

Existing games or game providers

	Kahoot	VRChat/Mozílla hubs	Open simulator/ Second life
Summary	Game-based learning platform with a variety of interactive activities - many of them are quiz based. You can create your own quizzes or choose from a library of pre-made ones.	VR 3D worlds that allow models to be imported	3D worlds that are not VR based but still allow for content hand world creation. For virtual networking and meeting
Associated costs	Free activities have limited time. Otherwise	Dependent on VR world technology Costs of VR headsets	Hosting cost for opensim but no costs to create space when hosted. No hosting costs for second life, but 'rent' costs to create your own space.
Game Types	Knowledge checking, ice breakers	Virtual social meeting / interacting with 3d resources / virtual labs /scenario creation	Social meeting, collaboration
How will students access	Through a browser or Kahoot app	Typically, students need a VR headset for the students. Students will not have their own, so is usually a classroom activity. It is possible to implement a web hosted version	Users need to download a viewer program, not that easy to use for first time users
Resources	Kahoot blog of ice breakers: https://kahoot.com/blog/2024/05/28/energizing-icebreakers-for-meetings-presentations/?form=MG0AV3	How to Put OBJ Files into VRChat	Teaching/Learning in Second Life: Perspectives of Future Nurse-Educators
Other	Limited functions and time restraints for free version Limited ways to customise. Mostly quiz functionality	VR headsets can be costly and difficult to set up. VR headsets will need periodically upgrading, as software updates old headsets can be left unsupported. Requires students being 'walked' through the process of VR setup and use	Virtual spaces are deleted if the subscription is not paid, or the server is not maintained

'High-Level' Software

	Powerpoint	Twine	Articulate Storyline	Canvas	AI interface	Netlogo
Summary	Features like hyperlinks, animations, and multimedia elements to design quizzes, puzzles, or storytelling experiences. It's a creative way to make learning or entertainment more dynamic and enjoyable.	User-friendly tool for creating interactive, text-based games and stories. Allows for users to make decisions and for stories to unfold accordingly	E-learning authoring tool designed to create interactive a online courses. Similar to powerpoint, but output is web based and more interactive for the user.	Similar to powerpoint use, Canvas content types like Pages, quizzes, videos	Set up tasks in an AI interface such as chatGPT or GPT for all.	Enables the creation of interactive, agent-based games that teach concepts by simulating real-world systems. Players can experiment with variables
Software Cost	Free - included in University 365 subscription	Free	Cost to use developm Free once created	Free - University Subscribe	Interfaces are often free API cost for integration into .	Free
Game Types	Knowledge checking, ice-braking	ole playing, decision making, knowledge checks.	Knowledge checking, role playing, decision making.	Role playing, decision making, knowledge checks.	Virtual tutor, content creation.	Simulation
How will students play?	Shown to students at front of class as part of activity.	Students can access it through a browser. Potentially can be added to Canvas	Web-based, accessed through a browser. Can be put into Canvas.	Log into the VLE with	Need access to	Can be exported to web, or NetLogo files can be exported and loaded into netlogo
Examples	https://games4esl.com/powerpointgames/	Role playing, decision making, knowledge checks.	Role playing, decision making, knowledge checks.	Games in canvas	Tile discussion	https://ccl.northwestern.edu/netlogo/
Other	Can be updated by any user of powerpoint	If you want users to play the game online you will need somewhere to 'host it'. This could be Canvas Requires a little learning.		The content can't be used outside of liverpool		Need basic programming skills to be able to program 'a system'

Bespoke software

	Unity	Web Technologies (HTML/Javascript/CSS)	Unreal Engine	'Other' Application Development - other
Summary	Versatile game development platform used to create 2D and 3D games across PCs, consoles, mobile devices, and virtual reality platforms. Many prebuilt 'assets' to aid development	Software languages that allow creation of web-based activities available through the	Versatile game development platform used to create 2D and 3D games across PCs, consoles, mobile devices, and virtual reality platforms.	Non web-based PC or Mobile APPs, allow for more processing power and for games to be played locally on a students machine. Using languages such as Java/C++ or electron
Associated program costs	Only free for small teams or individuals. But I have had success getting it for free as part of the Unity for Educators program	Free to develop. May have associated hosting costs.	For educators and schools it is free with no revenue limits. Making it easier to navigate costs than Unity	Free.
Game Types	Any. Some game types might be easier than others depending on availability of examples and resources. Particularly good at 3D, VR/XR,Simulation.	Any. Particularly good at simple games and activities.	Any. Some game types might be easier than others depending on availability of examples and resources. Particularly good at 3D, VR/XR,Simulation.	Any
How will students play	Can be exported to PCs, consoles, mobile devices,web and virtual reality platforms	Any device with a web browser.	Generally exported as a program that can be download and ran on the lectures for students machine	Download and run on a computer
Resources	Asset store (possible to search by 'free'): https://assetstore.unity.com/	Slingo Blingo: https://ceds-demos.net/tools/clingo/	'Fab' Asset store: https://www.fab.com/	Electron (Create apps with web software): https://www.electronjs.org/
Other considerations	High skill development requirement Might be dependant on getting the Unity for educators acceptance..	Web development skills required for development. Mature, well defined software languages.	High skill development requirement	Security issues around getting students to download unfamiliar software.