# 1UP Placements Scheme:
# Simmersive Education for Games Development Professional Skills

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**Abstract**

*This education paper presents the 1UP scheme, an award winning industry simulation. The 1UP scheme provides students with structured studio-style experience within an academic context. Students are directly employed (and paid) by the university in-house games studio for a 6-week summer placement. 1UP facilitates interdisciplinary student teams to develop commercial-quality games under professional supervision. This paper outlines the scheme's structure, the design philosophy of the studio, and the educational impact. We detail some case studies of the games we have produced, including 'Disc-Go!', 'StaffsVerse', and the award winning 'MechHead'. These success projects and the student outcomes demonstrate the value of this approach in supporting skill development, portfolio enhancement, and employability. The 1UP model represents a scalable, award-winning approach to bridging the gap between education and industry within games development education.*

## 1. Motivation

The education of technical and creative subjects (often referred to as STEAM [KA19]) is enhanced through industrial practice. For this reason, industry placements are highly sought after particularly in technical diciplines [LCS19]. Exposing students to industry context has been shown to raise aspirations, degree performance [PBC12], and overall employability.

However, within the games industry there are very few placement opportunities available. With only a handful advertised across the UK games industry. While curricula at various institutions often feature simulated projects and coursework-based prototypes, students frequently lack opportunities for exposure to real-world production workflows. The 1UP scheme was introduced to bridge this gap by replicating the structure, constraints, and expectations of a professional game studio, within the university. The 1UP programme offers an in-house solution: paid, full-time development placements structured around a 6-week production sprint.

## 2. Simmersive Education

Simulated practice has long been central to professional training, offering learners the opportunity to engage with real-world challenges in controlled environments [RS12]. Simulation also allows us to reduce some stocastic elements of the real world, to improve repetition which is an important component of practice [MSO23]. From role play in teacher training to cockpit drills in aviation, simulation provides a risk-mitigated space to rehearse skills and test

decision-making. However, traditional simulations often struggle to replicate the complexity, fidelity, and immersion required for meaningful transfer of learning [WDC*22]. For a learner to fully gain full value from a simulation, they need to be able to suspend their disbelief and immerse themselves in their training [Muc17]. Indeed, a common complaint of role play [BGAL10] (arguably the most common simulation modality) is that training can be uncomfortable or awkward. This gap has led to the development of a new training paradigm: Simmersive Education.

Simmersive education integrates simulation with immersion to create high fidelity training environments that authentically reproduce professional contexts [RWB25]. These experiences blend physical artefacts, social interaction, and task fidelity to achieve a state where learners suspend disbelief and fully commit to their roles.

Within the 1UP scheme, simmersive principles underpin both the design of the student placements, but also the structure of our in-house studio. Rather than passive observation or the abstraction of coursework, students become embedded in a realistic studio environment, assuming authentic roles, solving real production challenges, and delivering technical artefacts. This educational model reflects a broader movement in experiential learning, where simulated environments are not simply approximations, but meaningful proxies for the professional world.

## 2.1. Definition

Simulation has long been a foundational strategy in education, enabling learners to practice skills in controlled, repeatable contexts [CHS*20]. However, simmersive training is distinct in its pedagogic focus. It merges the structural fidelity of simulation with the engagement and realism of immersive design to create authentic, practice-rich environments. We define simmersive education as follows:

*Simmersive*: An educational approach that blends task simulation with immersive, context-rich environments to replicate real-world challenges without the need for intermediary sensory interfaces.

## 3. The 1UP Scheme

The 1UP scheme is inspired by the 'Student as Producer' [NW09] educational movement. In this programme students from across all taught university levels (undergraduate to masters) are formally employed to work in an in-house games studio.

The 1UP programme operates as a time-bound summer placement programme. Students apply through a competitive application process and are selected across multiple disciplines including design, programming, production, art, and sound. Successful applicants are embedded within small interdisciplinary teams and given a development brief overseen by faculty with extensive industry experience.

A critical simmersive position is that during the 1UP scheme all participants (students and staff) assume new professional identities. Some staff may be embedded in teams as part of the technical workforce, and some students may be employed in leadership positions. During the duration of the scheme, these professional roles are absolute.

Each cohort works for 6–8 weeks, following a production pipeline from ideation through to final packaging. Development takes place in Unreal Engine, with students exposed to Agile methodologies, version control, and peer review structures. Importantly, students maintain a level of creative autonomy within the thematic and technical constraints of the project. Simply, they are provided with the trust, and responsibility that comes with working in a professional environment.

Throughout development, students participate in daily standups, sprint reviews, and milestone playtests. Final products are packaged and submitted to external awards, showcased at exhibitions, and used in recruitment and marketing by the University.

The use of simmersive principles within 1UP transforms each game into more than just a portfolio piece, it becomes a replicable learning artefact. By grounding their projects in real production dynamics, students internalise the behaviours, expectations, and standards of industry. This alignment allows academic modules to draw directly from lived professional experience, enhancing the students experience.

## 4. Case Studies

The 1Up Scheme has produced a number of video games titles over its three year run. These titles have been independently recog-
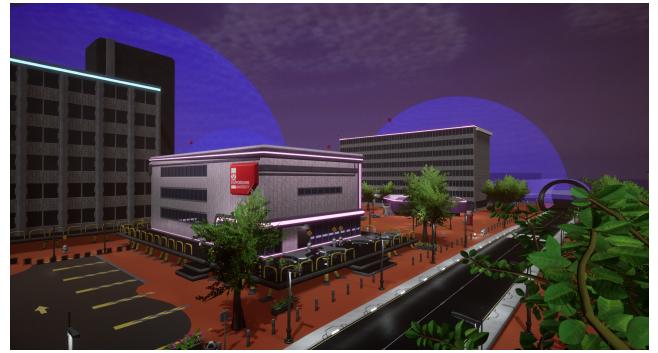


**Figure 1:** *The 2022 StaffsVerse Prototype*

nised by industry, being shortlisted for and winning awards. While awards are not the primary objective, this repeated independent validation showcases the quality of the scheme.

Furthermore, the scheme has developed through practice, and through these case studies we attempt to articulate some of the key lessons learnt.

## 4.1. StaffsVerse

The StaffsVerse was the first project developed through the scheme. First prototyped in 2022, and further developed in 2024. The StaffsVerse was our intepretation of a MetaVerse campus. The StaffsVerse was designed to support new university students in transitioning to university [HWH*24].

The StaffsVerse represented a departure from traditional game genres, with a focus on producing an immersive, explorable digital twin of the University of Staffordshire campus. Research at comparable institutions has demonstrated significant success in supporting student on-boarding using virtual campus recreations [THHM22, HDTW21]. In our initial prototype this was built in Unreal Engine, with a plan to host the simulation on a cloud provider. We also took the design decision to creatively re-interpret the campus as a base on Mars, as this creative dissonance allowed flexibility around the fidelity of models.
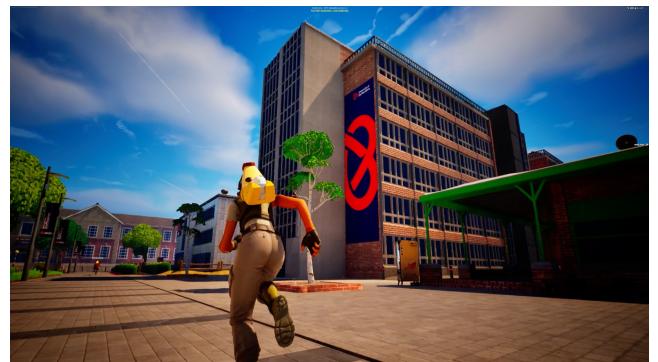


**Figure 2:** *The 2024 UEFN StaffsVerse: designed to match the Fortnite aesthetic*

**Figure 3:** *The StaffsVerse island: featuring the Stoke, Stafford, and London campus recreations*



**Figure 4:** *Mechhead Gameplay. The player character (Mech) is center screen.*

The key lesson learned through this initial prototype was one of project scope. While this version was delivered to a prototype level within the timeline of the scheme, it would have required significantly more time to make it production ready. Features such as player management and persistence would have further required ongoing maintainance beyond the scope of the project. It also required a large team, which was challenging to run effectively (due to group dynamics) in the 6-week period.

This project was revisited in 2024, and rebuilt in Unreal Editor for Fortnite (UEFN). This allowed us to publish the system on the Fortnite platform, one of the world's most popular games. We also followed the fortnite art style to be consistent with other games on that platform (see figure 2).The UEFN infrastructure also managed some of the key server-side systems, such as the lobby, player management, communication, and load balancing. It also offered a simplified hosting solution that limited the maintenance burden.

The new environment also capitalised on some of the assets directly available through UEFN, which accelerated production. This allowed the team to expand the map to all three of the University of Staffordshire campuses, Stoke-on-Trent, Stafford, and London. These were accurately recreated, but geographically co-located on a single island environment (as seen in Figure 3).

The UEFN StaffsVerse version launched publicly early 2025 with the Island Code 7421-1052-8692. This has now been leveraged as a key feature of university outreach. It has been used during virtual open days, public lectures, and student showcases.

### 4.2. MechHead

MecHead is an arcade-style twin-stick shooter an action game where players use one analog stick to control the character, and another to control the aiming and firing of weapons enabling 360 degree targeting in fast paced combat. MechHead draws on the design lineage of games such as Robotron 2084 and Nuclear Throne. This project was the second developed through the scheme, and specifically scoped-down to better suit the constraints of the 1UP programme.

MechHead was first implemented in 2021 as a games framework [JH24] used by Foundation Game Design students learning game mechanic implementation and level design. Student satisfaction in using the framework was high, with many expressing that they wished to see MechHead developed into a full game. As such, MechHead was identified as a viable project for the 1Up Scheme, and was developed by the summer 2023 cohort.

The game features a mech piloting interface where players can equip dual weapons, enhance combat variables (fire rate, damage, ammo consumption), and engage with a variety of AI-driven enemies (an example of the gameplay can be seen in figure 4.

With MechHead we took a 'horde mode' approach to gameplay, where enemies are spawned at regular intervals and the player survives as long as possible. This was one scoping strategy designed to limit the added complexity of needing to create multiple levels with differing challenges - and instead utalise procedural content generation to facilitate extended gameplay, and a replayable experience.

MechHead was recognised by the TIGA Industry Awards in 2023, winning Best Arcade Game. It was revisited and extended by the 2024 cohort, alongside Disc-Go!.

However, while the game was highly sucessfull, multiple lessons were learned through this process. The key one being that while a tight scope enabled the student developers to complete the game in the 6-week period, it also limited the available tasks for each student. For example, once our character artist completed the 'character' we were limited in where to re-deploy their workload. As such, a second game was developed to allow us to dynamically move individuals between teams to keep them engaged, working, and simulating real world contexts that require individuals to move between projects.

This approach (running two parallel) projects has been a key feature of the 1UP scheme in subsequent years, and has been highly sucessfull at this scale of production.

### 4.3. Disc-Go!

Disc-Go! was developed in the 2024 cohort as a social, team-based party game. The core mechanic is a high-speed disc that can be thrown, bounced, and charged to score points against opponents. Inspired by titles such as 'Lethal League', and 'Windjammers', the

**Figure 5:** *Disc-Go! Gameplay*

game explores the physics of projectile-based multiplayer and the psychology of shared-screen competition. An example of gameplay can be seen in figure 5.

Disc-Go! was our first game that didn't start with a pre-defined art brief. Unlike MechHead (which was already partially developed) and StaffsVerse (who's application required a level of realism), Disc-Go! started as a mechanic prototype only. This offered our art team a significant amount of creative freedom for how they developed the environments, characters and props. The team favoured a styled pop-art style, centered around alien protagonists called "Squimgees" which can be seen in figure 6.

The team created a series of arenas with reactive environments, layered audio feedback, and escalating tempo mechanics. The development focused on readability, UI clarity, and pacing. Despite its playful surface, the game required deep design coordination between level layout, object interaction, and player locomotion to facilitate a balanced experience.

We learned two key lessons from the development of Disc-Go! Specifically that Stylized visuals allowed for more rapid generation and iteration of assets. Secondly, that games that encourage short, rapid gameplay (also known as 'easy in, easy out' games) are better suited for short placements like these. Not only does this design approach simplify testing and QA, but it also makes any games



**Figure 6:** *The Disc-Go! opening screen featuring the Squimgee characters*

better suited for other university applications (such as open day demos).

Disc-Go was shortlisted for Best Social Game at the TIGA Awards in 2024. The team highlighted the learning curve of networked testing, animation blending, and local input authority. It remains in active development, with plans to release a Steam demo as part of a graduate incubator.

## 5. Pedagogic Applications

The value of the 1UP scheme lies not only in the creation of games, but in the structured, reproducible learning it enables. Each game serves as a stable artefact for assessment, analysis, and iteration.

Modules on gameplay programming, level design, VFX, and narrative systems have all adopted 1UP titles as case studies. Mech-Head is used to teach balancing through variable manipulation. Disc-Go supports multiplayer mechanics workshops. StaffsVerse provides a model for student-led virtual spaces and showcases.

More significantly, the 1UP model allows students to engage in cross-functional collaboration and experiential learning. These soft skills, including negotiation, version control and conflict resolution are among the most sought-after by employers. The embedded mentorship and regular critique ensure a consistent developmental arc, helping students transition from learner to practitioner.

## 6. Games Design Philosophy

While 1UP mimics and is inspired by games industry best practices, due to its condensed nature there are considerations and restrictions on some aspects of the game design philosophy and production methods that have evolved to best suit our needs and the environment.

The design philosophy behind 1UP is grounded in rapid development and mechanical clarity. Given the constraints of the six week model, successful game projects have been those with immediate accessibility and mechanical depth over content depth. While genre diversity is encouraged, ranging from arcade shooters to social party games the consistent design pillars we apply include:

- High pick-up-and-play value.
- Short (easy in, easy out) gameplay loops.
- Minimal reliance on narrative progression.
- Tightly scoped mechanics.
- Systems that can be extended or layered for gameplay richness without requiring additional content.

This alligns with Salen and Zimmerman's concept of meaningful play [SZ05] but also follows Fullerton's empahis on tightly designed gameplay loops in early production [Ful24]

### 6.1. Concept Selection Process

Game selection follows a hybrid model. Most titles originate from staff-led concepts either emerging from pedagogic needs or as experimental prototypes. While some games begin with longer pre-production timelines, others are conceived and prototyped within a couple of days at the beginning of the studio period. Crucially, all

projects undergo an initial scoping phase where feasibility within the six week window is evaluated. Ideas that cannot fit within the window are either restructured or rejected. As with a professional studio, final selection sits with a studio head.

Lightweight design documentation is employed at this stage, typically consisting of draft gameplay diagrams, key design principles, and game feel references. This early scaffolding is deliberately minimal to give students the opportunity to take some project ownership and refine the initial vision in the early stages of production.

Making a character controller camera set up is a significant part of positive game feel. In industry, this task alone can take a significant amount of time that isn't available on the 1UP programme. As such, we've kept our games to two dimensions of movement to as this lessens the time needed on iteration. Staffsverse does have fully 3D movement but that's due to UEFN having a fully ready character camera control system built into the environment.

### 6.2. Compressed Timeline

The compressed timeline of the 1UP programme necessitates a pragmatic and focused approach to production. Week one is used for orientation, task planning, and scope refinement. From week two onward, teams adopt a stripped-down Agile Kanban framework, with task boards organised by discipline, daily five-minute standups, and a commitment to weekly playable builds. This usage of modified agile development methodologies is well researched and applied in the game development industry [Kei10, KL13]. Adaptations such as Lean provide the necessary flexible structure [KSS*19] for 1UPs compressed small interdisciplinary teams. To safeguard against production bloat, a strict anti feature creep [KH09] policy is enforced after the first week, feature creep is a widely acknowledged problem in game development [PPUG21] and producers manage this strictly. This policy emphasises polish and functional iteration over speculative expansion, allowing teams to focus on depth, feel, and clarity in execution.

### 6.3. Art Styles

Our approach to art has evolved over the duration of the project. Art direction is informed by two principal factors: production efficiency and team strengths. Stylised visuals are favored over realism to enable rapid asset generation and alignment with student capabilities. The art style is often chosen to match the specialist skills of the team for instance, favouring character art if the cohort includes strong character focused artists. Modular asset design is also encouraged to facilitate efficient environment building and scalable level design. This approach ensures both creative flexibility and production feasibility. This approach reflects industry practice in small teams, where the efficiency of the pipeline is essential for keeping development momentum [RI04, O'D14].

Importantly, every 1UP cohort is a new team, and doesn't have the luxury of appointing to specific roles. Rather, 1UP placements are promoted to a large university cohort, and a competitive process based on strength of portfolio, academic attainment, and engagement determine the final cohort. As such, each year the stylistic

preferences of the team is different - we choose to treat this diversity as a strength and lean into the variability.

### 6.4. Fostering Teamwork

Team formation begins with a comprehensive skills audit. Students are asked to outline their technical capabilities, creative preferences, and developmental goals. This data is cross-referenced against the needs of each selected game project, allowing for carefully balanced, interdisciplinary teams. Where possible, students are placed on projects that align with their interests while also exposing them to cross-disciplinary collaboration. Each team is supported by a dedicated staff member in the role of Creative Director, who serves as the central vision holder and final decision maker as we found this helps keep the projects in scope and on track. Within the student teams, area leads are appointed for disciplines such as art, design, and programming, fostering peer leadership and facilitating structured communication across the production pipeline, mirroring best practices observed in team based learning [MKF23].

### 6.5. Tools

Toolchains are standardised to support both development and project management. Furthermore, we strictly use industry standard tool and use them as they would be applied in a commercial setting.

GitHub is used not only for version control, but also as the central platform for task tracking. Microsoft Teams is used for team coordination and communication. Unreal Engine is the primary development environment, supported by common industry standard tools such as Blender.

1UP students are expected to arrive with baseline familiarity with these tools, although mentoring and peer support are embedded in the studio culture. Art leads also produce 'style bibles' to ensure asset consistency and thematic coherence across all teams which is a common industry practice, although not widely researched [AR22].

### 7. Outcomes and Impact

The 1UP programme has now been running sucessfully for four years, and has led to several key outcomes with significant impact for both students, staff, and the institution:

### 7.1. Student Impact

The most immediate and measurable outcome of the 1UP programme is the impact on participating students. Between 2022 and 2024, 100% of graduating participants secured either industry employment or postgraduate study within six months of graduation, underscoring the value of studio experience in bridging the gap between academia and industry. Existing research has establishing this importance [BW06, Sti87] but 1UP provides proof that simulation and experiential learning opportunities significantly enhance graduate employability in creative disciplines.

Beyond placement statistics, students consistently report a

marked increase in career confidence, professional communication skills and portfolio readiness. The studio environment simulates real world pipelines while still providing a safety net for experimentation and feedback. Agile workflows, interdisciplinary collaboration, and exposure to award submissions offer students a realistic, yet supportive, rehearsal for industry practice. Participants have also noted enhanced competence in project scoping, peer critique, and reflective iteration key soft skills often be overlooked.

The programme has also become a key part of the University's suite of extracurricular employability programmes, serving both recruitment and pedagogic strategy.

### 7.2. Institutional Impact

The 1UP scheme has also had a substantial positive effect on the University, and specifically the Games Institute's internal operations. By integrating completed games like MechHead and Disc-Go! into the curriculum, the scheme has provided live case studies for modules on level design, game feel, multiplayer mechanics, and balancing. This has supported staff in delivering practice-led, research-informed teaching while giving students 'under the hood' access to polished, real-world artefacts for analysis.

Games such as StaffsVerse have been leveraged as powerful outreach tools. The stylised digital twin of the University has been deployed in open days, public lectures, and other marketing events, offering an interactive and engaging experience for prospective students and external stakeholders. The StaffsVerse is shortlisted for a HEIST marketing award, in the technical innovation category. It has seen over 1000% return on investment, and following its release the University grew social media followers by 21%.

### 7.3. External Recognition and Industry Engagement

The external recognition of the 1UP scheme has significantly enhanced its credibility and visibility. In just two years, 1UP projects have received four TIGA Awards or shortlist recognition. This has been achieved in categories such as Best Arcade Game, Best Puzzle Game, and Best Social Game. These accolades validate the high production quality of the student led titles and situate the scheme alongside commercial studios in terms of design output.

A recent highlight includes the virtual StaffsVerse showcase to Members of the UK Parliment and games industry leaders, demonstrating the value of games based artefacts for civic engagement and policy visibility. These interactions not only benefit students, but also position the institution as a leader in innovation and employability focused games education.

### 7.4. Staff Benefits

There is a further benefit to the academic team who engage with, work on, and support the leadership of the 1UP programme. Many games academics come from practitioner and industrial backgrounds, and the 1UP programme provies an opportunity with ring-fenced time to be creative and build. It also provides some CPD as individuals will often work outside of their core diciplinary area, or even work in managerial roles. It also keeps them connected to
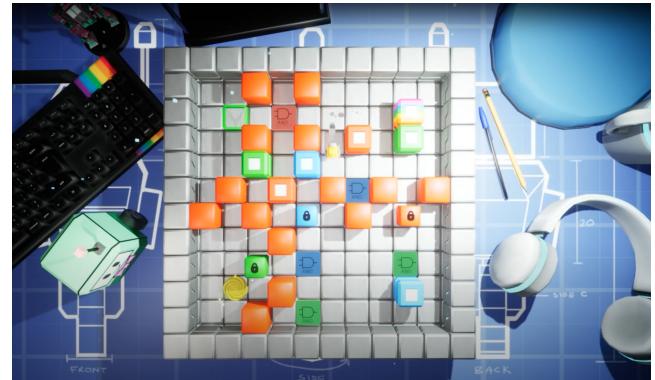


**Figure 7:** *BlockOut Gameplay*

industry practice in a way that wouldn't be possible without an in-house studio

### 8. Insights

The 1Up scheme has been itterated and improved over its four year programme. These itterations have been driven by experience, and lessons learned. These are included here to support others who may wish to explore similar programmes at their institutions:

### 8.1. Immersion Transforms Simulation

Many programmes already use simulation in creative and technical subjects, but without immersive context these experiences often lack authenticity. The 1UP scheme shows that full immersion, including role fidelity, daily rituals, and professional culture, can have a positive impact. This professional culture which is intentionally created encourages students to think as professionals in their field through their student journey making the transition to the workplace smoother. When students take on real responsibility in believable settings, they begin to adopt professional behaviours naturally.

### 8.2. Scope Management is Vital: the Blockout Story

The 1UP team learned the importance of tightly managing scope experientially through the contrasting examples of over-ambitious prototypes and under-utilised contributors.

The team has only had one game which was not delivered by the deadline. Somewhat ironically this was the simplest (and most complete at the point of 1UP adoption) game in the rosta - a block-based puzzle game called 'blockout'. Scope creep was this games undoing, as a proliferation of mechanics ultimately made the game hard to deliver to a technically sound (and mechanically balanced) position by the end of the placement.

### 8.3. Iteration is Essential for Long-Term Success

One of the most important lessons from running the 1UP scheme is the value of continuous reflection and iteration. Indeed, while the programme has been designed as an experiential journey for

the students, as programme leaders we have also been on our own experiential journey.

Each cohort has revealed new challenges, insights, and opportunities for refinement. The structure of the programme, the scoping strategies, the onboarding processes, and even the studio structure, hierarchy, and types of games selected have all evolved based on lived experience. Institutions adopting similar models should approach implementation as an iterative process. Innovation is an inherently chaotic process, and accepting a 'fail fast and learn' approach is the best way to produce an excelent experience.

### 8.4. Student Cohort Variability Can Drive Creative Diversity

A key success of 1UP is its willingness to adapt each year's project to the unique makeup of its student cohort. Rather than force-fit students into predefined roles or aesthetics, the scheme uses cohort strengths to shape the artistic and technical direction of each game. This flexibility keeps the experience relevant, empowering students to take ownership. Institutions building similar placements should resist the temptation to standardise too heavily. Diversity of input is a feature, not a flaw.

### 8.5. Award Culture as Experiential Learning and Motivation

Submission to industry awards was not treated as a vanity metric, but as an intentional part of the experiential arc. It introduced students to the emotional, technical, and collaborative rigor of preparing a product for significant public scrutiny. Award submissions served both extrinsic and intrinsic motivational roles, encouraging students and staff to align quality with real-world benchmarks. Beyond anything else, public awards such as those organised by The Independent Games Association provide external validation of quality. More broadly, it reinforces the principle that learning environments should model all dimensions of industry practice—including those that extend beyond production itself.

### 8.6. Simmersive Education Bridges the Placement Gap

Placements in many fields are rare, and often inaccessible to many students. While some institutions have encouraged voulenraty 'internships' we question the moral validity of these programmes, and note that they are inherently elitist and exclude those most financially vulnerable.

The 1UP scheme offers a credible alternative by building the placement experience into the university itself. Through structured immersion and simulated studio practice, students gain the same outcomes: confidence, experience, collaboration, and portfolio artifacts. For universities where industry access is limited, simmersive models provide a scalable and equitable solution.

### 8.7. Institutional Support is Crucial

We have found that the key to the programme's sucess is not just in the tools or teaching strategies, but in the creation of a professional culture within the academic environment. This includes building flexible teams, focusing on scope, integrating mentorship, and pursuing external critique. Equally important is the institutional foundation. Confident students, comprehensive careers infrastructure,

academic champions, and leadership that encourages innovation all play essential roles in sustaining success.

## 9. Conclusion

The 1UP scheme represents a sustainable and scalable solution to one of the enduring problems in games education: how to bridge the academic and professional divide. By embedding students within studio-style teams, supporting them with structure and mentorship, and exposing them to awards, deadlines, and public critique, the programme builds graduates who are not just employable, but impactful.

The 1UP scheme offers a tested framework for delivering Simmersive Education at scale. By combining immersive simulation with authentic roles, structured production, and industry-style critique, it creates a learning environment that closely mirrors the realities of professional game development. Students emerge not only more employable, but more confident and capable as practitioners.

We have found that the key to the programme's success is not just in the tools or teaching strategies, but in the creation of a professional culture within the academic environment. This includes building flexible teams, focusing on scope, integrating mentorship, and pursuing external critique. Equally important is the institutional foundation. Confident students, comprehensive careers infrastructure, academic champions, and supportive executive leaders who value and support innovation all play essential roles in sustaining success.

Simmersive education represents more than an educational approach. It is a strategic response to the changing demands of industry, and a means of unlocking the potential of students by letting them practise as professionals before they graduate.

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