

Results of a 1:1 Case Study

MASA/MoSPRA Conference

Thursday, March 26, 2015

8:30am—Granada A

Dr. Amy E. Ramsdell, Ozark R-VI

<http://pintotech.edublogs.org/transformation/>



Followme!

@OtigerTech

EDUCATION TECHNOLOGY INTEGRATION

TECHNOLOGY INFORMATION TO HELP INTEGRATE INTO CLASSROOMS

Transformative Technology Rubric

1. Facilitate and Inspire Student Learning and Creativity				
Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS-S.				
Performance Indicator	Beginning	Developing	Proficient	Transformative
a. Promote, support, and model creative and innovative thinking and inventiveness	Research and discuss ways students can use digital tools and resources to enhance creative and innovative thinking and to develop and express their knowledge and concepts.	Facilitate creative thinking and inventiveness by modeling thought processes and creating visual representations of concept development and problem solving.	Enable students to demonstrate creative thinking, construct knowledge, and develop innovative products and processes by promoting and supporting these activities and modeling related knowledge, skills, and attitudes.	Regularly engage with students as lead learner in creative thinking activities and inspire students to explore complex issues, generate new ideas, create and critique original works, and develop and evaluate new products and processes.
2. Design and Develop Digital-Age Learning Experiences and Assessments				
Teachers use their knowledge of subject matter, teaching and learning and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to face and virtual environments.				
Performance Indicator	Beginning	Developing	Proficient	Transformative
a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity	Explain how existing learning resources could be designed or adapted to include students' use of technology tools to research and collect information online and to create a digital product.	Adapt or create learning experiences that include students' use of technology tools to research and collect information online and to create a report, presentation, or other product.	Design and customize technology-enriched learning experiences that engage students in developing research questions about real-world issues or problems, proposing and evaluating multiple creative solutions, and presenting a report to an audience, either face-to-face or virtually, for feedback.	Engage students in collaborative learning challenges where they research global problems. Guide learners to select a specific problem to investigate, create research questions, select and employ strategies, and determine best solutions. Students use technology tools to present their results and share information for application in a real-world setting.
b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress	Research and discuss ways in which technology resources enable students to explore questions and issues of individual interest and to plan and manage related research.	Select and demonstrate the use of technology resources that enable student to explore questions and issues of individual interest and to plan, manage, and assess their own learning.	Facilitate the use of technology resources to enable students to pursue questions and issues of individual interest, to identify and manage learning goals, to record reflections, and to assess their progress and outcomes.	Enable student to independently use technology resources to manage their own learning goals, plan learning strategies, and evaluate their progress and outcomes.
3. Model Digital-Age Work and Learning				
Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.				
Performance Indicator	Beginning	Developing	Proficient	Transformative
d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning	Identify and discuss the effective use of current and emerging tools and resources to locate, analyze, evaluate, and use information resources for research and learning.	Demonstrate the use of current digital tools to locate, analyze, evaluate, and apply information resources to support and disseminate student research and learning strategies.	Model and facilitate effective use of current and emerging digital tools and resources to locate, analyze, evaluate and use information resources to support research and learning for themselves and for students.	Use current and emerging digital tools and resources efficiently and effectively to deepen knowledge of information fluency and its application to teaching and learning and share results with students, parents, and colleagues.

Adapted from International Society for Technology in Education (ISTE)

Transitional or Transformational

Educators implement several methodologies to measure student engagement in the classroom. However, gauging student engagement while using technology is a more complex process. Student engagement with technology (SET) can be measured at one of two levels – Transitional or Transformational. Below are definitions for each with an example of a tool that can be used transitionally or transformationally.



Transitional

A transitional level of student engagement with technology means that students are performing a traditional task, but using technology to complete the task. The SET is low because the students are not using technology to enhance their learning but to complete the task. A transitional ranking is not to be given a negative connotation; not all uses of technology require higher levels cognitive skill. However, almost all transitional SETs can be moved to a transformational level when the Characteristics of Effective Instruction and Authentic Intellectual Work are the foundation of planning and instruction.

Example: Student writing an essay. A transitional level of SET would be using Google Docs as a basic word processor. The student writes, rewrites, and submits his paper to the teacher via Google Docs.

Defining Student Engagement with Technology. (n.d.)
Retrieved on January 30, 2012,
from <http://www.newschoortechnology.org/2010/04/defining-student-engagement-with-technology/>

Transformational

A transformational level of student engagement means that students are using technology in a way that transforms the learning process for the student and requires higher-order thinking. Cognitive demands are greater while using technology at a transformational level. Transformational technology allows students to move more quickly to higher order thinking in the discipline in order to solve conceptual problems that are key/central to the lesson.



Bernajean Porter further explains transformational uses of technology in her pdf (see reference to access full pdf) *Grappling's Technology and Learning Spectrum*. She offers the following: *Technology uses enable new learning tasks not possible without technology;*

- *Student roles expand to include explorers, producers of knowledge, communicators and self-directed learners,*
- *Teacher roles expand to include facilitators, designers, learners, and researchers*
- *Learning and assessment practices are changed*
- *Students initiate technology uses as they create their own learning experiences.*

Porter, B. (n.d.) Grappling's Technology and Learning Spectrum. Retrieved March 25, 2012, from <http://digileader.wikispaces.com/Grapplings+Technology+ad+Learning+Spectrum>

Example: Student writing an essay. At the transformation level of SET, a student utilizes numerous features of Google Docs to write his paper. After the student writes the initial draft, a team of peers collaborate in real-time, on Google Docs, to seamlessly edit, analyze, and evaluate the writing. The student then revises, based on the feedback.

The teacher can track the development of each document and review the editing process through the revision history to formatively assess each team member's understanding of the editing and writing process, in addition to assessing group collaboration skills. The teacher can also use the comment feature to offer guidance to the writer. The student can then, at anytime from any location, review the comments and compose another draft. Finally, the paper can be published. The choice of where to publish will be made by identifying the writer's purpose combined with identifying the authentic audience.

**The tools listed on this website can be used at a transitional level or a transformational level. Educators make the determination for technology use in their classrooms based on intent, remembering that technology usage does not necessarily guarantee higher order thinking and learning. Iowa Core and Authentic Intellectual work must continue to server as the foundation.*