Edu-Larping for Career Design

Abstract: Career Design can be effectively taught through experiential learning and gamification. This paper explains the basis and structure of the Career Design Life Game, and examines the research undergirding the game. Created for the purpose of helping participants better understand the job market in today's volatile, uncertain, complex, and ambiguous (VUCA) world, the game mimics the actual world of school and jobs. Career advancement methods differ in each job family and are designed by industry practitioners. Character statistics are based on Howard Gardner's theory of Multiple Intelligences and Paul Tough's synthesis of Performance Character. They are also drawn from a broader body of research on growth mindset and grit. Real-world learning points, like the importance of continuous learning, are built in for participants to pick up through experiential gameplay. At the end of the game, participants are invited to consider "Wit, Grit and Fit": how their interests and skills may be gainfully employed for meaningful careers; what sacrifices they are prepared to make for that goal; and what sorts of jobs are the best fit for them. They are given tools to continue exploring their wit, grit and fit in the real world.

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1. INTRODUCTION

Career Design is an important and well-researched area that can be effectively taught through experiential learning and gamification. The Career Design Life Game was created for this purpose. The game was tested on 216 people in Singapore aged 12 to 65 years old, earning positive qualitative reviews. Significantly, the game sparked conversations, especially among people who are usually the target of career services: students and more mature workers.

With the 4th Industrial Revolution and rapid displacement of jobs, governments and businesses around the world are increasingly invested in getting more of their citizens and staff to take the initiative in re-designing traditional career paths and to continuously upgrade their skill-sets.

Much recent research has explored what it takes to achieve a meaningful, upwardly mobile career. Sheryl Sandberg (2013) popularized the "jungle gym" concept, arguing that skill-sets and the right mindset were more relevant to career advancement than the old concept of climbing a ladder. C. Branton Shearer (2009), building on the seminal work of Howard Gardner (1983; Bordie 2015), links the suitability of jobs to a person's multiple intelligence profile. Angela Duckworth (2006) and Carol Dweck (2007) posit that grit and a growth mindset are amongst the most reliable predictors of life success. Paul Tough (2012) adds to these by identifying other traits like conscientiousness, curiosity, optimism, self-control and zest, under the umbrella of Performance Character. Tough indicates these traits as critical success factors for a more fruitful life. Richard Bolles

(2017) provides very practical tools and tips on how to find the right role and maximize job satisfaction.

The problem is that the lay person reads only a fraction of these greatly useful works, if at all. In fact, the segments of the population who need these messages the most -- the relatively under-educated, the less vocationally mobile, and less academically inclined students -- are probably those that have the least access or inclination to read them.

In searching for a medium that competently transmits these key concepts, educational live action role-play ("edu-larp") stands out as a promising solution because of its inherent ability to flesh out a parallel world, actively engage students (Bowman 2014; Bowman and Standiford 2015) and enable experiential learning so that each participant takes away what they need most at that point in time (Hyltoft 2008; Howes and Cruz 2013).

2. GAME STRUCTURE AND MECHANICS

2.1 Character Creation and Game Mechanics

The Career Design Life Game starts by introducing participants to the fictional city where the game is set. This city is designed to have significant similarities to the actual educational and job world of the participants to make the game realistic and relevant. However, the game does not exactly mirror the city for 2 reasons: (a) game-play logistical and timing constraints; and (b) to help participants look for principles instead of blindly relying on their real-world knowledge.
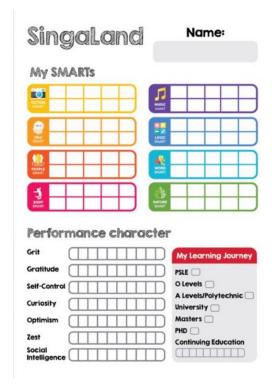
A participant's first act is to decide on character statistics. Choosing from Gardner's 8 Multiple Intelligence types, participants decide how they would like to allocate their 48 points (out of a total of 80 points) to each. They may choose to play a character close to their perception of themselves, or experiment with a different persona.

In the spirit of reaching the casual gamer/average person, the game eschews terminology in favor of simple layperson's language. For example, instead of "linguistic intelligence," the game uses the easier to understand "word smart." Other smarts include: logic (logical-mathematical), self (intra-personal), people (inter-personal), music (musical), body (bodily kinesthetic), picture (spatial), and nature (naturalist).

The character's Identity Document includes a section on Performance Character, which will be populated by game masters as the game progresses (see Figure 1). This document highlights the instances participants display these characteristics and encourage these behaviors.

Participants are also introduced to their academic progress tracker, which determines the jobs for which they qualify and their bank account. They are given a brief orientation of the working world and told that there is a career center if they should wish to learn more.

Figure 1: The SingaLand Identity Document.

Immediately after this, participants are ushered into game mode, where they are told that they are 12-year-olds taking a national placement examination at the school. This scenario is constructed to mirror the educational experience in Singapore. If played in a different context, modifications should be made to ensure realism.

This national examination is the only compulsory thing the participants have to do in the entire game. Apart from this exam, participants may explore the game world on their own, making their own decisions as to whether to continue their education, to go on to the working world, and which jobs to take.

A key principle of this game is that there is no front-loading; participants are invited to immerse themselves in the game world and will have to discover it on their own. Learning to navigate an unknown and uncertain career world is an important component of the game, as well as an important real-world take-away for participants.

The game is broken up into 4 to 6 half-hour slots, with a 5 minute out-of-game pause at the end of each slot for a quick check-in of where the participants are in the game and how they are feeling about it. As a game mechanic, this pause serves to direct participants to areas they collectively have not yet discovered and is useful for game masters to deal with in-game issues in a timely manner.

2.2 Exploring the Game World

The job world itself is made up of four to eight different career tracks, depending on the size of the group and its objectives. They include: (a) Arts and Entertainment; (b) Business and Entrepreneurship; (c) Food and Beverage; (d) Purchasing and Retail; (e) Sales and Marketing; (f) Social Media; (g) Software Development; and (h) the Gig Economy. These tracks each have 3 levels through which participants can progress and also specific entry and advancement requirements.

At some stage, participants will find that they cannot progress further without leveling up with Continuing Education. These are courses outside of the academic track, and for the purpose of this game, would add to the participant's Multiple Intelligence score. This process broadly mirrors soft skills development in the real world. Using the Software track example, Senior Developers with People scores of less than 8 will not be able to progress to a managerial role unless they do not take the effort to increase that score. In the game, this improvement can be done by going back to the School for bite-sized classes.

Table 1. Career Requirements for the Software Development track.

Junior Developer	Have at least Ó' levels academic qualification + Logic score of at least 6
Senior Developer	Be a Junior Developer for 3 rounds <u>or</u> have solved an advanced puzzle
IT Manager	Be a Senior Developer and have a People score of at least 8; or have <u>an</u> People score of 10 and be at level 2 of any other career track

In addition, like in the real world, some participants may be motivated mid-game to take additional academic courses to explore alternative career tracks or for self-actualization.

Game masters have dual roles as the controllers of game mechanics and as facilitators of learning. They are the non-player characters (NPCs) who play the roles of employers, customers, bankers, teachers, and more. These NPC roles are highly scripted to reflect actual competencies and scenarios faced by the different job types. For the sales jobs, for example, a veteran sales manager with a large team was tapped to describe what his best salespeople are like and what sort of training he would give them. These responses are then gamified and scripted for consistency.

At the same time, one of the game masters' key functions is also to spot participants exhibiting Performance Character traits. When such a trait is observed, the game master will, without comment, mark the relevant trait on the participant's Identity Document with 1-3 points. In the debrief at the end of the game, these points will be tallied and top scorers acknowledged to put the spotlight on Performance Character. In all the games played to date, some of the participants who display these positive character traits were among the richest or at the apex of their chosen professions, which acts as a further reinforcement of the importance of Performance Character.

3. THE UNDERLYING RESEARCH

Apart from the research already cited in the introduction, Howard Gardner's "Beyond Wit and Grit: Rethinking the Keys to Success" also served as an important conceptual anchor for this game (TEDx Talks 2015). In Gardner's The Good Project (2018), he outlines how he pioneered the field of Multiple Intelligence (wit), touches upon the increasingly popular topic of grit, and then concludes that there is more to success than these traits.

The Good Project website provides some guidance on the gaps that Gardner identified. Some of these revolve around:

– *values* (deck of 30 Value Sort Cards)

– *purpose* (toolkit with questions like "What is the primary goal of your work?"; "Is there an overarching goal that gives meaning to what you do?")

– *practicality* (toolkit with questions like "How will you know when you have 'made it'?" and sample narratives, which are essentially case studies on career decisions).

These factors are broadly similar to Richard Bolles' (2017) 7 "petals" framework, which is comprised of fields of interests, skills, preferred working conditions -- including practical considerations like preferred level of responsibility, salary and work locale -- and coherence with purpose in life. They are also complementary with Edgar Schein's (2013) 8 identified Career Anchors of (a) technical/ functional competence; (b) general managerial competence; (c) autonomy/ independence; (d) security/ stability; (e) entrepreneurial creativity; (f) service/ dedication to a cause; (g) pure challenge; and (h) lifestyle.

I have chosen to term these factors as "fit," i.e. how well a particular job fits that job seeker.

Pulling together all of the above research concepts and synthesizing them, we distilled the key messages to:

– **Wit**: Interests, Skill-sets - "What do I like best and can I do best?"

– **Grit**: The 10,000 hours - "Will I stick it out long enough to win? Do I have the right mindset and soft skills to succeed?"

– **Fit**: Values, Personality, Work Environment - "Where can I shine best?"

The learning benefits of edu-larp, particularly for social studies type content, include increased self-awareness and increased intrinsic motivation. These benefits are well documented, and handily summarized by Bowman's (2014) secondary literature review.

From a gaming perspective, and using Richard Bartle's (2003) taxonomy, it is also worth mentioning

that participants of this game can engage as Achievers (to reach the top of their chosen career fields or maximize for wealth), Explorers (to try as many jobs or variations of the game), and Socializers (to interact with other players or to work collaboratively with them), but perhaps less as Killers (playing destructively, as this would affect gameplay for other learners).

4. POST-GAME FACILITATION AND ONGOING CONVERSATIONS

We have had participants who spent the entire game trying to solve a single coding challenge in the Software developer's track (not great for the bank account), participants who "job-hopped" out of curiosity (not great for career progression if done without planning), and even somebody who tried to see what the game would be like if he did absolutely nothing at all (he was bored to tears and came back to the game after 2 rounds). These outcomes hold a mirror to real world consequences, and are good as conversation starters on the practicalities of life.

Indeed, at the end of the day, the actual in-game results matter less than understanding the "why" of decisions and emotive responses to particular situations. For example, in the Business and Entrepreneurship track, the participant takes a great amount of financial risk with no assurance of success in exchange for autonomy, the freedom to exercise entrepreneurial creativity, and a huge pay-off for the few players who succeed. Different participants may find taking that risk exciting, stressful, or even plain illogical – and that would be a useful gateway into discussing real world job preferences.

Each participant then takes away something unique from the game; the game master-facilitator links that takeaway back to the relevant research that was gamified and built into the Career Design Life Game. Learning is further reinforced with a post-game handbook and the deeper conversations that are possible with the game facilitators. In the Singapore context, career coaches at government-backed centers are also available to continue the career and re-skilling conversation in the real world.

5. CONCLUSION

There are many possible applications and expansions to this Career Design Life Game, including expanding the range of jobs available, and building in scenarios like recession and structural unemployment. Through discussion with other more experienced edu-larp professionals like Mads Lunau of Østerskov Efterskole, we have also built in game mechanisms to

allow for multiple plays, so that participants get to experience more of the game world. I hope that this game will find widespread application and benefit many people in today's VUCA world.

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