

SCREENCASTING TEACHER PD

Purpose: Why screen casting?

The role of ICT in the art and design curriculum is central to effective student learning. It supports student's engagement with content and also enhances the scope and complexity of their critical and creative thinking and skill development.

This resource demonstrates how students can use **screencasting technologies to present their problem solving and understanding of key processes** within the art and design classroom, specifically using illustrator processes. This shows the students 'working out' alongside verbal annotation, giving an accurate indication of their skills and understanding. The resource supports student-centred approaches in which students develop autonomy, self-assessment practices and reinforces the role of the student in constructing meaning from experiences.

What is Quicktime video screencasting & Camstudio?

Screencasting is the process of recording a video on your computer screen that captures visuals, mouse movements and any narration that you record alongside your imagery. Screencasting is often in the form of online tutorials and videos, providing an alternative way to document a process.

There are several free programs for creating a screencast and the one you choose will depend on whether you have access to Mac or PC computers. The following will detail the application of Quicktime screencasting for mac users and Camstudio (free online download) for PC users.

Quicktime for MAC:

QuickTime Player's 'new screen recording' function allows you to create high quality video screencasting which can be easily edited and shared. The 'new screen recording' function allows you to record your screen, capturing everything from audio to visuals and even mouse movements within the selected area.

Camstudio:

Camstudio is an open source, free download program, and functions in a similar way to Quicktime once installed on your PC. **You can download it from <http://camstudio.org/>.** It is recommended to download both the current version of Camstudio and the Lossless Codec to give you best control over the quality of the video.

Links to HOW it works:

<https://support.apple.com/en-au/HT201066>
https://support.apple.com/kb/ph5882?locale=en_US
<http://www.dotscreenshot.com/screen-capture-benefits/>

Links to HOW it works:

<https://www.youtube.com/watch?v=nR-EHIAy4Rk>
<https://www.youtube.com/watch?v=L6mnF-bz5ml>

How can students use Quicktime video screencasting in the art classroom?

It is a **curriculum requirement** for students studying Art and Visual Communication subjects to regularly **document, explain, reflect upon and evaluate their own and other's work**. This requirement is usually fulfilled through written annotations in a visual diary.

The use of a screencasting program in this context provides students with an **alternative way to satisfy this requirement** that would work to build students oral communication in a way that does not happen with written annotations.

The use of this technology in the art classroom aligns with Bloom's Taxonomy and Higher Order Thinking. By creating a screencast of their process, students connect ideas and skills to explain, evaluate and reflect on their own work. **This task requires metacognition** (or thinking about thinking).

Example task:

Students create an artwork using a digital program such as Adobe Illustrator. This could be a task that requires students to use new skills or complex Adobe Illustrator functions. Students may have a number of lessons to create the artwork using the design process and then would capture a retrospective explanation of their Illustrator process via Quicktime video screencasting or screencast-o-matic. In conjunction to demonstrating their understanding visually in the screencasting, **students would be required to simultaneously narrate their process of how they completed the task.** Therefore, the **screencasting activity would act as a tool of review and consolidation of learning.**

Below is a link to a youtube clip that demonstrates how a student would use Quicktime screencasting to document and present their Illustrator use.

Online student example: <https://youtu.be/-fnurseGov8>



Screencasting links to Educational Theory

The act of planning, constructing and executing a video screencast requires **students to use a range of skills from low order thinking to high order thinking**. This process of cognition ties into **Blooms Digital Taxonomy** (BDT), where the quality of the action or process defines the cognitive level, rather than the action or process alone (Churches, 2009). As **student cognition moves on a continuum from 'Remembering' to 'Creating'**, individuals are actively involved in constructing their knowledge. They play a major role in evaluating their learning and this is made personally meaningful when using multiple literacies (eg. they narrate the process of their own illustration). The use of **oral, written and visual codes to enhance cognition** is supported by Dual Coding Theory (DCT). DCT postulates that by incorporating different cognitive learning types, individuals are more likely to retain and recall such information (Clark & Paivio, 1991). Another benefit of students creating a video screencast is that they are positioned to **repetitiously perform the skills** and therefore also **develop procedural fluency** (Network, 2014).

Our suggested activity to use video screencasting within the art classroom, **challenges students to use cognitive, affective and psychomotor processing** within the six key areas of the taxonomy, including *Remembering, Understanding, Applying, Analysing, Evaluating* and *Creating*. Below is an outline of how students demonstrate their journey of learning within the Bloom's Digital Taxonomy model. Many higher order thinking skills are required for the preparation stages of video screencasting and further higher order thinking skills are required for the oral and visual delivery of that knowledge.

How the act of screencasting aligns with Blooms Digital Taxonomy

Remembering: Students demonstrate skills associated with remembering by identifying the skills they need to use, listing the tools to be shown and recognising the verbal instructions needed to narrate their video screencast in illustrator.

Understanding: In this stage, students will be summarising their ideas and classifying what processes would be delivered at which point in their screencast. They may make a script in this stage.

Applying: Students operate in this level of BDT by executing and implementing their ideas. This may be during their first test screencast. Students should naturally reflect on their use of the screen casting software in preparing for their future recordings.

Analysing: At this stage, students are in the higher sections of BDT, demanding that students critically compare, deconstruct and restructure their work. Within the context of video screencasting, students rework, cut/add content and adjust the delivery of their screencast.

Evaluating: Evaluation is likely to occur after a number of image modifications and trailing of the screen casting process. In the evaluation stage, students critique and review their approach through the reconstruction of their process and the presentation of their thinking.

Creating: Students synthesise their design process by verbally articulating and modelling the application of their skills using the software. Essentially, in this stage, students have become directors and producers, functioning in the highest stage of the taxonomy.

How screencasting will support your Pedagogical Practice

Producing a video screencast is valuable from a pedagogical perspective. The process that students encounter while developing their screencast incorporates many types of learning. We have focussed on *experiential* and *inquiry-based learning*.

▶ Experiential learning:

Experiential learning is the idea that knowledge is a transformation process and learning is through reflection on doing (Kolb, 1984). The process of video screencasting therefore enables students to form ideas and then **reform their knowledge though the experience of making** their screencast. Experiential learning in the context of video screencasting also promotes **holistic development** as students are learning digital tools, subject specific content and presentation skills. Research on experiential learning suggests that students learn best when their personal experience is at the forefront of learning, increasing engagement and cognition (Kolb, 1984). Through the process of planning, designing and creating a video screencast about their own artwork, **students give life to their ideas and images**. The final execution of their recorded presentation encourages **students to add personal meaning to abstract concepts**.

▶ Inquiry-based learning:

The act of video screencasting also ties into the **pedagogical theory of Inquiry-based learning**. This model stipulates that effective teaching can occur when students take responsibility for actively constructing their knowledge base. As **students are able to trial different tools and ideas using a combination of sequences and technologies**, the video screencasting process provides more opportunities for innovation and self-reflection. Students often initially don't like inquiry-based learning because they have to work harder than they do when passively listening to the teacher. In this way, inquiry-based learning emphasises a shift in learning. **"Students shift from being receivers of content to being active seekers, thinkers and producers of it"** (Moore et al, 2014). The process also has other benefits such as developing the ability to practice time management, organisation, self-monitoring, and persistence during independent work.

A teacher's role in getting students to create their own video screencasting is likely to be that of a facilitator. Teachers should be able to monitor progress and intervene when guidance is needed. This of course is reliant on the capacity of the students to learn independently.

Link to VCAA Guidelines & Policy

The application of this technology within planning and teaching **addresses the latest state policy requirements of the Victorian Curriculum and Assessment Authority** within Art, Visual Communication Design, and the Digital Technologies and Design Technologies Strands.

The use of **screencasting applications within Art and Visual Communication Design** subjects addresses the four capabilities of the F-10 Victorian Curriculum, Critical and Creative Thinking, Ethical, Intercultural, Personal and Social and the general capabilities of the F-10 Australian Curriculum Information and Communications Technologies and Literacy.

Using Quicktime for **screencasting processes engages the Digital Technologies curriculum**, and supports the Arts curriculum in the creation and use of digital processes. The Quicktime screencasting application engages **design thinking as part of the Creating Digital Solutions stand**, learning about software through Digital Systems strand, and collecting, managing and organising information to problem solve and communicate ideas and information, addressing the Data and Information stand.

Skillful use of this resource allows for the documentation of process and reflection on learning. These skills are applied specifically through this task in Art and Visual Communication and Design context as students generate alternative ideas, select and apply learnt processes and sequence decisions and events. The use of the **application teaches student about the functionality of various digital systems** and the skills required to document their understanding in relation to the unit outcomes.

An advantage of this **tool links to the 2008 Melbourne Declaration Policy**, which outlines goals for successful learners to become confident, creative and active individuals. Goal number two declares that students “have the essential skills in literacy and numeracy and are creative and productive users of technology, especially ICT, as a foundation for success in all learning areas”(Melbourne Declaration, 2008). Our screencasting resource links into the Melbourne Declaration commitment to promote digital literacy via the use of ICT tools, an approach that will undoubtedly support students in post-school pathways. This resource acts as an assessment tool, supporting digital literacies, promoting self efficacy and will generate further learning into adulthood.

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