EAIE

Esports as Accelerator for Social Inclusive Education

LESSON

KANBAN FLOW SIMULATOR

AUTHOR

SERGIO ELVIRA PEREZ

CODEARTS SOLUTIONS

KANBAN FLOW SIMULATOR

Kanban Flow Simulator makes workflow visible through a fast-moving project board. Learners manage tasks with explicit Work in Progress limits, observe bottlenecks and adapt priorities as new customer requests enter the system.

Subject and level

VET learners in software development, IT operations or project management who need practical experience of visual workflow, pull systems and continuous delivery concepts.

Connection to curriculum

The exercise supports planning, process optimisation, task prioritisation and team coordination. It introduces lean concepts such as limiting work in progress, measuring flow and improving a process based on observable constraints.

Didactic and pedagogic considerations

A live board externalises team workload and makes invisible coordination problems easy to discuss. Students learn through repeated flow decisions rather than definitions, while timed changes create opportunities to compare reactive behaviour with deliberate prioritisation.

Time estimate

2 hours

KANBAN FLOW SIMULATOR

Group size

20-30 students

Overall introduction to exercise

Teams receive identical task cards and a digital Kanban board with defined columns and WIP limits. Their challenge is to maximise completed value, not simply start as much work as possible. Customer changes and blocked items require continuous rebalancing.

The activity develops a practical understanding of flow, bottlenecks and pull-based work. Students see that finishing work often creates more value than keeping everyone individually busy, an insight that transfers directly to collaborative technical projects.

KANBAN FLOW SIMULATOR

Exercise as presented to the students

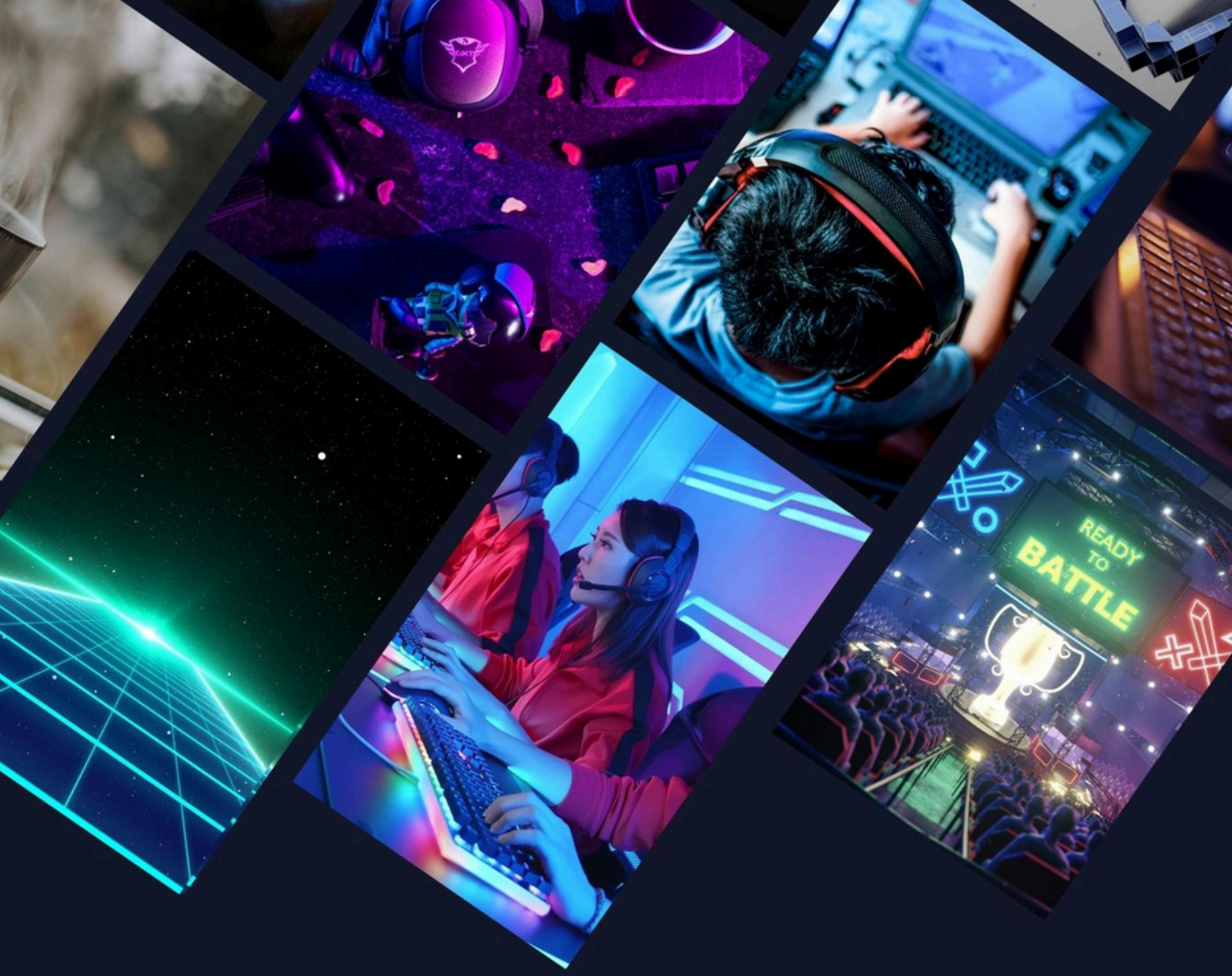
The class was divided into small delivery teams and each team opened the same Trello-style Kanban board with Backlog, Ready, In Progress, Review and Done columns. The teacher explained only two initial rules: work should be pulled rather than pushed, and the In Progress column could contain no more than three cards.

Teams received a set of user-story cards with different effort and value. During the first 25-minute round they attempted to deliver as many points of customer value as possible. Every five minutes the teacher recorded the number of items in progress, completed and blocked, making the flow visible on the board.

In round two, a blocked task and two urgent customer requests were introduced. Teams that had filled every available slot immediately experienced congestion, while others could absorb the change more easily. Students were allowed to change task order, pair on difficult work or reduce their internal WIP limit if they could justify the decision.

The final round added a simple service-level goal: urgent cards should reach Done within a fixed time. Teams discussed whether to stop current work, create an expedite lane or finish an almost-complete item first. The teacher observed the decisions rather than prescribing one correct answer.

During the debrief, groups compared throughput, blocked time and unfinished work. Students identified where multitasking had slowed them down and proposed one board rule for a future project. The exercise turned Kanban from a static board into an experience of flow management, prioritisation, transparency and shared responsibility.



EASIE
Esports as Accelerator for Social Inclusive Education

E-SPORT AS ACCELERATOR FOR SOCIAL INCLUSIVE EDUCATION

WWW.EASIE.GG

Co-funded by
the European Union

FUNDED BY THE EUROPEAN UNION. VIEWS AND OPINIONS EXPRESSED ARE HOWEVER THOSE OF THE AUTHOR(S) ONLY AND DO NOT NECESSARILY REFLECT THOSE OF THE EUROPEAN UNION OR THE EUROPEAN EDUCATION AND CULTURE EXECUTIVE AGENCY (EACEA). NEITHER THE EUROPEAN UNION NOR EACEA CAN BE HELD RESPONSIBLE FOR THEM.