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Participation and Play:

Modes of Learning for Today and Tomorrow

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Qualifying Exam Response

Dr. Henry Jenkins's Question

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Online and offline, how do the processes of playing and participating enrich learning?

Participation and Play:
Modes of Learning for Today and Tomorrow

The students of COMM 200: Communication as a Social Science rose from their desks reluctantly, if at all. Their faces expressed disinterest or distraction while their energy was weary, their volume muted.

The teaching assistant (TA) had meant for the "people hunt" game to symbolically communicate the value she ascribed to community and fun, as well as, on a practical level, introduce the students to one another and facilitate future conversations amongst them. But the exercise wasn't delivering on these goals – the students were hardly participating and they certainly weren't *playing.*

"All right," said the TA, cutting the "game" short. "Seems like this really isn't working. What's going on? Why aren't you having fun?"

A brave student offered a critique – *It feels awkward and forced to just approach strangers and ask them about their zany talents*. The TA nodded, accepting. "Yeah," she said, validating. "I could see that." She restated the student's remark aloud as she wrote it on the board. "What else?" she inquired. Another student raised her hand and said that people didn't necessarily feel like chatting and making friends at 9 am on a Monday. "Good point," said the TA, cracking a self-deprecating joke as she wrote the latest insight on the board. "You don't have to raise your hands," she announced, turning back to face the class. "If you've got an idea, just shout it out."

More and more students offered their thoughts, exchanging in give-and-take with the TA and the other members of the class who wished to speak. The atmosphere loosened up as the conversation flowed, punctuated by the occasional laugh. Participation was underway and, with playfulness being modeled, perhaps actual play was not far behind.

Participation and play are crucial considerations as contemporary education stands at a crossroads. Issues pertaining to students' physical wellness (e.g., reproductive health, obesity) and social functioning (e.g., bullying, self-esteem) follow them to school, impacting both classroom climate and academic achievement. Contemporary emphases on standardized testing and digital proficiency call into question what to teach and how to teach it, often engendering controversy and highlighting the disparity between "have's" and "have not's" – not to mention concern over students' lackluster performance in both academic and digital domains. Changes in social relationships and communication norms introduce promises and perils for students seeking support and self-expression. Anticipation of future shifts for both quotidian technology and job opportunities and expectations – some expected when students come of age, others as soon as one to two years down the line (Johnson, Smith, Willis, Levine, & Haywood, 2011; Thomas & Seely Brown, 2011) – also challenge established theory and practice vis-à-vis education.

For the sake of faring better today and preparing better for tomorrow, something needs to be done – realistically, a great number of things need to be

done. While proposing how to fix the institution of American public education is beyond the purview of this paper, offering a philosophy and model for productive learning is well within this humble student's zone of proximal development (Vygotsky, 1978). This paper proposes participation and play as the central processes in which to engage diverse learners for the purposes of participatory learning. Participatory learning comprises several activities: pursuing interests, facing challenges, asking questions, exchanging feedback, developing passions, building relationships, establishing identities, and constructing products. Engaging in participatory learning holistically, as well as each of its important activities separately, will help students not only to survive but, importantly, to thrive.

This paper will first examine definitions and typologies of participation and play. Next, it will explore theories and practices of teaching and learning, reviewing traditional assumptions and approaches as well as innovative conceptualizations and pedagogies. Then, it will build a case for the educational benefits of participating and playing, establishing how these processes develop vital skills, respect universal needs, use resources efficiently, and allow for adaptation.

Participation

Literally, to participate means to take part (dictionary.com, n.d.); this implies: agency, for the verb "to take part" is active and connotes self-direction; and a pre-existing context larger than oneself, as there must be something to

take part in, a community or activity to which one can contribute a part. A passive participant is an oxymoron, as is a forced participant; the former is an audience member while the latter is a servant.[1] Participation hinges upon avid, volitional effort. Participants are engaged actors with an internal locus of control and intrinsic motivation. Deci & Flaste (1995) contend that intrinsic motivation is a function of individuals' sense of autonomy, competency, and relatedness. Interestingly, these prerequisites of participation are also its products.

Participants can situate themselves centrally or peripherally. In the center, participants' identities and work are visible, and their work is of primary importance to the immediate needs of the context; in the periphery, participants' may go anonymously, work invisibly, and/or contribute to efforts of secondary importance, including observation. Indeed, observing (or "lurking" as it is sometimes referred to when referencing online contexts) can be an essential pursuit for individuals as they prepare to make their presence known, join community work, and/or reflect on their practice. Legitimacy is not determined by location or occupation but by activeness (Lave & Wenger, 1991).

Community.

Participating in a space is another way to say "joining a community," while participating in an activity means joining a community as well. To participate in an activity means that others are associated with it, and these individuals make up a

[1] or, more dramatically, a slave.

community.[2] Citing Offe (1980) and Tilly (1978), Kim and Ball-Rokeach (2006a) maintain, “Community is built on shared discourses about who the community members are—their identities, desires, and shared lived experiences—what their most important opportunities, obstacles, and issues are, and what/how they should do to address them” (p. 177). Sharing discourse is a participative act. Thus, communities are created, comprised of, and fueled by participation.

Skills.

In order to participate, certain skills and/or tools often are required. While participatory contexts are ideal sites to acquire and master new skills, a basic level of proficiency in primary skills is necessary in order to even enter these contexts and pursue specialized skill acquisition and mastery. These primary skills are social, emotional, and cognitive, and support self-regulation, social negotiation, and problem-solving. The Collaborative for Academic, Social, and Emotional Learning (CASEL, 2009) articulated five social and emotional competencies (SELs):

- **Self-awareness**—accurately assessing one’s feelings, interests, values, and strengths; maintaining a well-grounded sense of self-confidence
- **Self-management**—regulating one’s emotions to handle stress, control impulses, and persevere in overcoming obstacles; setting and monitoring progress toward personal and academic goals; expressing emotions appropriately
- **Social awareness**—being able to take the perspective of and empathize with others; recognizing and appreciating individual and group similarities and differences; recognizing and using family, school, and community resources

[2] specifically, a community of practice (Lave & Wenger, 1991; Lave, 1996), to be explored later in this paper

- **Relationship skills**—establishing and maintaining healthy and rewarding relationships based on cooperation; resisting inappropriate social pressure; preventing, managing, and resolving interpersonal conflict; seeking help when needed
- **Responsible decision-making**—making decisions based on consideration of ethical standards, safety concerns, appropriate social norms, respect for others, and likely consequences of various actions; applying decision-making skills to academic and social situations; contributing to the well-being of one's school and community (CASEL, 2009).

Ground-breaking white paper *Confronting the challenges of participatory culture: Media education for the 21st century* (Jenkins, Purushotma, Clinton, Weigel, & Robinson, 2006) defined an evolving set of new media literacies (NMLs), or "cultural competencies and social skills that young people need in the new media landscape" (p. 4). Presently, the 12 NML skills are:

Play — the capacity to experiment with one's surroundings as a form of problem-solving
Performance — the ability to adopt alternative identities for the purpose of improvisation and discovery
Simulation — the ability to interpret and construct dynamic models of real-world processes
Appropriation — the ability to meaningfully sample and remix media content
Multitasking — the ability to scan one's environment and shift focus as needed to salient details
Distributed Cognition — the ability to interact meaningfully with tools that expand mental capacities
Collective Intelligence — the ability to pool knowledge and compare notes with others toward a common goal
Judgment — the ability to evaluate the reliability and credibility of different information sources
Transmedia Navigation — the ability to follow the flow of stories and information across multiple modalities
Networking — the ability to search for, synthesize, and disseminate information
Negotiation — the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms.
Visualization — the ability to translate information into visual models and

> understand the information visual models are communicating (Jenkins and Project New Media Literacies, 2010).

It is important to emphasize that, to participate in most contexts, superior or even average proficiency is not required in all or most of these skills, merely basic proficiency in a select few. A case can be made that these select few are self-awareness, self-management, play, and negotiation. By possessing the two SELs, an individual can satisfy the first part of the definition of participation. Self-awareness and self-management skills ensure that the potential participant has the motivation to join volitionally, and the regulatory capacity to work actively. By possessing the two NMLs, an individual can satisfy the second part of the definition of participation. Play and negotiation skills ensure that the potential participant has the ability to work in community, which requires aptitude in emergent problem-solving and interpersonal interaction.

Tools.

Specialized tools also may be required for certain types of participation; for example, it may be difficult to join a scuba-dive without an oxygen tank or hang drywall without any drywall. Determined individuals can forge ahead up until a certain point, flexible individuals can take on related tasks, and enterprising individuals can innovate work-arounds or create their own tools through repurposing or tinkering (also known as modding in digital contexts). But in every scenario, to participate in that specific function, a tool was required.

Children's Participation.

Youth development advocates and investigators who employ participatory action research (PAR) with youth have played a key role in conceptualizing the "why" and the "how" vis-à-vis children's productive participation.

Win-Win.

Some scholars and practitioners argue that the community stands to benefit from engaging youths' talents. Kretzmann & McKnight (1993) outlined eight positive assets that the young uniquely can contribute: time; ideas and creativity; connection to place; dreams and desires; peer group relationships; family relationships; credibility as teachers; and enthusiasm and energy (pp. 30-31). To this list, one might also add "digital orientation."

The identity of a "digital native" (Prensky, 2001) is impossible; one must actively acquire digital tools and, crucially, the skills to exploit them exhaustively and ethically – they do not simply materialize as a natural birthright. As such, people on "the other side" of the digital divide – those who own or have access to computers, the internet, and/or mobile technology – can and all too often do suffer from the transparency problem, the participation gap, and the ethics challenge (Jenkins et al, 2006), usually ignorant of these deficiencies. But it is reasonable to assert that youths are more likely to possess a digital orientation, which pertains to: interest in exploring digital domains and devices; and/or freedom from extensive lived experience without successful/satisfying digital

engagement, or any digital engagement at all[3]. This digital orientation (again, an appreciable "pull," free from fear- or failure-inspired "push," and buoyed by at least some successful/satisfying digital experience) prepares individuals for fruitful digital exploration. As digital communication, commerce, and collaboration will steadily transform the way we live, work, and play, digital orientation is a valuable asset to offer to one's community.

Some PAR investigators also advance the cause of children's participation by casting it in terms of the community's benefit. "They argue convincingly that children are able to collect better data because of where they are positioned (i.e., as insiders) and that children contribute to the strength and integrity of the research findings" (Langhout, 2010, p. 62).

Others argue that youths stand to benefit from participation with community. Benson (2003) explained that there are "…three types of support and connection that are known to be predictive of significant adolescent health outcomes: sustained relationships with nonrelated adults (i.e., embeddedness in intergenerational community), embeddedness in neighborhoods in which adults know and interact with children and adolescents, and engagement in schools that students perceive as caring and supportive" (p. 22). Those in the field of positive youth development tend to focus on the constructive impacts that participation

[3] Every learner has to start somewhere, and lack of inexperience is neither damnable nor an insurmountable barrier to learning. However, those who have extensive lived experience without any digital engagement are more likely to be intimidated and/or negatively judge digital technology's necessity or utility. Additionally, they are more likely to progress more slowly in the digital realm as they do not possess associated schemata to guide their actions. This is neither universal nor absolute. But this designation is about orientation, not feelings or performance. Those who have managed to avoid all things digital are probably not digitally oriented.

can deliver to youth, such as “building cognitive and emotional competencies, interpersonal skills, and so forth” (Langhout, 2010, p. 64). Following Zimmerman (1995), Wong, Zimmerman, and Parker (2010) declared, “By being active collaborators, youth can also increase developmental assets such as competence, self-efficacy and sense of control by developing an awareness of and engaging with their environment” (p. 105).

No matter the identity of the beneficiary, it seems that supporting children’s participation is a worthwhile endeavor. If both camps are correct, then youth participation is actually a win-win scenario.

Typologies.

Wong et al. (2010) reviewed several scholars’ typologies of youth participation, or forms of adult-youth power-sharing. Their own Typology of Youth Empowerment (TYPE) Pyramid suggested five types of participation, situated along a continuum and, in its visual configuration, oriented towards the central type (pluralistic) because this joint control optimized youths’ empowerment potential. They also introduced a classification scheme, assigning participation types to either “adult control,” “shared control,” or “youth control” categories.

In order to make sense of the various typologies, the author appropriated Wong et al (2010)’s classification scheme and aligned each participation type according to its perceived category. This construction adds richness to Wong et al (2010)’s work by exposing similarities, differences, overlaps, and omissions

amongst the schemas. Collectively, it articulates what it means to share control and what each scenario looks like.

Table 1. Typologies of youth participation

	Adult control					**Shared control**		**Youth Control**
Wong et al, 2010, p. 105	**Vessel:** Lack of youth voice and participation; adults have total control.			**Symbolic:** Youth have voice; adults have most control.		**Pluralistic:** Youth have voice and active participant role; youth and adults share control	**Independent:** Youth have voice and active participant role; adults give youth most control	**Autonomous:** Youth have voice and active participant role; youth have total control
Shier, 2001			**1. Children are listened to; 2. Children are supported in expressing their views**		**3. Children's views are taken into account**	**4. Children are involved in decision-making processes**	**5. Children share power and responsibility for decision-making**	
Tresder, 1997				**Assigned but informed**	**Consulted and informed**	**Adult-initiated, shared decisions with children**	**Child-initiated, shared decisions with adults**	**Child-initiated and directed**
Hart, 1992	**Manipulation:** Children do or say what adults suggest they do, but have no real understanding of the issues, OR children are asked what they think, adults use some of their ideas	**Declaration:** Children take part in an event, e.g., by singing, dancing, or wearing T-shirts with logos on, but they do not really understand the issues.	**Tokenism:** Children are asked to say what they think about an issue but have little or no choice about the way they express those views or the scope of the ideas they can express.	**Assigned but informed:** Adults decide on the project and children volunteer for it. The children understand the project, and know who decided they should be involved and why. Adults respect their views.	**Consulted and informed:** The project is designed and run by adults but children are consulted. They have a full understanding of the process and their opinions are taken seriously.	**Adult-initiated, shared decisions with children:** Adults have the initial idea but children are involved in every step of the planning and implementation. Not only are their views considered, but they are also involved in taking the decisions.	**Child-initiated, shared decisions with adults:** Children have the initial idea and decide how the project is to be carried out. Adults are available but do not take charge.	**Child-initiated and directed:** Children have the ideas, set up the project, and invite adults to join with them in making decisions.

	but do not tell them what influence they have had on the final decision.							

Means and considerations.

The previous typologies concentrated on power-sharing and decision-making within novel projects. While the age of the child in question was never specified, it seems likely that it was designed for preteens and teens, as youth control is usually dismissed for anyone younger, e.g., school-age children, and young children. O'Kane (2003) and Lancaster and Broadbent (2003) addressed these gaps by offering ways to include younger children in ongoing processes. The former theorist envisions this list as containing the four essential ingredients for meaningful and effective participation, while the latter believes that these practices operationalize how to listen to children.

The author content analyzed their lists and used grounded theory (Glaser & Strauss, 1967/1999) to develop categories and code content accordingly. The author assigned Lancaster and Broadbent (2003)'s "A" item (e.g., Assigning space…) to two categories and underlined the phrase that justified its inclusion in that category. In order to truly facilitate children's participation, one must: welcome unconditionally; engage in meaningful dialogue; share power; and

adjust standard operating procedures in order to accommodate children's capacities. As one might discern from Table 2, to "welcome unconditionally" one must allow children to select their level of participation, from foregoing participation entirely to participating centrally to everything in between. To "engage in meaningful dialogue," one must share comprehensible information with children – that is, information that has been translated into terms and forms that children can understand – as well as listen respectfully to children's views and reflect with them upon community practice. To "share power" means that children's views have practical value in terms of community practice, as opposed to just symbolic value for the sake of image or rhetorical value within conversation. When children have real power, their will is enacted. Finally, to "adjust standard operating procedures in order to accommodate children's capacities" acknowledges that children's developmental stage circumscribes their behavior. As such, the community must be sensitive and flexible, communicating in terms (e.g., visually, more simply) that may deviate from adult norms and bridging (a concept that inspired Lancaster and Broadbent's acronym, RAMPS) between context and individual in order to facilitate diverse children's participation.

Table 2. Practices to facilitate children's participation

(Felt, 2011)	O'Kane, 2003; cited in Lansdown, 2005, p. 13	RAMPS (Lancaster & Broadbent, 2003; cited in Lansdown, 2005, p. 13):
Welcome unconditionally	**1.** An ongoing process of expression and active involvement in decision making at different levels in matters that concern them;	**P**roviding children with choices to participate or not.
Engage in meaningful dialogue	**2.** Information sharing and dialogue between children and adults based on mutual respect and sharing;	**M**aking time to give children information that is relevant, makes sense and focuses on what they want to know; **S**ubscribing to a reflective practice to ensure that interpretations are checked and hearing becomes only the first step towards gaining understanding.
Share power	**3.** Power for children to shape both the process and outcome;	**A**ssigning space for documentation and feedback so that young children have tangible proof that <u>their views have been valued.</u>
Adjust standard operating procedures in order to accommodate children's capacities	**4.** Acknowledgement that children's evolving capacity, experience and interest play a key role in determining the nature of their participation	**R**ecognizing the many verbal and visual languages of children that allow children to express themselves in their own terms; **A**ssigning space for documentation and feedback so that young children have <u>tangible proof</u> that their views have been valued.

Play

The dictionary got it wrong. While dictionary.com defines the verb play as "engage in an activity for enjoyment or recreation rather than a serious or practical purpose" (n.d.), nearly every single game designer, game scholar, early childhood educator, and improviser (theatrical, musical, etc) would argue that play can achieve quite serious, enormously practical ends, and often is pursued very deliberately for this reason.

According to Rogers and Sharapan (1994), "Play is a very serious matter... It is an expression of our creativity; and creativity is at the very root of

our ability to learn, to cope, and to become whatever we may be" (p. 13). As previously stated, Jenkins et al (2006) and the Project New Media Literacies team (2010) define play as the capacity to experiment with one's surroundings as a form of problem-solving. Thus, in addition to creativity, play is also science[4] – it is the vehicle through which one asks questions, constructs hypotheses, runs trials, analyzes results, and comes to conclusions. Particularly today, as forward-thinkers exhort innovation and policy-makers (solely, and thus myopically) extol the virtues of science, technology, engineering, and mathematics (STEM), the seriousness and practicality of this should be obvious.

Reviewing Johan Huizinga's *Homo Ludens* (*Man the Player* or *Playing Man,* 1938)*,* Thomas and Seely Brown (2011) write, "In almost every example of what he describes as "the sacred," play is the defining feature of our most valued cultural rites and rituals. As such, for Huizinga, play is not something we do; it is who we are" (p. 97)

Games.

Play does not need to occur within a specialized game, but a playful outlook can transform any object into a toy or game, and any activity into a game. Games should thus be broadly defined and understood as the context within which one plays. Games are distinguished by four traits: a goal, rules, a feedback system, and voluntary participation[5] (McGonigal, 2011, p. 21).

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[4] (which often is a creative endeavor)

[5] My definition of participation insists on voluntarism – without willingness, there is not participation. Therefore, the term "voluntary participation" is redundant.

Even if steps back from the position that play is frivolous, it still may be seen as auxiliary or non-essential – a pastime or leisure pursuit, something in which one can indulge once one's important work is finished, if one has the time. According to game designer Jane McGonigal (2011), games are not supplementary. "Games don't distract us from our real lives. They *fill* our real lives: with positive emotions, positive activity, positive experiences, and positive strengths" (McGonigal, 2011, p. 354).

Citing Herodotus's history of the ancient Lydians (pp. 5-6), McGonigal (2011) maintained that game playing enabled their community's survival. During a period of famine, citizens would work and eat on one day, then fast and play games on the next, and so on, over a period of several years. Certainly, the games provided individuals with a target upon which to focus their attention and so a case for distraction can be made. But distraction is an inadequate way to describe flow (Csikszentmihalyi, 1990). Moreover, in this case, game playing delivered additional and arguably more important benefits.

Flow.

Game playing is conducive to flow, or "the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it" (Csikszentmihalyi, 1990, p. 4), previously defined as "the satisfying, exhilarating feeling of creative accomplishment and heightened functioning" (Csikszentmihalyi, 1975, p. xiii). The optimal experience or flow experience

consists of "…situations in which attention can be freely invested to achieve a person's goals, because there is no disorder to straighten out, no threat for the self to defend against" (p. 40). Describing flow as distraction is tantamount to characterizing Olympic pole-vaulting as jumping high – while such a label is not exactly untruthful, it is still somewhat inaccurate because its scope is too limited and its scale too weak.

Good games facilitate flow because the work they introduce is highly engaging: easily accessible; "baggage-free," which means that failure can be risked and accepted without fear of significant reprisal or judgment; and multi-leveled – that is, they can be played on multiple levels (i.e., strictly physical, physical and cognitive/strategic, etc) and offer progressively more challenging tasks (known as "leveling up" amongst gamers). Within the context of flow, emotional and physiological processes occur that boost individuals' sense of well-being (Csikszentmihalyi, 1990, 1975; Goleman, 2006). Following a flow experience, individuals retain (at least for a certain period of time) this relaxation and satisfaction, as well as a sense of self-efficacy, whose longevity is much greater.

Self-efficacy.

Even *sans* flow experience, self-efficacy is a common derivative of game play. Bandura's social cognitive theory (1977, 1986, 2002, 2004) assigns the utmost importance to self-efficacy: "Among the self-referent thought, none is more central or pervasive than people's belief in their efficacy to exert control

over their level of functioning and events that affect their lives. This core belief is the foundation of human agency" (Bandura, 2002, p. 125). One might subsequently inquire, Of what use is *mancala*? How does playing that game have anything to do with controlling life events and transfer to "real world" behavior?

First, acting in a game demonstrates to players that they can exert power over something, that their efforts make a difference. Particularly to the disenfranchised (among whom youth number), this power and validation can be quite significant. It also shows that one can grow and even succeed, which might change schemas, or mental representations, about how the world works, how one can work within the world, and who one is – for example, a winner, an adept player, a promising learner, not a quitter. Scholars of narrative, media effects, and human development (Fisher, 1987; Schank and Abelson, 1995; Gerbner, Gross, Signorielli, & Morgan, 2002; Siegel & Hartzell, 2004) maintain that the stories we tell ourselves impact the way we perceive and act. Game experiences can influence the stories we tell – e.g., Hard work pays off, I am competent – and accordingly motivate behavior.

Second, game playing builds skills. At the very least, to play a game hones perseverance. This is the most modest scenario, envisioning a person playing a game to the end[6], winning the first time, and declining to level up. But the odds of winning the first time are slim, as is declining in that case – often, this taste of success is a powerful inducement to keep playing and "see what one is

[6] (for if one quits in the middle, the extent to which one truly has played is limited, not only due to temporal and processual deprivation, but because the spirit of play – which accepts failure – has not been fully embraced),

made of," so to speak, compare oneself to the challenge of the game and discover how far one can go. Therefore, game playing is usually an extended exercise that develops perseverance even further, as well as enriches emotional stamina and mental toughness. "Learning to stay urgently optimistic in the face of failure is an important emotional strength that we can learn in games and apply to in our real lives. When we're energized by failure, we develop emotional stamina" (McGonigal, 2010, p. 69). Mental toughness is also strengthened in the process of disciplining one's thoughts – not allowing oneself to perseverate on failure or lose focus within the context of intense, high-stakes situations – and maintain a high quality of performance. In many cases, hand-eye coordination, critical thinking, and decision-making skills are also practiced via games. Finally and very importantly, so too is collaboration. All of these skills can boost players' sense of self-efficacy, or belief in their ability to take control of their lives.

Community.

For the Lydians, game playing maintained and fostered community. This was not only accomplishing by nourishing each individual's soul,[7] but by connecting one with another. As this paper established previously, participation implies community, and play's active, voluntary, and context-engaging nature means that it is participatory; therefore, by the transitive principle, playing conjures community. But if a syllogism is not sufficiently compelling, each gaming scenario can be reviewed in order to prove its construction of community.

[7] which may have been hungrier or just as hungry as their famished bodies? To what extent is this true of all people? most people? certain people?

Single-player games are rarely played in isolation; players usually engage in parallel play (in which one is playing one's own game beside another player who is simultaneously playing his/her own game (usually the same game)) or turn-taking. This heightens individuals' awareness of one another and opens up space for game-related talk, whose functions include: processing experience, comparing performance, exchanging feedback, pursuing mastery. Even in the case of individuals separately playing single-player games, they are still part of a bigger community that also plays this game, and they usually seek out fellow players for the purposes of engaging in this game-related talk.

While this talk is important from an educational standpoint,[8] it is also crucial for community. Conversation is a context in which interlocutors can make themselves known to one another and decrease any sense of isolation they might feel. It also makes the game and, by extension, its community, more salient to that individual's persona, as it facilitated one's acquaintance and frames how individuals are identified within this context – as players/community members and, notably, as peers/neighbors. Community is further established through dialogue, which leads to mental representation and action. Community storytelling pertains to talk about community activities (the game) or the community itself, according to the research of Sandra J. Ball-Rokeach and colleagues in the Metamorphosis project. "Community storytelling is a key to having a higher level of collective efficacy; it is part of the imagining of ''we,'' thus of ''We can do it"" (Kim & Ball-Rokeach, 2006, p. 416). With this sense of

[8] to be further explored later in the paper

collective efficacy as well as the practical connections foster by joint play and dialogue, community members believe more in their communities and are more likely to maintain them.

But all of this has only referred to single-player games. As one might more easily assume, multi-player games are incredibly productive for community building. According to Thomas and Seely Brown (2011), “In essence, the game provides the impetus for collectives to take root” (p. 107). When a game is multi-player, teams individually and collectively represent communities and inevitably perform community-related tasks, e.g., discussing, consensus-building, decision-making, acting. “Good games… support social cooperation and civic participation at very big scales. And they help us lead more sustainable lives and become a more resilient species” (McGonigal, 2011, p. 350). How?

As previously mentioned, some may view gaming as incidental, a luxury for those who have discretionary time thanks to their citizenship of complex societies. But if games require extensive collaboration and management of dynamic systems, then who is to stay which came first, the game or the system? Perhaps skills acquired within gaming contexts enabled the very construction of these societies. Such a postulate is possible, for all children play, regardless of time, place, or culture[9]. Does the Mackel-Serres Law (Serres, 1824), “ontogeny recapitulate phylogeny,” apply in this case? That is, does the primacy of children’s play in their individual development demonstrate the primacy of play in

[9] Developmental theorists, teachers, and parents argue, play is how children learn – but more on that later.

civilization's development? Thomas and Seely Brown (2011) concede as much: "play precedes culture" (p. 116).

According to McGonigal (2011), players of massively multi-player games develop skills that help them to become "extraordinary collaborators" (p. 278). As she describes these individuals, it seems that their membership in any sort of community, geographic, activity-oriented, or otherwise, would be beneficial:

> Extraordinary collaborators are adept and comfortable working within complex, chaotic systems. They don't mind messiness or uncertainty. They immerse themselves in the flow of the work and keep a high-level perspective rather than getting lost in the weeds. They have the information stamina to filter large amounts of noise and remain focused on signals that are meaningful to their work. And they practice possibility scanning: always remaining open and alert to unplanned opportunities and surprising insights – especially at bigger scales. They are willing to bypass or throw out old goals if a more achievable or a more epic goal presents itself. And they are constantly zooming out to construct a much bigger picture: finding ways to extend collaborative efforts to new communities, over longer time cycles and toward more epic goals (McGonigal, 2011, p. 278)

Types of games.

"In every job that must be done, there is an element of fun. You find the fun and – SNAP! – the job's a game!" (Walsh & Stevenson, 1964). By Mary Poppins's definition, there are innumerable types of games. In terms of the nature of the work they present, McGonigal enumerates five: high-stakes, busy, mental, physical, and creative. In terms of contexts for play, there is analog and digital.

Contexts.

Digital games (or video games, as they are commonly known) have ignited a great deal of concern among certain scholars, educators, teachers, and advocates (e.g., Grossman & DeGaetano, 1999). In certain cases, this concern regarding digital games' – specifically those that feature violence and, to a lesser extent, sex – ill effects (Huesmann, 2010; Anderson, Shibuya, Ihori, Swing, Bushman, Sakamoto, Rothstein, & Saleem, 2010; Ward, 2010; Anderson, Gentile, & Buckley, 2007) has inspired restrictive legislation (see St. Louis County Ordinance No. 20,193 and its appeal). Other scholars, educators, teachers, and advocates have disputed these allegations of ill effects, claiming null or modest effects (Williams, 2006; Sherry, 2001) or even positive effects (McGonigal, 2011; Gee & Hayes, 2010; Jenkins, 2008; Johnson, 2006; Jones, 2003). Extensive evaluation of these arguments is beyond the purview of this paper. But briefly, whether digital games have the capacity to wreak effects that substantially differ from analog games is a question of context, content, and process.

First, does the digital context deliver harm or benefit? Critics could bemoan the eyestrain and sedentariness that may be associated with screen time, but in light of current trends and future forecasting, screen time is here to stay. Technological breakthroughs vis-à-vis image quality and haptics/interactivity (e.g., the Wii, the Kinect), however, may render these physical issues moot. Engaging with a digital interface rather than a three-dimensional, analog object

may be lamented. But since digital proficiency is an increasingly important skill, digital engagement might be desirable as it could boost digital proficiency.

Critics have also worried that a digital context is isolating and therefore socially harmful. However, empirical studies have failed to find an absolute link between digital game play and psychosocial well-being: "whether Internet and MMO [massively multiplayer online game] use were associated with negative or positive outcomes was largely dependent on the purposes, contexts, and individual characteristics of users. The results suggest that Internet use and game play have significant nuances and should not be considered as monolithic sources of effects" (Shen & Williams, 2011).

As mentioned previously, play conjures community. According to Gee (2008), "…it is precisely here that talking about "games"—and not "gaming" as a social practice—falls short. A good deal of reflection and interpretation stems from the social settings and practices within which games are situated" (p. 23). This paper has already explored what gamers talk about; let us now look at how they talk. It is not uncommon for co-players in MMO games to talk to one another via headset, instant messaging, or email, and to do so to such an extent that they develop rich relationships. Some people have met long-term partners via *World of Warcraft* (*WoW*; J. Brown, personal communication, August 30, 2008), while others have connected with so many fellow players that they have felt overwhelmed by social obligation. Gamer Shawna Kelly admitted that when she used to log on to *WoW*, she would be confronted with at least five messages

from people she'd met in the game who wanted to catch up. She claimed that people would get upset when she didn't reply immediately and would want her to run five-hour raids with them. Eventually, Shawna began signing in with a new username, at a time when newbies would be online, in order to dial down the sociality of the experience (S. Kelly, personal communication, March 28, 2011).

For those who are deprived of social contact due to limitations beyond their control (e.g., distance, physical infirmity), social gaming in an analog context is impossible – digital is the only option. This has been a site of investigation for individuals interested in supporting inter-generational relationships (e.g., geographically separated grandparents and grandchildren) and quality of life among the ill and/or specially abled. So it would seem that there isn't anything inherently harmful about the digital context; in fact, it may offer some unique, beneficial affordances.

Content.

What about content? The content of any game is up to the discretion of designers; being made of pixels instead of paper does not compel a certain kind of content. In fact, because digital technology can convincingly render exotic scenarios and facilitate immersive role-playing experiences, the potential for rich content may be superior in digital contexts.

Processes.

As previously mentioned, games share four defining traits: a goal, rules, a feedback system, and voluntary participation (McGonigal, 2011, p. 21). The goal

and rules – not the context, analog or digital – dictate the processes that players must enact. Kafai (2006) distinguishes between the processes compelled by games that are instructionist versus games that are constructionist, while Barab, Gresalfi, and Ingram-Goble (2010) describe the processes associated with transformational play. Squire & Durga (in press) explicate historiographic games, a type of transformational play.

Instructionist games are fixed as opposed to fluid, framed by an external designer, intended to guide players along a discrete pathway to a pre-determined goal. [10] Examples of instructionist games include *Where in the World is Carmen San Diego?* and various entertainment-education (EE) games, or "serious games" (Ritterfield, Cody, & Vorderer, 2009) such as *Cyberchase* (Fisch, Lesh, Motoki, Crespo, & Melfi, 2009) and *Re-Mission* (Thai, Lowenstein, Ching, & Rejeski, 2009). The purpose of this section is neither to pit instructionist and constructionist games against one another nor to rank them hierarchically – high-quality, educational games can and do exist in both forms; rather, the purpose is to explicate the process that each type of game demands. Instructionist games' process is linear and externally directed, consisting of performance.

> In the case of constructionist games, the learner is involved in all the design decisions and begins to develop technological fluency. Just as fluency in language means much more than knowing facts about the language, technological fluency involves not only knowing how to use new technological tools but also knowing how to make things of significance with those tools and most important, develop new ways of thinking based on use of those tools. Beyond that, game-making activities offer an entry point for

[10] Educational lessons and challenges may be embedded within these games and players may indeed learn as a result of their experience and enjoy the ride along the way; this will be taken up later in the paper.

> young gamers into the digital culture not just as consumers but also as producers (Kafai, 2006, p. 38).

According to Kafai (2006), this allows players "to construct new relationships with knowledge" (p. 37). So it would seem that the process of constructionist games is non-linear and internally directed, consisting of authorship.

Barab et al (2010) describe transformational play thusly:

> Playing transformationally involves (a) taking on the role of a protagonist (b) who must employ conceptual understandings (c) to make choices (d) that have the potential to transform (e) a problem-based fictional context and ultimately (f) the player's understanding of the content as well as of (g) herself as someone who has used academic content to address a socially significant problem. Playing transformationally integrates person, content, and context as part of a transactive system in which each type of positioning motivates and is motivated by the other types (p. 526).

This vision is interesting for many reasons, including its correspondence with social cognitive theory (SCT; Bandura, 1977, 1986, 2002, 2004). According to its triadic recriprocal causation, personal factors, behavioral patterns, and environmental events "operate as interacting determinants that influence each other bidirectionally" (Bandura, 2002, p. 121).

Squire & Durga (in press) studied transformational play in the form of a historiographic game.

> Because video games enable us to learn through having agency within a system, they demand us to shift perspectives in approaching history, enabling designers to make historiographic choices about how systems are represented, and what sorts of alternate hypotheses and interpretations of the past are made available (Staley, 2003). This pedagogical approach decenters the standard text (or teachers' notes) from the center of the knowledge network, and places students' questions, hypotheses, and fantasies at the center (Squire & Durga, in press, p. 3).

Transformational play seems to straddle the divide between instructionist and constructionist. Its process is: linear or non-linear depending on the specificity of the script and players' fidelity to it; both externally directed and internally directed, the relative magnitude of each again depending upon characteristics of the script and player; and consisting of both performance and authorship.

Teaching and Learning

What does it mean to teach and to learn? Who are the teachers, who are the learners, and how should they relate to one another? Where does learning happen? How does learning happen? What is the point of school?

As the public education system flails desperately, all of these questions demand consideration. American schools are challenged by innumerable pressures, some of which include: budget shortfalls; governmentally decreed standards; threats of legislative shifts; competition from private and international peers; issues of school safety and student health; cultural considerations in terms of school atmosphere and encounters with diversity; new forms of assessment for students and teachers; decision-making around teachers' digital pedagogies[11]; policy-making around students' digital practice[12]; and uncertainty as to which bodies of knowledge and praxis will be required for today's students to participate in the employment sector and wider sociocultural landscape of

[11] e.g., To what extent should teachers incorporate digital media in their curricula? Which digital media, and how?
[12] e.g., Can they bring their mobile phones to school? Can they cite from Wikipedia? Can they use their laptops in class?

tomorrow – literally tomorrow, for the rate of change is swift, as well as the figurative tomorrow of 10, 20, 30, 40 years down the road.

Modern pedagogy is informed by a "banking" model (Freire, 1970) that positions students as passive, empty accounts for expert teachers to actively pad with knowledge. According to Freire (1970), this "transforms students into receiving objects. It attempts to control thinking and action, leads men and women to adjust to the world, and inhibits their creative power" (p. 77).[13] Modern school systems – their architecture and operating procedures, e.g., grouping of students by type ("date of manufacture" and often "quality"), testing them uniformly against government standards, starting and stopping according to a clock-ruled bell, etc – are informed by a factory model that attempts to mete out education and produce graduates systemically (Robinson, 2008). Such a configuration reflects the "economic premises of industrialism," Robinson (2008) contends, which required "a broad base of people to do manual, blue-collar work… a smaller group who would go to administrative work… and an even smaller group who would go off and run the empire for us" (Robinson, 2008).

While such critiques may sound radical, they seem the only way to explain contemporary practice. Why else would teachers instruct as they do – hierarchically, inflexibly – if not due to a presupposition that teachers know, students don't, and having the class complete narrow exercises will transmit knowledge of value? Why else would schools be arranged as they are –

[13] Freire's ideology was also liberationist, intent on rolling back oppression by teaching the disenfranchised how to read and scaffolding their capacity to critique power dynamics.

institutionally, impersonally – if not due to a belief that students are things and education is an externally-imposable good? Contemporary practice doesn't make sense otherwise; and it doesn't make sense *any ways* because these visions are inaccurate.

"The mind is not a vessel to be filled but a fire to be kindled."[14] Students are not interchangeable raw materials best managed assembly line-style, but unique agents whose interests deserve respect. Schools should facilitate access to a verb, not a noun – which is to say, to learning, to a process, not to knowledge, not to an object.

Participation and play are the modes by which to realize this (re)vision of learning.

Participation, Community, and Learning.

Community is bound up in the idea of participation. In order to participate, there must be community. According to several educational scholars, in order to learn, there must be community as well. In 1991, Lave and Wenger introduced the term "communities of practice," which they defined as "a set of relations among persons, activity, and the world, over time and in relation with other tangential and overlapping communities of practice" (p. 98). According to Lave (1996), "A reconsideration of learning as a social, collective, rather than individual, psychological phenomenon offers the only way beyond the current state of affairs that I can envision at the present time" (p. 149). Gee (2008) echoed her sentiment: "Good learning requires participation—however

[14] http://thinkexist.com/quotation/the_mind_is_not_a_vessel_to_be_filled_but_a_fire/14465.html

vicarious—in some social group that helps learners understand and make sense of their experience in certain ways" (p. 23).

Learning is not only situated within communities, learning is created by communities. Wrote Soep and Chavez (2010), "The notion of learning as something that communities create, rather than something teachers transmit, goes a long way to help illuminate and explain how young people's minds and creative products develop through hands-on collaborative work in this kind of setting" (p. 54). As this quotation underscored, community-produced learning is achieved through participation, through "hands-on collaborative work."

Learning also creates community. "When the idea is to ask questions, diversity is a good thing. Moreover, students are both willing and capable of learning from one another in deep and profound ways. They turn diversity into strength and build their own networked communities based on interest and shared passion and perspective. In essence, they create and participate in their own collective" (Thomas & Seely Brown, 2011, p. 89).

Play, Community, and Learning.

Play, itself a form of participation, is also vital to learning. According to child developmental psychologist Jean Piaget, children learn through play. By simulating, performing, and playing with ideas and objects in their environments, children make sense of their expanding worlds. "When play happens within a medium for learning – much like a culture in a petri dish – it creates a context in which information, ideas, and passions grow" (Thomas & Seely Brown, 2011, p.

18). Constructionist and transformational play are robust vehicles for rich learning. Their format allows learners to experiment, build, and discover. Instructionist play can also support rich learning, as interactivity tends to support learning outcomes. When instructionist games are tied to narrative, their learning potential is considerable, as involvement with narrative and characters builds emotional connections that focus attention, organizes information in story form that is easier to recall and more enduring (Schank & Abelson, 1995; Appel & Richter, 2007), reduces resistance to the information (Slater & Rouner, 2002).

Thomas and Seely Brown envision collectives, or communities that emerge around play – "the creations of play and imagination in an era of digital media" (p. 59) – as important sites and enablers of learning and growth. They provide a means to support identity construction. Some theorists have designated different types of communities, e.g., communities of practice (Lave & Wenger, 1991), knowledge communities (Craig, 1992, 1995), affinity spaces (Gee, 1997, 1998), belonging communities (Metamorphosis, 2008), passionate affinity spaces (Gee & Hayes, 2010), and collectives (Thomas & Seely Brown, 2011). Because of the different reason that each emerged – respectively, shared occupation, narrative, geography, interest, passion, or play project – they allege that each community is significantly different. From Thomas & Seely Brown (2011): "In communities, people learn in order to belong. In a collective, people belong in order to learn. Communities derive their strength from creating a sense of belonging, while collectives derive theirs from participation" (p. 52).

However, in the view of this author, such differentiation is superficial and difficult to support. Do community members really learn in order to belong? They may sense belonging regardless of learning. They may derive their sense of belonging from participation, just as Thomas and Seely Brown allege that collective members do. According to the Metamorphosis Project, belonging is created by storytelling, which is an artifact of all communities. Suffice it to say, community supports learning, and because participation and play are associated with community, participation and play support learning.

Participation, Play, and Participatory Learning.

Participation and play are robust vehicles for learning, but how does one put them into practice? How should one facilitate learners' participation? What does learning through play look like – what are the steps in the process?

Scholars of fan community participation (Jenkins), digital youth culture (Ito, John Seely Brown), and the architecture of and social processes associated with good games (McGonigal, Squire & Durga, Gee, Thomas) have each offered their own vision of learning; unsurprisingly in light of these scholars' origins, their frameworks are strongly influenced by either participation or play. Some sought to illuminate the characteristics of a participatory context that supports learning, while others outlined the actions for learners/players to realize their objective.

This author applied grounded theory (Glaser & Strauss, 1967/1999) to content analyze the frameworks by McGonigal (2011), Thomas and Seely Brown (2011), Gee (2008), Jenkins et al (in press), Ito (in press), and Squire & Durga (in

press). The contextual and active components of learning are: Learner avidly enters welcoming community (active and contextual); Learner appreciates contextual constraints and opportunities (active); Community provides feedback (contextual); Learner pursues learning in a self-directed and/or novel fashion (active); Community provides access to diverse community members' reflections and roles (contextual); and Community provides access to materials for creative participation (contextual).

Of course, these distinctions between the learner's job and the community's job are somewhat superficial since learners are community members who can and do co-configure the space, transactionally engage in reflection, mobilize resources, etc. They are, at once, both the agent and the system. Rather than a polished, prescriptive dictate, this schematization is intended to reflect back contemporary dialogues and provoke further discussion and theoretic refinement.

Table 3 represents the raw data aligned according to the author's grounded theory-led conclusions. This table is difficult to read and only represents an intermediate step in the process. Immediately following, Table 4 aligns complementary components and arranges them temporally, according to the typical procession through a project/game. Bracketed items represent the author's unique contribution, an attempt to pair an orphan component with its intuitive corollary, contextual or active.

Table 3. Contextual and active components of participatory learning – Raw

(Felt, 2011)	McGonigal, 2011	Gee, 2008, pp. 21-22	Jenkins et al, in press; Participatory Learning	Ito, in press; Principles of Connected Learning	Squire & Durga, in press, p. 12	Thomas & Seely Brown (2011)
Learner avidly enters welcoming context/ community (active and contextual)	Goal	First, experiences are most useful for future problem solving if the experience is structured by specific goals. Humans store their experiences best in terms of goals, and how these goals did or did not work out.	Motivation (and engagement)	Participants have a shared interest or purpose	social acceptance of newcomers to the community of practice	"Students learn best when they are able to follow their passion and operate within the constraints of a bounded environment" (p. 79)
Learner appreciates contextual constraints and opportunities (active)	Rules	Second, for experiences to be useful for future problem solving, they have to be interpreted. Interpreting experience means thinking—in action and after action—about how our goals relate to our reasoning in the situation. It means, as well, extracting lessons learned and anticipating when and	Authenticity			1) "massive information network that provides almost unlimited access and resources to learning about anything" ; 2) "bounded and structured environment that allows for unlimited agency to build and experiment with things

		where those lessons might be useful.				within those boundaries ” (p. 19)
Context provides feedback (contextual)	Feedback system	Third, people learn best from their experiences when they get immediate feedback during those experiences so that they can recognize and assess their errors and see where their expectations have failed. It is important too that they are encouraged to explain their errors and why their expectations failed, along with what they could have done differently.	Connected learning ecosystem			
Learner pursues learning in a self-directed and/or novel fashion (active)	Voluntary participation	Fourth, learners need ample opportunities to apply their previous experiences —as interpreted— to similar new situations, so they can “debug” and improve their interpretations of these	(Motivation and) engagement	Learners specialize and gain mastery by pursuing their interests	knowledge acquisition though participation	“Tacit learning functions most effectively when students discover their own learning objectives” (p. 111).

		experiences, gradually generalizing them beyond specific contexts.				
Context provides access to diverse community members' reflections and roles (contextual)		Fifth, learners need to learn from the interpreted experiences and explanations of other people, including both peers and more expert people. Social interaction, discussion, and sharing with peers, as well as mentoring from others who are more advanced, are important. Debriefing after an experience—that is, talking about why and how things worked in the accomplishment of goals—is important. Mentoring is best done through dialogue, modeling, worked examples, and certain forms of overt	Co-configured expertise	Everyone shares authority and contributes expertise	progression of newcomers from peripheral or smaller roles, to more and more important roles in the community	"Mentors provide a sense of structure to guide learning which they may do by listening empathically and by reinforcing intrinsic motivation to help the student discover a voice, a calling, or a passion" (p. 51).

		instruction, often "just in time" (when the learner can use it) or "on demand" (when the learner is ready).				
Context provides access to materials for creative participation			Creativity	Resources are remixable and transparent; Infrastructure is open, networked and extensible		[New media] intensifies and heightens the process of learning by continuously relating it back to the personal. The second is that digital media is based on an infrastructure that is designed to scale" (p. 67).

Table 4. Contextual and active components of participatory learning – Summary

Contextual	Active
Context/community is welcoming	Learner avidly enters
[Context is authentic]	Learner appreciates contextual constraints and opportunities
Context provides access to materials for creative participation	Learner pursues learning in a self-directed and/or novel fashion
Contextual mechanism provides feedback	[Learner participates/plays]
Context provides access to diverse community members' reflections and roles	[Learner seeks reflective discourse and takes on roles within the community]

As "proof of concept," this author aligned the contextual components of participatory learning with the previously identified practices to facilitate children's participation. The two lists seem to reproduce one another, affirming that certain mechanisms enable participation.

Table 5. Contextual components of participatory learning aligned with Practices to facilitate children's participation

Contextual components of participatory learning	**Practices to facilitate children's participation**
Context/community is welcoming	Welcome unconditionally
[Context is authentic]	
Context provides access to materials for creative participation	Adjust standard operating procedures in order to accommodate children's capacities
Contextual mechanism provides feedback	
Context provides access to diverse community members' reflections and roles	Engage in meaningful dialogue; Share power

This author also attempted to translate the activities of a learner/player into more easily digestible English. This list is intended to help educators identify learning processes so they that they might conceptualize curricula and conduct valid assessment.

Table 6. Activities of a participant/learner/player aligned with Active components of participatory learning

Activities of a participant/ learner/player	**Active components of participatory learning**
Asking questions	Learner avidly enters
Facing challenges; Asking questions	Learner appreciates contextual constraints and opportunities
Exchanging feedback; Constructing products	Learner pursues learning in a self-directed and/or novel fashion

Developing passions	[Learner participates/plays]
Building relationships; Establishing identities	[Learner seeks reflective discourse and takes on roles within the community]

Pragmatists still might wonder how to put participation and play-framed learning into practice. What type of power-sharing scenario should one employ? What type of play is recommended?

Wong et al (2010)'s pyramid-shaped typology of children's participation did not prize the poles of adult control or youth control but rather upheld the middle – shared control. This arrangement allows for co-learning and scaffolding, so that learners might benefit from others' expertise. Note, this is not unilateral – adults and youth should share in the tasks of teaching and learning. This also guards against the risk that novices flounder unsupported and arrive at the conclusion(s) that exploration is scary and solitary and/or that they are not good at certain things.

The advisability of play processes may replicate this shape, with the middle form – transformational – rising above those at either end of the continuum. Transformational play is an expression of shared control, for it doesn't put the onus of play solely on the shoulders of youthful participants, nor does it take all of their autonomy and deliver it to external designers. Certainly, there is a time and a place for most things, and certain scenarios might lend themselves best to one thing or another. More closed-ended instructionist play might be appropriate at certain times, just as more open-ended constructionist play might

suggest itself. In terms of best general practice, transformational play seems optimal.

Additional Benefits of Participation and Play

Participation and play also provide contexts for developing vital skills, respecting universal needs, and allowing for adaptation.

Develops Vital Skills

Social and Emotional Learning (SEL).

Participation and play are contexts in which learners can develop social and emotional skills. As previously stated, self-awareness and self-regulation are required for and honed by participation and play. Heightened social awareness is also a possible outcome of engaging in participation and play. McGonigal (2011) explained how players can develop "emergen-sight," or the capacity to appreciate and negotiate shifting conditions. Thomas and Seely Brown (2011) also reported on *WoW* guild members' ability to work together synchronously and "clear the path to victory" (p. 113). For a young boy who played video games at home and started to develop his own digital games, relationship skills were his key takeaway:

> …Sam told us that the single most important thing was to 'not be mean' in your comments and to make sure that you commented on something good when you came across it, as well. The game dos not just teach programming; it cultivates citizenship (Thomas & Seely Brown, 2011, p. 22).

The opportunity to form mentor-mentee relationships is also a benefit of participation and play (Gee, 2007; Joseph, 2008; Gee & Hayes, 2011; Wong et

al, 2010). Finally, responsible decision-making can be practiced throughout these experiences. Particularly in participatory contexts, youths can take on leadership roles, sensitively contribute to community discussions, assist in collective efforts, and evaluate the consequences of their actions (Rogoff, Turkanis, & Bartlett, 2001).

New Media Literacies (NMLs).

Learners can also hone new media literacy skills (NMLs). As previously stated, play and negotiation are preconditions for and further developed in participation and play. Collective intelligence, simulation, visualization, transmedia navigation, multi-tasking, networking… all of the NML skills can and often do appear within participation and play contexts. In the case of transformational play, where role-playing is required, performance is the primary skill through which learners engage with and construct new knowledge.

Importantly, NMLs also compel evaluation of ethical practice. Consideration of ethics in general, and ethics vis-à-vis conduct and communication in digital contexts, is essential when one considers the amount of time that young people spend with media (Jenkins et al, 2006; James, Davis, Flores, Francis, Pettingill, Rundle, & Gardner, 2009) and will spend with media in the future (Johnson et al, 2011).

Asset Appreciation (AA).

Immersion in diverse bodies of literature inspired the theoretical *bricolage*[15] that is the "asset appreciation" concept. Asset appreciation unifies academically separate yet philosophically complementary theory from research on resilience (Luthar, Cichetti, & Becker, 2000; Yates, Egeland, & Sroufe, 2003), possible selves (Markus & Nurius, 1986; Clark, Miller, Nagy, Avery, Roth, Liddon, & Mukherjee, 2005), positive deviance (Pascale, Sternin, & Sternin, 2010; Singhal, Sternin, & Dura, 2009), asset-based community development (Kretzmann & McKnight, 1993), intrinsic motivation (Deci & Flaste, 1995) and appreciative inquiry (Bushe & Kassam, 2005; Cooperrider & Whitney, 2005). Asset appreciation aims to capture the extent to which an individual and/or community recognizes the availability of internal and external resources and exploits them to their fullest potential.

Simply knowing about resources can help people to get their needs met with greater ease and comprehensiveness, particularly in times of stress. Appreciating resources as assets can boost people's quality of life perceptions and sense of self and/or collective efficacy (Bandura, 1977, 1986, 2002, 2004) because it frames both the environment as rich and oneself as embedded in a support network. Behaving resourcefully and framing situations productively facilitates meaningful learning.

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[15] A French term, *bricolage* is used by many American academics to refer to "a construction made of whatever materials are at hand; something created from a variety of available things" (Random House, Inc., 2010).

Participation, play, and participatory learning are associated with asset appreciation. They form a feedback loop, with asset appreciation enabling these processes and emerging from these processes. To engage in these processes initially, motivation is required. This motivation may stem from asset appreciation, from recognizing what one is good at and wanting to apply it, to maximize it, to reap the full benefits. According to McGonigal (2011), “Games focus our energy, with relentless optimism, on something we’re good at and enjoy” (p. 38). Asset appreciation is also an integral part of the participatory learning experience. Making sense of the structural, material, and human resources in one’s environment and tapping them in order to realize one’s quest is at the heart of participation, play, and participatory learning. This is asset appreciation.

Narrative.

Participation, play, and participatory learning deliver stories into our midst. Objectives often are narratively framed as quests and become “a collective context for action” (McGonigal, 2011, p. 101). Participation, play, and participatory learning may also take place via transformational play or role-play, which provides opportunities to connect with and co-create stories and characters. More storytelling – about the game, about the community (Kim & Ball-Rokeach, 2006a), and about the community members – also occurs as a result of participation, play, and participatory learning. Thus, narrative skills – the ability to comprehend and weave stories – are developed through engagement with these processes.

Respects Universal Needs

Community, Character, Work, Meaning.

While some lament, "there are no new ideas under the sun," this could be equal cause for celebration for it implies that there is something fundamentally similar about all people, something that binds us together, makes us familiar to one another. It also may say something about the idea; if one's "novel" epiphany turns out to be shared by five other theoretical models, one might be on to something… Such was the case with this framework. The author identified the aforementioned SELs, NMLs, AA, and narrative as the constituents of a "primary skills set." Thematically, the primary skills set (Felt, 2010), intrinsic rewards (McGonigal (2011), Soep and Chavez (2010), Deci and Flaste (1995), Social development model (Hawkins & Lishner, 1987; O'Donnell, Hawkins, & Abbott, 1995), and Child Development Project (CDP; Battistich, Schaps, Watson, Slomon, & Lewis, 2000) all seem to outline the same idea. People's universal needs consist of community, character, work, and meaning.

Table 7. Universal Needs

CATEGORY	**Community (how is your space)**	**Character (how do you feel)**	**Work (what do you do)**	**Meaning (what does it mean)**
Primary skills set (Felt, 2010)	Asset appreciation	SEL	NML	Narrative
Collegial pedagogy (Soep & Chavez, 2010)	Community practice	Positive youth development	Critical pedagogy	
Four major categories of intrinsic rewards (McGonigal, 2011, p. 49)	Social connection = share experiences, build bonds, "we want others to see our strengths, and to reflect our achievements back to us" (p. 76), "we want to be esteemed in the eyes of others, not for 'who we are,' but rather for what we've done		Satisfying work = being immersed in clearly defined, demanding activities that allow us to see	Meaning = curiosity, awe, wonder about things that unfold on epic scales; "Story sets the stage

	that really matters" (p. 113); The experience, or at least the hope, of being successful		the direct impact of our efforts	for meaning" (Polack, cited in McGonigal, p. 101)
Deci & Flaste, 1995; Intrinsic Motivators/Intrinsic Aspirations (p. 127)	Relatedness/ Satisfying personal relationships; Making contributions to the community	Autonomy/ Growing as individuals	Competency/ Growing as individuals; Making contributions to the community	[All three aspirations = how we make meaning?]
Social development model (Hawkins & Lishner, 1987; O'Donnell, Hawkins, & Abbott, 1995; cited in Farrell, Morrison, & Furlong, 2006, p. 46) re: bonding to institutions	Opportunity for involvement	Reinforcements provided for behavior	Skills applied in participation	
Child Development Project (CDP; Battistich, Schaps, Watson, Slomon, & Lewis, 2000; cited in O'Farrell, Morrison, & Furlong, 2006, p. 53)	(a) Build stable, warm, and supportive relationships	(b) Attend to the social and ethical dimensions of learning	(c) Teach to the active mind	(d) Honor intrinsic motivation

Analysis of the table proves that participation and play are contexts that meet these universal needs. The previous section articulated how participation and play develop SELs, NMLs, AA, and narrative. Since these four areas are essentially reiterated by every other framework, the previous section also proves how participation and play meet universal needs.

The author couldn't help but note how various scholars' characterizations of social and emotional skills related to one another.

Table 8. Social and emotional foundations

SEL (CASEL, 2011)	Self-awareness	Self-management	Social awareness	Relationship skills	Responsible decision-making
5 C's (Lerner, 2003, p. 8)	Confidence	Competence	Connection (to family, peers, and community)	Caring/compassion	Character
Four Guiding Principles (Resnick & Rusk, 1996; cited in Rusk, Resnick, & Cooke, in press)	Help members build on their own interests	Support learning through design experiences	Create an environment of respect and trust	Cultivate an emergent community of learners	
Squire & Durga, in press, p. 12		Knowledge acquisition through participation	Social acceptance of newcomers to the community of practice		progression of newcomers from peripheral or smaller roles, to more and more important roles in the community

Uses Resources Efficiently

The participation and play processes are also productive because they capitalize on human potential and efficiently circulate knowledge. This is accomplished through community members' – youths' and adults', teachers' and students' – commitment to co-configured expertise. Soep and Chavez (2010) refer to it as collegial pedagogy, this process in which "Young people and adults jointly and reciprocally – not always painlessly – learn from and assess one another, always with an eye to a future for the unfolding work, its public release" (p. 78). From his game design experiences, youthful Sam reported "…what he

has learned most of all is how to learn from others" (Thomas & Seely Brown, 2011, p. 23), and Thomas and Seely Brown (2011) attested to "…how powerful it can be when students see each other as resources and figure out how to learn from one another" (p. 25). In the OC, the participatory learning cooperative documented by Rogoff et al (2001), parent volunteers also participated in this information and skill exchange, and all reported enormous benefits in terms of igniting excitement, pursuing interests, developing passions, building relationships, solving problems, learning self-discipline, negotiating boundaries and control, etc, etc, etc. When people bring their full selves to the table, the possibilities are limitless.

Using participation and play also exploits their potential. Whereas individuals had steadily and peripherally using these vehicles for learning, the full extent of their educational value can now be realized. This leads to rich opportunities. "The process of knowing has moved from being instrumental to being structured by a sense of play. Through that shift, experience is transformed into a process of experimentation, play, and riddling, which reveals the resources and possibilities that are available to a persona and what he can do with them" (Thomas & Seely Brown, 2011, p. 103).

Allows for Adaptation

Because participation and play are contexts and processes, they are open-ended enough for individual tailoring and persistence over time. This is important, as learners all have personal styles and rates of change are

accelerating. Dede (2007) commented extensively on the innovations that have recently occurred and that we can anticipate in the next several years; specifically, “three interrelated shifts (the evolution of ICT for expression, experience and interpretation; distributed thought, action, and sociability; the paramount importance of expert decision making and complex communications)” compel educational reform and aptitude for thriving in turbulent environments (p. 9).

Juhasz (2011) explicated the affordances of her novel “video-book,” an e-book on YouTube that fuses seamlessly with YouTube, delivering a media rich, interactive experience. With this medium specificity, one can anticipate shifts in reading and writing practices, temporal expectations, authorship opportunities, legal challenges, vetting, and support structures. The New Media Consortium’s (Johnson et al, 2011) recent report on educational technology affirmed that e-books’ time to adoption is one year or less, as are mobiles’. In the next two to three years, one can expect to see augmented reality and game-based learning, while the next four to five years will bring gesture-based computing and learning analytics (p. 5). This report also notes:

- The abundance of resources and relationships made easily accessible via the Internet is increasingly challenging us to revisit our roles as educators in sense-making, coaching, and credentialing.
- People expect to be able to work, learn, and study whenever and wherever they want.
- The world of work is increasingly collaborative, giving rise to reflection about the way student projects are structured (p. 3).

For all of these reasons, participation and play are ideal solutions for education.

Conclusion

This took an in-depth view of participation and play, examining its respective definitions and typologies, exploring theories and practices of teaching and learning, then identifying how participation and play can enrich teaching and learning. These processes support participatory learning as well as develop vital skills, respect universal needs, use resources efficiently, and allow for adaptation. By embracing participation and play as the contexts through which to facilitate learning, diverse learners can appreciate richer experiences and outcomes.

As for the discussion section of COMM 200…

Finally the TA concluded, “So now we know what **not** to do. Over the course of this semester, I’ll lecture a bit, you’ll do some independent work, and you’ll do some group work. If we ever cross over into this territory” – she indicated the list on the board – “please, call me on it. I’ll call you out if you’re not participating too. And while this list was kinda negative,” she said slowly as she realized, oh no, and her worries went zooming ahead, had she missed an opportunity, could this have been more productive, was it just a gripe session?, “I’d love to hear your ideas about what we **should** do. How do we make this a learning community? Why don’t you think about it this week,” she suggested, phew, smiling as she realized she’d saved it, maybe this plan was even better, a better use of time, maybe it was more respectful of students’ thought processes, “and get back to me next Monday?”

As it turned out, no one got back to her next Monday. The TA failed to follow up – there was a significant amount of material to cover – and no one took the initiative to volunteer. It's possible that none of the students had thought about the question over the past week. It's equally possible that, by encouraging participation and modeling playfulness[16], the question was moot. The proper learning culture had been seeded, ensuring that, if and when issues did arise, they could troubleshoot them as a community.

[16] "…the character of playfulness, which is core to the new culture of learning" (p. 64)

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