Sheffield Hallam University

Hope through 'HOTS': Providing international support to a Ukraine university using the Hotel Operations Tactics and Strategy (HOTS) simulation platform

GRAHAM, David, ELSMORE, Ian and SHEVCHENKO, Oleg

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Hope Through 'HOTS': Providing internation support to a Ukraine University using the Hotel Operations Tactics and Strategy (HOTS) simulation platform.

Ian Elsmore

David Graham

Oleg Shevchenko

Abstract

Gamification is an established method of delivering applied real world learning. This paper will discuss and report a collaboration between Sheffield Hallam University staff and their counterparts at the Kyiv National University of Technologies and Design in the Ukraine to deliver a learning experience through Zoom using the Hotel Operations Tactics and Strategy (HOTS) simulation platform. This was a new learning experience for the Ukrainian students who enjoyed working in teams to make strategic decisions and appreciate the complexities of managerial decision making. In doing so they had the opportunity to work internationally with students and staff in the UK in real time.

Key Words:

Gamification, Ukraine, applied learning, decision making, working in teams, Cooperation.

Track – Educational Realities.

Focus of Paper – Industry /Educational: Gamification as a means for international learning for student engagement and interaction

Introduction

On the 24[th of] February 2022 Russian Forces began a full-scale invasion of the Ukraine (New York Times, 2023) plunging the country into a devastating conflict causing the loss of life on both sides and untold damage to Ukraine's infrastructure. Tens of thousands of people have been killed and injured, forcing millions of Ukrainians from their homes, and the country has sustained tens of billions of dollars' worth of damage. Faced with this situation UK Universities reached out to offer support and solidarity to their compatriots in the Ukraine. Sheffield Hallam University (SHU) were matched by Universities UK with Kyiv National University of Technologies and Design (KNUTD) an applied university entered with a similar suite of courses in the Ukraine's capital. James Richardson, Director of Global Development and Partnerships at Sheffield Hallam University said:

"Sheffield Hallam has a long-term commitment to KNUTD to support them during the invasion and to recover and rebuild. The teaching capability at KNUTD is severely disrupted as staff have left Kyiv seeking safety and male staff are actively engaged in supporting the military defence of Ukraine."

Following initial discussions, collaboration was agreed between staff from SHU's Tourism and Hospitality team and a colleague from KNUTD. Although not an obvious priority for a country in conflict, tourism and hospitality may play a vital role in post war reconstruction (Hall, 2002, Kimbo, 2006, Reka, 2017) and on an individual level, help students develop transferrable skills that allow international mobility. Providing

meaningful and effective remote international collaboration was challenging, particularly when the normal issues of language and understanding were further confounded with potential power and internet outages alongside the constant threat of life-threatening air strikes. This paper discusses the success of developing an inter-university learning opportunity within this challenging context, enabling interaction between both staff and students in the UK and Ukraine.

Simulation as a learning tool

At Sheffield Hallam University students studying International Hospitality Business Management in their final year undergraduate degree, undertake a module that revolves around the use of a business management simulation package called Hotel Operations Tactics and Strategy (HOTS). This is a Windows-based platform, devised for academic and training purposes, allowing the user to interact with the simulation-based model, making decisions on the management and strategy of a virtual hotel which are processed in real time and provide a real-life feel to the process (Douglas, Miller, Kwansa, & Cummings, 2008; Martin & McEvoy, 2003). The simulation gamifies the process creating competition between the participants as the decisions the players make, affect and in turn are influenced by decisions made by the other 'hoteliers' using the simulation. Martin and McEvoy (2003) suggest that HOTS as an alternative teaching tool can provide a fulfilling and practical learning experience. An experience that is effective in supporting students in developing problem-solving, decision making and general hotel management skills (Pratt & Hahn, 2016; Ampountolas, Shaw & James, 2019; Graham et al 2022). HOTS provides a dynamic training and development experience that simulates the management of a service business. This allows students to develop their knowledge of business strategy, marketing and sales, finance, operations, and personnel in developing a business plan and implementing it through a series of decisions over a simulated period of five years helping them understand the holistic nature of operating in a real-world environment and the need to make both proactive and reactive business decisions (Papaioannou, 2022) .

While the simulation is hotel based and a knowledge of the Tourism and Hospitality industry is beneficial, it is not necessary, allowing students of other subjects to experience business decision making in a safe environment. Those coming into the use of the simulation are better placed when they have an underpinning knowledge of financial report interpretation to enable decision making to be made effectively. Indeed, most of the students taking part at KNUTD had limited Tourism and Hospitality knowledge and were drawn from a number of other academic subjects. The simulation was run from the UK and delivered over Zoom communications platform that allows users to connect with video, audio, phone, and chat (SupportZoom.US, 2022). Six, two-hour sessions were scheduled with the first session providing an explanation and demonstration by SHU staff with KNUTD staff translating some of the key points into Ukrainian. The following week the KNUTD students had been divided into teams with some on campus in Kyiv, while others joined online from other locations throughout Ukraine. For this and the remaining sessions, the students were given some time in Zoom breakout rooms. Breakout rooms are sessions that are split off from the main Zoom meeting, allowing participants to meet in smaller groups, to allow collaboration and discussion away from the main session (SupportZoom.US 2003). Weeks two and three, the students were encouraged to independently log into HOTS outside of the planned sessions to make decision and six cycles were made during the course of the week for three days at set times of 12.00pm and 6.00pm GMT. With time limited to 12 hours and the independent six-month cycle, there was only the opportunity to cycle the game (implementing decisions) to simulate two years of operation. However, this was enough to provide the students the opportunity to make decisions based on pricing, staffing, finances, customer satisfaction ratings, and even hotel food menus and teach the core challenges and report analysis interpretation.

The team felt to operate the simulation in the Ukraine Hryvnia currency would have been insensitive when dealing with large amounts of finance, albeit fictious, when all non-military expenditure is being reduced to fund the country's defences. Consequently, the simulation was run in Euros rather than sterling as this would give a realistic and understanding of the European environment with a currency that the Ukrainian students

could relate to. Another dilemma was where to set the HOTS environment, with the decision being to designate the location as a city in an Eastern European country such as Hungary, Slovakia or Poland.

In the first weeks it became obvious to both the UK and Ukrainian staff that language was a major issue and although many of the Ukraine students had an excellent command of English (Fazakerley, 2022), they were not confident in using it to the British lecturers, slowing proceedings in the first two weeks. For the final two weeks of the simulation SHU students who had engaged with the simulation as part of their assessed course volunteered to help the Ukrainian students, joining the online session and entering team breakout rooms to facilitate data interpretation and decision making. This provided the Ukrainian students with insight as to which of the key metrics they had found useful and made suggestions as to the type of interventions they had made and how this could benefit or negatively impact the hotels they were working with. Alongside the benefits of peer to peer leaning the students from the Ukraine were more comfortable interacting with fellow students than the lecturing team.

Evaluation

On completion of the simulation, the students were emailed a survey adapted from the standard SHU module evaluation questionnaire. This questionnaire comprised of a total of 20 questions, 5 of which were open questions. One question asked students to identify which sessions they had attended, and the others used attitude scales to indicate agreement with focused statements (Veal 2011). In total 44 responses were received. Considering that this was non-credit bearing activity, over 50 % of the students had attended three or more of the sessions. Interestingly, for those that had attended only one session, it was not always session one, but a later session. Suggesting students valued engagement opportunities.

Of the fifteen closed questions asked three of the more interesting data findings are discussed here. Two sets of questions were asked to frame the level of hotel and financial understanding the students developed through HOTS. The responses identified that in the main their hotel decision making knowledge had increased as illustrated by Chart 1.

Chart 1: My understanding of making financial decisions for hotels has increased because of HOTS.
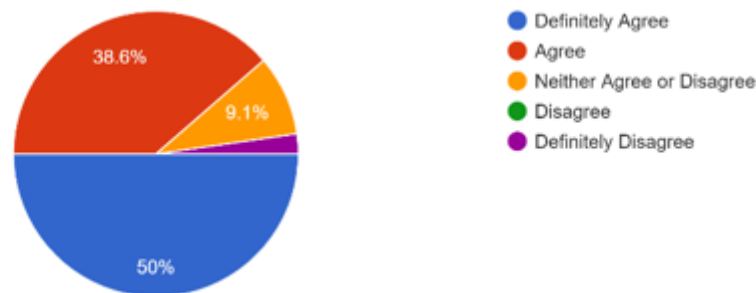
Ironically, this understanding was initially gained through a negative outcome. Three of the groups were forced to extend their overdraft over the allocated 1.5m Euros within the first year, to enable them to continue trading and remain in the simulation. This occurred through investment and spending on operational costs, without an overall analysis of the financial impact on cash flow resulting in the need for an overdraft of 5 million Euros. Once the SHU students were involved with assisting and advising the KNUTD teams, the overdraft was considerably reduced as improved financial data analysis and operational knowledge from the SHU students helped shape decisions in a positive manner. This ensured that the poor performing hotels reduced their overdrafts and could service their debt, while those hotels trading with limited profits could maximise sales and increase profit making. further demonstrating the benefits of peer-to-peer learning.

It was clear that the use of breakout rooms to enable the KNUTD students to work in teams was beneficial for their own interaction between students. It should be noted that some KNUTD students were dispersed around

Ukraine, while some were able to join from KNUTD premises. Partaking in HOTS provided the Ukrainian students the opportunity to interact with each other outside of the delivery time to work on decisions and interact live on the simulation. This is illustrated in Chart 2 below:

Chart 2 – HOTS provided me with opportunities to interact with other students.
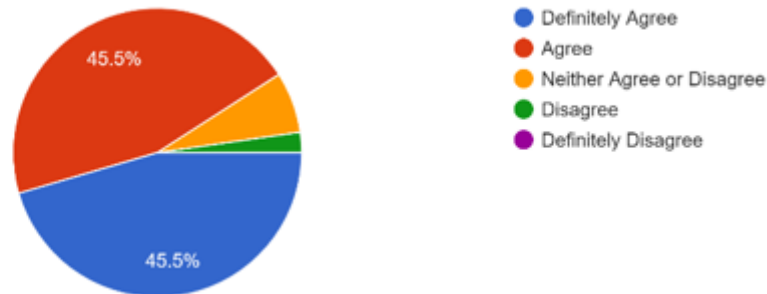

Chart 3 – I found that the level of knowledge required to work on HOTS was not adequate prior to undertaking the simulation.
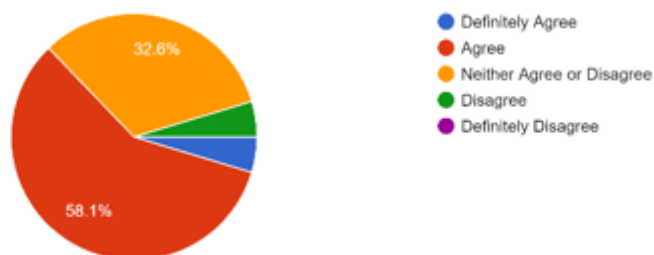

Chart 3 illustrates the difficulties students experienced with their understanding. HOTS requires pre-delivery preparation time to read the supporting environment data, reports and the business environment scenario in which the simulation is set. Efficient preparation enables the teams to make better informed decisions and understand the challenges within the simulation and develop a strategy to achieve the vision and mission set decide upon for the hotel. The level of pre-reading undertaken by the majority of KNUTD students was insufficient and as a result year one decisions were weak, leading to inflated overdrafts. It was not until the SHU students were brought into the environment to assist in the data interpretation and decision making that positive trading was observed.

The open response questions asked the students specifically about what they had liked about using HOTS and what aspects they did not like. The students were also asked to comment on what they would do differently if they were to run the simulation again. The fourth open question asked if they had enjoyed working with the students from SHU and to close the questionnaire there was a completely open question. Overall, the comments were positive, with most of the students responding that they had enjoyed the experience. With students commenting on their experience of using HOTS as a learning tool:

> *"Currently, for Ukrainian students, this is a new approach to the educational process, which moves the standard methods of educational work, but the results are much better, I do not see any problems."*

And also, about the qualities of the simulation itself, with comments such as:

> *"Most of all I liked the quality of the simulation. How much detail was worked out, the backstory. The ability to make completely unique decisions in relation to other players."*

And

> *"I liked the fact that HOTS helped me understand the very system of doing business and how to make the right decisions. taking into account literally everything that can have a bad or good effect on the result."*

These would suggest that for these students it allowed, as Pratt & Hahn, 2016; Ampountolas, Shaw & James, 2019 suggest, to develop business analysis skills in an applied manner. This also indicates that the simulation although Hospitality based is a business scenario that can be appreciated by students from a variety of backgrounds.

The number of negative comments was limited and mostly focused on the difficulties posed by language with comments such as:

> *"Difficulty in understanding, due to poor knowledge of English"*

This was further exemplified by a number of students who had used the text used to publicise the simulation to complete their answers. One of the other issues to come out was the lack of time spent on the simulation:

> *Another constraint of simulation-based learning is the time that the instructor or academic will need to dedicate in order to understand how it works and develop a familiarity with it (Edelheim & Ueda, 2007). "I didn't like that we didn't have much time, because only by the end of the game I understand the decisions that I needed to make".*

There were only 8 hours scheduled to run the simulation, and as the simulation was delivered in a voluntary nature this needed to fit around the timetabled commitments of staff and students both in the Ukraine and in the UK and the 2 hour time difference. This was further exacerbated by the language issue requiring translation of instructions during the first two sessions and to a lesser extent issues with reliable access through the internet. This is one of the general issues associated with simulation-based learning with Edelheim & Ueda (2007) suggesting that one of the main constraints is the time involved to demonstrate how it works and develop a suitable familiarity to gain the most from the experience.

This aspect of familiarity is reflected in the answers provided by students responding to the question of would they like to run it again were again positive and focused on student being able to use and demonstrate their improved understanding:

> *"Yes!!! Because I know what you would fix. I know how I would act. Because of the game, I know what mistakes I made. And I'd really like to play some more."*

And

> *"I would like to test my skills in a more aggressive confrontation, as we evolve through competition, and next time try a different approach to hotel management. So, of course, yes!"*

This shows the level of engagement shown by the students and evidences the learning experience:

> *"I would like to because I have a plan for what I'm going to do. I realized my mistake, and I want to fix it and see how it goes."*

Providing the fulfilling and practical learning experience that Matin and McEvoy (2003) accredit to the use of simulation as a learning tool. Once again the students confirmed the issues relating to familiarity and preparation (Edelheim & Ueda, 2007) when commenting on what they would do differently stating that they would

"Get acquainted with the background documents in more detail".

And

"Spend more time preparing for the game".

When asked about working with SHU students again the majority of responses were positive and were heavily focused upon how the input from the Hallam students had helped their own understanding:

"I'd love to work with them again, because their advice is helped me understand the game more."

"Yes, because it gives you the opportunity to get experience from more experienced users of the game and makes you want to pay more attention to winning".

"I would like to work with SHU students as simulation with other students creates a competitive spirit and an interest in being better than others".

From the perspective of the Hallam students, they found that the time they spent on line was less of a discussion what the Ukrainian students could do, and more of a description of the strategies they had used and which of the multiple information sources they focused on when they played and how this had affected their own success. This could be regarded as a positive learning outcome for the UK students, as it encouraged them to vocalise their knowledge and demonstrate the kind of leadership, negotiation and problem-solving skills that are regarded as essential outcomes from managerial courses (Pratt & Hahn, 2016). Again, the constraint with the interaction between the home students and their Ukrainian counterparts came from the language barrier, though this was less of an issue than when the UK staff tried to engage with the students in the online break out rooms.

The final question allowed students to make any general comments and again those that completed this were positive in their responses. Commenting again on the use of the simulation as an interesting way of learning.

"I am grateful for the opportunity to participate in such a simulation, because it was very interesting and hopefully will be useful to me in the future".

Suggesting that they had enjoyed the experience and in agreement with previous comments would like the opportunity to engage with similar learning opportunities again given the chance.

"Thank you very much for the experience that gave us this project. I would like to participate in such events more often. It was interesting experience."

One of the things that had come up in discussion over the course of the four weeks that the simulation ran was the opportunity to listen to English speakers in conversation not only for the content but the language attributes. The following comment applies not only to content but delivery.

"I liked listening to people who understand this, thereby improving knowledge".

In Conclusion

One of the criticisms levelled at the use of simulations is that strong performance in the environment, while maybe a good way of achieving experience of business in a risk-free manner it is not always the most effective manner of assessing module learning outcomes (Gopinath & Sawyer, 1999), however in this case as a free-standing activity it could be regarded as a success. From the comments and the general positive results to the questionnaire, the students enjoyed the experience and found it beneficial. The level of leaning that they believed they had achieved – once analysing the data as the gamemaster they had made decision of expenditure without analysing the operational and interest rate costs and the impact this has on the operating profit. There was clearly a knowledge gap in business acumen, and this was not rectified until the SHU students acted as business decision facilitators to question the decisions and work through some of the financial reports and the

impact that they were having. This was supported by comments from the staff involved at KNUTD who reported the students were engaged out of class and were keen to discuss informally what in discussing what they needed to do and what sort of strategy they could implement to improve performance. Despite issues with available time and infrastructure delivering the simulation online worked effectively and provided an opportunity for interaction between the institution, staff and students in a manner that as far as possible, overcame the inherent difficulties being experienced in the Ukraine.

For the SHU staff it was a very humbling experience to be sitting in the safety of University offices in the UK talking to students logging in under the constant risk of missile strikes in a country ravaged by war.

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