Workshop Proposal

Thinking through ACAD - learning to see theory in action

Linda Castañeda

Group of Research in Educational Technology. Facultad de Educación, Universidad de Murcia, Spain, lindacq@um.es

Pippa Yeoman

Educational Innovation, The University of Sydney, Australia, pippa.yeoman@sydney.edu.au

Lucila Carvalho

Institute of Education, Massey University, l.carvalho@massey.ac.nz

Jenny Green

School of Nursing, Massey University, j.k.green@massey.ac.nz

Francesc Esteve-Mon

GREAT Research Group, Universitat Jaume I, festeve@uji.es

General information

The Activity-Centred Analysis and Design (ACAD) has been developed as a meta-theoretical framework for understanding and improving complex networked learning situations (Goodyear et al., 2021; Goodyear & Carvalho, 2014). ACAD helps to foreground two distinct moments related to the design of complex learning situations. The first entails advanced planning – and it involves design time – when an educator may consider the selection of specific tasks, tools, and complementary social arrangements of a learning situation. The second involves learning time – or what happens as a learning activity unfolds.

When designing for networked learning educators need to anticipate a certain form of human activity and consider how designable elements may influence what students do (first view). But educators also need to channel what actually happens on the day, as activity unfolds, noticing how designable elements influence (or not) the intended learning activity (second view). One difficulty for teachers or educational designers relates to being able to draw connections between what has been designed (planned) and what learners actually do (learn).

Our work has been applying ideas from the Activity-Centred Analysis and Design (ACAD) framework and wireframe (Goodyear et al., 2021; Goodyear & Carvalho, 2014; Yeoman & Carvalho, 2018) to the analysis of learning situations. Our workshops are designed to initiate and enrich discussions about educational concepts among groups of educators with or without previous pedagogical training (Yeoman & Carvalho, 2018). These discussions support educators to make the subtle but crucial distinction between what is open to alteration through design and what is not. For example, educators may be able to control a number of task parameters such as pace, timing, assessment and mode of instruction, but not how long it takes for each student to grasp a concept or what they already know. In learning to make this crucial distinction, educators often begin to see a broader range of actionable pedagogical possibilities.

ACAD allows us to focus on how three dimensions of design (within our control) influence a fourth, which is emergent learning activity (not within our control). The dimensions of ACAD include:

- set design - the physical/digital tools available to learners,
- epistemic design - the assigned tasks or suggestions of useful things to do,

- social design - the specific social arrangements used such as groups, pairs etc. and,
- co-creation and co-configuration activity - the emergent learning activity on the day that is not designable.

ACAD has been used in the analysis and design of a broad range of complex learning situations in universities, schools, museums, and informal settings. In recent years ACAD has been translated into Spanish (Goodyear et al, 2021) and an online application, which will be presented in this workshop (Figure 1).
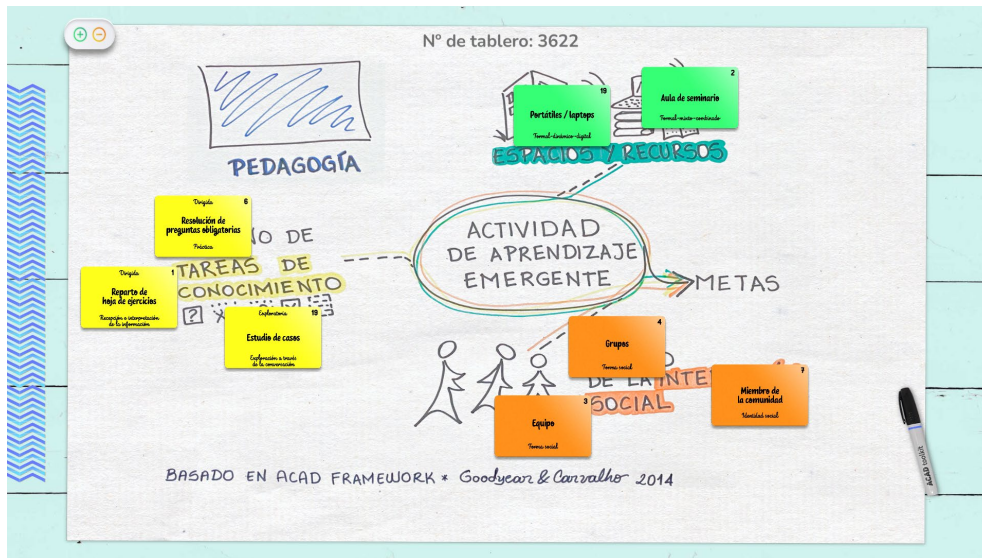

Figure 1: ACAD Toolkit App (Spanish version)

Intended Audience

Educational Researchers, Educators and Learning Designers interested in design for networked learning

Workshop Description

This workshop will invite participants to reflect on ways of engaging in innovative educational design across formal and informal networked learning environments, that is, applicants will reflect on how pedagogical, digital/material resources, and people may be brought together when designing for networked learning, whilst practically applying ACAD concepts. The workshop aims to introduce participants to ways of connecting theory, design, and practice and practically experience the English version of the ACAD app (online version of the ACAD cards and wireframe) in the analysis of selected case studies. Participants will consider how to ensure that design choices are coherent across scale levels and how to accommodate socio-cultural and socio-material approaches to learning. They will also reflect on how to support autonomy and collaboration, diversity and choice through networked learning.

The workshop will be co-hosted in a hybrid session that will accommodate online and face-to-face participants. Participants will also have an opportunity to use the ACAD toolkit app. The workshop will include a 15-minute presentation to introduce participants to core ideas of the ACAD framework and wireframe. Participants will also have a short demo of the ACAD app. Participants will then work in groups to analyse a case study and to jointly discuss a specific design challenge.

Participant Engagement

Using breakout rooms in Zoom and within the physical space at the conference venue, participants will be placed into groups to become familiar with the tools and discuss their analysis of a case and suggest design for networked learning possibilities, using workshop materials (Table 1).

Table 1: Objective and Design tasks

	Objective	Design task
Task 0	Introduction: participants become familiar with the ACAD dimensions by manipulating the cards and wireframe.	Focus: exploring the range of terms on the ACAD cards with respect to familiarity, relevance, fit within context etc., to surface individual values and beliefs about learning.
Task 1	Connect theory and practice: participants learn how to use the cards with the help of the ACAD wireframe.	Focus: creating shared consensus about learning theory, clearly articulating that theory, and tracing correspondence or dissonance across dimensions of design and scale levels.
Task 2	Bring theory into practice: participants work on a design challenge.	Focus: identifying elements of each dimension that are open to design and within their sphere of control and shaping them in ways that increase the coherence of the whole.
Task 3	Reflection: participants reflect on the process and consider future alternative applications.	Focus: proposing other contexts in which these concepts (ACAD) and tools (Toolkit) may be useful for designing or analysing learning activity.

Task 1

The first task will involve the selection and analysis of a learning situation as presented in a short case study.

Task 2

The second task will build on Task 1 and involves a related design challenge. Participants will be encouraged to change an aspect of the original case study, proposing an innovation in response to a challenge. For example, a change in mode from f2f to online, a change in access from clinic visits to Zoom consults etc.).

Task 3

The third task will involve a structured reflection in which participants will consider how the ACAD Toolkit could be applied in their contexts, contributing to the development of new ways of applying ACAD in networked learning settings.

Participant Outcomes

Participants will have an opportunity to become familiar with key ACAD concepts and apply them in conversation with peers—connecting theory, design and practice.

Workshop Alignment with the Conference Themes

This workshop aligns with the theme of 'Philosophies, Theories, Methodologies and Designs for Networked Learning'.

In addition, most of the short (max 500 word) case studies are based on work previously published in networked learning-related outputs, for example:

Case Study 1 – CmyView (Carvalho & Garduño Freeman, 2018)
University students of Architecture use a mobile app and the surrounding physical environment to identify and share places of interest, learning about the nuances of design in the built environment. This case highlights the richness of asynchronous place-based networked learning.

Case Study 2 – Edward & Isobel (Yeoman, 2018)
School students, work independently to solve a prescribed task and a number of physical and digital challenges arising in their efforts to calculate the height of their jumps both in class and on the moon.

This case highlights co-configuration and co-construction in a large (180 students and seven teachers) open plan networked learning environment.

Case Study 3 – Fast Food da Politica (Carvalho, Yeoman, & Carvalho, 2021)
Citizens are invited to engage in political debate as they participate in life sized adaptations of familiar board games in public spaces. This case illustrates how physical and online spaces come together to encourage, support and showcase a strategic vision. As a not-for-profit organisation, Fast Food da Politica (FFDP) relies on social media and crowdfunding and makes its learning resources freely available to those in any community interested in building on these ideas.
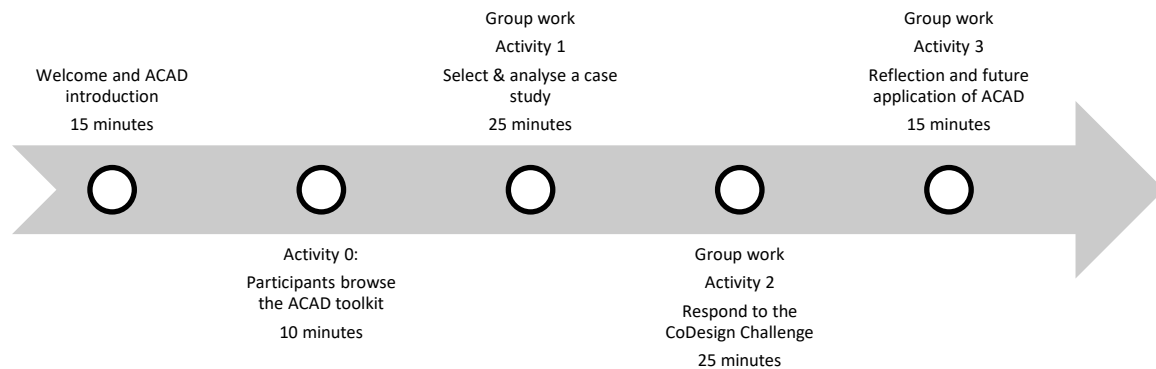
Workshop Process/Activities

Figure 2: NLC ACAD Workshop Process

References

Carvalho, L., Yeoman, P., & Carvalho, J. (2021). It's your turn! Supporting social change through networked learning and game playing. In N. Bonderup Dohn, S. Børsen Hansen, J. Jørgen Hansen, M. de Laat, & T. Ryberg (Eds.), Conceptualising and innovating education and work with networked learning. Springer.

Carvalho, L., & Garduño Freeman, C. (2018). CmyView: Learning by walking and sharing social values. In N. Bonderup Dohn, S. Cranmer, J. Sime, M. de Laat, & T. Ryberg (Eds.), Networked learning: Reflections and challenges (pp. 167–186). Springer.

Goodyear, P., & Carvalho, L. (2014). Framing the analysis of learning network architectures. In L. Carvalho & P. Goodyear (Eds.), The architecture of productive learning networks (pp. 48–70). New York: Routledge.

Goodyear, P., Carvalho, L. & Yeoman, P. (2021). Activity-Centred Analysis and Design (ACAD): Core purposes, distinctive qualities and current developments. Education Technology Research & Development 69, 445–464 (2021). https://doi.org/10.1007/s11423-020-09926-7

Goodyear, P., Carvalho, L., Yeoman, P., Castañeda, L., & Adell, J. (2021). Una herramienta tangible para facilitar procesos de diseño y análisis didáctico: Traducción y adaptación transcultural del Toolkit ACAD. Píxel-Bit. Revista De Medios Y Educación, 60, 7-28. https://doi.org/10.12795/pixelbit.84457

Yeoman P. (2018). The material correspondence of learning. In R. Ellis, & P. Goodyear (Eds.) Spaces of Teaching and Learning. Understanding Teaching-Learning Practice. Springer, Singapore. https://doi.org/10.1007/978-981-10-7155-3_6

Yeoman, P., & Carvalho, L. (2019). Moving between material and conceptual structure: Developing a card-based method to support design for learning. Design Studies, 64, 64-89. https://doi.org/10.1016/j.destud.2019.05.003