informative promotional campaign behind it. The platform must be user-friendly and quickly accessible. The time it takes to find a screencast from Atomic Learning equaled the average time of one of their screencasts. With new technologies offering voice recognition searches and customized screencasts delivered within two school days teachers can use this to retrieve technology instruction.

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