

Screencasting for South Creek Middle
School Teachers

Analysis Report

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Overview

Screencasting for South Creek Middle School Teachers is a nine week course that provides learners with the knowledge and skills to create screencasts of varying complexity for use in their classroom lessons. Teachers at this school will earn professional development in-service points for working with their grade and subject level colleagues to plan, edit, and create screen casts that address state standards. Learners will collaboratively use a variety of software and applications, story board, narrate, edit, publish, and create live interactive screencasts in the course.

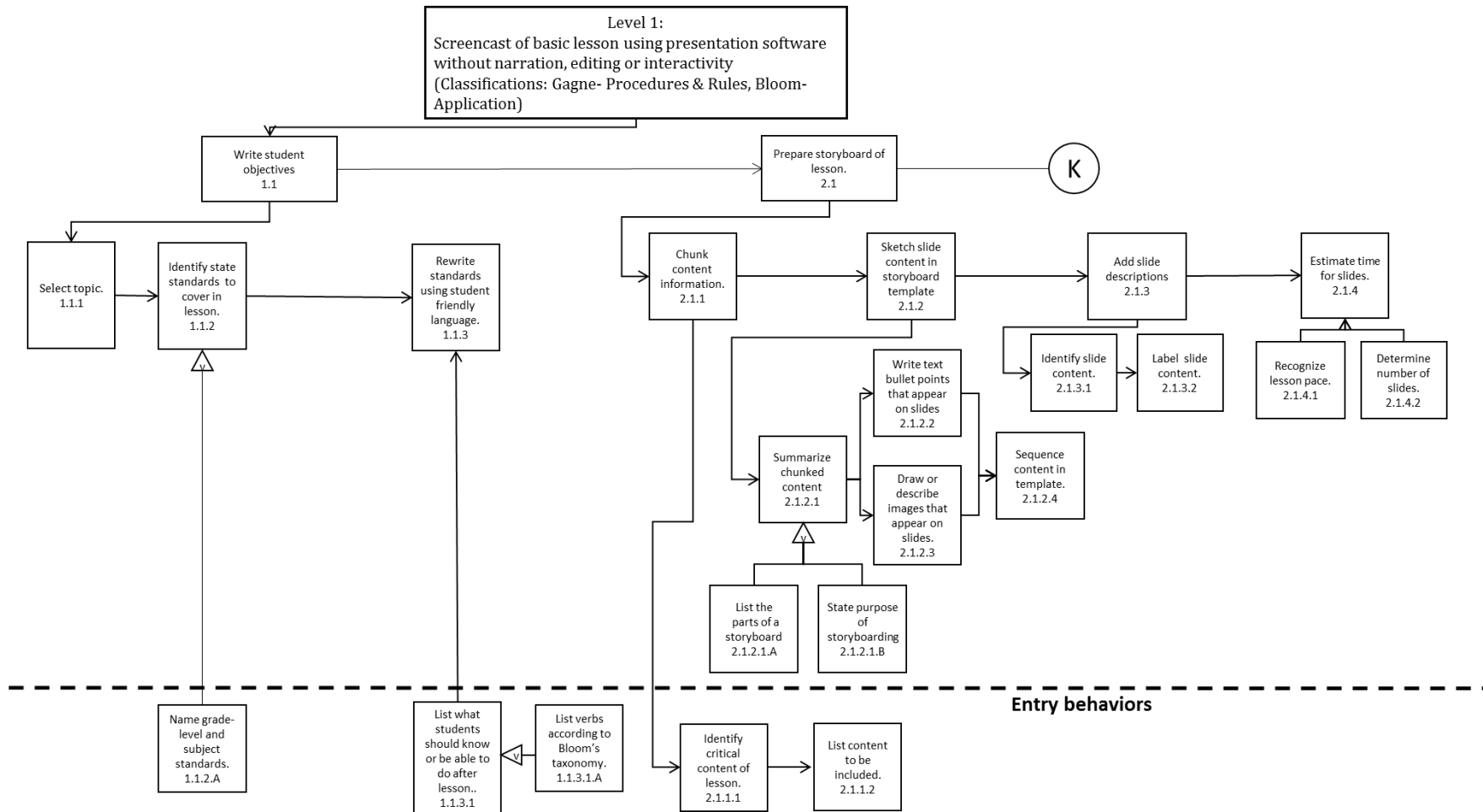
Screencasting for South Creek Middle School Teachers is designed specifically for teachers at this school. In an effort to meet Florida State standards requiring the integration of technology in instruction, the school has recently become a digital “1 to 1” school in which all teachers and students have electronic devices. The course addresses Orange County’s requirement for a useful technological tool that effectively meets instructional needs as well as the standards.

The training course is designed as a mixed-mode course. The class will meet face to face once a week in the school’s media center, and learners have the option of extra online support and tutorials via a web-based learning system.

This Analysis Report contains a Goal Analysis (Figure 1), a Subordinate Skills Analysis for the Level 1 instructional unit (Figure 2), a Learner (Table 1), and a Context (Table 2) and a Performance (Table 3) Analysis for the course. To create the Learner, Context and Performance Analyses, a survey of 30 teachers was conducted, as well as interviews and observations of individual teachers and administrators at South Creek Middle School. In addition, an observation of a previous digital 1:1 training at the school and an observation of the school setting itself were conducted.

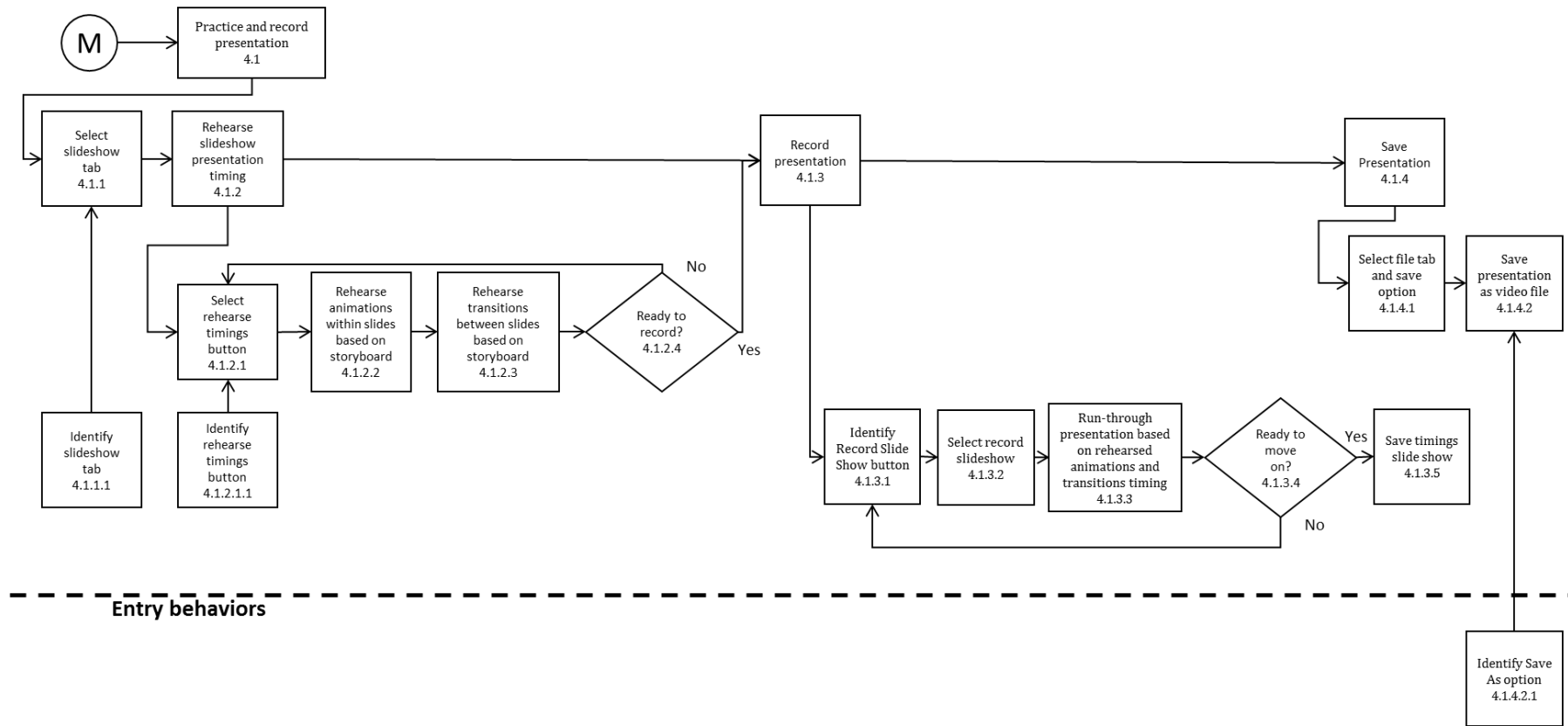
Subordinate Skills Analysis: Level 1

Figure 2: Subordinate Skills Analysis (pages 4-6)
 The figure shows the subordinate skills analysis for level one of the course. It illustrates the steps and subskills needed to complete a basic screencasting video.



Subordinate Skills Analysis: Level 1 Continued

Level 1:
 Screencast of basic lesson using presentation software
 without narration, editing or interactivity (Classifications:
 Gagne- Procedures & Rules, Bloom- Application)



Learner Analyses

Table 1: Learner Analysis

The table summarizes the South Creek Middle School teachers' learner characteristics and their implications for the design, delivery and evaluation of the course.

Information Categories	Data Sources	Learner Characteristics	Implications for Design, Delivery, and/or Evaluation
<p>Entry Behaviors</p>	<ul style="list-style-type: none"> • Observations • Interviews with South Creek teachers • Survey 	<p>Based on related Subordinate Skills Analysis, the teachers should know how to turn on a computer and open up a Power-Point document. Teachers should know how to save information in a document file. They should be able to use the internet to search for images or clip art and download images. Learners should have a working knowledge of their 1:1 tablet/computer devices. They should also be familiar with the developmental level of the students that they teach and know how to plan lessons based off State Standards.</p> <p>More research should be conducted to find out what percentage of teachers actually meet these standards.</p>	<p>Teachers will work together in their grade level groups so that individual learners with differing technological abilities will have additional support from their peers.</p> <p>A pre-test will be administered prior to the course to determine if teachers possess an understanding of entry behaviors. If teachers do not understand entry behaviors, they will be provided with supplemental online material and tutorials prior to the first face to face instruction.</p> <p>The teachers will be provided</p>

			with standards-based goal and lesson planning training prior to taking the course. Learners will have formal training on the basic operations and programs of their 1:1 computer/mobile devices before taking the course.
Prior Knowledge of Topic	See above	Many teachers have seen screencasts used in various online and digital trainings, but 90% have not made or used screencasts. 10% of the teachers have used the screencasts. Learners do not know the distinguishing features of a screencast. The majority (95%) of teachers have created a Power-point presentation.	The instructor should define a screencast video and provide students with an example of each type covered. They should also discuss possible uses for screencast videos in the middle school classroom.
Attitudes Toward Content Information (ARCS)	See above	Attention: 30% of the teachers are highly motivated to learn screen casting. It was noted that they enjoy using technology and already implement technology in all of their lessons. 30% of the teachers rated creating the screencasts in the classroom as highly relevant. 56% of the teachers are moderately motivated to learn screen casting. Teachers noted that creating screencasts will give them an opportunity to learn additional technology skills that they can use in the classroom. Teachers noted that the skills developed through creating a screencast will help strengthen their resume. 4% of the teachers scored their motivation to create screencasts	The usefulness of this technology, including identifying the State Standards that are covered by creating a screencast, will be repeatedly demonstrated and discussed throughout the course. The course is designed to have learners create lessons and lesson products as the main instructional activity.

		<p>as moderately-low. They are moderately motivated to learn screen casting. It was noted that teachers would be more motivated to learn how to make screencasts if the class was offered in the summer and they were paid to attend. It was mentioned that the lack of time during the school year makes them feel overwhelmed and as a result contributes to low motivation to create the screencasts. 10% of the teachers rate their motivation to create screencasts as low. When asked, teachers attributed their lack of motivation to learn how to create screencasts to the pressures that are placed on them by the district and their lack of time.</p> <p>Relevance: 10% of the teachers believe that the screencasts will not be relevant to their class. 70% of the teachers believe that the screencasts will be relevant to their classroom instruction. They believe that the screencasts will be useful as a source to engage students in the lessons. They also noted that students that are struggling or absent will be able to review the lesson. 20% of the teachers believe that the screencasts will be highly relevant. They believe that the screencasts will be highly useful and the content relates to what they expect students to do in the classroom, since they work in a digital learning school. They believe that the screencasts will enhance classroom instruction.</p> <p>Confidence: 85% of the teachers have a confidence level that is appropriate for the course. They are familiar with creating Power-Points and have had various online and digital trainings. 10 % of the teachers have a high confidence level.</p>	<p>More data should be gathered to determine satisfaction levels toward the content before, during, and/or after the course through more teacher surveys and interviews.</p>
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<p>Attitudes Toward Delivery System (ARCS)</p>	<p>See above</p>	<p>Attention: Most teachers rated the mixed mode instruction as highly desirable for the screen casting course. Teachers believe that the face-to-face portion of instruction will keep them focused and help motivate them to complete the course. 90% of the teachers agreed that an on-line component in addition to the face-to-face component will be beneficial for their needs. 7% of the teachers believe that they would not use the on-line component of the course because they are familiar with creating the screencasts and will not need the additional support to complete the screencasts outside of the mandated face-to-face-course. 3% of the teachers believe that the on-line component is the only relevant portion of the course delivery system.</p> <p>Relevance: 97% of the teachers believe that the mixed mode instruction will be highly relevant to their needs. It was mentioned that the teachers will be able to ask the instructor questions during the face-to-face instruction and get the support that</p>	<p>The training course is designed as a mixed-mode course. Teachers will be provided with face-to face instruction for 1.5 hours per week on a Wednesday for 6 weeks between 3:00 and 4:30, approximately 9 hours. The on-line component is optional and can be used by teachers that need extra support. Follow up tutorials will be available on Sharepoint a web-based system and electronic community center for students and faculty in which all on-line instruction is provided by the school district. Teachers will be able to collaborate on-line and ask the instructor additional questions</p>

		<p>they may need. 3% of the teachers believe that the face-to-face portion of the course is not relevant to their individual needs and will take up unnecessary time since they already know how to create a screencast. They believe that they will only need the on-line portion as a review to what they already in order to create what is required by the district.</p> <p>Confidence: 100% of the teachers are confident that the delivery system will meet the needs of the teachers and that they will be successful in this course.</p> <p>Satisfaction: Additional surveys should be conducted during and after the course about the learners' attitudes regarding their satisfaction with the online and face-to-face components of the course.</p>	<p>that they may not have thought of during the face-to-face training.</p>
<p>General Academic Motivation</p>	<p>Same as above</p>	<p>90% of teachers are motivated to do well because they know the training will be relevant to their evaluation marks, enhance student engagement, allow for reusability, and enable differentiated instruction.</p>	<p>Since the teachers are academically motivated, instruction should proceed as designed.</p>

Educational and Ability Levels	Same as above	<p>Educational: 100% of the teachers have received Bachelor's degrees. 5% of the teachers have these degrees in a non-education major. 3% have received Master's degrees in Educational Leadership and 5% have a Master's Degree in Curriculum Design. 80% of the teachers have taught for more than two years.</p> <p>Ability Level: 100% of the teachers use technology everyday in their lessons. 100% of the teachers know how to turn on a computer, use internet to search for images, download images onto a shared drive, use a document writer to write text and save a document to a file. 95% of the teachers have created a PowerPoint presentation. Only 5% of the teachers rated themselves as a technology novice. 70% of the teachers rate themselves as proficient in the use of technology and 25% of the teachers rated themselves as experts. However, when considering the ability to create a screencast 10% of the teachers believe that they are experts in making screencasts.</p>	<p>Attention should be placed on varying levels of learner technological abilities. Specific goals and objectives should be made for heavily used programs in screencasting. The course is designed for learners of different technology abilities because of its differentiated tasks.</p>
General Learning Preferences	Same as above	<p>90% of the teachers prefer to be in school setting. 95% of the teachers prefer to work cooperatively with members of their own grade-level or teams. 95% of the teachers are comfortable with instructor-led lessons that allow time for</p>	<p>The pace will allow for learners to be able to follow along with each step of the course on their own devices during instruction.</p>

		hands-on application during the training. 100% of the teachers prefer lessons that are immediately applicable in the classroom.	<p>Teachers prefer to work on applicable tasks, so the product of each lesson should be immediately transferable to classroom.</p> <p>The online aspect of the course should have a place where the teachers can review content on their own and ask questions after the face-to-face portion.</p>
Attitudes Toward Organization	Same as above	90% of teachers want to comply with requests from the district to integrate technology in the classroom, but about 40% are resentful of anything perceived as micromanagement about which tools they must specifically use.	How and when to apply the knowledge learned from the course in the classroom will be up to the teachers' discretions.
General Group Characteristics	Same as above	The teachers are a heterogeneous group. They vary in their levels of experience and education. Their instructional experience ranges from 3 to 23 years. The teachers also vary according to the grade level that they teach and the certifications that they have. The teachers are a mix of age, gender and ethnicity.	<p>Since learners teach at different grade levels with different/multiple subject areas, screencast principles and steps need to be emphasized over content-specifics.</p> <p>The course needs to be designed for any subject matter and student level with a multitude of example screencasts of different subject areas and grade levels.</p>

Context Analysis of Learning Environment

Table 2: Context Analysis of Learning Environment

The table summarizes the learning environment, South Creek Middle School, and its implications for design, delivery, and evaluation of the course

Information Categories	Data Sources	Learning Context	Implications for Design, Delivery, and/or Evaluation
Number and Nature of Sites	<ul style="list-style-type: none"> • Observations • Interviews with South Creek teachers • Survey 	<p><i>Number- 1</i> <i>Facilities- media center</i> <i>Equipment- Smartboard, separate projector and screen, presentation station, Lenovo 1:1 devices, document cameras, high-speed internet</i> <i>Resources- 1 support personnel and digital support team of three to four people</i> <i>Potential Constraints- internet goes down, learners do not have a functioning device, software on device is unresponsive, or server is unresponsive.</i></p>	<p>A backup presentation of the material must be accessible without internet connection. Copies of the presentation should be available to learners well in advance of the course so that it can be accessed early to avoid technical difficulties. A step by step paper copy of the presentation should also be available. There should be extra computers available. Smartboard, projector, charger, powerstrips, and Lenovos must be available.</p>
Site Compatibility with Instructional Needs	Observed	<p>The site is highly compatible with instructional needs:</p> <p><i>Instructional Strategies- instructor will guide learners through the process as they follow along on devices. Also, instructor will use collaboration, sharing, feedback, one to one interaction and instruction.</i></p> <p><i>Delivery Approaches- face to face, web, using screencast tutorials</i></p> <p><i>Time- 6 units of about 1.5 hours each, with a total of approximately 9 hours</i></p>	<p>Since the site is highly compatible with instructional needs, instruction should proceed as developed.</p>

		<p><i>Personnel</i>- 1 main instructor (designated by school), 3 digital support team members, 1 IT support personnel</p>	
<p>Site Compatibility with Learner Needs</p>	<p>Observed</p>	<p>Site is compatible with learner needs:</p> <p><i>Location</i>- media center</p> <p><i>Conveniences</i>- restroom and teacher lounge on site</p> <p>Refreshments should be provided for all face-to-face training by schools or districts, if refreshments are not provided, time should be allotted for teacher snack breaks.</p> <p><i>Space</i>- enough room for 75-100 people.</p> <p><i>Equipment</i>- Smartboard, projector, microphone, laptops, document camera, headphones/earbuds.</p>	<p>Since the site is compatible with learner needs, instruction should proceed as developed.</p>
<p>Feasibility for Simulating Workplace</p>	<p>Observed</p>	<p>It is feasible to simulate the workplace (school or home) during the training.</p> <p><i>Supervisory Characteristics</i>- The school has a very motivated and supportive administration that supports the integration of technology in the classroom. Assistant Principals or digital training support staff participate in all digitally related trainings and later provide support to faculty.</p> <p><i>Physical Characteristics</i>- Same as learner environment: media center.</p> <p><i>Social Characteristics</i>- Learners are highly interactive and collaborative. Supervisors regularly visit and observe classrooms. Learners plan together and meet weekly with supervisors to discuss plans, including how learners will integrate technology into the lessons.</p>	<p>Since the site is the workplace or home setting, instruction will proceed as developed.</p>

Context Analysis of Performance Setting

Table 3: Context analysis of a performance setting

The table summarizes the performance setting, also South Creek Middle School, and its implication for design, delivery and evaluation of the course.

Information Categories	Data Sources	Performance Context	Implications for Design, Delivery, and/or Evaluation
Managerial or Supervisory Support	<ul style="list-style-type: none"> • Observations • Interviews with South Creek teachers and administrators • Survey 	<p>All learners are current teachers with designated administrators assigned to evaluate them and have a digital support team specifically to help with their 1:1 technology incorporation. Since the state mandates technology integration in schools and most teacher evaluation systems now place a heavy emphasis on technology integration, administrators and support staff should have a positive attitude about the 1:1 program in general and about teachers using technological strategies for use in the classroom, including the use of screencasts. However, further research should be conducted on this matter.</p>	<p>Interviews should be conducted with administrative staff to determine the level of support for technology integration in the teacher evaluation system. The 1:1 digital support team should attend the training prior to learners and assist learners during and after the course is completed to emphasize the value of integrating screencasts in 1:1 programs and classroom lessons.</p>
Physical Aspects of the Site	See above	<p>All teachers have access to a designated teacher tablet or computer with the listed software loaded. Most teachers will be able to bring their devices home and also work in the classroom to plan outside of the face-to-face setting.</p> <p>The classrooms and library all have wireless internet access.</p>	<p>All software and programs should be specifically outlined in the course and installed prior to beginning instruction by either the teacher or technology support staff.</p>

Social Aspects of the Site	See above	<p>Social support –100% of the teachers reported that their colleagues are very friendly and supportive of each other. All teachers in the school work in teams. The teachers report that the digital learning team of the school supports all of the teachers and their implementation of technology. Teachers rated the support that they expect to get from the principal, vice-principal, team members and digital learning team as highly effective to superior. 100% of the teachers believe that the collaboration among staff members is higher than the average.</p>	<p>Instruction will be individualized for each teacher to gain the technology skills taught, but there should be emphasis on teamwork and collaboration as well.</p> <p>Sharepoint enables learners to have access to each lesson's tutorial online during and after instruction to reference if needed. Teachers will also be able to collaborate by placing their screencasts online for evaluation by other teachers. The shared drive at the school enables teacher to share their screencast lessons.</p>
Relevance of Skills to the Workplace	See above	<p>Screencasts were rated as highly relevant to the workplace. Learners are asked to integrate technology into daily lesson plans as they are a part of their school's 1:1 program and should be able to use the skills gained and products made during instruction directly in their lessons. The teachers believe that learning how to create the screencasts will enable them to add to their students repertoire of technology skills. They mentioned that creating screencasts will be beneficial in having their students demonstrate solving a math problem, or labeling a process that focuses more on demonstrating their comprehension rather than presenting facts.</p>	<p>Since screencasts are “highly relevant” and the learning context is the same as the performance context, instruction should proceed as developed.</p>