How Video Games Can Develop Graduate Attributes

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“I would rather hire a high-level World of Warcraft player than an MBA from Harvard.”
“Learning is a deep human need, like mating and eating, and like all such needs it is meant to be deeply pleasurable to human beings.”
A Theory of Fun for Game Design

Raph Koster
<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Intervention</th>
<th>Difference in means</th>
<th>p-value</th>
<th>95% CI</th>
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<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Absolute</td>
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<tr>
<td>Communication</td>
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<td>Adaptability</td>
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<td>11.31</td>
<td>18.07</td>
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<td>Interventions</td>
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<tr>
<td>Interventions</td>
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<td>15</td>
<td>5</td>
<td>20 (56%)</td>
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<td>0.25</td>
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<tr>
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<td>20 (56%)</td>
<td>16 (44%)</td>
<td>36 (100%)</td>
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The percentage of participants in the intervention group (69%) with improved communication scores was greater than the percentage of participants in the control group (25%) with improved communication scores \( (p = 0.016, \text{Fisher’s exact test}) \).
Results

Pre- and post-test results indicate significantly improved gains on the three measures for the game-playing intervention group versus the control, with differences of between 0.9 and 1.15 standard deviations in test scores. 95% confidence intervals calculated for the difference between mean scores for the control and intervention groups did not cross zero, further supporting the idea that playing video games at university may help develop students’ employability skills.
“I think definitely kind of communication [...] And especially stuff like Minecraft and Warcraft and things like that where you did actually have to properly communicate with people and ask, like, "are you going to go and get this, or should I do it?" Like, that was really, really good.

– Participant M, female, age 17
“Definitely, yeah, because they all have like a multiplayer aspect to them, and you’re having to work with other people and talk to each other. So it’d definitely help with that.”

– Participant L, female, age 18
“Yeah, definitely. Especially, like, negotiating with people, trying to figure out where you were going to go, and stuff like that.”

– Participant M, female, age 17
“But yeah, I don't know if I communicate very clearly or confidently. I communicated effectively because we got through it but, yeah, I don't know if I was very clear.”

– Participant A, male, age 32
Challenges

- Buying and installing games
- Multiplayer
- Hardware limitations
- Student engagement
- Institutional buy-in
Video games could boost university skills, study finds

Playing video games ‘improves students’ employability skills’

University of Glasgow research indicates students can improve communication and thinking ability by playing computer games

Video games could help young people succeed later in life

Video Games Can Improve Academic Success, Study Finds

June 5, 2017 10:04 AM

A University of Glasgow trial found gaming improved communication skills, resourcefulness and adaptability.

Video games DO make you smarter: Playing Minecraft and Lara Croft is linked to success at university

Playing video games makes you a better university student!

By Alison Kershaw

Parents despairing at the amount of time their child spends playing video games should take heart, according to academics who claim gaming can help young people develop key skills such as communication and money management, according to a study by a Glasgow University academic.

DAILY EXPRESS

Official: Video games will make you smarter
They become like blinking lizards, motionless, absorbed, only the twitching of their hands showing they are still conscious. These machines teach them nothing. They stimulate no ratiocination, discovery or feat of memory though some of them may cunningly pretend to be educational.
Published Research

bit.ly/MattGBL

bit.ly/MattGBL2
Thank you
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