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Engaging (in) Gameplay and (in) Debriefing

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Abstract

In this editorial, I thank the guest editors and authors for their excellent and pioneering work. I set the topic of engagement within a broader area of learning and debriefing, and of the transformation of simulation/game engagement into learning. I suggest some broad areas for research on engagement in simulation/games (in both gameplay and debriefing) and in other realms of life. I emphasize that, only with properly engaged debriefing can a simulation/game have or maximize the positive learning outcomes than we aim for. Also, running simulation/games without debriefing them fully is unethical. I suggest that engagement in debriefing is as (or more) important as (than) engagement in gameplay, and more worthy of attention and research, given that the learning happens in the debriefing, not (much) in the game. I end with some quotes from the articles in this symposium.

Keywords

debriefing, engagement, excited engagement, experience, learning games, learning outcomes, reflective engagement, research, simulation/gaming, transforming engagement, transforming experience

One thing that can be said about this symposium is that it is engaging—in several ways. It is exciting to read, it examines participants' engagement in simulation/games; it also illustrates scholarly engagement with simulation/games. Nicola Whitton and Alex Moseley have done a marvelous job—in engaging authors to write such engaging articles. So, a big thank you to the guest editors and authors. You have provided the simulation/gaming world with much food for thought and further research. You will

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have, I am convinced, laid to rest once and for all what I have long considered the strange notions that fun in games automatically results in learning and that participants must have fun in order to learn from games—RIP. This symposium is a logical development of Nicola and Alex' ground-breaking books (e.g., Whitton & Moseley, 2012).

The guest editors and authors have been at pains to tread carefully in regard to terminology. It is useful to place the engagement in games discussion within a wider social perspective, and to realize that similar concerns arise there.

> Whenever a group of practitioners gather to discuss "what is engagement," a discussion about diversity of language usually emerges. Depending on the situation in which you are working, "engagement" can cover consultation, extension, communication, education, public participation, participative democracy or working in partnership. For our purposes, "engagement" is used as a generic, inclusive term to describe the broad range of interactions between people. It can include a variety of approaches, such as one-way communication or information delivery, consultation, involvement and collaboration in decision-making, and empowered action in informal groups or formal partnerships. (Retrieved September 1, 2014: http://www.dse.vic.gov.au/effective-engagement/introduction-to-engagement/what-is-community-engagement)

This is nicely illustrated in the cartoon, and the overlap with education and simulation/gaming is clear:

It's all engagement.
Source. Image retrieved from The State of Victoria (2013).

The area of simulation/gaming is also fraught with terminological (and other!) confusion; articles in *S&G* and in other journals are ample witness to this. It is therefore refreshing to have a symposium in which authors have made an explicit effort to delineate clearly the boundaries of their terms and to distinguish them from others. Terms include affiliation, attention, belonging, captivation, challenge, commitment, enthrallment, flow, incorporation, interest, engagement, immersion, involvement, interaction, motivation, ownership, participation, passion, praxis, presence, purpose, and others. Yes, the word *fun* is missing from the list.

The statistics cited by Alex and Nicola in their guest editorial are interesting; it is also interesting to search in Google Scholar. The term *allintitle: engagement games OR simulation*, at any time, without patents and citations, produced 303 hits (end of September 2014). Among those hits, several mention *engagement simulation*, which seems to refer to machine engagement (e.g., vehicles, clutch, army, combat). A similar search, but with *allintitle: engagement games*, produces 133 hits, less than half, but several still focus on *engagement simulation*. The term *allintitle: engagement simulation* produces 171. The term *allintitle: engagement games OR simulation learning OR educational* shows a mere 47.

The area is decidedly fraught with dispersion, fragmentation, and ambiguity. This symposium, in its entirety and each of the articles individually, will therefore make a major contribution by helping the profession to focus, consolidate, and clarify along three prongs: theory, practice, and research (the sub-title of this journal) in the area of engagement and simulation/games for learning.

Of course, as soon as one mentions learning in relation to games, then debriefing is inevitable. One of my favorite topics is debriefing—the reflecting on, sharing of, and discussion about the event (game, simulation, role-play, ...), which allows the drawing out of learning and understanding. In thinking about this editorial, I was intending to mention debriefing as a central aspect of engagement (in all its forms), and then was heartened to read Nicola and Alex' article, in which they make a strong link with debriefing and a strong case for conducting debriefing. It is disappointing to see that Google Scholar matches no articles with the search term *allintitle: engagement games debriefing*. The term *allintitle: engagement debriefing* produces one article, which includes simulation. However, the optimist would say that this leaves the area wide open for research and scholarly work.

The link between engagement and debriefing is crucial because simulation/games can generate strong feelings (both positive and negative) during play. They may include frustration, anger, satisfaction, accomplishment, desire to win, group belonging, new identity, pleasure, overwhelmed by complexity, cognitive dissonance, and so on. Indeed, it is those feelings that, in part, generate engagement:

> "urgh, you go, I'll come later, I gotta solve this problem first";
>
> "when, Johnny, you made that remark, it really goaded me, ... so can we talk about that now, to understand, and then I agree to take a break"; etc.

Such feelings generate engagement, but they are also part of (the sense of) engagement. Engagement and emotions work together; a tight, positive feedback loop. Indeed, one can say that engagement is an emotion, a potentially strong one, especially as it can work on several levels at once—cognitive, affective, behavioral. Such feelings, especially the negative ones, can stand in the way of processing the experience and thus of turning it into learning. They can only be addressed (and defused) in the debriefing, not in the thick of the action of the simulation/game. That is something that should be obvious, but it is not always recognized by gamers, especially by those who do not (know how to) facilitate games or debriefing, or by those so enamored of their game that they consider that the game will somehow magically imbibe the participants with learning.

One process, often placed in debriefing, is called de-rolling—coming out of role and re-finding oneself. One might say that taking on and embracing a role, especially one that contains characteristics different from one's own self, is the ultimate engagement. We see this in simulation/games, for example, of international treaty negotiations, games for teamwork training or for learning about injustice or social inequality, or in LARP (live-action role-play, increasingly written as larp). Even in simulations where one is playing a future role, such as nurse or pilot, the emotional engagement needed to enact that role, especially under circumstances of ambiguity and/or uncertainty ("Am I a nurse or am I a learner?" and/or "Gosh, I've never done this before, so nervous about goofing up") is usually so strong that it is impossible to learn without proper debriefing—processing of the event. Also, given the excitement and urgency of the play, no time is available to consider the learning at one's own pace, to listen to others' views, to think. Thus, the level and nature of engagement generated during a simulation/game is such that, in order for any serious, in-depth learning to take place, participants need to step out and back, cool down, reflect, share, discuss, write, apply, and test out in reality (or in another simulation/game). A simple schema (hardly a model) might look something like this:

[(Simulation/game + engagement) + (proper debriefing + engagement)] = learning

Jiituomas Harviainen (personal communication, 2014) suggests that this could be:

[(Simulation/game + engagement) + (engagement + proper debriefing)] = learning

in order "to emphasize the way in which the post-play engagement flows from the in-play engagement." I am undecided, but it could also be argued that it should be

[(Engagement + simulation/game) + (engagement + proper debriefing)] = learning

to highlight the idea that one cannot properly participate either in a game or in a debriefing without proper engagement. The above, of course, suggest a fourth, which is easy to imagine. So, you take your pick. Furthermore, one might also debate about whether the (and which) + signs should really be × multiplication. For example,

[(Simulation/game × engagement) + (proper debriefing × engagement)] = learning

which could be simplified to

[(Simulation/game + proper debriefing) × engagement] = learning

The *simulation/game* is both the structural elements and the evolving action during play; the *engagement* is the player with all her or his emotions, actions, interactions, understandings, decisions, perceptions, and so on; proper *debriefing* must be structured, in-depth, given the time it needs, sometimes in iterations, facilitated with care, and a host of other things. In addition, I now realize from this symposium, the debriefing too must be *engaging*, participants must be engaged in the processing of their experience, even if the nature of that engagement is different from game-play engagement. It is probably worth making a distinction between game-play engagement and debriefing engagement. Several iterations of the same or similar games would also fit well with Dave Kolb's idea of spirals in the experiential learning cycle.

It is important to emphasize this because undebriefed participants are problematic—on several fronts. Participants who have not had the opportunity to process their experience learn less than they could or should, and thus not benefit from the espoused learning objectives of the game (despite having reached the game objectives). Furthermore, and more problematic, some undebriefed participants may suffer various forms of stress, and come away from the experience feeling confused, upset, or even angry. Thus, an undebriefed simulation/game can actually cause harm—quite the opposite of the facilitator's intention.

Moreover, the necessity of debriefing goes well beyond the learning. It also has wider and far-reaching implications—for our profession, schools, universities, and society—memory and emotion are closely intertwined. Research (see this journal) shows that people remember game participation longer are more vividly than any detailed content. The game engagement, as I have mentioned, can include negative emotions of various kinds; indeed, the emotions are emotions because of engagement, and engagement generates emotions; engagement is emotional, emotions engage. If engaged emotion (or emotional engagement) has not been expressed, discussed, understood and (what the French would call) evacuated, and defused, such emotions may well remain engaged and linger on well after the event, and after the details of the event have blurred (usually as a result of undebriefed or unprocessed emotions). Of course, the cognitive dimensions are closely woven into the emotional, and research has a tough time trying to unravel them—even tougher when it comes to such an engrossing thing as games and their debriefing and the learning that comes from the debriefing.

As emotions are heavy and tend to close people down, participants in the thick of an emotionally charged experience, such as a game, are less likely to take the initiative to make them a topic of calm discussion (e.g., "I'd like to discuss the angry episode"), as they would be invited to do during a facilitated debriefing. It usually needs the structured context and assured safety of a debriefing session to talk about emotionally charged episodes and encounters. Without such calm airing of emotions, a general sense of dissatisfaction can easily remain at the end of a game, and remain undetected by both fellow participants and insensitive facilitators. Thus, participants may end the game session dissatisfied with the experience; and it will leave them wondering what it was all for. It is unlikely that they will draw facilitators' attention to this, especially if the facilitator wields any kind of authority in the situation, or if she or he has not

shown the openness or sensitivity needed to hear learners' or trainees' misgivings. (It may also be that overwhelming dissatisfaction, or indeed satisfaction, can lessen the desire to debrief and thus the potential for learning.)

Participants may then carry home unflattering messages about educational games. I wonder how many times this sort of conversation has occurred:

> "so, Johnny, what did you do in class today?";
> "oh, um, we played a game";
> "ok, and what did you learn";
> "hm, not really sure";
> "not sure?";
> "yes, but some of us had fun, and, er ..., some felt a little peeved";
> "ok, but I asked about what you learned";
> "well, not much, really; maybe something like that poor people are not smart."

This is why it is so crucial that people running games be trained in facilitation and debriefing techniques; oh, and that they actually do full and proper debriefing.

Effectiveness and evaluation of simulation/games is a concern in much research and publication. Given the central and crucial importance of debriefing to learning outcomes of any educational simulation/game, I find it difficult to see how any assessment of learning can reflect the full learning potential if debriefing has not been done properly. Equally difficult is to see how assessment of learning effectiveness can be done without (a) full and proper debriefing and (b) explicitly building this into the research design at the outset. When I say learning potential, I refer not only to the game, but even more to the situation in which the game is run, with a given set of players/learners, with a certain kind of facilitation and debriefing, within certain time constraints, and so on. The learning potential of a game is only activated and drawn out once a whole range of conditions are met, and these include things well beyond the game per se as a package. They include the nature of the engagement that happens, or is encouraged or allowed, and the debriefing that is accomplished in order to process that game-play engagement.

After having seen the articles in this symposium, I think that we now have ample support for the idea that assessment of learning must take into account the type, quality, and strength of participant's (individual and collective) engagement during play. However, that assessment must also take into account the type and quality of the debriefing.

Thus, I will allow myself, in a friendly spirit of improving our understanding of learning from games and of what we need to do to encourage learning, to offer a different twist to Nicola and Alex' statement that debriefing is "... the opportunity for reflection on what participants have learned, and the chance to discuss it with others, ...". It is less the "opportunity to reflect on what participants have learned," and more the opportunity to reflect on their experience (which includes various types and degrees of engagement) in order to transform that experience into learning (à la Kolb, see Dave's articles in this journal)—some like to think in terms of higher level learning (e.g., à la Bloom), or even of deep or super learning (e.g., http://www.brainsync.com/deep-learning.html or http://www.newpedagogies.info/).

Participants engage in simulation/games in all the ways discussed by the authors in this symposium. Debriefing is not, at least initially, reflecting on what has been learned, but reflecting on and sharing one's experience, with the aim of transforming it into learning. In debriefing, we reflect mostly on the game experience, and then gradually on the learning as it emerges. It would be more accurate to say that debriefing is essentially emergent, and moves from the game experience to the learning (content, skills), to the broader, so-called real world, and even to the learning process itself. To summarize, participants must engage in debriefing their experience in order to draw out their (higher or deeper) learning from their processing of the experience (through reflection, sharing, discussion, writing, further experience, etc.).

Good debriefing allows and helps participants to disengage from the game, and thus encourage proper engagement with the processing of the experience. This is nicely put in the article by Nicola and Alex: a "focus on fun and the game experience may be detrimental to engagement with learning"; in other words, are game engagement and debriefing (learning process) engagement mutually supportive, and under what circumstances?

Engagement can and does put a strong break on learning—during the game. I would suggest that the stronger the engagement during gameplay, the less likely the learning and greater the need for debriefing—much depends on the circumstances. It is when the game stops (during or after play) that participants can become engaged in a different manner—reflective rather than excited (for want of a better term). For learning to take place, excited engagement (during play) must give way to, or be transformed into, reflective engagement during debriefing. Game participants can then become true learners.

If we fall for the all-too-common assumption that learning happens when participants are highly engaged (including having fun) during the game, and have no need to delve into that engagement in order to draw out the learning, then we are unlikely to see much learning, especially in higher order cognition skills. We should not then be surprised that research in game effectiveness is inconclusive. Thus, a profound change in simulation/game (and serious game) research is needed, a change that puts the learning process, aka debriefing, at the heart of gaming, a change that ensures that debriefing is built into the game development from the outset and into the research design from conception to results and discussion. The same can be said, mutatis mutandis, for engagement. When debriefing and engagement become integral and explicit dimensions/elements of game design and research, then we are likely to see stronger results and more conclusive results. As Harviainen, Lainema, and Saarinen (2012) emphasize,

> Without the opportunity for reflection on what participants have learned, and the chance to discuss it with others, much of the learning value (and in particular the ability to transfer knowledge and skills to other domains) from games may be lost. Debriefing is a vital element in the process of learning with games.

Furthermore, I would say and emphasize that it is better not to run a simulation/game if you are not going to debrief it properly. It is not just a matter of learning, it is

a deontological issue. Simulation/game facilitators are quite simply under an ethical obligation to debrief. To do otherwise is to act in an irresponsible and unprofessional manner. As Clapper (2010) so rightly points out,

> It can be argued that if you cannot teach it for understanding, do not teach it at all. When it cannot be done right, the educators are wasting their time, the learner's time, and accomplishing little to increase patient safety. In fact, if they do not understand it, learners might leave the simulation center as confident incompetents. (p. e12)

Reflective engagement in debriefing can be just as, sometimes even richer than excited engagement in the simulation/game experience. In most of my classes, I ask students to participate in simulation/games (lasting anything from 10 minutes to several weeks). I also train them in debriefing, so that they can find independence from me for, and become owners of, their debriefing, and thus of their own learning. It is not uncommon for students at the end of a simulation/game that I have run to say eagerly "ok, let's now go 'n debrief," and they quickly get absorbed (engaged) in their debriefing. They appear to be even more involved (absorbed, engaged) in the debriefing session than they had been in the simulation/game. That is of course a subjective statement, but it is my engaged experience as a simulation/game facilitator and debriefer. I would offer this thought, to those participating in and facilitating debriefing games, as well as to those doing research in the area, that participation, engagement, and learning are thoroughly subjective phenomena, only open to objective scrutiny by using carefully crafted methods and instruments, and always requiring recognition of their subjective ownership. That is why engagement is, well, such an engaging topic for research.

Thus, I am convinced that scholars and researchers, in the simulation/gaming world and beyond, urgently need to design (further) research that inquires into things like:

- What are the types and dimensions of engagement (in its various guises) in general (irrespective of games), for example, in skiing, watching skiers, diving, watching a film of diving, mountain walking, reading a walking guide, reading, a family gathering, giving a talk, watching a documentary? In games, what are the types and dimensions of engagement in participation in the game, in debriefing and in facilitating the game?
- How does that engagement vary according to a range of factors, including personality, character, education, gender, prior experience, social dimensions (alone, with friends, in inter-group situations, where I would suspect engagement to be extremely 'high'), fatigue, health difficulties, and so on? Not simple.
- How do engagement in games and engagement in non-game situations differ? As Tim Murphey (Kanda University of International Studies, Japan), said,

  > My teaching and teacher training could be described as organising experiential learning, with real life tasks as much as possible, but mixed with playfulness. One person's sense and depth of experience does not always correspond with another's and saving yourself from a lion in the wild will look differently neurologically in the brains of those just listening to the story, or hearing about it third hand. (T. Murphy, personal communication, September 2014)

- What are the similarities and differences between engagement in gameplay and engagement in debriefing?
- How does the engagement of a simulation/game participant differ from that of a facilitator, and a debriefing participant from a debriefer?
- What is the nature of the intersubjectivity of engagement in such episodes, both in games and in debriefing?
- How does engagement differ across games that are seen as fairly isomorphic with reality (realistic) from ones that are considered as representing reality conceptually (abstract games)?
- How does engagement in a simulation/game correlate with engagement in a reality represented by that simulation/game? For example, in what ways does engagement in a simulation of the tragedy of the commons (e.g., FISHBANKS) resemble and/or differ from engagement in a situation where people are grabbing resources from a real commons (e.g., collapse of the Newfoundland fish stocks)?
- Does engagement in two types of participation in the same or similar game differ, such as playing MONOPOLY as a parlor game and playing a variation of MONOPOLY to learn about money and power?
- Does culture affect engagement in simulation/games or in their debriefing? For example, do people from one culture (e.g., high context or collectivist) engage more or differently from people from another culture (e.g., low context or individualist)?
- How does engagement differ from one game to another (why?), from one run of a game to another (why?), from one style of facilitation and debriefing to another (why?)?
- How does prior participant experience in simulation/games effect the degree and type of engagement in subsequent games?
- How does debriefing (and the nature of the debriefing, for example, in-depth, structured) of previous games affect engagement in subsequent games and their debriefing? Does good debriefing encourage better quality engagement in subsequent simulation/games? How?
- How do facilitator skills and styles influence participant engagement?
- Does engagement in a game differ from engagement in a computerized version of that game. In what ways? Does engagement differ according to type of computerization (e.g., computer assisted or computer determined). How? Do video type games generate engagement that is different from classic computerized games? In what way?
- How does (a sense of) ownership in a simulation/game influence engagement? How does (a sense of) control influence engagement?
- How does proper debriefing influence engagement in subsequent games?

I should like to end by returning to the symposium and its engaging articles. Below I have extracted some quotes from each of the articles, quotes that I see as gems of insight or as capturing the essence of the article.

- *Whitton and Moseley*: The notion of engagement is complex, with researchers, academics and practitioners using the word in many different, potentially conflicting, ways. ... Engagement, as a concept, is now so overused that it is arguable that it has become a meaningless construct in and of itself, however we hope to have added clarity to the term by highlighting these six dimensions. We do not argue that this is a complete taxonomy of engagement, but it is a synthesis of the prevalent discourses of engagement in the fields of learning and game studies.
- *Filsecker and Kerres*: Defining engagement as a volitional process opens up a new perspective with broad theoretical and practical implications. From a theoretical point of view, we can analyze games as a technology to support volitional processes in learning, which also can support motivation to learn. The conceptual framework ... provides a tool to examine how, for whom and under what circumstances educational games might work.
- *Ruggiero and Spa*: ... how experienced educational game designers use the cycle of action and reflection known as praxis to guide their practice in creating engaging experiences ... distinctive processes unique to each game exist, ... educational game designers use common praxis approaches when promoting engagement and motivation in gameplay.
- *Bouvier et al.*: ... academics still do not clearly understand the nature of engagement. Engagement remains a confusing concept that encompasses several notions and depends on a large number of technical and human interrelated factors ... we propose a categorization of engaged-behaviors according to the universal needs they fulfill and the corresponding emotions they elicit. ... The analysis of engagement and engaged-behaviors could also be useful for teachers or tutors in conducting debriefing sessions with learners.
- *Mallon and Lynch*: ... meaningful relationships are something that players relish in games. Born out of game play, meaningful relationships between players and characters strengthen engagement levels with a game. Players enjoy experiencing deep, emotional connections, ... Put simply, players want to care.
- *Martey et al.*: Our results support the idea that engagement is a multi-dimensional construct, and suggests the need for more research to examine the relationships between measures of engagement systematically ... without a deeper understanding of the player's reasoning and affect of what happened during game play sessions, we cannot be certain the desired learning outcomes are achieved. ... Emotional experiences in games, such as boredom, frustration, enjoyment, etc., can be the catalyst for further engagement and ultimately learning.
- *Phillips et al.*: Our interest here is in an outcome of higher cognitive engagement, but we acknowledge that understanding cognitive engagement will, out of necessity, have to account for the role of emotional (i.e., affective) engagement ... .
- *Sharek and Wiebe*: Recent research on computer-based gaming as a paradigm for training and educational software design has often hinged on the contention that gaming environments are inherently engaging. ... Understanding and measuring engagement is still a young area of research and therefore researchers need to maintain a focused, methodical approach to experimental design will need in order to develop a solid framework of engagement.
- *Kirschner and Williams*: First, the social world is processual and constantly in a state of becoming. As such, gameplay is ... part of an interactive process through which players negotiate knowledge, competencies, and a sense of self. ... Engagement, then,

> ... emerge[s] ... through developing an understanding of one's own play in relation to the game's design, which structures one's interactions and interpretations of experiences.
>
> Describing her engagement model, Whitton [2010] concludes that it "does not explicitly take account of the processes surrounding the actual game play, such as briefing, reflection, and debriefing. ... The relationship between debriefing and engagement, in particular, is worthy of further investigation as this has such a significant effect on learning." Much more understanding emerges through the GRM [gameplay review method], a reflexive and interactional process that foregrounds the subjective interpretations of players' actions and gives insights that cannot be developed based on observations or audio/video recordings alone.

- *Iacovides et al.*: Learning occurred through play (i.e., playing the games first), through others (i.e., discussing game experiences in the classroom or on a wiki) and through external resources (i.e., creating paratexts). In this case, the teachers were interested in improving general literacy skills but they were able to do so by tapping into "the intensity of the students' passion for digital games." ... Thus the influence of gaming identity with respect to the use of games in formal educational contexts is something that requires further investigation. However, the GIIL [Gaming Involvement and Informal Learning] framework also raises some important issues regarding the use of games for educational purposes.

Let me finish with a metaphor; it comes from my good debriefing friend, Stephan Rometsch (Berufsakademie Eisenach, Germany). After we attended a 2-day ISAGA workshop on debriefing (I was one of the leaders), Stephan came to me and said something like: *A game is like a tasty meal in your mouth. The debriefing is digesting and absorbing nutrition*. In both cases, engagement is essential. As I have said elsewhere, "the learning starts when the game stops." Maybe I should change this to: The learning begins when game engagement stops and when debriefing engagement is under way.

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