



Ludic Language Pedagogy

<https://www.llpjjournal.org>

Game-based language teaching is vaporware (Part 2 of 2): It's time to ship or shut down

Jonathan deHaan*

University of Shizuoka, Faculty of International Relations

ARTICLE INFO

Article history:

Received: 2019/11/22

Revised: 2020/6/26

Accepted: 2020/7/19

Published: 2020/7/22

Keywords:

GBLT, Hype cycle,
Integration,
Normalization,
Pedagogy, Praxis

Peer reviewers:

Aaron Chia Yuan Hung
Jonathon Reinhardt

ABSTRACT

These papers explore the idea of academic research as an “industry” that can create useful knowledge and “products” for teachers. This paper (Part 2) contextualizes game-based language teaching “vaporware” reports in educational technology “hype cycles,” as problems for both novice and expert teachers, and in relation to certain prior constraints of academic research and publishing. I argue that researchers have created an academic niche; we have not created a field based on real differences for students and teachers in real classrooms. It’s “crunch time,” and researchers have two options. (1) We can acknowledge and wrestle with our failings and foundations. Researchers can re-focus on teaching-heavy praxis that results in shipping our product: a mature field with numerous reports of normalized uses of games that result in consistent learning outcomes. A simple model and other resources are shared to help with this path. I will argue that our field needs people with many different roles to want to and learn to play well together. (2) Or, we can give up. Researchers can write a group postmortem report, shut down, go our separate ways, and stop contributing to the hype about games in language education.

KEY POINTS

Background: I use and research games in language education, and have struggled to integrate technology and teaching.

Aim: I wanted to understand what other teachers and researchers were reporting in publications of games in language education.

Methods: I drafted 14 criteria related to theory, teaching and research, then tallied the prevalence of these criteria in reports of game-based language teaching.

Results: None of the papers reported all GBLT criteria. The papers reported details about theory, learning outcomes and material design more than details about teacher roles or interaction.

Conclusion: It's time to prioritize teaching in playtests and iterations and reports. Let's make our field a cooperative game.

TWEET

Half Life 2: Episode 3!
Starcraft: Ghost!

Game-Based Language Teaching!

They're all amazing, aren't they!?

Well ...

They're GOING to be amazing!
... Just wait a little bit longer!
... Please?

#vaporware #techhype

* Corresponding author. Email address: dehaan@u-shizuoka-ken.ac.jp (Dr. Jonathan deHaan)



A quick recap

In [Part 1](#) of these papers, I explained my motivation for examining research reports of game-based language teaching (GBLT) and my consideration of what different readers might appreciate. I then differentiated game-based language teaching from game-based language learning and gamification, and from theoretical and experimental publications. I introduced and described my 14 theoretical, practical and research-focused questions and criteria for examining reports of GBLT. I then used these questions to examine 28 reports of GBLT; each was explored in a section that described its importance to GBLT, how GBLT reports have (and have not) prioritized that criteria, and why including that criteria in research could improve game-based language teaching. I ended that paper by inviting readers to participate in a contest.

Academic reports of game-based language teaching over the last 20 years, with a few exceptions, demonstrate a lack of interest in teachers and teaching practices. As a research field,

Game-based language teaching is vaporware

“Announcing ‘GBLT!’ ... again!”

Vaporware: “a product, typically computer hardware or software, that is announced to the general public but is never actually manufactured nor officially cancelled.” (“Vaporware,” n.d.)

Am I claiming that there aren’t any good language teaching **games**? Nope. There are lots of commercial and free-to-play PC games, tabletop games, smartphone apps, and classroom games for language learning.

Am I claiming that there aren’t any good **ways** (i.e., pedagogical frameworks) to teach language with games? Nope. Again, I think researchers have all the tools that we need. We have the PPP framework, the TBLT framework, the little-known EEE framework¹, the pedagogy of multiliteracies, and many more if researchers look at the learning sciences and other educational approaches and tools. There isn’t one way to teach language, or to implement GBLT. The reports (see the pedagogical criteria 6-10) included a variety of behaviorist, cognitivist and constructivist approaches and implementations.

What I think is vaporware is **the research field**. Researchers (myself included) have announced and hyped the idea of game-based language teaching, but we have not delivered **reports** of carefully considered, described and sustainable implementations of language teaching with games in real classrooms. Unfortunately, too many of those reports do not thoroughly apply and test the breadth and depth of available pedagogical frameworks.

Each of the criteria I used to examine GBLT publications can be important to different people. Researchers need to connect and contextualize their explorations, so theoretical and empirical questions are of primary importance to them. Teachers want to know if a game is effective, and how to use a game in the classroom, so answers to the empirical and practical questions are important for them to have. I think that the practical criteria (especially 8-11 are most important as they can create a bridge between research and teaching. These were the criteria most frequently omitted from the 28 papers I evaluated, and I believe that their inclusion can most effectively improve game-based language teaching and research.

Many GBLT (and GBLL) papers begin with statistics demonstrating the popularity of games, the technological advancements of gaming technologies, prior research and teaching interest in games (often in other subjects), and the lack of research on games and language teaching and learning. Each paper seems to “announce” the concept of GBLT (like a PR rep at a trade show announcing a new game or gaming console or gaming service), and to excite researchers to pay attention to or invest in

¹ Please, please, please look at [“Technology – ‘Just’ Playing Games? A Look at the Use of Digital Games for Language Learning”](#) and [“Using A Game-Design Enhanced Approach to TBLT: The Example of The Social Deception Tabletop Game ‘Coup.’”](#)

the potential of the technology. See Figure 2 (inspired by Keanu Reeves' announcement of *Cyberpunk 2077*).



Figure 2 “Reanu Keeves” announcing *GBLT2100* at the “EEE333 Expo”

The research literature (especially that on digital GBLT and GBLL) seems to feed on excitement around ever-developing gaming technologies and gamer cultures. The literature surged in the 1980's around computer games, then researchers in the 90's and early 2000's explored console games, and when MMOs exploded in the 2000's, so did games and language education interest in them. Papers have recently been published on the potential of VR and AR (Sykes, 2018) and also on trendy modern board games (York, 2020).

A constant refrain in GBLT is the announcement of the potential (or promise) of a new technology or the culture around the technology to afford different and better language learning. See Figure 3 for one artist's conceptualization of the “future” of GBLT. In this vision, based on Villemard's 1910 “In the Year 2000” print, all a teacher has to do is select and dump games into a machine that (somehow) effectively transfers language into students' brains!



Figure 3 Is this our shared vision of the future of GBLT?

Hype cycle: "There is a repetitive cycle of technology in education that goes through hype, investment, poor integration, and lack of educational outcomes. The cycle keeps spinning only because each new technology reinitiates the cycle." (Toyama, 2011)

The GBLT field seems to follow the typical trend of a hype cycle. GBLT researcher-teachers seem to become interested in a game or platform, run one or two largely technology-focused projects, and then stop. The field, then, through other GBLT researchers, moves on to another game and the cycle continues. See Figure 4. GBLT's attention flits from tech to tech, never pausing to consider how fundamental pedagogical integration work might meaningfully change the game.

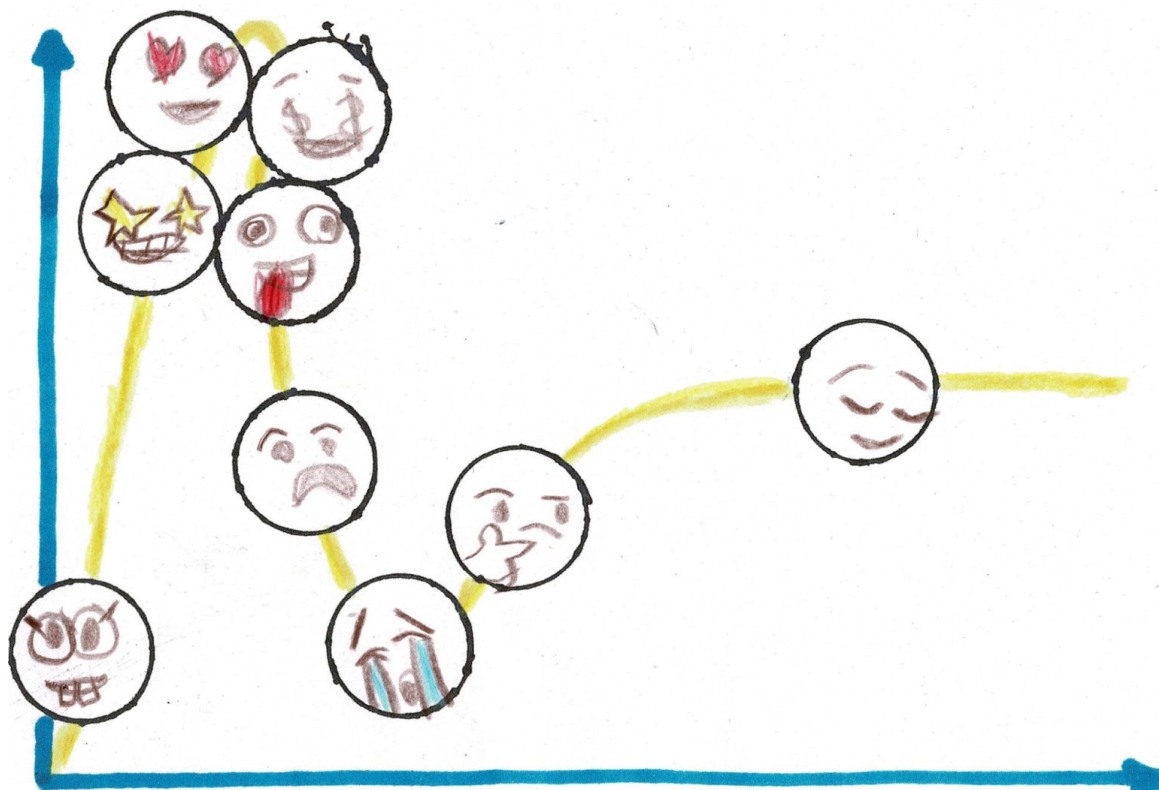


Figure 4 The many faces of a hype cycle

GBLT's attention flits from tech to tech, never pausing to consider how fundamental pedagogical integration work might meaningfully change the game.

Without focused research investigating how to concretely integrate games into the constraints of an actual classroom, the "field" will likely continue to hype popular games, make hypothetical arguments about the potential of the media, and run a few studies (most likely on short-term vocabulary improvement) before the field, through new blood, moves on to the next technology and similar announcements of potential. GBLT seems to be continuing its trajectory away from pedagogical investigations (Cornillie et al., 2012).

"When is GBLT showing up? ... It's been delayed? Again?"

The academic field of game-based language teaching (GBLT), as a body of research reports, as a "product" that connects a theoretical backbone, detailed practical implementation with other teachers in mind, and research results, does not exist. Language learning games are available in stores, online, and in classrooms. While games are on the market, GBLT, as a field of research reports, is not currently "on the market." I, and other researchers, seem to need to keep waiting for a "feature complete" field, or "feature complete" research reports of language teaching with games. Conceptual models, hypothetical lesson plans, collections of games or activities, and controlled lab or classroom experiments (all of which are readily available) are not delivered evidence of all of the announced potential of games to transform language education. There is too much theory, too much technological speculation and not enough evidence of how teachers connect games and pedagogy to learning outcomes. So many GBLT papers (in their entirety, or in the introductory sections) spend so much space arguing the reasons to use games yet devote so little space to describing how a teacher actually used games in a real classroom and achieved positive results (which all might encourage more teachers to use them). There is an echochamber in the GBLT literature built out of reasons and theories and categorizations and ideas. The field, lacking practical implementation, remains hollow. GBLT, like some big budget magic trick, is built on smoke and mirrors rather than substance.

Game design document: "The purpose of a game design document is to unambiguously describe the game's selling points, target audience, gameplay, art, level design, story, characters, UI, assets, etc." ("Game design document," n.d.)

Vertical slice: "A vertical slice is a portion of a game which acts as a proof of concept for stakeholders before they agree to fund the rest. It is not the same thing as a prototype in that it is expected to look of final quality and play like the final game. It is like asking to see a piece of the final cake before agreeing to pay for the whole." (Kelly, n.d.)

Theory-crafting and hypothetical pedagogical pieces are visionary, eye-opening, and inspiring. They have helped many of us think of the potential of the media to improve language education. But, looking back at how many hypotheticals exist and how few of them have been tested or promoted in published research in the field, they tend to resemble design documents rather than finished products. They feel like recipes that no one has ever made the food from. The field is missing the subsequent research and practice reports that show that these ideas can actually be put into regular practice in regular classrooms and have demonstrable impact on students. The field needs pedagogically-oriented work that demonstrates that what these brilliant thinkers and writers have speculated about can actually be done. Interesting ideas and suggestions abound, but these are like napkin sketches or design documents, or perhaps vertical slices, rather than the actual practices that can be implemented. Ideas must be playtested in classrooms.

Playtest: "the process by which a game designer tests a new game for bugs and design flaws before bringing it to market. Playtests ... are very common with computer games [and] board games [and] have become an established part of the quality control process." ("Playtest," n.d.)

GBLT has had a few solid playtests. There are some very interesting bits and pieces of useful accounts of teachers in actual classrooms doing specific activities with games to foster learning outcomes. Unfortunately, many of these playtests did not continue, and other GBLT researchers are not taking lessons learned from these playtests to heart in trying to build a more integrated and practice-focused research and teaching GBLT field. Only continued, deliberate, practical projects can see GBLT finally released and adopted. Projects in alpha stages must be especially supported. Please let me know how I can help!

Praxis: "an integrated approach to engaging theory with research and teaching practices ... a dialogic back-and-forth between action and reflection grounded in reasoning and experience" (Reinhardt, 2018, p.2)

The GBLT field and GBLT reports do not demonstrate praxis; theory and research feature prominently and pedagogy is consistently an afterthought. GBLT seems caught in never-ending waves of hype cycles around technology, refusing to focus on the pedagogy that might rebalance the field. This cycle needs to be broken. Many papers begin by categorizing GBLT as in early stages. Are authors actually critiquing the field for its lack of development? Or are they doing this to justify continued exploratory, experimental and descriptive projects? Researchers need to go deeper to move the field to more productive stages of pedagogy and technology integration.

Normalization: "the state in which the technology is so embedded in our practice that it ceases to be regarded as either a miracle cure-all or something to be feared" (Chambers & Bax, 2006)

Peterson (2013, p.56-58) draws attention to papers' focus on game features, hypothesized benefits and theoretical justifications. GBLT is not a body of empirical, practical tests of pedagogy or normalized technology. GBLT seems to be about "potential" rather than practicality or pragmatism. GBLT papers do not seem to be for teachers, or teaching-focused researchers. The audience for most of the GBLT literature seems to be (GBLT) researchers or designers. Many papers cite and pay lip service to the problem that specific pedagogical guidance is not available and should be a focus of continuing research, but this is not happening. Many of the pedagogical suggestions in papers are vague. Most papers discuss and conclude more in terms of continued game feature research and material mediation research than on teacher roles and different mediation in actual classroom

contexts. Researchers can use “feature complete” research reports and a praxis-grounded research field “on the market” to push them past the hype.

We’ve played by bad rules for too long

Why is GBLT as a research field vaporware? Setting aside the idea of hype for a moment, it is true that researchers have had many constraints and roadblocks. Academic journals have set word count limits which may have prevented authors from including more details about the teaching in their projects. Journals have not required, or made it easily possible, to include teaching materials as appendices in papers. Journals may have prioritized experimental designs to investigate game-based learning and may not have accepted pedagogically-oriented more ethnographic projects. Researchers may have submitted practice-focused pieces to journals but had to cut the pedagogy in order to include more theory or research details because of feedback from reviewers or editors. Or, pedagogically-oriented journals may not have accepted projects that focused too much on technology. Academics might have been able to get funding to examine the technological affordances of game-based language learning and not to explore pedagogical interventions. Academics are often constrained by grant awards and are also incentivized to consider publications in journals that give them a high likelihood of being cited and contributing to their career advancement. Researchers might have been interested in GBLT and conducted a study or two but then, because of funding, institutional direction, classroom constraints or personal interests been encouraged to shift their research focus to other areas. Teaching-focused studies can also be difficult to frame for institutional research ethics review boards. GBLT might also have remained vaporware for so long because of the silos that academics find themselves in or make for themselves; academics often write for other academics and constructive partnerships and communication between researchers, teachers and other stakeholders are often difficult to create and maintain. There must be many other reasons and I encourage readers to continue to share concerns, to offer solutions and to be hopeful about specific opportunities. GBLT needs a researcher to collect and analyze the contextual constraints on researching and publishing GBLT reports; this may encourage authors, journals and institutions to reconsider how pedagogy-focused research can be published and how it will be valued.

Screenshot or it didn’t happen

There is a gulf between speculations and explorations and implementations of GBLT, just like in other fields where research does not always affect classroom teaching, and vice versa. GBLT as a research field is vaporware, but might it be possible that classroom teachers are doing amazing things with games but are not sharing their work? Classroom teachers don’t *have* to publish research articles, they don’t *have* to blog or tweet about their work, and they don’t *have* to get involved with professional organizations and professional development². Is normalized GBLT “out there” and undiscovered? In a way, I hope so! I hope that many teachers have not been misled by the academic discourse on games and language teaching and learning and have focused on using games in amazing and transformative ways with their students.

But, remixing the old “if a tree falls in a forest and no one is around to hear it, does it make a sound?” thought experiment, researchers might ponder “if a teacher integrates games in a language classroom and no one hears about it, does GBLT exist as a field?” Something amazing is happening in this hypothetical classroom, but other teachers, other researchers, the GBLT field, or other field are not being helped. Any effort, successful or not, needs to be shared to help anyone and everyone learn more and get better.

If a teacher integrates games in a language classroom and no one hears about it, does GBLT exist as a field?

If any reader is a teacher using games to teach language, I hope that they will get in touch with me. I would like to help them share their work. If any reader knows any teacher who is using games to teach

² I have not found detailed descriptions of teaching with games in teacher-oriented publications such as [JALT](#), [TESOL](#), [EFLMagazine](#) and [ITESLJ](#).

language, I hope that they will encourage them to get in touch and to share their work. The research field needs them to walk us through what they do with games.

Maybe vaporware isn't a problem?

Ultimately, teaching does start with teachers. Teachers create interventions to match goals with tasks and tools. If teachers have an interest in games, whether educational, traditional, digital, MMOs, or things they create themselves, and are motivated to try to make games work for their students, they should have the freedom to tinker with them. If a teacher cares about her students' well-being and explores lots of different tools and techniques to find out what works best for her and her students, this experimentation and passion might inspire students and possibly achieve something meaningful and surprising. If a teacher (especially a university teacher) does not have certain constraints, she can play around and perhaps stumble upon some interesting practices and offer some interesting ideas to share with the rest of us. Ultimately, teachers should be free to determine for themselves what they think best accomplishes the job in the learning context for their students. GBLT, in my opinion, should never be standardized or become "one size fits all." I'm trying to push the field to think more about *the teaching* in game-based language teaching and learning, and to share more accounts of teaching. I hope more GBLT teacher-researchers play around more, experiment more, and publish more playtests and think pieces, as they see fit, to help the rest of us in our teaching and research.

No. Vaporware is a problem.

Vaporware in GBLT undermines any field researchers might be trying to create. If we can't teach and research GBLT in ways that make a difference in real classrooms, we've created yet another academic silo, an echochamber, an academic game for its own sake, not for the sake of students and other teachers. GBLT researchers, perhaps like researchers in other fields, have created a mess that is unconnected to the journeys in other teaching and learning sciences.

If we can't teach and research GBLT in ways that make a difference in real classrooms, we've created yet another academic silo, an echochamber, an academic game for its own sake, not for the sake of students and other teachers.

Vaporware is a problem for novice teachers. All of the hype about games can mislead teachers into using games without any pedagogy to support them. The hype promises too much without giving enough practical guidance. Vaporware GBLT doesn't help teachers who become attracted to the noise researchers are creating about games. It doesn't give teachers a toolbox of sound pedagogical approaches, tasks, evaluation and reflective tools to deal with the practical constraints of their contexts. The answers to the criteria laid out in these papers help fill that toolbox with useful GBLT practices for new teachers.

Vaporware is a problem for experienced teachers, too. Even if teachers are pedagogy-literate or game-literate, teaching and learning with games can be very difficult. Teaching students how to play games is challenging. It is challenging for students to read rulebooks to learn to play board games. Playing games and simultaneously reflecting is challenging. Discussing and debriefing games is challenging. Connecting games to lesson or curricular or social goals is challenging. I've experienced the frustration, in creating my Game Terakoya project, of knowing what I wanted to help students do (i.e., participate in society), and knowing how I wanted to help them (i.e., deeply analyze games), but not having the mediating tools (e.g., worksheets or the right questions to ask students) to do so. I've had to, as I've said, spend a lot of time and energy to cobble together worksheets and tasks and teacher-mediation ideas from disparate fields of education. Not only novice teachers, but also expert teachers need research-driven practical tools (e.g., the answers to the practical criteria in these papers) to guide them. Vaporware GBLT has not yet provided these, and now researchers must.

Should we shut GBLT down?

Game-based language teaching, like any new field, has amazing potential. Just as teachers have incredible opportunities to leverage games and other student interests for all sorts of learning outcomes, researchers, too, have incredible opportunities to support, document, understand and promote phenomenal teaching. Unfortunately, the research field will remain vaporware until research reports stop hyping games and start demonstrating a commitment to connecting theory and research *and teaching* (i.e., praxis). I believe that detailing [Paper 1](#)'s criteria 6-11 in reports can start to help, and I would like other researchers to share their ideas for delivering on the potential of the field.

However, if other GBLT teacher-researchers are not committed to a shared vision, working together to explore different ideas and different ways of teaching, addressing biases, tampering hype, including more and varied teachers in our research discussions of teaching, pushing reforms, and overcoming classroom constraints, then it is probably time for us to pull the plug on GBLT. If we can't rally together during crunch time, then it's time to shut down our studio(s).

Postmortem: "a process, usually performed at the conclusion of a project, to determine and analyze elements of the project that were successful or unsuccessful."
("Postmortem documentation," n.d.)

If we don't see a way forward for GBLT as a praxis-based field, the last thing researchers could do would be to write a postmortem on our several-decades-long failed project. Researchers can put together a collective reflective piece on the lessons we've learned, the mistakes that we have made, and the reasons why researchers cannot work together on praxis-focused GBLT teaching-research. Researchers can leave this postmortem for other people to find and learn from much later down the road. We can collect a (short) list of research-based best practices for using games, which, based on my sense of the literature could start (and perhaps end) with:

- Games make some students feel good about learning or practicing a second language.
- Vocabulary games (played in class or at home) help students learn more vocabulary.
- Communication games in CLT classrooms let students practice communication skills.
- "Games AND worksheets" is a more effective approach than "just games."

Can GBLT go gold?

To go gold: "the game has been completed and is now in the final stage before release."
(JeebusJones, 2015)

Can GBLT shake its "vaporware" status? Can it go gold? Will GBLT become normalized in classrooms and in the literature, whether in single studies, or across the ever-increasing number of studies that are being published? Can games become a well-understood and practical and effective tool in the teacher's toolbox along with other relatively easily-implementable tasks?

Crunch time: "the point at which the team is thought to be failing to achieve milestones needed to launch a game on schedule." ("Video game developer," n.d.)

If researchers want GBLT to go gold, then I think that it's "crunch time" for the field. We should put pressure on ourselves by determining a "release date" and schedule for our field's product, which should be a detailed example of pedagogy- and technology-integrated teaching and learning that demonstrates a breadth of learning outcomes. Without any pressure of a hard deadline, and without exerting very specific effort, it's unlikely that the hype of potential benefits, and the type of studies and projects mentioned in these papers will stop any time soon.

Pressure would make us deal with difficult pedagogical constraints instead of "easier" motivational or technological affordances. Let's address teachers not knowing about games, the difficulty of L2 gameplay, the lack of pedagogical materials, the difficulty of managing large classes, and games not matching curricular or student goals. Pressure would make us wrestle with deep questions such as:

- Why don't GBLT reports report debriefing?
- How can teachers best make a difference?
- Does our research reform education or society?

- Can our field ever be normalized when researchers prioritize the word “game” in our research and literature?
- Why are researchers interested in language teaching?
- What are our biases and blindspots?
- How can/should gameplay be graded?
- Are out-of-class apps (i.e., GBLL) what normalized GBLT looks like?

James York and I sometimes joke that these questions are part of the “abyss” of game-based language teaching. We get lost in the theory and problems and find it difficult to apply any approaches or decisions to actual practice. If we are struggling with these deep questions, then others must be as well. Hopefully people are not just ignoring these more difficult questions. If researchers don’t, together, make any headway on these issues and answers, it seems unlikely that the field’s research will shift in any meaningful way.

The GBLT field needs a concerted effort to research teacher mediation in actual classroom contexts. Researchers need to stop hyping games. Wrestling with the above “abyss” questions may help with this. Researchers need to focus on sharing lessons learned and what effective teachers are doing and discovering. These materials and activities and roles might not be immediately generalizable to every other teaching context, but neither are most of the current experimental studies on digital games currently being done. Ethnographic studies and action research projects (not experimental designs) that share teaching practices will help teachers pick and choose from piloted materials and then make decisions to use or modify those materials and practices in their own contexts. At the very least, we need to start with a few great case studies of games actually working to support specific teaching and learning goals in actual classrooms, not only for the research output, but to show that there is actually a reason for all of this talk and publishing and hype about games in language teaching and learning.

We need to start with a few great case studies.

Researchers need to investigate teacher mediation in classrooms. Miller and Hegelheimer (2006) and Ranalli (2008) conducted important studies that helped push the field away from “games only” explorations and towards mediation with games – in their cases, supplemental worksheets and materials. But, too many technology-focused projects continue to take the teacher “out” and there is little to no mediation. GBLT seems to reduce language to vocabulary and language teaching to choosing games and distributing worksheets. These are important elements of GBLT, but without continued teacher mediation before, during and after gameplay, GBLT really does seem to hype games. The teacher in many GBLT reports doesn’t seem important in affecting the trajectory of students, a game and perhaps some worksheets zipping along together on their own towards a tiny targeted learning outcome.

In order to normalize GBLT, it’s time to put the teacher back “in” and explore all the things that can make education work – how instructors, students, games, materials and society all can interact effectively. Let’s stop hyping games. As Becker (2012) writes: “there can be no single ‘correct’ Magic Bullet configuration [... everything ...] must be considered in context which includes the game’s genre and style as well as its target audience and intended use” (p.281). With so many instances of students finding learning language with games difficult, there is a clear need for instructor interaction, intervention and mediation to scaffold these learners. Let’s share more practices and materials. Let’s step forwards from the sidelines, roll up our sleeves, and get involved in the learning process around games.

In order to normalize GBLT, it’s time to put the teacher back “in” and explore how instructors, students, games, and materials interact.

Researchers need to work together on projects that are conceptualized, planned, conducted and written up and shared to focus on normalizing, integrating, using praxis, and producing something that isn’t vaporware. Researchers need to make a concerted effort to move away from vaporware, and then we can think about continuing work with different contexts and constraints as we move forward.

Rather than continuing to focus on theory and research that barely speak to practice, researchers need to push forward with studies that focus on the practice that can begin to speak back to the theory and research sides of the field. We need “deliberate GBLT praxis research-teaching studies” (I tried to find the least buzzworthy, hype-able or cite-able or fund-able term I could). Researchers need to design studies that are radical in that they start with a pedagogical, not technological or theoretical base, and then carefully determine why, how and what games to integrate into the teaching and intended outcomes. For those of us interested in and able to implement reform, we can put reform at the center of what we do. Researchers can focus on what teachers do in classrooms. Researchers can describe what happens in more detail.

Researchers need to design studies that are radical in that they start with a pedagogical, not technological or theoretical base, and then carefully determine why, how and what games to integrate into the teaching and intended outcomes.

Iterative design: “a design methodology based on a cyclic process of prototyping, testing, analyzing, and refining a product or process. Based on the results of testing the most recent iteration of a design, changes and refinements are made. This process is intended to ultimately improve the quality and functionality of a design.” (“Iterative design,” n.d.)

Let’s iterate more. It’s hard to deal with classroom constraints, unfamiliar teacher and student roles, and the complex interactions between games and learning, so let’s start small and create and launch tiny versions of the long-lasting change that we want to see continue. The GBLT field doesn’t need any more one-off vocabulary studies. The GBLT field doesn’t need more studies that begin and end with popularity and motivation and potential. Yes, yes yes... our students like and do play games “in the wild,” and can and do learn vocabulary from them. Instead, the GBLT field, and teachers, need studies that ask and explore what teachers can do, and how teachers can work, in their unique position to influence thousands of people over their careers, with games and activities to transform students and society. That’s the sort of scale I believe researchers need to be focusing on, not if our ideas can get enough funding to be played for a few weeks. The GBLT field doesn’t need hypothetical teaching suggestions or lesson plans. Researchers need to test and share and continue to work on teaching-focused projects that deal with classroom contexts, teacher roles, and how what we do gets students over the long line of hurdles in their paths.

The GBLT field doesn’t need any more one-off vocabulary studies.

Although supplemental material mediation (i.e., students’ using worksheets alongside gameplay) is a continuing research topic in the literature, many interesting GBLT projects were not continued. Novelty effects, especially since so many projects are not iterated upon, may be a fundamental problem for our field. It’s hard to know if the projects mentioned in these papers stopped because of a lack of funding, ended partnerships, project results not being as positive as the researchers had hoped, exhaustion from conducting GBLT teaching-research, lack of interest from colleagues, new research interests (that may or may not have built on the findings of a brief GBLT exploration), or cooled curiosity about GBLT by the authors. Many authors cite the popularity and motivational elements of games. Why aren’t more language researchers motivated to continue researching games?

Many authors cite the popularity and motivational elements of games. Why aren’t more language researchers motivated to continue researching games?

Since researching teaching practices long-term is so difficult, let's start small by putting just a few of our many teaching ideas into practice. Then, let's investigate what works well, cut the things that don't, and continue to refine and share and scale projects until GBLT is normalized.

What might normalized GBLT look like? Well, that will depend on a variety of factors: who the learners are, where the teaching and learning takes place (i.e., the institutional and environmental constraints and tools) and what the goals are that the teacher is using games to help the students reach. GBLT will look different in a conversation school, a community program, a test-prep course, a university elective, or professional contexts. GBLT will look different with beginning and advanced learners, and also with new and experienced teachers..

Personally, I think that "media literacy" education comes very close to being the approach that might help GBLT reset or evolve into being normalized in language teaching and learning. Media literacy education does not hype technologies, but helps learners to step back from technologies that they use (e.g., film, tv, social media, games) and to understand these media's uses and meanings in society and to apply these new understandings about the medium and connected social ideas. Burn and Durran (2007) and Buckingham and Burn (2007) carefully connect theory, teaching and research (i.e., praxis) in their explorations and examples of media literacy education with games and other popular media. In a media literacy-driven model of GBLT, teachers could use this pedagogy to help learners share their game preferences and experiences, help learners connect these to academic and social topics, and help learners use their experiences and knowledge to reach personal, public and professional goals.

Teachers unable to implement a media literacy curriculum because of institutional constraints can still help GBLT shake its vaporware status, go gold, and become more normalized "merely" by debriefing gameplay (Crookall, 2010). Discussing a game requires that students use specialized terms and more precise language than the language often used during a game. Discussing a game can also help students remember and understand the game better, can help them play better in a subsequent attempt, and also prepare them for later activities or projects (such as textual analyses, gameplay transcriptions or creative projects). The more teachers, and researchers, intervene before and after a game, the more normalized the use of games in language learning will become.

I'm personally committed to continuing to explore whether I can normalize games with pedagogy and broader ideological concerns in my context. I have no intention of stopping what I've been iterating on for the past half decade or so. Are there other like-minded "tinkerers" out there? If you are interested in GBLT, please get in touch with me. I'd love to learn more from other like-minded game-based language teachers. I'd love to collaborate on some meaningful projects with other praxis-passionate teacher-researchers.

The more teachers, and researchers, intervene before and after a game, the more normalized the use of games in language learning will become.

Is anyone LFG?

GBLT is a massively multiplayer game, with researchers, teachers, students, parents and other stakeholders playing in the same world. Unfortunately, researchers don't seem to be in the same party, the same guild, or even the same zone most of the time.

In commercial Massively Multiplayer Online (MMO) games (such as *World of Warcraft*), players can do what they want on their own or in small groups and play the game a bit casually, but to get through high level dungeons and defeat difficult bosses and earn high level rewards, players need to form larger groups and work together. MMO players form guilds (often communicating outside of the game in addition to inside the game) in which players identify problems and create and test specific ideas. High-level MMO players are gritty. They get "epic wins" by working together long term.

GBLT has a boss enemy: vaporware - the lack of teaching-focused research reports. This boss is too difficult for one player to take down by themselves. GBLT academics could continue to work individually on little problems they can each handle, such theory papers and short term experiments, or

researchers can come together and create a guild with the purpose of designing and evaluating projects to take down the GBLT vaporware boss. Is anyone in GBLT “LFG:” looking for a group?

Is anyone in GBLT “LFG:” looking for a group?

Researchers need a guild, leaders, people with different roles and responsibilities, and everyone in the guild focused on a shared goal and cooperating to reach it. Researchers need to be gritty, grinding to prepare for a high level raid, starting with simple tests and learning from them, and focused on getting an epic win by working together. Researchers need pre-raid and post-raid guild chats in Twitter and the LLP Slack.

Git Gud: “an intentional misspelling of the phrase “get good,” is an expression used to heckle inexperienced players or newbies in online video games, similar to the use of the phrase “lurk more” on forums.” (“Git Gud,” n.d.)

GBLT researchers need to “git gud,” and the only way that’s going to happen is if we’re focused on a shared goal, and researchers work together to help us all “git gud” together. Researchers should start with the pedagogical work around teaching models and materials.

There are many different ways to take down an MMO boss, and there will be many different ways to research and publish research reports of teaching with games. Researchers can explore GBLT courses in certain contexts, as Warner, Bregni, and York are doing. Researchers can explore specific games and smaller-scale teaching methods (like PPP and CLT) in contexts with more constraints. New pedagogical models exist in various places (the <https://games2teach.uoregon.edu/> website, and Chapter 6 in Reinhardt, 2018) but these need to be described in more detail for teachers and then tried and evaluated and iterated upon. Researchers should explore how GBLT could be included in teacher training³. Researchers can explore “Research Practice Partnerships”⁴ in which researchers collaborate with classroom teachers to solve problems, implement research findings and generate new findings in actual educational contexts. Researchers should also explore when, how and why GBLT should not be used.

Solving the game

I think GBLT can get over the hype cycle and ultimately shake its vaporware status if researchers:

1. *Connect*: join communities like the open [Ludic Language Pedagogy Slack server](#) and share work in progress, ask questions and collaborate on praxis-driven investigations,
2. *Create*: since the “model” GBLT teaching and research report doesn’t exist (see Part 1), a great next step would be for people in the field to collaborate on the design of a teaching and research project and report that integrates all of the GBLT criteria (and more)
3. *Teach*: conduct projects in classrooms and interact with students before, during and after games (particularly focusing on debriefing and applications of language outside of games), and
4. *Share*: [Ludic Language Pedagogy](#) publishes peer-reviewed articles, walkthroughs, lesson plans, materials and playful think pieces. Dr. Jonathon Reinhardt will be [an associate editor at Language Learning and Technology](#) and will consider practical examples of games in language teaching and learning.

A different game altogether?

GBLT reports have become more and more focused on digital games (see Appendix A); “digital game-based language learning” (DGBLL) is a common term in the field. There may be a relationship between the popularity and interest in digital games’ technological affordances (i.e., feedback, multimodality, distribution) and the disinterest in explorations of teaching with digital games, if digital games can, possibly, “do it all.”

³ D.M. Jones is focused on this line of research.

⁴ Thank you, Fred Poole, for sharing this approach with me.

Some of the earliest reports on GBLT were with non-digital speaking games (Lee, 1965; Davis & Hollowell, 1977; Palmer & Rogers, 1983) and these games have remained popular with language teachers (Hadfield, 2000; Nurmukhamedov & Sadler, 2020). The practical interest in communicative language games does not seem to have influenced researchers; they continue to research digital game-based GBLT.

Perhaps DGBLL and digital GBLT is an aberration. Digital games might have been a distraction or even a dead end. If CLT-type speaking games are focused on language outcomes, can be easily implemented in classroom settings, and can be integrated with a variety of pedagogical frameworks, then these “low tech” games might be another possibility for building a research field that connects theory, practice, and researched learning outcomes. Combining progressive teaching practices with these communicative language games might yield some very interesting and useful results for the field of GBLT.

Perhaps DGBLL and digital GBLT is an aberration.
Digital games might have been a distraction or even a dead end.

Yet another model (I can't believe I am doing this...)

Does our field need (yet another) slogan-y metaphor or model of teaching with games? Are researchers using these to hype our field even more? Or can researchers and teachers use these metaphors and models to push towards normalization and mindful integration of games and pedagogy? For people who like shiny new models, I can share a napkin sketch of mine (see Figure 5) that has helped me in my own thinking about GBLT and what I am trying to do in my projects.

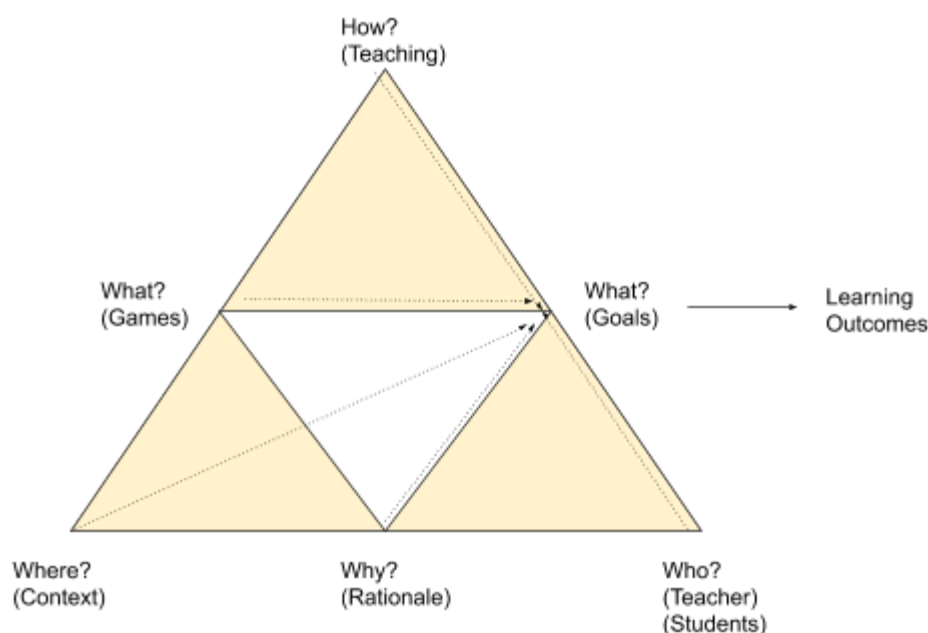


Figure 5 *Try-ing (to force?) GBLT*

Yes, it resembles a symbol from a popular video game franchise. It also remixes Activity Theory. The goal of the model is to remind me, and perhaps other teacher-researchers, to consider various elements when thinking about teaching with and researching games. The model pushes me, and perhaps will push other people, to answer various questions, and to be explicit about them in reports.

- **Where** am I doing my teaching-research? What's the context, and how does it help or hinder what I am trying to do?
- **Why** am I doing this teaching-research? What are my reasons for using games and for doing this project?
- **Who** is involved with this teaching-research? Who am I, who are my students, and what strengths and weaknesses do we all bring to the learning process?

- **What** games will we use, and how do they help or hinder the learning process?
- **What** are our goals? What do we want, what learning outcomes do we hope to see?
- **How** will I teach? What will the role of the teacher be? What activities will connect with the game? What materials will I use? What assessment and feedback will be necessary?

There is *interactivity*. Each of these elements impacts the others. They push and pull on each other.

There is *hierarchy*. Where, why and who are at the bottom. They are elements that should be considered first. How (teaching) is at the top: it's the most important.

And, there is *directionality*. All of the elements are pointed at the goals and learning outcomes we desire.

Going gold is hard (no one likes grinding)

I realize researching and teaching with games is difficult; I don't blame researchers for moving on to other topics, and I really do want to help teacher-researchers in the middle of planning or researching their teaching. I hope readers understand I am trying to push the field to focus on teaching, and that I really do struggle to improve my own teaching and research. Whatever questions I have asked in these papers and whatever critiques I've stated of the field and authors here, I have been flinging them at myself for years.

When I started using games in my teaching and research, I was excited about using something I cared and knew so much about, and, initially, I think I hyped technological affordances (deHaan, 2005b). I also started doing research by observing gamers and didn't mediate (deHaan, 2005a; 2013a). I was very curious about what made learning with games different than learning with other media, so I conducted experimental studies without mediation (deHaan et al., 2010; deHaan & Kono, 2010). Looking back at them, I now think they are all GBLT or GBLL vaporware.

Thankfully, though, after meeting and learning a lot from some very dedicated teachers and teacher-researchers, I am trying to learn how to practice pedagogy-first game-based language teaching. I think I have been iterating in my own contexts. Arthur Ashe said "Start where you are. Use what you have. Do what you can." I took his words to heart and tried to practice them in my teaching and research. I started playing around in curricular and extracurricular projects in which I tried to direct students to think about texts and games in new ways (deHaan, 2011). I rallied my thesis students to collaboratively run extracurricular Game Camps where we helped students understand, make and share ideas about games (deHaan, 2013b). Some of my explorations of teaching and games, like (simultaneously) running an afterschool game program, and running charity events, and playtesting and designing games constantly with students absolutely exhausted me⁵ and I would like to try to do what I can to save other people the frustration and exhaustion I have experienced (let's chat!), but those projects and experiences helped me see what could (and could not) be practically done with my particular curriculum and context.

"Start where you are. Use what you have. Do what you can." Arthur Ashe

⁵ I talk about this: <https://www.youtube.com/watch?v=VaimNyTeMbo> (Ramey, 2017)

For the past few years, I have been exploring the Pedagogy of Multiliteracies (New London Group, 1996) and its “learning by design” (Cope & Kalantzis, 2000) reframing for its connection of the why, what and how of language and literacy teaching to games and my context and goals (deHaan, 2011; deHaan, 2013b; deHaan, 2019). I try to help my students develop personally, academically, socially, and professionally, not just linguistically. My “Game Terakoya⁶” project is challenging to teach and report, but:

- In my first playtest (deHaan, 2019), my one student played games, analyzed online reviews, explored academic concepts, and wrote and shared her own review on a fan site. I was able to mediate very closely and successfully because of the one-on-one extracurricular context.
- In subsequent classes (continuing to iterate on my first playtest), mediation is more difficult, of course. But (deHaan, 2020), my students have played the wargame *Diplomacy* and the smartphone game *Don't Get Fired!* and satirical board games about the environment, social structure and international relations. Students investigated the realities behind the games, the fans of the games, the language in the games, then remixed the games and shared their work (#gameterakoya on Twitter). I carefully mediate their work via worksheets and discussions and regular presentations and revisions of work.

I am still struggling to balance theory, teaching and research, but I do have some promising results and I am finding and solving various problems through my pedagogical playtesting that I will continue to work on in future iterations of the Game Terakoya. I hope readers can see that these are not “one off” projects, but deliberate testing and tweaking of a pedagogy-first approach with games. These projects or examples have succeeded because of the pedagogical base, heavy mediation, textual analysis, and my consideration of students and their goals. These projects might not be sexy tech-first projects, and they are incredibly time and labor intensive, but they are getting closer and closer to the target of what I think game-based language teaching can look like, and be used as examples for other teachers to learn from and remix for their own contexts, students, goals and teaching preferences. I gladly share my resources on my website and welcome critique.

To be continued?

I honestly believe that GBLT can “go gold.” I think that the more that individual papers, and papers across the field, when possible, try to include more of the pedagogical criteria in addition to the theoretical and research-focused ones, the faster GBLT will move through and past the hype cycle and hopefully make a real difference in education. I recognize that other approaches and ideas could work to strengthen the GBLT research field, and I encourage other researchers, designers, teachers and .. anyone! ... to offer their suggestions. We need to have more and better conversations. All I hope that these papers do is get a different conversation started, and that I and others can continue discussing ideas and working on meaningful projects with other passionate members of the GBLT community.

An inter-studio meeting is waaaaaaaay overdue.

... so ... I'll bring the coffee!

Who's bringing the fruit plate? The veggie plate? The baked goods? The bagels? The ... ?

Declaration of conflicting interests

I received no financial support for the research, authorship and/or publication of this article.

⁶ University of Shizuoka Game Lab – Game Terakoya sequence and resources:
<https://sites.google.com/site/gamelabshizuoka/home/game-terakoya-seminar-2020>

Acknowledgements

I am incredibly grateful to Jonathon Reinhardt and Aaron Chia Yuan Hung for their immense help with these ideas. I sincerely appreciate the time and effort it must have taken them to work with the earlier versions of these papers. I thank them for struggling with my messy notes, half-cooked notions and more than a few dead ends. Their many concerns, questions and suggestions helped connect these papers to the many issues that researchers and teachers face. I needed to hear and learn from all of it. Whenever they need a reader for their next book(s), I'm here for them. Jon and Aaron, thank you for sharing your own struggles with teaching and researching with games. I hope that we can draw more and more people into productive conversations about game-based language teaching and learning. I'm looking forward to many more raids together.

James York, Peter Hourdequin, Aaron Chia Yuan Hung, and DM Jones were invaluable playtesters on an early version of these papers. I thank Ben Thanyawatpokin and James York (in the LLP slack) for their very helpful discussions and clarifications regarding GBLL, GLT and gamification.

The following were especially inspirational in the conception of these papers:

- Paolo Pedercini's "Making Games in a Fucked Up World" talk at Games for Change 2014:
 - YouTube video: <https://www.youtube.com/watch?v=MflkwKt7tI4>
 - Blog post: <https://www.molleindustria.org/blog/making-games-in-a-fucked-up-world-games-for-change-2014/>
- Brenda Laurel's "Piercing the Spectacle" rant: http://www.tauzero.com/Brenda_Laurel/Rants/TodaysRant30.html
- Filsecker, M., & Bündgens-Kosten, J. (2012). Behaviorism, Constructivism, and Communities of Practice: How pedagogic theories help us understand game-based language learning. In H. Reinders (Ed.) *Digital Games in Language Learning and Teaching* (pp. 50-69). New York: Palgrave Macmillan.
- Thomas, M. (2012). Contextualizing digital game-based language learning: Transformational paradigm shift or business as usual?. In H. Reinders (Ed.), *Digital games in language learning and teaching*, (pp. 11-31). Palgrave Macmillan, London.
- Cornillie, F., Thorne, S.L., & Desmet, P. (2012). Digital games for language learning: From hype to insight? *ReCALL*, 24(3), 243-256.

I am very grateful to the artists who generously contributed their significant talents to this project:

Noah Yoshimura:

- "Is the sun rising or setting?" (Figure 1) is used under a BY-NC-ND license. Mr. Yoshimura maintains the copyright of his original work.
- "Is this our shared vision of the future of GLT?" (Figure 3) is used under a BY-NC-ND license. Mr. Yoshimura maintains the copyright of his original work.

Sana Yoshimura:

- "'Reanu Keeves' announcing *GLT2100* at the 'EEE333 Expo'" (Figure 2) is used under a BY-NC-ND license. Ms. Yoshimura maintains the copyright of her original work.
- "The many faces of a hype cycle" (Figure 4) is used under a BY-NC-ND license. Ms. Yoshimura maintains the copyright of her original work.

These papers were written while listening repeatedly to My Bloody Valentine's "Loveless" album.

References

- Becker, K. (2012). The magic bullet: A tool for assessing and evaluating learning potential in games. In: P. Felicia (Ed), *Developments in Current Game-Based Learning and Deployment*. (pp. 273-284) IGI Global.
- Bregni, S. (2017). The Italian digital classroom: Italian culture and literature through digital tools and social media., In NEMLA Italian Studies XXXIX Special Issue, 42-71.
- Bregni, S. (2018, March). Assassin's Creed taught me Italian: Video games and the quest for lifelong, ubiquitous learning. Retrieved November 5, 2019, from <https://profession.mla.org/assassins-creed-taught-me-italian-video-games-and-the-quest-for-li-felong-ubiquitous-learning/>
- Bryant, T. (2007). Games as an ideal learning environment. *Transformations*, 1(2), 1-8.
- Buckingham, D., & Burn, A. (2007). Game literacy in theory and practice. *Journal of Educational Multimedia and Hypermedia*, 16(3), 323-349.
- Burn, A., & Durran, J. (2007). *Media literacy in schools: Practice, production and progression*. Sage.
- Butler, Y.G. (2015). The use of computer games as foreign language learning tasks for digital natives. *System*, 54, 91-102.
- Chambers, A., & Bax, S. (2006). Making CALL work: Towards normalisation. *System*, 34(4), 465-479.
- Chou, M.H. (2014). Assessing English vocabulary and enhancing young English as a foreign language (EFL) learners' motivation through games, songs, and stories. *Education 3-13*, 42(3), 284-297.
- Coleman, D.W. (2002). On foot in SIMCITY: Using SIMCOPTER as the basis for an ESL writing assignment. *Simulation & Gaming*, 33(2), 217-230.
- Cope, B., & Kalantzis, M. (Eds). (2000). *Multiliteracies: Literacy learning and the design of social futures*. London: Routledge.
- Cornillie, F., Thorne, S.L., & Desmet, P. (2012). Digital games for language learning: From hype to insight? *ReCALL*, 24(3), 243-256.
- Crookall, D. (2010). Serious games, debriefing, and simulation/gaming as a discipline. *Simulation & gaming*, 41(6), 898-920.
- Dalton, G., & Devitt, A. (2016). Irish in a 3D world: Engaging primary school children. *Language Learning and Technology*, 20(1), 21-33.
- Darvasi, P. (2016) The Ward Game: How McMurphy, McLuhan, and MacGyver Might Free Us From McEducation. In: C. Williams-Pierce (Ed), *Teacher Pioneers: Visions from the Edge of the Map*. (pp. 70-105) Carnegie Mellon: ETC Press Pittsburgh, PA.
- Davis, K., & Hollowell, J. (1977). *Inventing and Playing Games in the English Classroom: A Handbook for Teachers*. National Council of Teachers of English: Urbana, IL.
- deHaan, J. (2005a). Acquisition of Japanese as a foreign language through a baseball video game. *Foreign Language Annals*, 38(2), 278-282.
- deHaan, J. (2005b). Language learning through video games: A theoretical framework, an analysis of game genres and questions for future research. In S. Schaffer & M. Price (Eds.), *Interactive Convergence: Critical Issues in Multimedia (vol. 10)*, Chapter 14, 229-239. Interdisciplinary Press.
- deHaan, J., Reed, W.M., & Kuwada, K. (2010). The effect of interactivity with a music video game on second language vocabulary recall. *Language Learning and Technology*, 14(2), 74-94.
- deHaan, J & Kono, F. (2010). The effect of interactivity with Warioware minigames on second language vocabulary learning. *Journal of Digital Games Research*, Volume 4(2), 47-59.
- deHaan, J. (2011). Teaching and learning English through digital game projects. *Digital Culture & Education*, 3(1), 46-55.

- deHaan, J. (Ed.) (2013a). *Video games and second language acquisition: 6 case studies*. Common Ground Press: Chicago, USA.
- deHaan, J. (Ed.) (2013b). *Game camp: Out-of-school language and literacy development*. Common Ground Press: Chicago, USA.
- deHaan, J. (2019). Teaching language and literacy with games: What? How? Why? *Ludic Language Pedagogy* (1), 1-57.
- deHaan, J. (2020). "Game Terakoya class 1" walkthrough: Directing students' post-game discussions, academic work and participatory work through goals, curriculum, materials and interactions. *Ludic Language Pedagogy* (2), 41-69.
- deHaan, J. (in press). Is game-based language teaching "vaporware?" In M. Peterson, K. Yamazaki, & M. Thomas (Eds.) *Digital games and language learning*. Bloomsbury Publishing.
- Ensslin, A. (2011). *The language of gaming*. Macmillan International Higher Education.
- Filsecker, M., & Bündgens-Kosten, J. (2012). Behaviorism, Constructivism, and Communities of Practice: How pedagogic theories help us understand game-based language learning. In H. Reinders (Ed.) *Digital Games in Language Learning and Teaching* (pp. 50-69). New York: Palgrave Macmillan.
- Franciosi, S.J. (2017). The effect of computer game-based learning on FL vocabulary transferability. *Journal of Educational Technology & Society*, 20(1), 123-133.
- Godwin-Jones, R. (2019). Riding the digital wilds: Learner autonomy and informal language learning. *Language Learning & Technology*, 23(1), 8-25.
- Hadfield, J. (2000). *Beginners' communication games*. Longman.
- Hitosugi, C. I., Schmidt, M., & Hayashi, K. (2014). Digital game-based learning (DGBL) in the L2 classroom: The impact of the UN's off-the-shelf videogame, Food Force, on learner affect and vocabulary retention. *CALICO Journal*, 31(1), 19-39.
- Holden, C.L., & Sykes, J.M. (2011). Leveraging mobile games for place-based language learning. *International Journal of Game-Based Learning*, 1(2), 1-18.
- Holden, C., Sykes, J., & Thorne, S.L. (2017). Mentira: The death and life of an augmented reality curriculum. In A. Barany, S. Slater, & C. Steinkuehler (Eds.), *Proceedings of GLS 12: Games + Learning + Society Conference* (pp. 369-380). Retrieved from <http://press.etc.cmu.edu/index.php/product/gls-12-0-conference-proceedings/>
- Janebi Enayat, M., & Haghighatpasand, M. (2019). Exploiting adventure video games for second language vocabulary recall: A mixed-methods study. *Innovation in Language Learning and Teaching*, 13(1), 61-75.
- JeebusJones. (2015, October 24). What does it mean when a game "Goes gold"? [Msg 1]. Retrieved 23:54, November 5, 2019, from https://www.reddit.com/r/OutOfTheLoop/comments/3py9fm/what_does_it_mean_when_a_game_goes_gold/
- Jones, D.M. (2020). Games in the language learning classroom: Is the juice worth the squeeze? *Ludic Language Pedagogy* (2), 1-36.
- Kelly, T. (n.d.). Vertical Slice. *What Games Are*. Retrieved from <https://www.whatgamesare.com/vertical-slice.html>
- Know Your Meme contributors. (2020, April 15). Git Gud. In *Know Your Meme*. Retrieved 09:14, April 15, from <https://knowyourmeme.com/memes/git-gud>
- Lacasa, P., Martinez, R., & Méndez, L. (2008). Developing new literacies using commercial videogames as educational tools. *Linguistics and education*, 19(2), 85-106.
- Lee, W.R. (1965). *Language teaching games and contests*. Oxford: Oxford University Press.

- Mark Rasmussen – MA TESOL: An academic profile and informal writings on language, culture and teaching. (2017, September 10). Making functional grammar explicit: Game design-enhanced TBLT lesson plans for “Firewatch” [Blog post]. Retrieved from <https://markrass.wordpress.com/2017/09/10/making-functional-grammar-explicit-game-design-enhanced-tblt-lesson-plans-for-firewatch/>
- Miller, M., & Hegelheimer, V. (2006). The SIMs meet ESL: Incorporating authentic computer simulation games into the language classroom. *Interactive Technology and Smart Education*, 3(4), 311-328.
- Molin, G. (2017). The role of the teacher in game-based learning: A review and outlook. In M. Ma, & A. Oikonomou (Eds.), *Serious Games and Edutainment Applications: Volume II* (pp. 649-674). Cham: Springer International Publishing.
- Neville, D.O., Shelton, B.E., & McInnis, B. (2009). Cybertext redux: Using digital game-based learning to teach L2 vocabulary, reading, and culture. *Computer Assisted Language Learning*, 22(5), 409-424.
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66, 60-93.
- Nguyen Huyen, N.T.T., & Nga, K.T.T. (2003). Learning vocabulary through games. *Asian EFL Journal*, 5(4), 90-105.
- Nurmukhamedov, U., & Sadler, R. W. (2020). *New Ways in Teaching with Games*. TESOL Press: Annapolis Junction, MD.
- Palmer, A. & Rodgers, T.S. (1983). Games in Language Teaching. *Language Teaching*, 16, 2-21.
- Peterson, M. (2013). *Computer games and language learning*. Palgrave Macmillan: New York.
- Prensky, M. (2003). Escape from Planet JarGon: Or what video games have to teach academics about teaching and writing. *On the Horizon*, 11(3), 30–38.
- Puentedura, R.R. (2006, August 18). *Transformation, technology, and education*. Retrieved May 1, 2020 from <http://hippasus.com/resources/tte/>
- Rama, J., Ying, C.C., Lee, K.R., & Luei, A.Y.L. (2007). Using games in English language learning. Retrieved December 1, 2011 from <http://conference.nie.edu.sg/2007/paper/papers/STU543.pdf>
- Ramey, L [Lynn Ramey]. (2017, September 07). deHaan edited. [Video file]. Retrieved from <https://www.youtube.com/watch?v=VaimNyTeMbo>
- Ranalli, J. (2008). Learning English with The Sims: Exploiting authentic computer simulation games for L2 learning. *Computer Assisted Language Learning*, 21(5), 441-455.
- Reinders, H., & Wattana, S. (2015). Affect and willingness to communicate in digital game-based learning. *ReCALL*, 27(1), 38-57.
- Reinhardt, J. (2018). *Gameful second and foreign language teaching and learning*. Springer International Publishing.
- Reinhardt, J. Warner, C., & Lange, K. (2014). Digital games as practices and texts: new literacies and genres in an L2 German classroom. In J. Guikema & L. Williams (Eds.), *Digital Literacies in Foreign and Second Language Education* (pp. 159-190). San Marcos, TX: CALICO Book Series.
- Reinhardt, J. & Zander, V. (2011). Social networking in an intensive English program classroom: A language socialization perspective. *CALICO Journal*, 28(2), 326-344.
- Salen, K., Tekinbaş, K.S., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. MIT Press.
- Shintaku, K. (2016). The interplay of game design and pedagogical mediation in game-mediated Japanese learning. *International Journal of Computer-Assisted Language Learning and Teaching*, 6(4), 36-55.

- Shirazi, M., Ahmadi, S.D., & Mehrdad, A.G. (2016). The effect of using video games on EFL learners' acquisition of speech acts of apology and request. *Theory and Practice in Language Studies*, 6(5), 1019-1026.
- Squire, K. (2006). From content to context: Videogames as designed experience. *Educational Researcher*, 35(8), 19-29.
- Suh, S., Kim, S.W., & Kim, N.J. (2010). Effectiveness of MMORPG-based instruction in elementary English education in Korea. *Journal of Computer Assisted Learning*, 26(5), 370-378.
- Sykes, J. (2009). Learner requests in Spanish: Examining the potential of multiuser virtual environments for L2 pragmatic acquisition. In L. Lomika and G. Lords (Eds.) *The second generation: Online collaboration and social networking in CALL* (pp 199-234). CALICO Monograph.
- Sykes, J.M. (2018). Digital games and language teaching and learning. *Foreign Language Annals*, 51, 219-224.
- Sykes, J.M., Reinhardt, J., Liskin-Gasparro, J.E., & Lacorte, M. (2013). *Language at play: Digital games in second and foreign language teaching and learning*. Pearson Higher Ed.
- Thanyawatpokin, B. & York, J. (in press). Issues in the current state of teaching languages with games. In M. Peterson, K. Yamazaki, & M. Thomas (Eds.) *Digital games and language learning*. Bloomsbury Publishing.
- Thomas, M. (2012). Contextualizing digital game-based language learning: Transformational paradigm shift or business as usual?. In H. Reinders (Ed.), *Digital games in language learning and teaching*, (pp. 11-31). Palgrave Macmillan, London.
- Thorne, S.L., & Reinhardt, J. (2008). Bridging activities, new media literacies, and advanced foreign language proficiency. *Calico Journal*, 25(3), 558-572.
- Toyama, K. (2011). There are no technology shortcuts to good education. *Educational Technology Debate*, 8. Retrieved November 6, 2019 from: <http://edutechdebate.org/ict-in-schools/there-are-no-technology-shortcuts-to-good-education/>
- Tuan, L.T. (2012). Vocabulary recollection through games. *Theory and Practice in Language Studies*, 2(2), 257-264.
- Uberman, A. (1998). The use of games for vocabulary presentation and revision. *English Teaching Forum* 36(1), 20-27.
- Vasileiadou, I., & Makrina, Z. (2017). Using online computer games in the ELT classroom: A case study. *English Language Teaching*, 10(12), 134-150.
- Warner, C., Lange, K. & Richardson, D. (2016). Teaching discourse in action: Realizing multiple literacies through game-enhanced pedagogies. Presentation at L2DL/AZCALL, hybrid symposium, available: https://www.youtube.com/watch?v=OPTnx_A5L1E.
- Warner, C. & Richardson, D. (2017). Beyond participation: Symbolic struggles with(in) digital social media in the L2 classroom. S. Dubreil, & S. Thorne (eds.), *Engaging the World: Social Pedagogies and Language Learning*, (pp. 199-226). Boston: Cengage.
- Warner, C., Richardson, D., & Lange, K. (2019). Realizing multiple literacies through game-enhanced pedagogies: Designing learning across discourse levels. *Journal of Gaming & Virtual Worlds*, 11(1), 9-28.
- Wikipedia contributors. (2019, June 18). Game design document. In *Wikipedia, The Free Encyclopedia*. Retrieved 00:00, November 6, 2019, from https://en.wikipedia.org/w/index.php?title=Game_design_document&oldid=902442419
- Wikipedia contributors. (2019, October 31). Iterative design. In *Wikipedia, The Free Encyclopedia*. Retrieved 00:00, November 6, 2019, from https://en.wikipedia.org/w/index.php?title=Iterative_design&oldid=923848806

- Wikipedia contributors. (2019, September 25). Playtest. In *Wikipedia, The Free Encyclopedia*. Retrieved 23:58, November 5, 2019, from <https://en.wikipedia.org/w/index.php?title=Playtest&oldid=917859287>
- Wikipedia contributors. (2019, August 27). Postmortem documentation. In *Wikipedia, The Free Encyclopedia*. Retrieved 23:57, November 5, 2019, from https://en.wikipedia.org/w/index.php?title=Postmortem_documentation&oldid=912770717
- Wikipedia contributors. (2019, October 18). Software release life cycle. In *Wikipedia, The Free Encyclopedia*. Retrieved 23:56, November 5, 2019, from https://en.wikipedia.org/w/index.php?title=Software_release_life_cycle&oldid=921808146
- Wikipedia contributors. (2019, October 16). Vaporware. In *Wikipedia, The Free Encyclopedia*. Retrieved 23:57, November 5, 2019, from <https://en.wikipedia.org/w/index.php?title=Vaporware&oldid=921610443>
- Wikipedia contributors. (2019, November 5). Video game developer. In *Wikipedia, The Free Encyclopedia*. Retrieved 23:54, November 5, 2019, from https://en.wikipedia.org/w/index.php?title=Video_game_developer&oldid=924776384
- Yip, F.W., & Kwan, A.C. (2006). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, 43(3), 233-249.
- York, J. (2014). Minecraft and language learning. In C. Gallagher (Ed.), *Minecraft in the Classroom: Ideas, inspiration, and student projects for teachers*, (pp.179-196). Berkeley, CA: Peachpit Press.
- York, J. (2020). Promoting spoken interaction and student engagement with board games in a language teaching context. In M. Farber (Ed.) *Global perspectives on gameful and playful teaching and learning*, 1–26. IGI Global. <https://doi.org/10.4018/978-1-7998-2015-4.ch001>
- Zhou, Y. (2016). Digital vocabulary competition as motivator for learning in CFL classrooms. *Journal of Technology and Chinese Language Teaching*, 7(2), 1-22.