

GAMES AND TV REALLY DO HELP STUDENTS LEARN LITERACY

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Slides at: <http://www.clarkburt.com/conferences>

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THE PRESENTER:

Clark Burt:

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- is working with the department in the area of Digital Technologies
- is also a committee member of the Australian Association of Special Education Victorian Chapter
- is undertaking his PhD in games-based learning for students with intellectual difficulties
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OUR VOCABULARY WORDS FOR TODAY

- Transmedia
- Experiential Learning
- Game-Based Learning
- Dual Coding Theory

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WHAT IS TRANSMEDIA?

- Transmedia learning is the use of multiple forms of medium to teach a topic (similar to multisensory learning)
- Forms include: videos, video games, classroom games, movies as well as traditional worksheets, books and lectures
- Important: the content in each of these mediums must be designed to work together as part of a unit of work (lesson plan)

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THE ELECTRIC COMPANY

A Hybrid Model called **Transmedia**: both digital and non-digital resources made together to teach a common theme



YouTube: The Electric Company Summer Learning Program

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TRANSMEDIA ACTIVITIES



Workbook Tasks

Classroom activities



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NOW THINK ABOUT YOUR CLASSROOM

- Do you have lessons that (could) have these components:
 - Direct Instruction (teacher talking)
 - Visuals (diagrams, videos)
 - Handwriting tasks (worksheets, drawing)
 - Classroom activities (hands-on experimentation, cutting/folding, building)
 - Interactive ICT-based activities (iPad apps, games, drills, online assessments)

With a partner or small group, discuss a lesson where you could include all of the above things.

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EXPERIENTIAL LEARNING (KOLB)

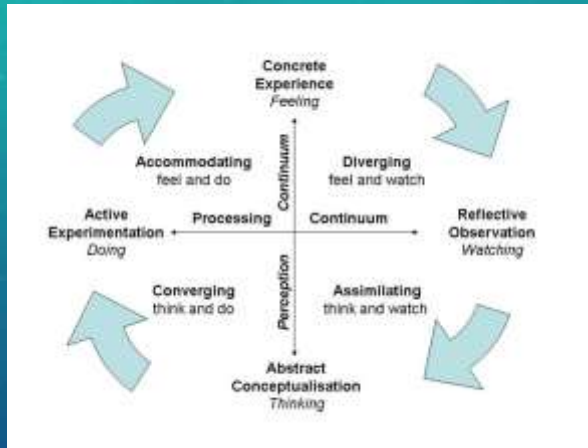


How I structured the first activity:

1. Abstract Conceptualization – direct instruction of new terms
(but wait.. How is that 'concluding'??)
2. Active Experimentation – workbook activities
3. Concrete Experience – playing a game, requires movement/input, physical doing a task, interacting, collaborating
4. Reflective Observation – what can you do with the new knowledge you have learned?

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EXPERIENTIAL LEARNING (KOLB)



http://www.nwlink.com/~donclark/hrd/styles/learning_cycle_2.jpg

http://www.simplypsychology.org/learning_styles.jpg

What are all the different ways students can learn vocabulary?

Where does each way belong on the chart?

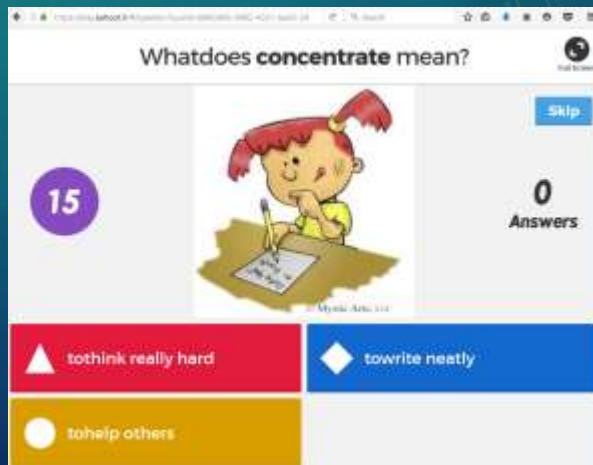
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VIDEO GAMES

- Actually, let's call it Games-Based Learning (GBL)
- GBL is using a game to provide context to a learning activity
- GBL uses games' characteristics like competition, strategy, rewards, and goals to create engagement in the learning process
- But it is not a reward-system like Gamification

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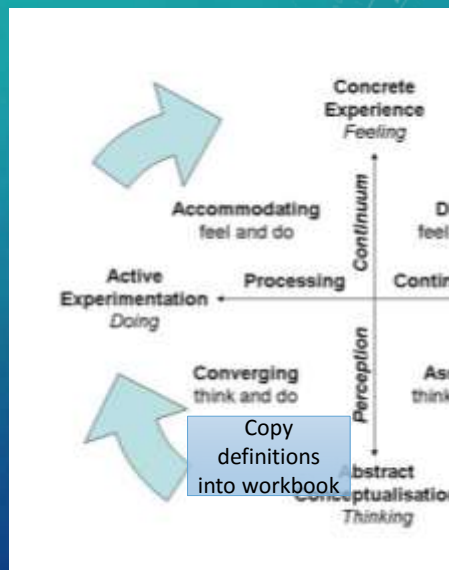
ASSESSMENT EXAMPLE



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YOUR TURN

- You are going to plan (part of) a lesson where you are explicitly teaching new vocabulary
- At the top of your paper, write down the topic, grade level, and two – three vocabulary words
- Draw the Experiential Learning model and start writing tasks & activities in the appropriate quadrant



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WHY DO GAMES ENGAGE SO WELL?

Provides a context

Good game design scaffolds player so game is neither too difficulty nor too easy

Provides rewards & “Leveling up”

Students can demonstrate progress

Interactive

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DUAL CODING THEORY (PAIVIO)

The brain processes information in two ways:

- **Images** (Imagens) – Visual system
- **Language** (Logogens) – Verbal system (includes written text)

Add a picture, image, sound, video along with traditional written text



Video games use: **pictures, sounds, text, movement** to provide the right amount of information to the player

https://en.wikipedia.org/wiki/Four-stroke_engine

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DUAL CODING THEORY (PAIVIO)

“[Teachers] can ‘off-load’ meaningful information from one channel to the other, by using fewer words and more pictures when verbal working memory would be otherwise overloaded...This ‘off-loading’ only works if the pictures and words directly support each other.” (Mayer and Moreno, 2003, as cited in Chambers et. al, 2008).

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Which of these principles excites you about games in the classroom??

- 1 **GAME-LIKE LEARNING PRINCIPLES**
 - 2 Everyone is a Participant
 - 3 Learning Feels Like Play
 - 4 Everything is Interconnected
 - 5 Learning Happens By Doing
 - 6 Failure is Reframed as Iteration
 - 7 Feedback is Immediate and Ongoing
 - 8 Challenge is Constant
- © Institute of Play 2015

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NEXT YEAR...

I will be starting data collection for my PhD research project: **Using interactive games to teach vocabulary to students with intellectual disabilities.**

If you have one or more students with a diagnosed intellectual disability in your class, I would love to talk to you 

Please email clarkburt@gmail.com

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SOME OTHER GAMES

Grammatikus – World of Warcraft style gameplay for upper primary

StudyLadder – a free resource for teachers to set up classes with individual student logins

Project Spark – Windows 10 or xBox one – game creator but with storytelling elements

Reading Raven – A paid app that is great for learning phonics.

Sight Words 2 – Designed for Grades 1 & 2, this app reads out common site words and the student needs to pick the right one.

Clarospeak Plus – Students speak and this app converts it into text.

Toontastic – A storytelling/animation app that every student seems to enjoy.

Dino-Store – for iPad, a simple but cute story with some interactivity

Grandpa in Space (part of a series) - practice math, sorting, and rhyming

EdShelf.com – a search engine for apps/software for teachers

<http://www.clarkburt.com/literacy-games-apps/>

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REFERENCES

Cain, K., Oakhill, J., & Lemmon, K. (2004). Individual differences in the inference of word meanings from context: The influence of reading comprehension, vocabulary knowledge, and memory capacity. *Journal of educational psychology, 96*(4), 671.

Chambers, B., Cheung, A., Madden, N. A., Slavin, R. E., & Gifford, R. (2008). Embedded multimedia. *Multimedia and Literacy Development: Improving Achievement for Young Learners, 213*

McLeod, S. (2013). Kolb – Learning Styles. Retrieved from:
<http://www.simplypsychology.org/learning-kolb.html>