Lightboards:

Using innovative technology to light up your teaching!

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What is a lightboard?

It is an illuminated glass whiteboard and related infrastructure allowing academics to face a camera while writing and being recorded.

Widely Used:
Lightboards are used extensively in education at all levels, primary through to tertiary.
- international examples: Harvard, Stanford, Chicago, Toronto, Singapore, Cornell, Duke, Udacity, Coursera
- domestic examples: Monash, UNSW, UQ, University of Adelaide, USQ, Bond University, Federation University
More info: http://lightboard.info/lightboards-of-the-world.html

Positive Feedback from Users:
"innovative and engaging" , "lead to a greater understanding of the material"
Smith, T., Knight, C., & Penumetcha, M. (2017). Lightboard, camera, nutrition. Journal of the Academy of Nutrition and Dietetics, 117(3), 70.

"This setup has many and advantages", "student response has been very positive"
Skibinski, E., DeBenedetti, W., & Hines, M. (2015). A blackboard for the 21st Century. Journal of Chemical Education, 92(10), 1755.

"helps maintain a sense of connection", "It would feel awkward to go back to a whiteboard"
Anderson, M. (2016). Through the learning glass. The California Educator, 20(5), 25.

How is it used?

An academic is filmed talking and writing on the lightboard while looking at the camera. The video is then uploaded to the LMS or used in class. Students could also use the lightboard for their assignments.

Why should I use it?

It is an easy-to-use way to create engaging videos for students. There is no software to learn, just talk and write like you've been doing for years.

ECU Impact and Relevance

ECU Strategic Plan:
1.1 support quality teaching and innovation
2.2 develop … personalised… and technology-enhanced learning experiences
2.3 develop…online delivery, wholly and blended

Student Success Blueprint:
4.1 develop resources to support student engagement with curriculum
4.3 academic skill development… including digital readiness

Technology Enhanced Learning (TEL) Standards: Section 2
choose learning materials… variety of sources / formats
provide recordings … suitable for online
design learning activities that are actively engaging
provide short videos of core concepts

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How can I get involved?

If you are interested in learning more about lightboards or giving it a try contact Ron Kordyban at the CLT. email: r.kordyban@ecu.edu.au

Benefits of using a lightboard

- new look but familiar style
- very easy to make
- good for flipped classes
- reusable for multiple years
- very engaging and popular
- proactive & efficient delivery
- replayable content
- varied teaching style & methods
- great for visual learners

Using lightboards in higher education

As the educational landscape around us changes, adapting to the new digital revolution and the diverse educational needs and challenges of the 21st century student, the way we teach and learn must also change.

Using a lightboard to create short educational videos is a great way to bridge the gap between more traditional teaching methods and the new digital expectations of university learners. It also provides an easy way for adapting face-to-face teaching into online and blended modes of delivery.

From the student's perspective, lightboard videos are engaging, personal and can be paused and repeated. They also can be viewed privately anytime on any device. They especially appeal to online, international and visual learners.

For a teacher, creating lightboard videos is a quick and easy way to transform the familiar 'talk and chalk' style teaching into the digital age. This technology-enhanced-learning tool has a low learning curve, can be done quickly and provides an ideal way to create personal and engaging learning videos.

Tips when using a lightboard

- Keep videos short
- Try to avoid smudges
- Plan & use side notes
- Speed up drawing lengthy diagrams
- Use point form & pictures
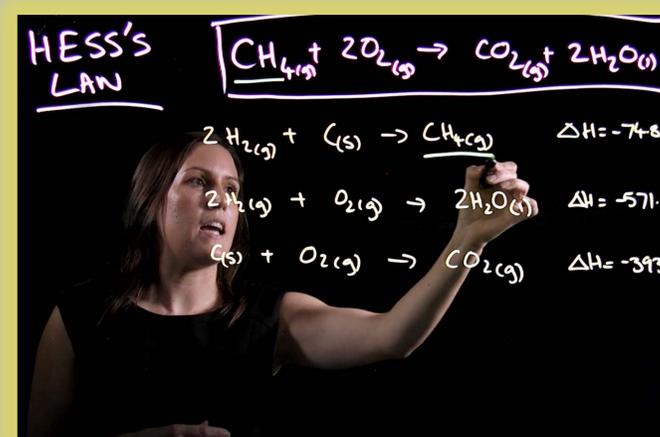- Trace or pre-draw images onto glass
- Wear dark colours

Additional Resources:

NW Lightboard info webpage home
Northwestern University
http://lightboard.info/

7 Things you should know about lightboard
Educause Learning Initiative
https://library.educause.edu/~/media/files/library/2014/8/eli7111-pdf.pdf

Evaluation: Lightboard
Technology Demonstrators Project
University of Southern Queensland
https://www.usq.edu.au/-/media/USQ/Learning-and-Teaching/demonstrators/Evaluation-Lightboard.ashx

Lightboard- creating more flexible learning
Education Technology Solutions
https://educationtechnologysolutions.com.au/2017/09/lightboard-creating-more-flexible-learning/

HESS'S LAW
$$CH_{4(g)} + 2O_{2(g)} \rightarrow CO_{2(g)} + 2H_2O_{(l)}$$
$$2H_{2(g)} + C_{(s)} \rightarrow CH_{4(g)} \qquad \Delta H = -74.81 \text{ k}$$
$$2H_{2(g)} + O_{2(g)} \rightarrow 2H_2O_{(l)} \qquad \Delta H = -571.66$$
$$C_{(s)} + O_{2(g)} \rightarrow CO_{2(g)} \qquad \Delta H = -393.5$$

Limitations/Challenges

- not for a live face-to-face class
- studio & editing required
- not interactive- can't answer ?s