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Talent development gamification in talent selection assessment centres

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Abstract

Purpose – The purpose of this paper is to examine the relationship between the use of sophisticated talent selection processes such as gamification and training and development interventions designed to ensure that candidates can successfully navigate the talent assessment process. Gamification is the application of game elements to non-game activities through the adoption of gaming tools, and little is known about how candidates (“talent”) struggle to learn about the structural mechanics of gamification as they engage with the hidden rules of talent selection, such as goals, rules, “levelling up”, feedback and engagement in competitive – collaborative activities. The term “talent development gamification” is coined and used as an analytical tool to consider how young talent are supported by development interventions in their inter-subjectivity as they learn how to survive and win in talent selection games.

Design/methodology/approach – Studying hidden dynamics in development processes inherent in gamified talent selection is challenging, so a cult work of fiction, “Ender’s Game”, is examined to address the questions: “How do candidates in talent selection programmes learn to make sense of the structural mechanics of gamification”, “How does this make the hidden rules of talent selection explicit to them?” and “What does this mean for talent development?”

Findings – Talent development in selection gamification processes is illustrated through nuanced theoretical accounts of how a multiplicity of shifting and competing developmental learning opportunities are played out as a form of “double-consciousness” by potential organizational talent for them to “win the selection game”.

Research limitations/implications – Using novels as an aid to understanding management and the organization of work is ontologically and epistemologically problematic. But analysing novels which are “good reads” also has educational value and can produce new knowledge from its analysis. In exploring how “Characters are made to live dangerously, to face predicaments that, as readers, we experience as vicarious pleasure. We imagine, for example, how a particular character may react or, more importantly, what we would do in similar circumstances” (Knights and Willmott, 1999, p. 5). This future-oriented fictional narrative is both illustrative and provides an analogy to illuminate current organisational development challenges.

Originality/value – The term “talent development gamification in selection processes” is coined to allow analysis and provide lessons for talent development practice in a little studied area. Our case study analysis identifies a number of areas for consideration by talent management/talent development specialists involved in developing talent assessment centres incorporating gamification. These include the importance of understanding and taking account of rites of passage through the assessment centre, in particular the role of liminal space, what talent development interventions might be of benefit and the



necessity of appreciating and managing talent in developing the skill of double consciousness in game simulations.

Keywords Talent management, Liminal space, Rites of passage, Talent assessment centre, Talent development gamification, Talent learning

Paper type Conceptual paper

Introduction

The growing use of talent management programs, comprising the systematic attraction, identification, development, retention and deployment of individuals with high potential who are of particular value to an organization (Stahl *et al.*, 2012; Tansley and Sempik, 2008), means that talent management specialists must learn how to identify, engineer and hone sophisticated talent selection processes (Sparrow *et al.*, 2014). When these processes involve innovations such as gamification (the application of game elements to non-game activities through the adoption of gaming tools), what is often not appreciated is that even the “brightest and the best” will require training and development to successfully navigate talent assessment processes. Unfortunately, this is not appreciated either by scholars or practitioners in talent selection or talent development.

The aim of this paper is to extend scholarly work on the learning and development aspects of gamification as increasingly relevant elements in the hiring process. We ask “How do candidates in talent selection programmes learn about the structural mechanics of gamification, such as goals, rules, ‘levelling up’, feedback and engagement in competitive-collaborative activities?”, “How do they demonstrate their capacity to learn in gamified contexts where this capacity for development is being assessed?” and “What does this mean for talent development?”.

These questions are important because of talent’s need to first understand what is required of them in the selection assessment process and to be able to demonstrate both current skills/knowledge and potential for future job roles.

The paper is constructed as follows. First, key concepts are defined and situated within the academic literature before an explanation is given of the research design. Next, a cult work of fiction, *Ender’s Game* (Card, 1985, 2011) is used as an illustrative case study which allows us to investigate the impact of a gamified selection process on the protagonist, who is identified by organizational leaders as promising “talent”. One justification for the use of a fictional narrative account as an epistemological/analytical tool is that the *Ender’s Game* (Card, 1985) story helps us understand how games can engage and motivate people to behave in certain ways. Using works of fiction to investigate research questions related to business is an established research method (Knights and Willmott, 1999), and it provides a powerful framework to assist in the understanding of the problem and the behaviours of the participants. Turner’s (1977) extension of van Gennep’s three stages (separation, liminality and incorporation) as *rites of passage* are then used to undertake a nuanced analysis of talent’s progression through their selection processes, during which they are constantly being challenged and developed as talent in accordance with organisational aims. Finally, a discussion and our conclusions are presented, followed by the scholarly and practitioner implications on the role of learning in the gamification of talent selection in assessment centres.

Defining key concepts

Using games for training and development has an established past, for example Plato recommended games for the education of children in *The Republic*. [Huizinga \(1955\)](#) further chronicles the structural role of “play” as being important in many aspects of culture including: law, war, philosophy and art and seemingly lighthearted games taught to, and played by, young children today help to socialize succeeding generations into accepted cultural norms, such as: rule following, turn taking, competing fairly, working together and whichever other constitutive and implicit rules society deems valuable ([Michael and Chen, 2006](#)).

Gamification is a more recent addition to the lexicon of play, and it is a contested term. Some suggest that there is “no formal definition” ([Ferrara, 2013](#), p. 291), whilst others use the common definition, “a technique that seeks to apply game-mechanics to non-game contexts” ([Rackowski, 2013](#)). However, this definition has been criticized for advocating adding on gaming elements to a process without primary consideration for fundamental structure or user experience ([Huotari and Hamari, 2012](#)). [Huotari and Hamari \(2012, p. 19\)](#) therefore define gamification as “a process of enhancing a service with affordances for gameful experiences in order to support users’ overall value creation”. In this paper, we take the view that gamification refers to the integration of game elements in traditionally non-game contexts and that the depth of this integration and its success relate to a subjective understanding of the “quality” of the gamification initiative, which can be judged against user experience and by the degree to which the outcomes of the gamified process (socialization, behaviour change, data generation) match the intended goals.

The notion of gamification in business derives from behavioural economics ([Paharia, 2013](#)). [McGonigal \(2011, p. 21\)](#) lists four defining *mechanics* of gamification in this context as: a goal, rules, feedback and voluntary participation. Other common features of contemporary gamification mechanics include: interactivity, graphics, narrative, rewards, competition, virtual environments and the idea of “winning”. Gamified processes may incorporate only a small selection of game mechanics, for example, points, leaderboards and rewards, or may represent a heavy investment in game design, where a process may be re-engineered to involve narrative, digital graphics and carefully planned quests and collaborative team structures with integrated social media sharing tools ([Deterding et al., 2011](#); [Hamari et al., 2014](#)). An activity or process can be gamified in digital and/or non-digital ways and does not always include a “video game” element. The term is however usually associated with digital layers being imposed over work practices with an emphasis on data, feedback and engagement, hence the growing interest to the strategic talent management field.

Gamification in a training and development context has been described as “a strategy which uses game mechanics and techniques to drive user behaviour by increasing self-contribution” ([Markopoulos et al., 2015](#), p. 119). The term has in this sense been predominantly adopted by practitioners and consultants who promote gamification as a motivational tool that drives engagement from both customers and employees ([Paharia, 2013](#); [Zichermann and Linder, 2013](#)). Such applications of gamification have proliferated in different contexts in the past four years. Notable examples found in practitioner-oriented books such as *Loyalty 3.0* ([Paharia, 2013](#)) and *The Gamification Revolution* ([Zichermann and Linder, 2013](#)) include productivity-focused initiatives such as: Target’s basic checkout games and Omnicare’s *OmniQuest* customer service game

and health and wellness platforms such as the exercise tracking social media platform *Strava* (Hafermalz *et al.*, 2015). These digital platforms incorporate gamification elements such as competition and leaderboards to encourage users to act in particular competitive ways while generating data through their engagement with the game. These data are displayed to users to encourage further participation and simultaneously offer the platform designers and owners with feedback that can be used to plan interventions such as advanced learning programs for their staff or customers.

Examples of gamification in talent attraction, development and selection

Examples of gamification in the arenas of talent recruitment, selection and training have received international attention for their novelty and the potential opportunities they afford recruiters seeking a symbolic and strategic edge, particularly in the competitive graduate recruitment market. The 2002 computer game *America's Army* (www.americasarmy.com/) was, for example, designed to interest students in a career in the US Army and received over nine million downloads. It was considered an enormous success because of relatively low development and maintenance costs and its link to high favourable brand recognition (Zichermann and Linder, 2013, p. 104). McDonald's used gamification to engage recruits in a training program for the use of new tills installed in 1,300 restaurants in 2015 (Whybrow, 2015). An example that combines attraction, training and selection comes from L'Oreal with their *Reveal* game (www.revealthegame.com/) which drove their graduate recruitment strategy in 2010, while it also performed the function of a development and selection tool (Zichermann and Linder, 2013, p. 109) by guiding candidates through a virtual simulation of career opportunities and challenges in the cosmetics industry.

Such examples of gamified talent attraction, development and selection processes provide evidence of how game mechanics and game thinking assist in talent management by engaging potential recruits and can be purposefully designed to select the right kind of candidates for key roles in an organization by using game mechanics (levelling up, competition, status, etc.). Such mechanisms have been broadly looked at under terms such as simulation (Fetzer and Tuzinski, 2013), although the processes have not necessarily been examined or developed using the gamification lens in the context of talent management.

Gamification has many critics, with some discreditors pointing out that it is not entirely new. For example, rewards systems have been in place in businesses for decades in the form of air points and loyalty programs (Paharia, 2013), and "serious games" have been used for training and education since digital games were popularized in the late twentieth century (Michael and Chen, 2006). Other critics have looked at the unintended consequences of gamification. For example, a recent study of the effects of gamified corporate training found that how the game is designed has implications for whether engagement or learning is emphasized, where one or the other is de-emphasized according to how competition is structured (Santhanam *et al.*, 2016). Other commentators argue that feedback mechanisms are not the exclusive domain of gamification and that the notion of a game is merely introduced to sell consultants' product solutions (Bogost, 2015).

Digital gamification products and tools have been referred to colloquially as "exploitationware" (Deterding *et al.*, 2011, p. 1). Disapproval here comes from an ethical critique of gamification's focus on extrinsic rewards and its relationship to operant

conditioning (Nicholson, 2015). These critics argue that it is inappropriate to reward serious work with digital badges that have little or no value in the “real” world. Finally, there is growing concern about the end-point of gamified processes and whether they are appropriate for serious organisational activities, such as selection. While short-term programs might successfully get on board a new recruit or train an employee to use a new system, it is unclear how long-term gamification programs can continue to evolve in a way that sustains user attention (Bogost, 2015). Relatedly, there is the pertinent question of whether games in a corporate environment are ever truly voluntary, and there is the practical and ethical challenge of how the game should end.

Gamification in talent selection assessment centres

An assessment centre comprises a combination of diverse techniques necessary to capitalize on the strengths of each individual assessment technique, and the assessment process is a series of activities that, once performed successfully, enables a job candidate to proceed to the next level (Garavan and Morley, 1997, p. 160). Diverse techniques can include: on-line discussions, interviews, social media interactions, peer evaluations and ability, personality, performance and educational tests (Borman, 1982; Bray *et al.*, 1974; Bray and Grant, 1966; Garavan and Morley, 1997; Sackett and Hakel, 1979). Candidates are observed in on-line and co-located spaces responding to certain stimuli, making decisions and engaging in activities designed to test certain behaviours under pressure. Some rules are clear and others are hidden, resulting in the candidate often “playing blind”. Candidates are ranked and either rewarded or removed. Talent assessment centres are in this way inherently related to gamified processes. They exist as a liminal space in which candidates are required to occupy a state of “liminality” in which they are neither outside of nor incorporated into the organization (van Gennep, 1960) but are tested on how well they learn and adapt to an unknown environment. The idea is that candidates who can adapt quickly in the assessment centre will also adapt quickly in the organisational and industry context.

A specific aspect of gamification incorporating talent development that has not been addressed in this emerging field, from either gamification’s proponents or its critics, is the impact of gamification on an individual, in particular their lived, meaningful experience of talent gamification processes over the stages of the talent selection process. This paper focuses on large-scale *graduate* talent selection processes specifically as they are most readily likened to game-like structures such as the “contest” or “quest” and because these programs are often designed to select a small number of applicants from a large pool who are all applying for a similar position at the same time. In this graduate context, applicants (talent) are therefore usually asked to compete against one another in a series of tests that have game-like qualities in an assessment centre environment (whether physical or conceptual). By focusing on graduate talent selection, we also take into account how this group is shaped and developed through the selection process. In playing the talent selection game, a graduate is therefore likely to be developed in such a way that demonstrates their suitability for recruitment into the organization.

Processes of talent selection games: exploratory learning through “rites of passage”

Because a graduate is likely to have a relatively fluid, unformed professional identity at the time of selection, the process of going through an assessment centre may have a

significant formative impact that helps to shape the graduate in terms of the organisational community that they seek to join. van Gennepe's (1960) anthropological notion of *rites of passage* is a useful frame here to examine talents' journey through selection centre processes. van Gennepe (1960) studied the rituals of social groups, demarcating the "passage", or ways in which a person moves from one social grouping to another (e.g. boy to man, girl to bride)" (Beech, 2011, p. 287). The concept of rites of passage has also been analytically applied in organizational studies more generally (Turner, 1977; Czarniawska and Mazza, 2003; Garsten, 1999; Tempest and Starkey, 2004).

Studies of the experiences of talent as they progress through stages of talent management generally are limited (although see Tansley and Tietze (2013) on the talent management internal promotion process). Research focusing on experiences of passing through talent selection assessment centres has been particularly sparse. Our own extension of van Gennepe's three stages (separation, liminality and incorporation) into what we term "exploratory learning" further enables us to take a nuanced analysis of talent's progression through their selection processes and therefore how a gamified assessment centre can be understood as involving both learning and development *and* selection activities.

Exploratory learning through rites of passage

Rites of passage involve a learning process, because they prepare a person for entry into a new stage of life. *Separation*, the first rite of passage, involves a person's symbolic/physical detachment from their usual social life or status, "before they enter a new social category and a new way of life" (Newell *et al.*, 2008, p. 2). The second stage, *liminality*, provides for individuals to move on from a previous way of life. Crossing into the *liminal space* (a threshold space) and, being betwixt and between the first and third stages, they exist in a space where they experience a time of personal transition, as the social fabric they are used to is allowed to unravel and they enter a different space and time that is radically different from the ordinary.

Finally, in *incorporation*, talent is selected and used and the individual is recognized and rewarded as talent within a group known as a *talent pool*. Such individuals are thereby separated from the "ordinary others" and are trained and suspended between identification as talent and subsequent advancement, and finally required to incorporate into their new role within the organization. Alternatively, they are rejected or refuse the offer of employment and move into a new and different rite of passage in the next stage of their career. In this study of gamification in graduate selection processes, we focus on the rites of *transition* in the *liminal* (threshold) space and the liminality experiences of talent, as these are the most complex elements of the three rites of passage through talent selection processes.

We connect the negotiation of rites of passage to the notion of *exploratory learning*. It has been suggested that exploratory learning is based on four key principles:

- (1) learners can and should take control of their own learning;
- (2) knowledge is rich and multidimensional;
- (3) learners approach the learning task in very diverse ways; and
- (4) it is possible for learning to feel natural and uncoaxed, that is, it does not have to be forced or contrived (Rieber, 1996, p. 587).

We suggest that exploratory learning further involves generating ideas across time scales (now and for the future) and across media (manual and computer systems).

Exploratory learning also involves “the generation of new ideas as a result of knowledge exchange and application by actively searching for alternative viewpoints and perspectives”, which happens “in part as [potential] employees engage with parties external to the organization and in part as knowledge is exchanged within the organization” (see Shipton in Rathbone, 2012, p. 12 on exploratory learning by employees). It requires that facilitators of this process learn how to take micro politics into account when gauging and addressing opinions and resistance from users. We argue here that transitioning through the rites of passage requires exploratory learning, and that learning in this way is a fundamental part of surviving in the liminal space of the talent assessment centre.

Research approach: narrative analysis and the novel in social science research

The cult novel *Ender's Game* (Card, 1985) is used here as an illustrative example, as a means of accessing talent's meaningful experiences of the rites of transition in the liminal space of a gamified selection process, where talent compete for a senior position in an organization. Such alternative sources as novels can enable those reading this study to relate accounts of management (in our case talent management) to their own experience (Knights and Willmott, 1999). Like Knights and Willmott (1999, p. 8), “our approach is designed to [...] encourage an appreciation of managing as part and parcel of life” with an emphasis on how management is *lived*.

Stories have been called “integral to the human condition” (Popp and Holt, 2013, p. 53). Narratives in the social sciences have been defined as “discourses with a clear sequential order that connect events in a meaningful way for a definite audience and thus offer insights about the world and/or people's experiences of it” (Hinchman and Hinchman, 1997, p. 17). Narrative has a long literary tradition, generating studies of:

- the conventions of narrative style;
- the development and adoption of specific genres; and
- the creativity of individual narrators.

The concept and application of narrative as a conceptual and methodological device cross the social sciences has generated great interest (Abbott, 1990, 1992; Elliott, 2005, p. 3; Finnegan, 2003; Hinchman and Hinchman, 1997; Mishler, 1995; Riessman, 1993; Somers, 1994).

Narrative studies “use” stories, by “placing them in the context of wider systems, weaving description and explanation in an emplotted sequence of experience, meaning and justification” (Popp and Holt, 2013, p. 53). Narratives are particularly useful when researching the organizational experience, because of the capacity of narratives to “fix organizational experience within a conceptual ordering [...] lending the world a cleanliness that aids understanding without sticking it fast” (Popp and Holt, 2013, p. 54). Three key features of narratives are stressed. First, that they are *chronological* (they are representations of sequences of events); second, that they are *meaningful*; and third, that they are inherently *social*, in that they are produced for a specific audience (Elliott, 2005, p. 4). The importance of the temporal in the chronological has been recognized to have value “for understanding the inter-relation between individual lives and social contexts

(Adam, 1990)” and, in particular, a stress on “the importance of attempting to understand the meaning of behavior and experiences from the perspectives of the individuals involved” (Elliott, 2005, p. 4).

The use of novels by social scientists to gain access to temporal, lived, meaningful experience

Novels can be of assistance in illuminating such temporal, meaningful and lived aspects of social life. The novel “*Ender’s Game*” by Card is one of several books that considers how games are used in the talent development and selection process (other relevant examples include Hesse (2000) and Dashner (2010), both of which are novels about games that have serious consequences for the position that young people take in the world). Although Card never uses the terms “gamification” or “talent management”, nevertheless, we believe that there is value in our construing this novel as a *talent management narrative* because we believe that this text provides valuable lessons for organizations engaged in talent management. We argue that this is an acceptable academic practice because when we access the *symbolic* rather than the *real* such a novel can provide us “with a vehicle for bringing our subject matter to life in a way that can make it easier for [readers] [...] to explore the experience of managing and organizing [...]” (Knights and Willmott, 1999, p. 6).

Of course, there is an obvious problem of credibility in using novels as an aid to understanding management and the organization of work, but choosing novels can “succeed more than most in being ‘educational’ as well as delivering a ‘good read’” (Knights and Willmott, 1999, p. 6). Also true in such an analysis is that it is useful to explore how:

Characters are made to live dangerously, to face predicaments that, as readers, we experience as vicarious pleasure. We imagine, for example, how a particular character may react or, more importantly, what we would do in similar circumstances (Knights and Willmott, 1999, p. 5).

The narrative we engage in is in this way illustrative (Alvesson and Kärreman, 2007), and can be drawn upon by way of an analogy to illuminate current organisational challenges that are amplified and critically examined in this future-oriented fictional narrative.

Several literary critics have pointed out that science fiction, when executed well, does not merely speculate about the future, but rather that it “works by setting up a dialogue with the here-and-now” (Delany, 1999, p. 343) and that at its best, science fiction is about “examining the present” (Disch, 1988, p. 91). Abbott (2007, p. 123) describes this genre as holding up “mirrors” to practitioners’ “experiences and social surroundings”, using the metaphor of the “fun house” to evoke how the mirrors of science fiction show “reflections that obscure some aspects of ‘reality’ but highlight others”. This evaluation supports our argument that literature, and in this case science-fiction, is in its essence a source that illustrates people making sense of reality, in a way that highlights themes and ideas which we can analyse to better understand our present and consider our future.

Our approach to using science fiction to illustrate the use of gamification in talent development in talent selection

In the following section, we introduce our analysis of the gamified talent development process as it is told in the science fiction novel *Ender’s Game*. We first introduce the characters of the novel and then lay out our thematic analysis of the text according to

key insights that we bring to this discussion of gamification in the context of talent assessment centres. Our reading of the text proceeded iteratively over several years, and we were particularly inspired by the emerging gamification narrative to consider, through reflecting on an extreme case, what implications these new gamified talent management structures might have for talents' experience of development and selection processes.

We were particularly struck by the way in which the protagonist of the novel struggles to make sense of his progression through what is at once a school and an assessment centre. Every move that he makes is recorded, analysed and assessed, and every action is consequential for whether he is allowed to progress to the next stage of the selection game. In understanding these tensions through multiple readings of the narrative we came to critically consider what is being assessed in gamified talent selection processes. In the following analysis, we show that negotiating uncertainty and learning quickly through exploration together combine to form the key competency that is being assessed in the novel's gamified selection process. This is what we refer to as the talent development challenge of *learning and playing in the talent selection liminal space*. In the final discussion section of the paper, we outline how we have drawn insights from the fictional case of gamification into the context of talent management practice and theory.

***Ender's Game*: a science fiction “case study”**

Ender's Game is set in a future in which Earth is at war with an alien race^[1]. While this scenario is a familiar trope in science fiction writing, the book itself is as much a story of traditional military war strategy enactment as it is an exploration of relationships, leadership, politics and *talent management*. The young protagonist, Ender, has been identified as a top recruit for an army faced with an approaching battle to end all battles against the alien race. Earth's military needs a commander who is fearless and a tactical genius, and after both of Ender's older siblings failed to pass the rigorous tests run by the recruiting officers, Ender passes an initial pre-selection test and is invited to join the “Battle School” for the next selection stage. Here, Ender's everyday life is created for him as a series of tests and games; some are explicit, while others are presented as coincidental scenarios that have been secretly constructed by the teachers of the school to assess Ender's progress while he is under ubiquitous video surveillance. The games, tests, and training are all aimed at determining if Ender has what it takes to lead Earth to victory against the invaders.

Meet the characters in Ender's game

Popp and Holt (2013, p. 56) link narratives with teleological reasoning, arguing that it is through emplotment that events and characters are deliberately arranged through an imposed temporal order in a purposeful way to give “significance” (Somers, 1994, p. 616). Following Pentland (1999), Popp and Holt (2013, p. 56) describe how emplotment is the tool with which “meaning and identities are made”. In understanding the comparisons we are making between *Ender's Game* and the implications of gamification, it is therefore first important to introduce a selection of the key characters of *Ender's Game* and explain how they have been embedded within the narrative structure (Table I).

The value of using this story lies in there being a *chronological* process that can be taken as analogous to some of the ways in which young talent are selected for graduate

Table I.
Ender's Game
characters and their
"talent management"
roles

Equivalent	Name	Role
Star talent	Ender Wiggin	Third child, chosen to lead the human race in the upcoming second war with the formics (aliens)
Talent managers	Colonel Graff	Head of Battle School
	Major Anderson	Second-in-Command at Battle School, runs the Battle Room game
Coach	Mazer Rackham	Heroic Commander who won the first battle against the formics, Ender's last teacher
Talent pool	Bean	Member of Ender's team, a fellow competitor and his friend
Family and unsuccessful candidates	Bonzo Madrid	An older recruit, Ender's bully
	Peter Wiggin	Ender's older brother, failed the recruitment process for Battle School for being too ruthless
	Valentine Wiggin	Ender's older sister, failed the recruitment process for Battle School for being too compassionate

positions, by passing a series of tests while having their performance monitored in artificial scenarios that are run by talent managers. As we see in the following case study, these talent managers invariably perform training/development interventions to enable talent to understand what is required of them in the testing process and, sometimes, how to engage in exploratory learning in order to achieve an appropriate level of expertise to carry on to the next stage of tests.

The Battle School as liminal space

In *Ender's Game*, the protagonist, Ender, accepts a place at Battle School, which is located on a ship in space and operates as a selection assessment centre for rising military talent. Ender leaves behind his family (mother, father, brother Peter and sister Valentine), replacing them with those who manage and run the games in the Battle School and those who play the games and compete with Ender for rankings.

Battle School is positioned as a liminal space, situated between Earth and other planets, and it functions as a holding and sorting facility for talent while the talent managers decide when, where or whether or not to advance candidates (e.g. to Tactical School or, the ultimate level, Command School or, if they are unsuccessful, they are "iced" and sent back to Earth). The Battle School revolves mainly around simulation games of the physical and video kind and the "teachers" ("the talent managers") are involved in setting up and monitoring these games using video surveillance and data collection. The games are therefore used as powerful tools for both training and selection. The teachers' commitment to the games was absolute:

[...] all I ever cared about at the Battle School was the game – Major Anderson, Second-in-Command at Battle School (runs the Battle Room game) (Card, 2011, p. 308).

We might both do despicable things, Ender, but if humankind survives, then we were good tools – Colonel Graff, Head of Battle School (Card, 2011, pp. 35-36).

Ender reflects that although there is schoolwork at the Battle School, it is the games that sustain the students during waking hours (Card, 1985, p. 47). When Ender's sister

Valentine asks about his studies during a brief reunion, Ender tells her that “they aren’t studies, they’re games. All games, from beginning to end [...]” (Card, 2011, p. 238).

Thus, talent performs in an almost perpetual liminal state in the Battle School games, while the talent managers use gamification and associated technologies of measurement to constantly monitor and test talents’ behaviour, psychology and physiology to inform their talent development and selection decisions.

The Battle School games: playing life in the liminal space

At Battle School, there are three main kinds of games: the “Battle Room game”, a psychometric testing style adventure game called the “Mind Game” and arcade-style video games. The Battle Room game is the main feature of life in Battle School and is the primary tool used by the talent managers for assessing and selecting top talent. For this reason, the Battle Room game is taken here as the key focus of analysis of the gamified selection process.

The Battle Room game is the major focus in Battle School. It is a kind of sport, in which teams, known as armies, fight each other in a large, zero-gravity room. The Battle School teachers (talent managers) run the game, organizing play times, promotions and transfers between armies. These logistics are communicated to Ender and the other soldiers in the form of small slips of paper, pushed under doors, with minimal instructions and no human interaction. The underlying philosophy of the game is “territory conflict” (Salen and Zimmerman, 2004). The *goal* is related to a “capture the flag” scenario, with each team trying to get past each other to pass through the other team’s “gate”. Soldiers have digital guns that will “freeze” their target’s “smart”-suit for the rest of the game. There are a number of *rules* in the game, for example, if a soldier is “shot” in the legs, they will only have use of their arms for the remainder of the battle.

The Battle Room game is a good example of gamification, not just because it is a game, but because it is a digitally enhanced environment that is used as a tool for training and selecting top talent and to structure the daily routines and interactions of candidates at the school. The game is not merely recreational – it is a tool, used to contextualize the candidates’ skills in a simulated battle scenario. The game room and its technological artefacts, as well as the soldiers’ uniforms and guns, are all integrated in a digital system that provides feedback both within the game (a suit will freeze in the area “shot” by the gun) and outside of the game – each time a game is played, a multitude of data is generated, enabling assessment of overall performance of players and teams, as well as video playback functionality that can be used to further analyse skills and psychometrics.

The teachers (talent managers) purposefully use the *liminal space* of the Battle Room, where the various games are played in “tournaments”. Through the application of this gamified mechanism of training and assessment, Ender and the other candidates are manipulated into never really settling in to the system. The talent managers want to keep Ender in particular in a liminal state by manipulating his social situations, his responsibilities and the games themselves to preserve a “delicate balance” (Card, 2011, p. 28) where Ender experiences both loneliness and comradeship. The talent managers want Ender to be a strong leader, but they also isolate him, “enough that he remains creative – otherwise he’ll adopt the system here and we’ll lose him” (the teachers discussing how to manage Ender, Card, 2011, p. 28). Despite struggling with the

isolation he experiences, Ender does maintain his leadership, though he has some difficulties with his team members:

I can be the best man you've got, but don't play games with me – Bean, member of Ender's team, a fellow competitor and his friend (Card, 2011, p. 167).

The Battle Room game's central status in the experience of the talent pool becomes apparent to Ender when he enters the Mess Hall, to see other students crowding around and discussing a large scoreboard on the wall: "The scoreboards were team standings. Win-loss records, with the most recent scores". (Card, 1985, p. 42). These scoreboards provide a visual representation of how the various armies (teams) are performing as well as individual players' status. This transparent display of performance data in the form of a scoreboard is considered to be a key element of gamification – it is a feedback mechanism that promotes competition and is therefore considered to be a motivational tool (at least for those who are performing well) (Zichermann and Linder, 2013).

Identity work through learning in the liminal space

When Ender first enters the Battle Room, his physical and mental experience of being in the liminal space deepens. He is weightless and is unsure of how to cope with the absolution of gravity's rules. He is given an identity as a "launchie", a "newbie" and has not yet learned the formal or informal rules of his new environment. He learns how being a member of one of the armies in the league is key to each candidate's identity. It is only by experimenting and "playing" that Ender learns how to navigate the Battle Room's technologically enhanced environment, use his stun gun, and find other candidates who are willing to be led by him. Through practice, he learns how to win and this gives him confidence and makes him feel good for the first time in the liminal space:

[...] he no longer had the panicked feeling that he might be out of his depth [...] all he had to do was watch the game and understand how things worked, and then he could use the system and even excel (Card, 1985, p. 49).

Promotion to army commander sees Ender using innovative and creative techniques learned in the Battle Room game, with the result that he starts beating the other armies easily. In response, the teachers change the rules of the game and stack the odds against Ender to test the candidate in new ways. At one point, Ender confronts a teacher after winning an unfair battle and says that he has beaten the teacher. The teacher points out that Ender was fighting the other army, not him. Here we see Ender learn that the real enemies are not the other players (the talent pool), but rather the "adults" (the talent managers) who make the rules and break them for their own purposes. Speaking about the Battle Room game, the Head of Battle School, Major Anderson, explains the precariousness of manipulating the game for the sake of selecting talent: "It's also status, identity, purpose, name; all that makes these children who they are comes out of this game" (Card, 1985, p. 99).

Competition versus cooperation

As Ender learns survival in the liminal space of the Battle School, he experiences many situations where he has to engage in *competition* with his talent pool peers, whilst also having to be *co-operative* in all of his relationships. When the Battle Room games are manipulated to the point that Ender can no longer authentically engage with them, he recalibrates and begins to view his experience of talent development in a new light,

deciding to aim his competitive efforts at the macro level, in a battle with those who are managing him:

If you can cheat, so can I. I won't let you beat me unfairly – I'll beat you unfairly first – Ender Wiggin, reacting to his teachers when he realizes that the odds have been stacked against him as a way of developing him for another test. (Card, 1985, pp. 295-296).

Once Ender proves himself at Battle School through his high levels of performance, he has won the right to be recognized as top talent and enter Command School, still with very high potential for the ultimate “glittering prize” of the job of senior commander. At this point, his selection training moves away from the group-centred Battle Room “game” to being developed one-on-one from the previous war's main hero, Mazer Rackham. Rackham continues to use the analogy of a game in his mentor development of Ender:

And the rules of the game are what you can do to him and what you can stop him from doing to you – Mazer Rackham, heroic Commander who won the last battle against the formics and Ender's last teacher and Coach (Card, 2011, p. 265).

Rackham's development style is to treat Ender with contempt and engage in close-range physical combat with him. Ender is physically defeated by Rackham, at which point Rackham tells him “I am your enemy [...]. There is no teacher but the enemy”. (Card, 1985, p. 264). Once again, Ender is plunged into confusion and in a new liminal space, or betwixt and between place, as he tries to make sense of whether the talent management developers competitors or co-operators. However, the ambiguity is resolved when Rackham goes on to coach Ender in battle simulations, to gain the role as commander in chief for the final battle. Rackham is therefore more than Ender's talent development coach, more accurately he is a Sensei (the Japanese term translates approximately to “born before” and denotes a master or teacher).

Discussion

As talent management resourcing specialists learn how to identify, engineer and hone sophisticated talent selection processes (Sparrow *et al.*, 2014) incorporating technologies such as gamification, there is a lack of appreciation of the need for candidate training and development in such technologies to ensure successful navigation of talent assessment processes. This is unfortunate, as there are an increasing number of debates about, and examples of, gamification found in practitioner-focused literature in business, education, marketing, psychology and design (Huotari and Hamari, 2012; Jagoda, 2013; Lee and Hammer, 2011; Paharia, 2013; Reeves and Read, 2009; Zichermann and Cunningham, 2011; Zichermann and Linder, 2013). However, gamification as it is utilized in human resourcing and talent management is an emerging research field (Hamari *et al.*, 2014). In this paper, we have coined the term “talent development gamification” to begin moves to address this gap, particularly in the challenging area of large scale recruitment of graduates. This is important because gaming structures and mechanisms are a driving part of everyday life for “millennials” (born between early 1980's and mid-1990s), who are entering the workforce at a rapid rate and who have grown up playing console, mobile, social and Massively Multiplayer Online Role-Playing Games (MMORPGs) (Paharia, 2013, p. 19).

It is not surprising, therefore, that a gamified process with components such as fast feedback, transparency, goals, badges, levelling up, onboarding, competition,

collaboration, community and points (Paharia, 2013, p. 92) can be adapted so readily for talent assessment, where capability to learn quickly in each activity determines the capacity of “talent” to continue to play, utilizing technological means, both individually and in teams. However, as seen in the case study, candidates cannot be left alone to stumble through these assessment processes without careful and continuous development to enable their passing through the different assessment stages to completion. From our analysis of the case study, we identified a number of areas for consideration by talent management and talent development specialists involved in developing such talent assessment centres incorporating gamification. These include the importance of understanding and taking account of rites of passage through the assessment centre, in particular the role of liminal space, what talent development interventions might be of benefit, and the necessity of appreciating and managing talent in developing the skill of double consciousness in game simulations. We discuss each of these, below.

Rites of passage

Our description of the graduate assessment process resonates with the gamification elements of *Ender's Game*. When the book's protagonist, a young man called Ender, leaves his home and family on planet Earth, the journey to the Battle School in outer space signifies the *separation* stage in his rites of passage to become top talent for the future. This stepping into the separation stage was identified by van Gennep (1960, p. 75) as a common feature of young men moving on, where the intention:

[...] is to make a momentous change in the boy's life; the past is to be cut off from him by a gulf which he can never re-pass. His connection with his mother as her child is broken off, and he becomes henceforth attached to the men. All the sports and games of his boyhood are to be abandoned with the severance of the old domestic ties between himself and his mother and [family]. He is now to be a man, instructed in and sensible of the duties which devolve [...].

Similarly, we see Ender looking forward to leaving Earth and being instructed into the next stage of his application to join the fleet.

Learning about rites of transition in the liminal space of the talent selection assessment centre

The talent managers responsible for the selection process are also talent developers nurturing and developing Ender and his fellow applicants to help them learn how to navigate the rites of passage inherent in the talent selection process. Ender and others are required to learn quickly from the day they enter the liminal space of the Battle School. This liminal space is a space where transition from one life stage to another is experienced, where individuals are “betwixt and between the positions assigned and arrayed by law, custom, convention and ceremonial” (Turner, 1977, p. 95). The *rites of transition* stage has received attention in studies of the experience of work (Beech, 2011; Czarniawska and Mazza, 2003; Sturdy *et al.*, 2006; Tansley and Tietze, 2013) and is marked by “particular characteristic features, such as temporality, ambiguity, freedom to act and being part of a community” (Newell *et al.*, 2008, p. 6; Tansley and Tietze, 2013, p. 1802). For the candidates in an assessment centre, this means that they are supported in this liminal space by the talent managers who also provide development support to

ensure they to understand the tests inherent in the games and are able to undergo the stretching experiences of the selection process. We see specific examples of this from the Ender case study identify in the next section.

Talent development interventions for navigating gamification processes in the battle school

It is clear that candidates in this gamified selection process are influenced by the *mechanics* of gamification, including: the goal of the games, their rules, feedback and rewards. Once away from home and in the liminal space of the Battle School, Ender is trained how to engage in a series of computer game-like activities where he “battles” other players, with the *goal* being that he wins against fellow players for access to the next phase of military recruitment and selection. Sometimes his talent managers make him aware of the *rules* of the game, but at other times not, so he does not fully understand what is required of him (or the consequences of his actions), but he is encouraged to believe that there are benefits from getting through to the next stage.

Likewise, in the gamification process for talent selection assessment, consecutive phases of the game are only revealed to those who perform at a level that enables them to continue. At all stages Ender was closely observed by the talent managers for his ability to respond to rules and objectives of the game that were deliberately hidden from him and was given *feedback* designed to develop his capability to success but which was often roughly delivered. If he passed the assessment point, there were badges to collect, rewards and new battles that took him closer to the ultimate goal of employment as commander. This was all treated as a *volunteer process*, for he could return home at any time.

The extent to which any of the players in the assessment centre are free to leave is, however, always in question. It is clear that the designers of the game have tight control over the players’ development. As such, players of the talent selection game have little opportunity to exercise independent agency. They are instead required to demonstrate how much they have developed in terms that will satisfy their assessors, even when playing the game requires the player to compromise their own loyalties, integrity or even safety.

Graduate recruitment and selection processes in particular can have similar structures as candidates engage in a development process that is often implicitly gamified and requires candidates to demonstrate their capacity to learn quickly. Neither the overarching goal of the game nor the rules may be made fully clear, and at times candidates may even be unaware that they are playing a game – the rules may not be clear to them, but the consequences of not performing to the required standards (which also are not made explicit) are that the game ends and they fail to progress to the next stage (in gaming this is referred to as “permadeath”). Like Ender, it is only at the very end that candidates may realize that the purposes of the game they have been playing have serious, tangible and sometimes undesirable consequences to their actions. Gamified processes in many ways require unequal access to information about the game, and it is this asymmetry that can have negative ethical consequences for players who know that they want to win but are unaware of the unintended consequences of the competitive process.

Talent development to deal with politics and power within a competition versus co-operation context

At times Ender was required to collaborate, at other stages to compete, in some phases given a team to lead and at others required to take hard decisions and eliminate team members. At these times, he thought he was in control. However, when Ender's teachers started to manipulate the game, the "spell" of the game was broken, and Ender saw that the "game" was in fact not centred in the Battle Room but in the Battle School, and the "enemy" he was playing in fact consisted of the talent managers who were monitoring and shaping his reality by providing or withholding their talent development interventions.

The game mechanics of competition can be observed to varying degrees at each level of the graduate selection process. Group exercises often form a part of an assessment centre used to select candidates. In these exercises, potential recruits are asked to perform tasks – usually problem-solving activities – in teams with a competitive element. Here the candidate both depends on others for cooperation to compete against other teams, and is simultaneously competing with their own team mates in the overall process of selection. A complicated tension arises here where a candidate is required to learn how to both collaborate and compete at the same time (Thomas, 1974).

Each candidate is also being constantly observed during this process. While the rules of the "game" are made clear (e.g. time allowed, what is required), the "real" power lies with the assessor, who observes the players against an assessment rubric that is rarely revealed to the candidates. In these group exercises, the graduate must "beat" the other potential recruits; however, it is the recruiter who can change the rules, and it is their game that must ultimately be won, rather than the game that is presented as the task to be performed. The talent developer role must ensure that this withdrawal of support does not harm candidates nor negatively impact on the identification of the best candidate(s).

Learning what is "play" and what is "reality" – developing the skill of double consciousness in simulation

Over time, as he engages in the simulations presented to him, Ender is developed to be awakened to the dilemmas of trying to understand what is competitive "play" and what is "reality". Those responsible for his development ensure that Ender learns to operate with a kind of *double consciousness* about what is "real" and what is part of the simulation game. When Ender performs most successfully in the Battle School he operates from the knowledge that his actions have two meanings: meaning within the "game" of the simulation and meaning within the "game" of selection. This alerts us to the fact that talent developers need to take particular notice what happens during simulations in gamification and how transparently these simulations should be presented. Ender's training is designed to make him unsure of the line between the simulations presented to him by the talent managers and reality, and as a result he makes decisions in the simulated environment that he would not have made if he had known his actions to have "real" consequences.

Card here references a paradox inherent in games, which can be summarized in the phenomenon of Epimenides' Paradox (also known as the Liar Paradox). The Liar Paradox "is the philosophical problem of someone asserting 'I am lying'" (Salen and Zimmerman (2004, p. 449). If the speaker *is* a liar, then she is telling the truth, and vice

versa: the liar's statement is a logical paradox. This is relevant because to play a game "is to take part in a kind of double-consciousness" in which:

[...]game actions refer to actions in the real world, but because they are taking place in a game, they are simultaneously separate and distinct from the real world actions they reference (Salen and Zimmerman, 2004, p. 449).

To be effective, a game has to enable a player to remain complicit in this paradox, which is essentially a kind of suspension of disbelief.

Thus, the "double-consciousness" required to play games is directly relevant to the state of a person attempting to survive in the liminal space. In *The Ambiguity of Play*, Sutton-Smith (1997) argues that during play "children know that they are manipulating their thoughts about reality, not reality itself; and they know that their play self is not the same as their everyday self". This statement hints at how, when we are engaged in play, we take on another identity and even another reality.

This is why gamification is considered such a powerful motivational tool – it creates an alternate concurrent reality in which value is placed on things that would have no value in "real" life, such as points, scoreboards, trophies and advancement. While performance in traditional games is not generally linked to long-term "real-world" consequences (with professional sports being an exception), gamified systems break the barrier between simulation and reality by linking game-world feedback mechanisms such as leader boards and trophies, with serious and lasting real-world consequences, both positive (e.g. promotion) and negative (e.g. the suffering of the games' "losers"). In the conclusion of *Ender's Game*, the talent manager/developers are shown to have exploited the "double-consciousness" that they have cultivated in Ender by keeping him in the liminal space. The talent manager/developers purposefully shielded Ender from the negative real-world consequences of his actions in order to manipulate him into behaving in a ruthless and unorthodox manner in what he is told is a simulated game environment.

"What does this mean for talent development?"

The first lesson for talent development raised by this paper is that talent development is a vital element of an effective talent selection assessment centre featuring sophisticated gamification processes that require careful training and development of candidates both before they enter the centre and during their time there. The second lesson is that the use of rites of passage (Turner, 1977; van Gennep, 1960) as a sensemaking framework, rather than just simplistically viewing the candidate journey as a set of assessment stages, can be helpful for those responsible for talent development in such scenarios. One reason for this is that passing through a liminal space can engender a "profound transformation in what people think, feel and value" (Ibarra *et al.*, 2008, p. 8), where "the old self dies so that a new self can come into being" (Viljoen and Van der Merwe, 2007, p. 11), and we identify such intensity in Ender's case study when we examine the gamified liminal space. Much of the Ender story is told through an inner monologue that reveals Ender's struggles to maintain a sense of self and a sense of what is "right". The games that he plays and the games that are played with him exacerbate his confusion and come close to destabilizing his mental health. Talent selection and development specialists therefore need to appreciate just how games themselves inhabit the liminal space, and are therefore marked by ambiguity and paradox, as well as having the

potential for ethical dilemmas which need to be solved by the talent managers/developers. From a talent development perspective, it is important to consider how candidates will be trained and guided through a gamified process, and how the next stage will be achieved to give resolution to the transition through the liminal space in the form of *incorporation*.

Simulation has already begun to feature in the talent gamification systems. While we currently understand that there is a large gap between simulation and reality, the closing of such a gap is explored in *Ender's Game* and acts as a cautionary tale. The role and impact of simulations in talent development could also be considered when candidates enter the employing organisation, by considering how internships are currently used to simulate the working environment for hopeful candidates. When graduates secure an internship with an organization, they enter a new liminal space, where they experience a simulation of the coveted graduate position. In an internship situation, the line between “simulated” and “real” work is blurred. Sometimes the intern is paid as a “real” worker, but sometimes they are not. Often the work they are given to do will have some degree of authentic value to the organization, but it is not always clear to the intern whether the work they are doing is going to be used or not. In this sense, an internship relates to the simulated battles that Ender is asked to play. This is a cautionary tale for the internship arrangement, which often has unclear boundaries for those involved on both the graduate and managerial side.

Finally, the roles that talent managers and talent developers take in assessment centres need to be negotiated. In the case study, the talent managers were also engaged in talent development but there could easily be separate resourcing/development roles assigned. The key point, however, is that there should be an integrated approach to the design and the delivery of a talent assessment centre from the earliest design stage and continuing until the employment decision is made.

Conclusions

Talent recruitment and selection strategies are increasingly being designed to enable the identification and selection of innovative individuals who can stay responsive in uncertain environments, thrive in a state of continual change (McEntire and Greene-Shortridge, 2011) and cope with the uncertainty of digitally disrupted business environments (Robinson, 2013). In such cases, strategic questions for talent management and talent development specialists' practice, then, are: “What might these selection and development interventions look like?” “How might they be defined and executed” and “How might new technological developments be taken advantage of?”. This study answers these questions by coining the term “talent development gamification” to highlight the special nature of gamification in the recruitment, selection and development of people with particular talents in order to meet organizational objectives. Also suggested are possible desirable talent traits such as the capacity to cope in the liminal space, existing “at the limits of existing structures” (Tempest and Starkey, 2004, p. 507) as a “perpetual way of living and working” (Tansley and Tietze, 2013, p. 1813).

In considering where talent development gamification practice could lead, it is conceivable that the “games” may become more elaborate. For example, we may begin to see highly sophisticated and intensive games of strategy or skill to test leadership, innovation and decision-making. Versions of sports may become a more prevalent tool

in the selection process, in which teams play one another against selection criteria. To be truly ethically gamified, the criteria of the game and data relating to each players' performance would be more transparently displayed and available. Currently, a candidate usually has to request feedback on why they have not progressed past a certain stage. In the ideal gamified process, they would be provided with personal performance statistics in real-time, so as to know where they stand in comparison to their peers for the whole duration of the selection period, as well as feedback on any development needs they may have.

Contributions of the study

Through novel analysis of the inter-subjectivity of graduate talent experiences during gamified recruitment and selection processes, we develop nuanced theoretical accounts of how individual and collective self-constructions are mutually constitutive, with various social identities engaged with during the games. We use a narrative example to illustrate how hidden rules are made explicit by candidates as they "collaborate to compete" (Logan and Stokes, 2004) in talent development gamification processes, as well as understanding why such graduate selection processes can be difficult to manage and the benefits of having talent developers as part of the selection team. We also provide valuable insights into how the structural mechanics of gamification, such as goals, rules, "levelling up" and feedback, are important for enactment of sensemaking by all participants and draw attention to the challenging tensions that can arise when there is an asymmetrical distribution of information in gamified selection processes. Finally, our findings show how assumptions that graduate talent identities will appear orderly and integrated in particular situations during gaming processes are not played out in selection processes which engender a multiplicity of shifting and competing identities to "win the game".

Further research is needed in several of the areas highlighted in this paper. First, as a particular focus on how players engage "critically" with gamification (Jagoda, 2013, pp. 123-125) to increase their employability (Nilsson and Ellström, 2012) in such a talent development and selection context. Second, more research is needed into assessment centres to update Garavan and Morley's (1997) seminal work and, third, we suggest that further research is needed to investigate the role of talent management tools and activities to extend gamification technologies beyond selection activities to the real-time development of people.

Note

1. This paper focuses on the central section of the novel *Ender's Game* and we do not reveal the story's conclusion.

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