

Promoting Workplace Comprehension Through Situated Interactive Simulation of Recruitment Mobile Game

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Abstract

“Recruitment” is an important key and strategic tool for businesses to gain competitive capital and advantages. Businesses should disclose more accurate information about internal conditions and real job previews in recruitment activities to help job applicants understand the work environment and make the right decision to seek employment. This study used the *thinglink* digital platform to design an educational game that simulates the working environment of a hospital nursing station. The learning objectives of the game are: Players take on the role of a new nurse who is soon to enter the workplace, and visit the wards of a hospital for a workplace visit. The game utilizes *Google Forms'* highly interactive situated questions and answers to allow the player to explore the salary and benefits as well as the realistic work environment. The study involved 22 nursing students over 18 years of age in Taiwan, and the results showed that the learners' mean scores on flow, game elements, and game feedback were significantly higher than the median (i.e., 3) on the five-point Likert scale, and activity anxiety scores were lower than 3. In addition, the qualitative feedback indicated that the recruitment through situated interactive simulation games is vivid and interesting, and it gives the player a feeling of being in the real world and a more comprehensive understanding of the workplace environment. The information obtained from the interactive feedback can enhance the player's memory of important information, especially salary bonuses, annual leave, etc., which allows the player to consider in-depth the willingness to enter the hospital. Compared with the traditional campus recruitment, it can help the applicants to understand the hospital's salary and benefit information. Therefore, the results of this study suggest that the “recruiting game” through the situated interactive simulation mechanism is more effective in enhancing the applicants' comprehension of the salary and benefits and the working environment.

Keywords: Situated Simulation, Situated Learning, Digital Games, Workplace Competency Training, Workplace Comprehension

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Introduction

Recruitment is a pain point for many organizations, business leaders, and human resource professionals, and a critical key to competitive capital and advantage (Morgan, 2023). According to *The Resilience Revolution: PwC's Global Crisis and Resilience Survey 2023*, which explored the results of 1,812 business leaders around the world, the impact events they are most worried about in the next two years include employee retention and recruitment difficulties, according to Taiwan Union of Nurses Association (TUNA) statistics show that the number of first-time registered nurse practitioners has been declining year after year, and the percentage of those actually practicing in hospitals has hit a nine-year low, indicating that attracting talent is particularly difficult as new generations enter the workforce and job seekers' values about work and organizations evolve (Kalleberg & Marsden, 2019).

In the past, nursing careers were mostly recruited through campus recruiting or hospital websites, and traditional oral, graphic, or video presentations were used to introduce the hospital's working environment and benefits and salaries (Morgan, 2023). Such a lack of interactive presentation fails to present the hospital's internal strengths and characteristics.

When applicants are unable to fully understand the actual working environment of the hospital, they are prone to have high and unrealistic expectations, which may result in the recruitment of talents that do not meet the needs of the organization, which in turn increases the turnover rate (Baur et al., 2014) and affects the team's stability and work efficiency. However, Realistic job previews (RJP), which refers to the provision of a preview of what the job will really be like during the recruitment process, can have a significant impact on improving job retention, reducing turnover, and increasing job satisfaction (Morgan, 2023).

When companies are willing to provide more real information about the organization and the job during the recruiting process, especially important information that is difficult for applicants to access during the job search process (e.g., salary and benefits), it is more likely to help them make more informed job search decisions (Connelly et al., 2011).

Morgan (2023) states that real job previews can include digital interactive simulations of work situations, allowing applicants to take part in an immersive gaming experience prior to an interview is considered to be one of the most effective predictive tools in the recruitment process, and that all learning processes involve 'role-playing', therefore gamification mechanisms demonstrate how participants can be invested in new identities or roles, and that this engagement can be a powerful motivation to promote classroom and workplace deeper learning (Gee, 2003), whilst triggering a sense of engagement, motivation and achievement (Hassan et al., 2021), as well as reducing learning anxiety (Coffland & Huff, 2022).

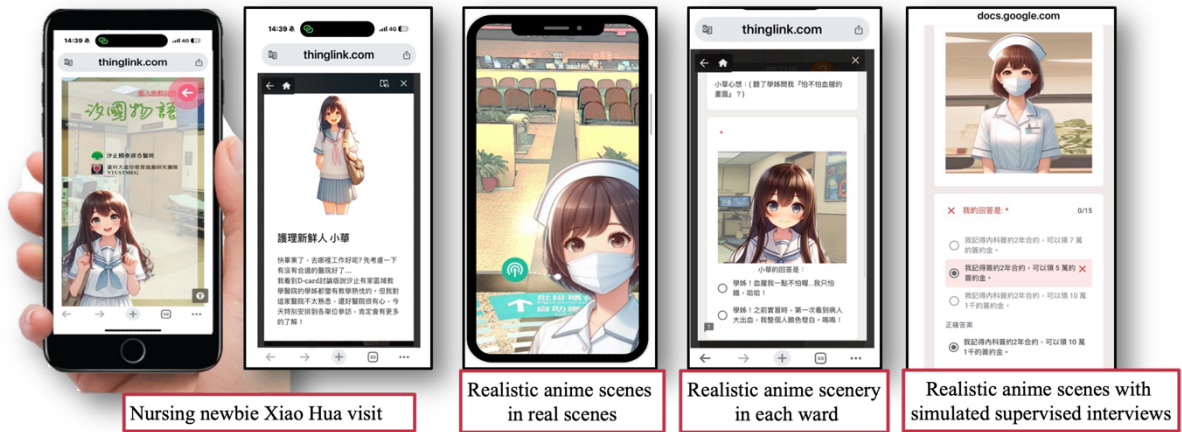


Figure 1: Combination of *Thinglink's* Simulated Situation and *Google Forms's* Highly Interactive Simulation for Role-Playing to Enhance the Understanding of the Workplace

This study utilized the *Thinglink* digital platform to design “The Hospital Story”, a contextual educational game that simulates the working environment of a hospital nursing station as shown in Fig. 1. The learning objective of the game is to allow the player to take on the role of a new nursing recruit and conduct environmental visits to hospital wards such as the emergency room, the operating room, the intensive care unit (ICU), the gynaecology and Paediatrics Ward, the medical Ward, and the surgical ward, as shown in Fig. 2. Through the highly interactive simulation provided by *Google Forms*, the player was asked questions to strengthen the memory of important information that the player had explored, such as benefits, vacations, further education, and accommodation costs, as shown in Figure 3, and finally, through the game's “Supervisory Interviews”, the player was able to confirm his/her willingness to join the company and his/her level of understanding of the information, so that he/she could understand the work environment more closely with the real situation.

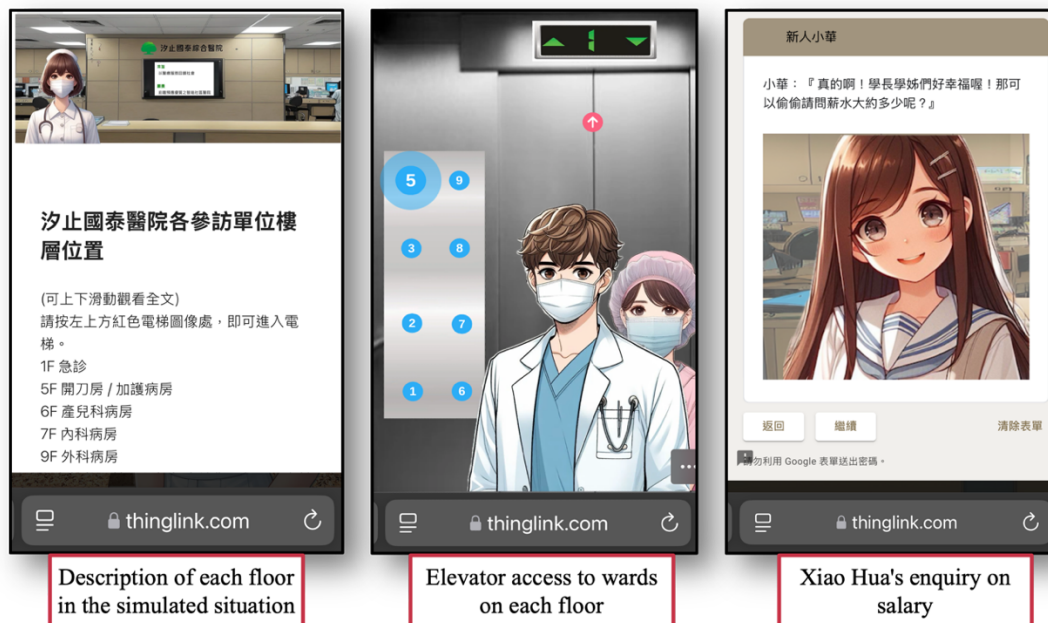


Figure 2: Highly Interactive Simulated Scene Through *Thinglink* and *Google Forms*

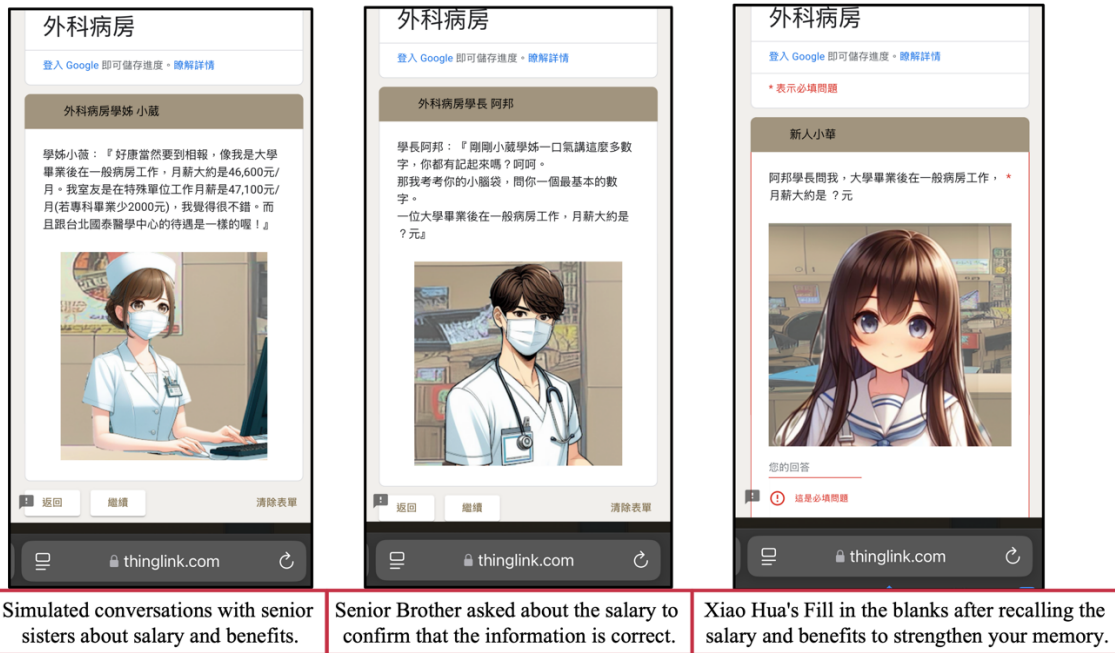


Figure 3: Simulation of a Highly Interactive and Realistic Salary Question and Answer Mechanism Through *Thinglink* and *Google Forms*

Methods

This study is a pilot research study, the participants were 22 nursing students over the age of 18 in Taiwan, the way of conducting was 5 minutes of introduction of the game platform and rules, 20 minutes of game time, and 10 minutes of questionnaire survey, this study investigated the flows experiences scale, the activity anxiety scale, the game feedback (perceived usefulness, perceived ease of use), and the game elements. The other part of the questionnaire consisted of 4 semi-structured questions focusing on whether the game mechanism of this study could enhance the learners' understanding of the hospital's welfare policies and increase their understanding of the hospital's working environment.

Results and Discussions

According to the single-sample Wilcoxon Singed-Rank analyses as in Table 1, on the flow experience scale, overall flow ($M=4.45$, $SD=0.46$), flow antecedents ($M=4.53$, $SD=0.45$), and flow experience ($M=4.38$, $SD=0.53$) participants all scored significantly above the median (ie.3). Mean activity anxiety ($M=1.93$, $SD=0.98$) scores on the activity anxiety scale were all below the median (i.e., 3). Table 2 scores for participants in game feedback ($M=4.49$, $SD=0.40$), game usefulness ($M=4.57$, $SD=0.50$), game ease of use ($M=4.39$, $SD=0.35$), game elements ($M=4.39$, $SD=0.57$), and sense of achievement ($M=4.45$, $SD=0.67$) were all significantly higher than the median (ie.3). Through the qualitative analysis, the participants indicated that the game was simple to play, the interactive question-and-answer format could deepen their memory and understanding of the content, it gave them a sense of being in the real world, they could understand the working environment of each department before entering the workplace, they had to memorize the content of the questions and answers, and they could think about their willingness to work in the hospital more deeply.

Table 1: The Mean and Standard Deviation of Learners' Flow and Learning Anxiety (N=22)

	<i>M</i>	<i>SD</i>	<i>Z</i>	<i>Sig.</i>
Overall Flow	4.45	0.46	4.11***	0.000
Flow antecedents	4.53	0.45	4.12***	0.000
Flow experience	4.38	0.53	4.11***	0.000
Learning anxiety	1.93	0.98	-3.58***	0.000

*** $p < 0.001$

Table 2: The Mean and Standard Deviation of Learners' Game Feedback and Game Elements (N=22)

	<i>M</i>	<i>SD</i>	<i>Z</i>	<i>Sig.</i>
Game Feedback	4.49	0.40	4.16***	0.000
Game Usefulness	4.57	0.50	4.18***	0.000
Game Ease of Use	4.39	0.35	4.23***	0.000
Game elements	4.39	0.57	4.13***	0.000
Accomplishment	4.45	0.67	4.05***	0.000

*** $p < 0.001$

Conclusions and Limitations

This study developed a digital contextual role-playing educational game, “The Hospital Story”, to enhance the understanding of the work environment. Through the personalized game process, it can effectively enhance the player's engagement, participation, and sense of achievement, and there is not too much anxiety about the activity, and the player also feels that the operation is simple and immersive, which is suitable for mastering the work environment before joining the company to increase the understanding of the work environment. Morgan (2023) pointed out that the immersive game experience that applicants participate in before the interview can be used as one of the tools to predict retention in the recruitment process, so it is suggested that the future research design can be added to the experimental group and the control group, to explore the effectiveness of the recruitment process in depth, and also can be added to the interactive scaffolding of the GenAI in order to increase the interactivity and fidelity of the game situation.

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