Fröjd's Toolbox - Roundtable on Cognitive Load Theory (CLT) (16 Nov 2025) **with** *John Sweller, Kate Jones, Greg Ashman, Nidhi Sachdeva, and Ollie Lovell* **hosted by** ***Kennet Fröjd***

Planning Summary by Helen Reynolds @itsalearningcurve.education

Content	Do This
General points JS: CLT has ≈ 18 CLT effects, 3 most prominent/interesting are **Worked Example Effect (WEE)**, **Redundancy effect (RE)** redundant = anything unnecessary e.g. providing info in written AND spoken), **Expertise Reversal Effect (ERE)** (as we become expert some info becomes redundant, can have negative effects e.g. WE good for novices not experts) GA: Need clear idea about what you want students (S) to learn to distinguish relevant/ redundant CLT is not 'common sense'; need to know the details to do better job. KJ: CLT not obvious, has not been part of training, needs to embed, care with 'lethal mutations' of 'I'm doing CLT' because I break things down etc.	• Don't plan via activities, know what you want them to learn • Worth exploring all facets of CLT to effectively use in your teaching/embed it • Using explicit instruction not just using CLT for presentation/ needs constant CfU.
Worked Example Effect JS: WEE shown in RCT, Ss who use WE do better, WE = test item (math problem/essay) give as teaching item not test, show them how it works/why/how it works/links, can find WE in textbooks, need whole set of WE not just problems to practice, WEs works in all subjects incl. essay based courses – more research coming out (mainly math(s) so far as it was convenient), WE in essay courses →show ideal answer/essay OL: Potential for confusion with terminology: research WE (self-study protocol)/classroom WE (T goes through with Ss), GREAT quote from Francis Bacon about the TE NS: Ts may see WE as alternative to chunking but *not* substitute for teaching/ explaining GA: Ts can model doing a problem →static WE = available to S to use when practicing/ record in booklet KJ: Not 'here's an e.g., now you do it' → copying, WE as homework tasks, care with timing, not just in math(s)!, can use in any subject, NS: Explicit teaching + WE address TIE/ explanation transient, WE must be written down, Ts love talking but it's gone, need to make more permanent,	• WE useful for novices, need to be gradually removed before negative • Can get Ss to study WE in class/ homework • Working through WE live can add + gives better attention control + T can narrate thinking • Don't do WE of several types of thing – subject to TIE, do one at a time • Live modelling, leaving a model up as WE is helpful • Using MWB good – not a problem that they erase it, their work
Transient Information Effect (TIE) JS: TIE is why we have writing, speech is transient, needs written WEs but lots of WE are auditory = transitory, new tech victim of TIE unlike books GA: Learning from computer screens Ss learn more from animated e.g.s as more similar to T doing it/embodiment, can counter TIE with student booklets linked to PowerPoint.	• If you explain orally make a slide with the info to show too; oral explanations = transitory • Care that measures to counter TIE can fall foul of RE
I do/we do/you do (IWY) OL: I do = this is what success looks like/ we do = T sees Ss can understand or do each part/you do = Ss puts it all together, GA: IWY ≠ CLT – but research → similar conclusions, can be used over different time-scales →gradual release →independence, explicit teaching ≠ lecturing/ needs to be interactive/ lots of formative assessment, can break essays down (intro para/ conclusion), using MWB → hard to do longer responses/paras but now essay subject Ts use them by breaking down.	• I do/we do/you do useful for small segment not wholescale plan • not just synonym for explicit instruction, can be lethal mutation

Student agency JS: CfU →testing effect →Ss should be testing themselves, KJ: demonstrating effectiveness of retrieval practice helps Ss see benefit of testing effects (+ realize there are poor proxies for learning), NS: need to educate Ss and parents that Ss with less mental effort are less effective e.g.. highlighting, short term lack of performance is better learning in the long term.	• Teach Ss about the testing effect • Teach Ss about less effective study strategies • … and parents
Final thoughts: KJ: Application of CLT/WEE is domain specific, needs expert teachers in the domain to tease out. JS: All CLT effects have limits, never assume a procedure will always work everywhere; the ERE applies to every single CLT effect, as expertise increases the effects of the various effects decreases and may reverse, don't assume WEE will fix everything – will benefit novices not experts. NS: CLT is NOT always reducing cognitive load, need to understand where the learner is on the spectrum of novice-expert, learners need less CL, experts may need more OL: "WE are a substitute for the list of problems that students are conventionally asked to solve after the lesson, they are not a substitute for the lesson presented by the teacher". Quote from John Sweller GA: Fatal mutations/use of terminology, just because the label coincides with the science of learning doesn't mean you're doing something effective..	

Podcast here:

https://frojdstoolbox.podbean.com/e/avsnitt-65-roundtable-on-cognitive-load-theory-effects-with-john-sweller-kate-jones-greg-ashman-nidhi-sachdeva-and-ollie-lovell/