



# Learning through Collaborative Video Storytelling: Inspiring Creativity, Co-Creation and Global Collaboration

**Jari Multisilta, Dr.Tech.**

**professor, Tampere University of Technology, Finland**

**director, University Consortium of Pori, Finland**



**Pori**

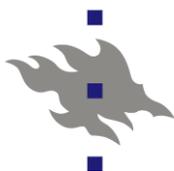
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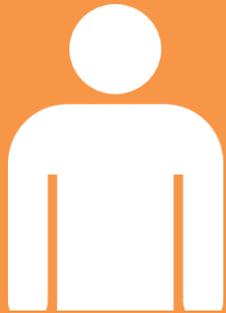


# Why Digital Learning?



Student  
engagement

83%



Learning  
outcomes

64%



School & teacher  
workflow efficiency

66%

”Teachers are **motivated** to use digital learning (86%) and feel **confident** about it (70%).

Digital learning will **increase engagement** of students (83%).

It will increase workflow efficiency (66%) and **learning outcomes** (64%).

Teachers believe they’re **crucial to lead** the change towards digital learning (85%).”

Sanoma Learning panel 2014  
(N = 1980, in 6 countries)



creativity

innovations

problem solving skills

digital literacy

collaboration

interaction



# DIGITAL STORYTELLING



# VIDEO INQUIRY



# STRUCTURED INQUIRY





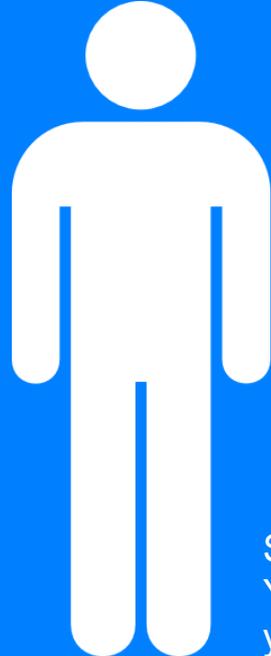
# DIGITAL VIDEO STORYTELLING



61%



70%



Source: Aarnio, A., & Multisilta, J. (2011). Facebook and Youtube - they are our thing! National study on children and youth's social media and web service use in 2011. (in Finnish)

35% (13-17 yrs)  
77% (US college)



60% Finland  
52% US



Source: <http://www.ebrand.fi/somejanuoret2015/>  
<http://expandedramblings.com/>

<http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>



>30%



<10%

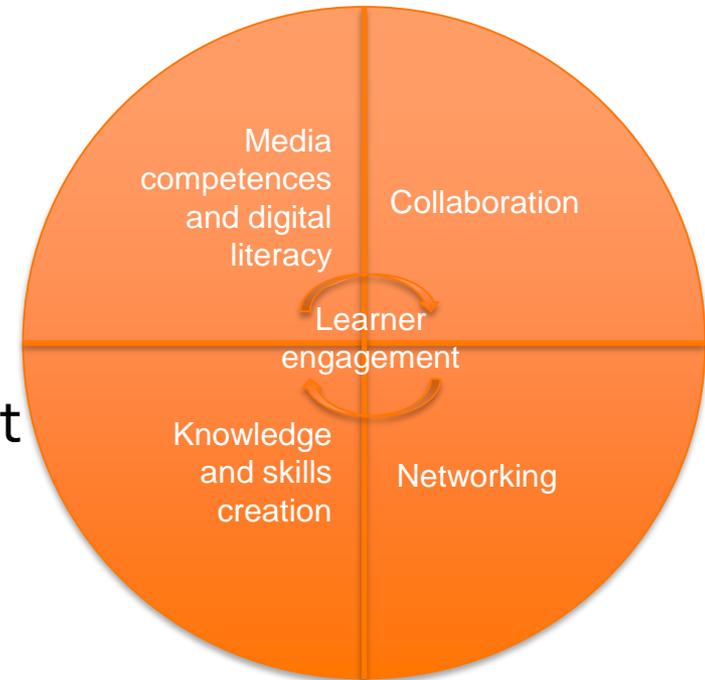
# What is Digital Storytelling?

- Digital storytelling is an active learning method that allows students to engage with the curriculum by creating multimedia narratives from their own perspective.
- Student-generated digital stories often result in short video productions that are composed of multimedia such as video clips, photos and written or narrated content (Frazel, 2010; McGee, 2015; Ohler, 2013; Robin, 2008).



# Global Sharing Pedagogy

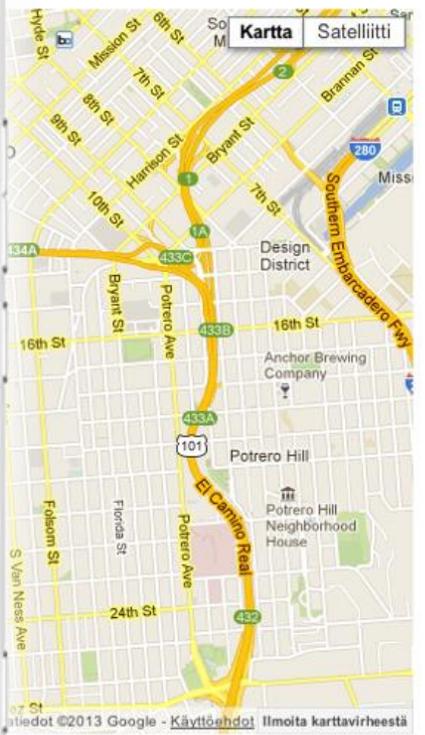
- Learning is seen as a result of dialogical interactions between people, substances and artefacts.
- Global Sharing Pedagogy (GSP) is a model for the empirical study of student levels of engagement in learning twenty-first century skills.
- The mediators of the GSP model strongly predicted student motivation and enthusiasm as well their learning outcomes.



Niemi, H. & Multisilta, J. (2014). Global is Becoming Everywhere: Global Sharing Pedagogy. In Niemi, H., Multisilta, J., Lipponen, L. & Vivitsou, M. (eds.) (2014) *Finnish Innovations and Technologies in Schools: Towards New Ecosystems of Learning*. Rotterdam: Sense Publishers.

Frontpage

Hide/show map



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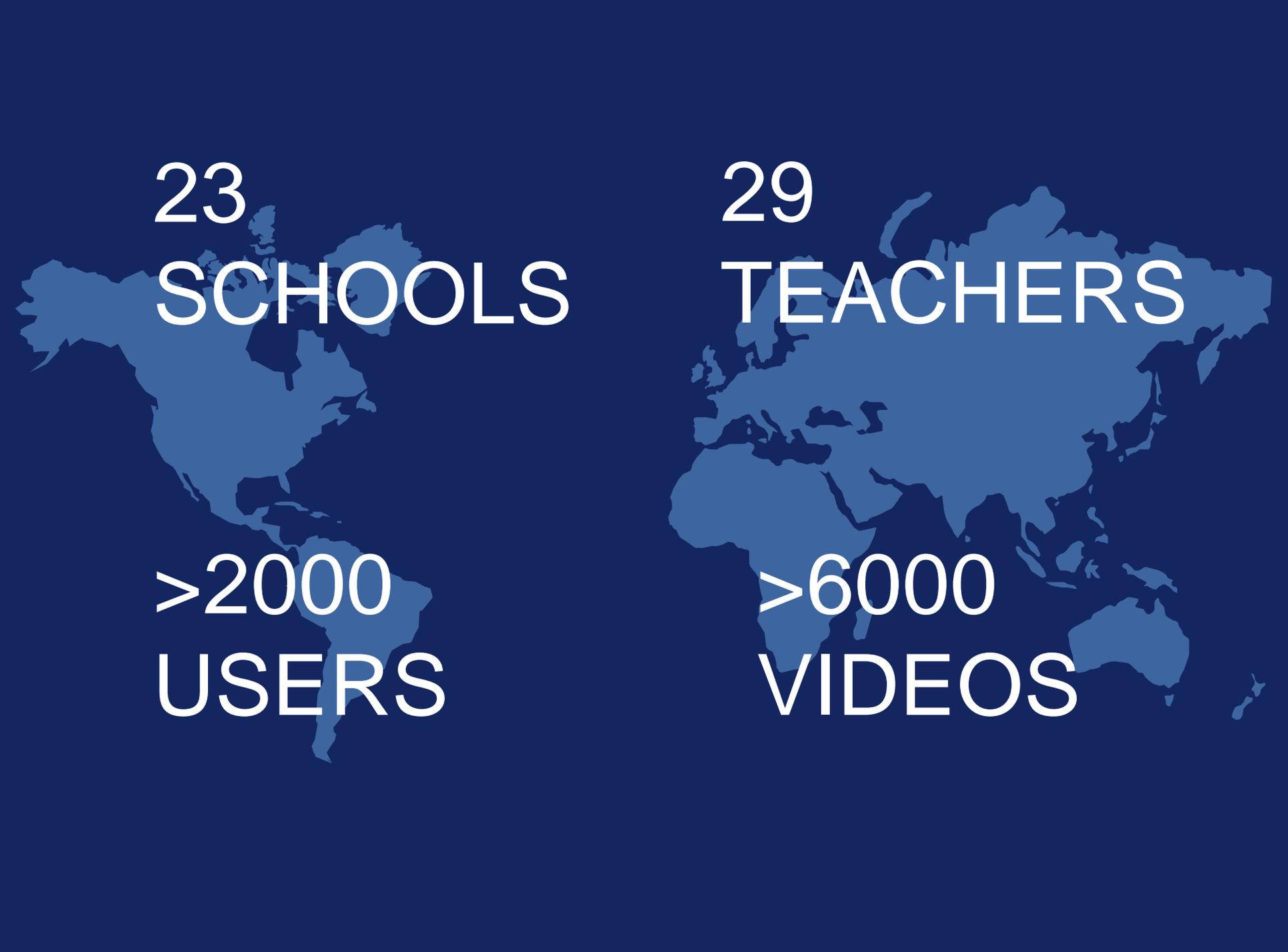
- 

The children and Arnold are playing a game called Talonpoika ( the farmer). (0:39)  
 jaana.lundén 2013/02/08 15:32  
 The game is called Talonpoika. The child in the ch...
- 

Photography by Roshni (0:33)  
 roshni.jariwala 2013/01/31 21:25
- 

Secondhand smoking (0:40)  
 julian.totah 2013/01/31 21:05
- 

UNTITLED (0:00)  
 julian.totah 2013/01/31 21:01

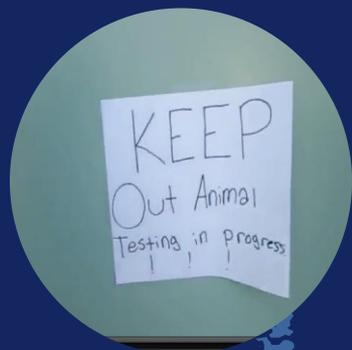
A dark blue world map is centered in the background of the slide. The map shows the outlines of continents in a slightly lighter shade of blue. Overlaid on the map are four statistics in white text, arranged in a 2x2 grid. The top-left statistic is '23 SCHOOLS', the top-right is '29 TEACHERS', the bottom-left is '>2000 USERS', and the bottom-right is '>6000 VIDEOS'.

23  
SCHOOLS

29  
TEACHERS

>2000  
USERS

>6000  
VIDEOS



Animal testing



Teach to Arnold



Physics



Ancient myths



Homelessness



Recycling



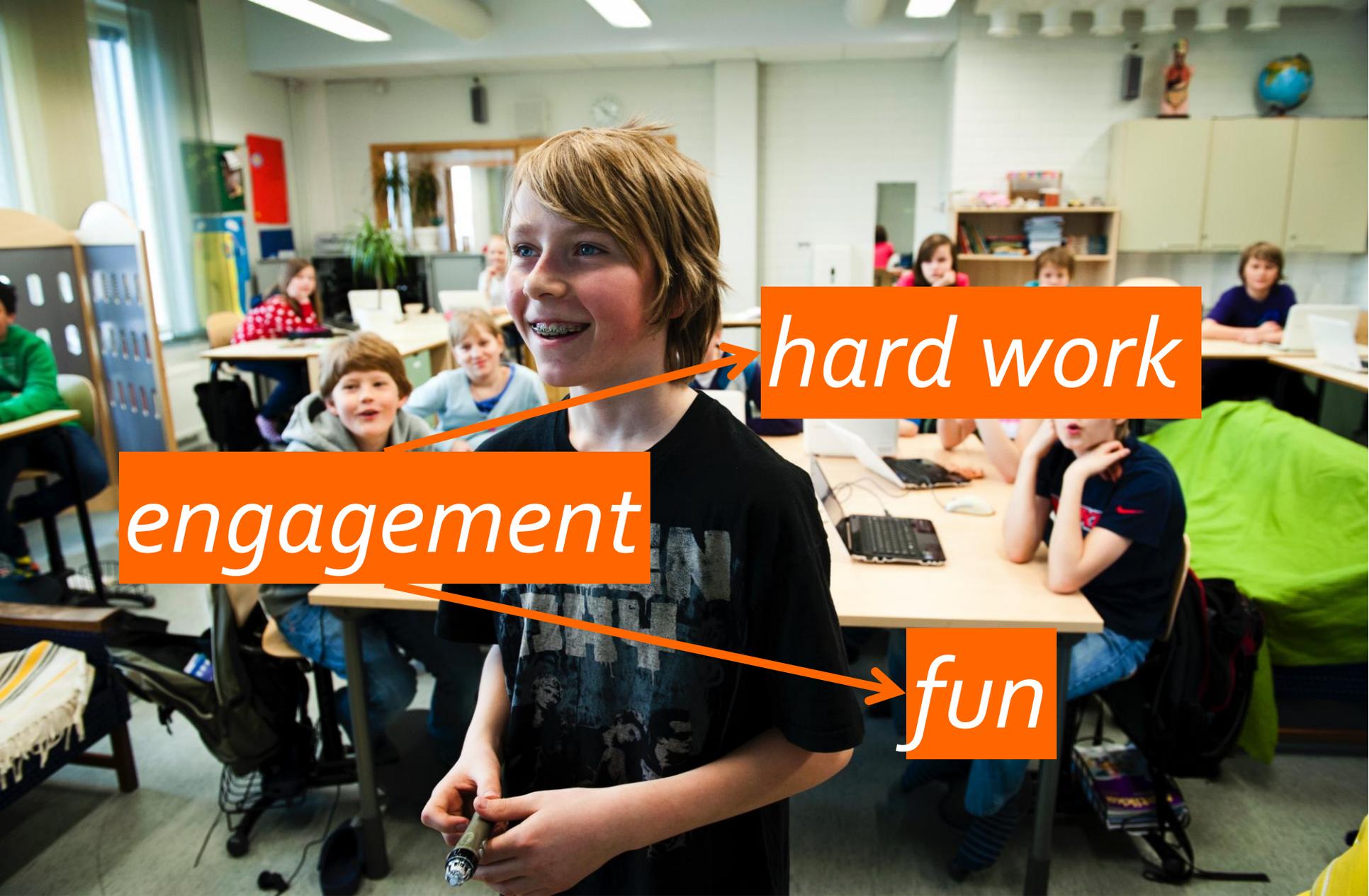
Water



Harassment



**Europe and angel**



*hard work*

*engagement*

*fun*

# During the digital storytelling project, how much did the students do the following?



1 - not at all, 2 - a little, 3 - somewhat, 4 - quite a lot, 5 - very much

Teachers (n = 28)

# VIDEO INQUIRY BASED LEARNING



an approach to learning that involves **a process of exploring** the natural or material world, and that leads to **asking questions, making discoveries**, and rigorously testing those discoveries in the search for **new understanding**”

de Jong, & van Joolingen, 2008

A close-up photograph of vibrant green grass blades, likely from a lawn or field. The blades are covered in numerous clear, glistening water droplets of various sizes, suggesting a recent rain or dew. The lighting is bright, creating highlights on the wet surfaces and deep shadows in the folds of the grass. The background is softly blurred, emphasizing the texture and color of the foreground blades.

inquiry learning

higher order thinking skills



“Video can play an important **bridging function**, connecting and spawning learning events across settings (including school and home), **generating talk** about math, science, and engineering, with these conversations **providing opportunities to ask questions, express** puzzlement, **share** perspectives, and **provide explanations.**”

Prof. Roy Pea, Stanford University





2 : hill.one 2015/03/26 23:11

J.h, class:what causes the electricity to make the light bulb work

Delete

Edit

Reply

3 : hill.one 2015/03/26 23:19

L.M, class:how does the refrigerator keep the food cold

Delete

Edit

Reply



K.E, Home: Why is the track orange?

K.E, Home: why is his shadow moving?

K.E, Home: what makes the sky so blue?

K.E, Home: what are the muscles that help the body "run?"

T.K, home: Why is he running so slow?

T.K, home:How long will it take him to run 2 laps?

D.C, class:The shadow is moving because the person is moving in the sun.

K.G, class: People might run slower because they have bad breathing problems.

J.H, class: the shadow is moving because the sun reflects on his body and create's a figure on the track. He's moving so his felection moves with him.

C.M, class: He is moving slow because he is actually jogging instead of running.It is a great way to keep moving. =)

The shadow is moving because the person is moving so the shadow is going to follow so its reflection.  
:)

L.h: the track is orange becuse it is spray panted

class T.H: The blue color of the sky is cauded by tye scattering of sunlight off the molecules of the atmosphere.

O.H, Class: an average man johs at 8.3 miles per hour

E.R, class:you really cant run without calf muscles

J.H, class:you have three pairs of gluteal muscles they help you run.

L. B, class: the light from the sun looks white but it's is really made up of the colors if the rainbiw

N.B, class: running tracks are made of polyurethane it provides the renter and other kinds of services and it's protected against bad weather and it improves their running.



O.H, Home: what causes the water bottle to roll?

J.H, home : It is the force that I used to make it roll

A.M, Home:Why does the water bottle roll so slowly?

J, H, home:what causes the water bottle to roll back and forth

A.G, class:what is the bottle made of

K.G,Home:The water bottle probaly keeps rolling cause it has an even amount of water in it.



# STRUCTURED INQUIRY

# What is Structured Inquiry?

- In structured inquiry students are provided with research questions and methods in advance (Banchi & Bell, 2008).
- Using structured inquiry as a basis for digital storytelling produces stories that are like mini-documentaries: content-oriented and fact-based (Ohler, 2013).

# The Intervention: a chemical reaction

- two fifth grade classes in Finland (11-year-olds, n=50).
- 10 x 45 minute lessons over a period of five weeks.
- Students created a total of 53 digital stories.
- The average length of a story was 50.6 seconds, (45 min in total).
- stories were watched over 2,000 times (varying between 5 and 165 per video).



Penttilä, J., Kallunki, V., Niemi, H. & Multisilta, J. (2016) From a structured inquiry into a digital story: students' reports about the making of a superball.

*"Making of the superball"*



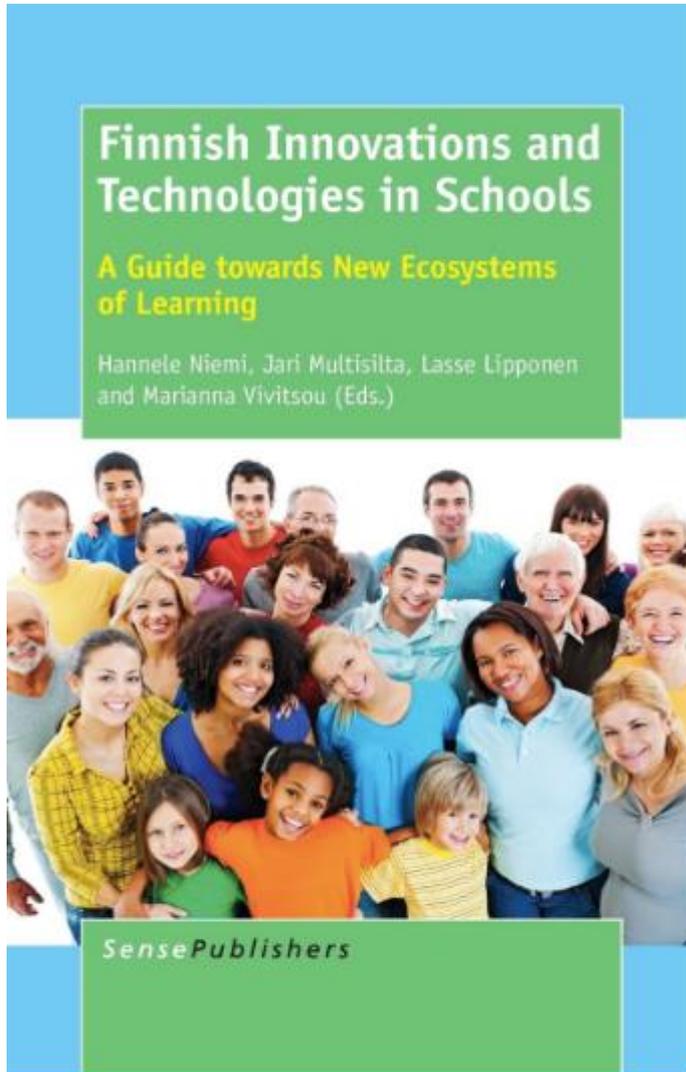
# Findings

- Stories consisted mostly close-up shots – documenting what was done.
- Sound – commenting what was done, asking help (“what do I do next”), explaining i.e. science talk.
- No storyboarding or scripting – spontaneous documentation of the work.
- Discussion board comments: “ Ethanol, sodium silicilate and color liquid and cold water = SUPERBALL!!... CoOI =) ”

# Lessons learned

- More creativity to making the stories. In general, it is a good idea to give examples of the structure of the story.
- Penttilä et al. (2014): watching their digital stories helps students remember the things they did during the lessons.
- Writing informative descriptions & adding comments to the stories allowed students to continue their meaning making process after they had finished capturing the experiment on video.

Penttilä, J., Kallunki, V., & Ojalainen, J. (2014). Science through the camera lens. In H. Niemi, J. Multisilta, L. Lipponen & M. Vivitsou (Eds.), *Finnish innovations and technologies in schools: Towards new ecosystems of learning*. Rotterdam: Sense publishers. 57-66.



Niemi, H., Multisilta, J., Lipponen, L. & Vivitsou, M. (eds.) (2014) *Finnish Innovations and Technologies in Schools: Towards New Ecosystems of Learning*. Rotterdam: Sense Publishers.

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jarimultisilta@tut.fi

