

## **It's all improv to me: Infusing play into library instruction**

**Sarah B. Cohn<sup>\*a</sup>, Gina Levitan<sup>\*b</sup>**

*a Morris R. Cohen Library, The City College of New York*

*b Birnbaum Library, Pace University*

---

### ARTICLE INFO

#### *Keywords:*

Critical information  
literacy  
Academic libraries  
Play  
Play in the classroom  
Improv  
Improvisation  
Improv in the classroom

### ABSTRACT

Inspired by a workshop on incorporating improvisational techniques into classroom pedagogy, the in-class game Research Roulette was conceived as a way to incorporate improv and physical movement, with the specific goal of bringing a playful element into information literacy sessions. What shifts when the stated goal in a library workshop is to have fun and explore? What happens when we move on from games and invite actual play? For students whose primary goal in a classroom or educational setting is to complete the work and do well, incorporating a playful element can be destabilizing. This article will explore the ways in which play, critical pedagogy, and information literacy intersect in the library classroom environment.

---

### **Introduction**

While there are many types of active learning techniques and activities that are used in information literacy library instruction, activities often billed as games lack the improvisational nature of play. Information literacy games are highly structured and typically mimic games that students are likely to be familiar with already (for example a library themed Jeopardy game).

After being inspired in a professional development workshop about incorporating improvisational techniques into classroom pedagogy, two instructional librarians began to think about what this might look like in an information literacy one-shot session. From this, the in-class activity Research Roulette was developed. The game was conceived as a way to incorporate improv and physical movement in the classroom.

This article will explore the dynamics of the activity itself, how Research Roulette expands the possibilities of the more traditional one-shot library instruction session, and where we think there is room for growth for this activity and its implementation.

## Literature Review

### *Games, Play, Improv*

In order to explore the dynamics of the activity that the authors created and its impact on the one-shot library instruction session, it is important to highlight the relationship between games and play in library instruction writ large, paying special attention to improvisation.

There is a substantial amount of research on using games in libraries for both instruction and for library orientation activities. Kapp delineates two different meanings of the concept of gamification in an education setting. Ideally, gamification is “a careful and considered application of game thinking to solving problems and encouraging learning using all the elements of games that are appropriate” (Kapp, 2012, pp. 15–16). However, Kapp recognizes that for many, gamification is the “use of game mechanics to artificially engage learners and others in activities in which they would otherwise not engage” (2012, p. 15). This is something that library instruction does often, an instructional approach that typically involves adding game-like elements (such as a reward or competition) to an activity, where the hope is to encourage and engage students in learning. Murder-mystery and Amazing Race style games are both popular genres of gamified library instruction or orientation (Blas, 2016; Boss et al., 2015; Giles, 2015; Giles et al., 2019; Rosenstein, 2017; Yap & Peñaflor 2020). In these games, students work through a series of scaffolded clues or questions using library databases or physical resources in order to arrive at a set of answers. While many of these library games are well-constructed and closely aligned with stated learning outcomes, they fit into Kapp’s view that gamification produces artificial engagement. The goal of these activities is to take content that may otherwise be perceived as dull, and infuse it with game play in order to boost student engagement. While the concept of fun is regularly brought up, it is rare to find a mention of play or playfulness in the literature on information literacy games.

However, one notable exception is Walsh’s *Playful Information Literacy: Play and Information Literacy in Higher Education*, which differentiates between games and play, and argues that “play is an effective and relevant answer to the development of higher level information skills of students within higher education” (2015, p. 81). Drawing on Walsh informs our working definitions of games and play. While many of the works referenced in Walsh offer nuanced distinctions between play and games, for the purposes of this paper we are using relatively simple definitions. The particular distinction we want to draw is that “play is something that may not have an obvious purpose or destination” (2015, p. 83) whereas “a key feature of games is that they impose rules on what may otherwise be thought of as pure (paidic) play. So at the simplest possible definition, games can be thought of as play with more formal rules” (2015, p. 85).

When arguing for the value of games and good game design for learning, Whitton includes a section on playfulness as an important element of educational games. For Whitton, the best games are playful, and allow

learners to “experiment, explore and try out new things without risk of negative outcomes” (2012, p. 14). Further “[t]he playful state that games can engender can spark creativity, innovation and new ideas’ (2012, p. 14). And yet, in *The Playful Path*, DeKoven creates a clear distinction between play and games because “most games don’t encourage playfulness” (2014, p. 32), in part because being responsive and “yielding to the moment” (2014, p. 34) are integral to playfulness, elements often lacking in more structured games. It is this distinction between games and play that we would like to highlight. The implementation of a formalized structure of games is more likely to be absent when we are just playing. In play, we yield to the moment, not the structure.

With that said, yielding to the moment is a core tenant of improvisation. Zaunbrecher describes improvisation as a broad category that “covers any activity involving “inventiveness within limitations” (2011, p. 49), further, Zaunbrecher notes that “[s]pontaneity may be what makes action improvisational, but limitations facilitate the possibility of spontaneity and allow for the generation of value through improvisation” (2011, p. 50). Improv has a set of foundational tenets, which are collected into the phrase “yes, and…” as noted in Rossing and Hoffman-Longtin (2016), where performers accept the premise given, react, and build off of each other’s ideas. Improvisation theater calls for a loosening of expectations between actor and audience so while the same basic structure remains, no two improvisational performances will be exactly the same.

In any iteration of improv, there is a strong element of play present but it is not necessarily chaotic (though maybe it could feel that way to an audience that has never experienced improvisational theater before). This is partially because the structure of improv lends itself to exploration and experimentation every time that it is applied - regardless if it is in a theater setting, a professional development conference, or classroom. Introducing improv means that experimentation, exploration, and a strong element of play will be introduced, regardless of setting. While improv’s applications stem out of the actor’s relationship to audience and theater, improv can also be applied to many different fields, including libraries and librarianship. Interestingly, the literature on using improvisational techniques in libraries are not student-focused, but rather practitioner focused, and seen as a way to train librarians or library school students, as in Edwards (2020) and Vardell & Nelson (2021). McLay Paterson (2019) looks at librarians’ own performative acts in the classroom through an improvisational lens, while Furay (2014) draws connections between performance skills and library instruction.

The relationship between games, play, and improvisation have greatly influenced our approach to teaching information literacy, as demonstrated by our activity which we will explain in greater detail later in this article. The revolutionary moment of discovering something new that can take place in improvisational play has interesting ramifications when it is applied to library instruction. We believe that using improvisational play in library instruction can also help to introduce and support a critical pedagogy praxis because of this trait in particular. In connecting games, play, and improv to teaching information literacy, we also have to reflect on the intersection with critical pedagogy.

### *Critical Information Literacy*

Critical information literacy offers theoretical grounding to librarians who are interested in combining aspects of critical pedagogy (Freire, 2018; hooks, 1994) with library and information sciences, particularly in regards to teaching information literacy concepts. Specifically, in centering the concept of challenging learners to confront and engage with structures of power and inequality, critical information literacy enables librarians and library instructors a means by which to combine critical theory and information literacy praxis. Many librarians have built on and expanded the scholarship on critical information literacy, but for the purposes of this review, we will be focusing on those articles with direct relevance to the topics at hand. In particular, those that address the tensions inherent in attempts to practice critical information literacy pedagogy within the confines of the current neoliberal academic library.

Beilin's 2016 *Student Success and the Neoliberal Academic Library* situates the role of information literacy in relation to the prevailing concept of student success, acknowledging that "both students and librarians/faculty are on the same level and enmeshed in the same system" (2016, p. 19) and the tension between teaching students skills that will help them succeed within the framework of the neoliberal university while also encouraging alternative versions of success. Like Beilin, Drabinski's *A Kairos of the Critical: Teaching Critically in a Time of Compliance* explores the tensions faced by academic librarians working toward a liberatory pedagogy within the current higher education model, concluding that "[t]he promise of critical pedagogy enlivens our discourse and practice as more of us spend professional time imagining, discussing, and then trying out ways of teaching that help students understand the political economy of information. On the other hand, data gathering, analysis, and reporting continue to be institutionally important realities of the work, whether the individual librarian believes in their efficacy or not" (2017, pp. 91–92).

In "Taking Back" *Information Literacy: Time and the One-Shot in the Neoliberal University*, Nicholson argues that librarians can resist the pressures of the one-shot information literacy session and of the neoliberal university in general with what she calls a "slow-scholarship approach" (2016, p. 31). This approach pushes back on quantifiable demands and "might enable us to extend our teaching beyond the skills paradigm by affording us the time and space to work toward a more critical information literacy" (2016, p. 32). Jacobs' *Information Literacy and Reflective Pedagogical Praxis* argues for an information literacy practice that is based in "creative, reflective dialogue" (2008, p. 18) as a response to the "top down demands" (2008, p. 10) that librarians provide tangible evidence that information literacy programs are effective, which leads to a reliance on rubric-based assessments that "attempt to fix what is fluid" (2008, p. 10) without allowing space for the "inherently messy processes" that are "learning, teaching, researching, writing and thinking" (2008, p. 9). Critical library instruction and improvisation complement each other. Critical pedagogy invites its practitioners to creatively engage and reflect,

and improvisational play asks us to expand and explore. Specifically from the viewpoint of the practitioner, infusing critical library instruction with improvisation can open up new ways to have students engage with pillars of critical pedagogy. From a student perspective, an introduction to improvisational play into the classroom can be a novel experience and a point of engagement in and of itself.

When we take a critical pedagogical approach and couple it with improvisational play, it presents new avenues of engagement for the instructor and for the students. One way in which play and critical library instruction could prove fruitful is in examining structures of power in the classroom. For example, Nelson posits that the research encounter should be approached “as a participatory and student-led activity” (2017, p. 191) and that “[p]aying attention to power dynamics within research interactions is essential...if we are to practice non-domination” (2017, p. 192) in the classroom. To bring critical pedagogy into the classroom is to “encourage teachers to reinvent the role of power” (Moreno-Lopez, 2005, p. 8). Play has the potential to shift power in the classroom, because it can be the small end of the wedge to open up space for exploration. It has the potential to offer new perspectives for both student and teacher engagement.

In the following section, we will explain the activity Research Roulette in greater detail, which will be followed by a discussion on how this activity exemplifies the combination of critical pedagogy, library instruction, and improvisational play into an adaptable activity.

### **Research Roulette**

At an annual faculty and staff development day at their institution, the authors attended a workshop led by Gwen Lowenheim, a faculty member in the English department, which focused on incorporating improvisational exercises into the classroom. One of the workshop goals was exploring ways for faculty to relate to students as “active co-creators of a learning environment which encourages not-knowing and creativity” (Lowenheim, 2018). In the workshop, participants played several improv games where movement and building on other’s ideas was key. We wondered how these improv-based concepts could translate to a library information literacy one-shot session. This led to the development of what came to be called Research Roulette.

Research Roulette is a database search activity in which students build upon their classmates’ search terms and strategies. It is intended to teach or refine database search skills (e.g. keyword combinations, Boolean operators, database filters) in a playful way that invites students to work collaboratively and creatively. The exercise needs to be conducted in a space where all of the students have their own computers, and, ideally, they come with their research topics in mind. Students are provided with the elements much like in a theatrical improv context; a stage (the classroom) and a suggestion from the audience (a search term either from their own research or the research of their colleagues).

Research Roulette cannot be played right off the bat, rather the students need a base on which to build from. For us, this meant starting with an introductory activity on keyword brainstorming where students develop their

research topic, followed by a demonstration on how to access the particular database, and then a brief demonstration on the basics of constructing a database search.

Students are asked to navigate to the same database (often the discovery tool) and once there, they are asked to enter either one or two keywords, usually the main topic of their research question, and to generate a preliminary search result list. Students are then asked to stand up and move to a classmate's computer. This can be done at random, or by asking everyone to move one seat to the left or right, with special instructions for those at the end of a row. Once at their classmate's computer, they are instructed to take a look at the existing search--both the search term(s) and the results list. Then, they're asked to add a second search term to the search--something inspired by the first keyword(s), or by something that caught their eye or interest in the results list. Students are asked to get up and rotate seats (in the same method as before), but this time, they are asked to use the database filters to limit the search. This could be by date, source type, subject term, or any of the available filters. They apply at least one filter, and generate a new result list. At this point, students are instructed to return to their initial computer and take a look at the search that has been collectively built, and the attendant results list.

Ideally, the collectively built results will be slightly unexpected, a way to demonstrate that research is not a linear process, that there can be serendipity in a database search, and that bringing in the ideas and perspectives of others is helpful. It may be that these results inspire them to follow that particular direction, or it may confirm that their original direction was preferable. By bringing in (at least one) outside perspective, the exploration of the topic is deepened and enriched. It is collaborative and collegial in a way that undergraduate researchers don't often feel research is. Students may experience the research process as a solitary task that involves trudging through less user friendly interfaces typical of library databases, when the research process can actually be playful, collaborative, and unexpected.

It is important that this activity is framed as play as it is exploratory and improvisational at its core. The librarian as instructor acts as a guide in inviting students to play while learning. By doing so, a line of trust between the librarian as a new and unknown figure in the classroom can start to emerge. Research Roulette is meant to do what Walsh says play should do--step "outside of normal or ordinary life" (2015, p. 84), in this case step outside the normal research process; to make the work of database research feel less daunting by taking some of the pressure off of having the 'correct' keywords on the first try. In summation, the Research Roulette activity goes as follows:

- Short database demonstration (a discovery tool or a multidisciplinary database)
- Students complete first action--a simple search of a topic of their choosing
- All students move to a different station
- Students complete second action--build off of the previous search by adding a term with either AND or

OR

- All students move to a different station
- Students complete third action--selecting a database limiter to narrow search results
- Students return to their original station and review the collectively created results

We recognize that there may be barriers to implementing this activity in classrooms; these are discussed in the Limitations section.

## Discussion

Both authors have used Research Roulette in undergraduate library instruction sessions at their respective institutions. These sessions usually focus on writing assignments that aim to acclimate students to either writing critical or argumentative essays, or to develop their writing in their specific disciplines. Though some of the aspects of the undergraduate coursework do differ slightly, the assignments are often similar: a three to five page essay where students can write on a topic of their choosing, but must use a handful of scholarly sources that are appropriate for their research questions. Typically, the undergraduate library instruction session is developed as a one-shot lesson that is tailored to the specific needs of the students in a given class. It is within this framework that we began to implement Research Roulette as a classroom activity.

Observed student attitudes ranged from confusion and resistance to engagement. Sometimes, students were resistant to getting up and moving around the classroom. Some clearly enjoyed the break from regular classroom routines, especially when instructors played music during the activity. Despite initial hesitation, once the game got underway, the atmosphere in the class noticeably brightened. Students talked with each other as they moved around the room, not only about the game but also about the searches they were constructing. Many were surprised and excited about the end results of the collaborative searching when they returned to their original work stations. Some found results that were off-base from the original research question while, others found they wanted to explore the new direction, and yet some found the results were eerily in line with their original intent.

In *Teaching to Transgress*, bell hooks writes that “[t]he classroom remains the most radical space of possibility in the academy” (1994, p. 12). Research Roulette takes this concept and applies it directly to the library instruction classroom experience. It asks students to bring the improv ethos of “yes, and...” and apply it to the information classroom to explore different possibilities in the research experience. Instead of relying on a set of instructions which lead to a predictable outcome (i.e. “search for this and you will find this”), Research Roulette takes improv’s expansive exploration possibilities and uses it to encourage students to lean into the expansive exploration possibilities of research.

Play “...keeps you from taking things, and yourself, too seriously” (DeKoven, 2015, p. 142), and yet, play can be destabilizing to students and pedagogues alike. In particular, those who are used to a banking model of education (Freire, 2018), in part because it asks the students to become engaged actors in their own education. Moreno-



Lopez notes that sometimes “students seemed to resent the responsibility demanded from them within this new structure, and sought shelter in their conventional role as passive recipients of knowledge” (2005, p. 43). In Research Roulette, the instructor seeks to embrace the liberatory possibilities of play in order to transform the library classroom. “Playing playfully” is transformational” (DeKoven 2014, p. 37) in that playful games allow us to step outside our usual roles and “provide access to another world, one that is typically safe from the consequences of the real world” (Whitton, 2012, p. 14). Not only does play let the teacher practice non-domination in the student research experience, it serves to create community among the players, for when we are truly playing, “[w]e learn to let go of rules and goals and roles and expectations, and, instead, embrace each other” (DeKoven, 2014, p. 42).

During a library instruction session, it is not uncommon to see students struggle with coming up with the “perfect” topic, or “best” keywords search. There can be a lot of pressure and stress put on the student to perform a correct search. Research Roulette seeks to subvert this by demonstrating that there is no such thing as a perfect search, and that there are no negative consequences for whatever happens during the game. Because of its improvisational roots, this activity creates space for the unexpected and embraces “the fact that teaching, learning, and research are recursive, embodied, disorderly, and sometimes unproductive” (Nicholson, 2016, p. 50).

For librarians working within the outcomes-oriented one-shot model, who feel pressure to teach a set of quantifiable skills, spending classroom time on an activity that emphasizes the playful may feel like a waste of time. Yet this is the type of slow scholarship that Nicholson advances, a way to make space in our classrooms to push back on quantifiable demands. Whereas other game-based activities in library instruction are focused on guiding students through a specific set of steps to expected outcomes (as in the murder-mystery style game), Research Roulette operates more freely.

## Limitations

There are barriers to implementing this activity in the classroom. In addition to having access to a classroom with adequate equipment for learners, when first envisioned, it was naively assumed that all bodies would be able to navigate the physical classroom without obstruction. The physical aspects of the activity were designed specifically to disrupt the more restrictive elements of a classroom experience, but inevitably create their own set of barriers to engagement. Bringing movement into the classroom and research process is a goal of this activity, however we recognize that this iteration was not and is not fully accessible. Because of the flexible nature of the activity (and with a sufficient level of trust between the librarian and students) students have agency to change the activity to suit their specific needs; it need not remain inaccessible because of our lack of imagination.



## Future Directions

Research Roulette could be expanded in two ways in particular: in regards to its overall implementation within a course and in regards to the information literacy concepts it engages with. In terms of general implementation, Research Roulette was first introduced in a one-shot environment, which is a typical model of library instruction. The lack of trust between students and the guest-speaker librarian hinders students' full engagement in the activity. Most improv workshops start with warm-up activities; these simple, low stakes activities serve as an “opportunity to develop trust and safe environments, where the players can feel free to explore through “contentless” games and structures. It is similar to bantering with students to develop rapport. Warm-up activities focus on transitioning individuals into an improvisational model” (Berk & Trieber, 2009, p. 32). Adding one or two short improv warm-up activities<sup>1</sup> before Research Roulette may help to ease students into the mindset of activity and alleviate any apprehensions that students might have in engaging with it.

If a librarian was fully embedded into a course and had multiple points of access to the class, there would be other opportunities to use Research Roulette as a jumping-off point for a deeper discussion within the classroom. As it stands now, the act of playing Research Roulette does not imply that conversation will be forthcoming, nor does it provide an analysis of larger structures that underpin database use. While the opportunity is there to engage with students on discussing information privilege, algorithmic bias, and critical knowledge organization in general, this activity does not do so outright. Research Roulette aims to bring play into one area of research--the database search process. With that said, here are questions that we have about future iterations of Research Roulette:

What other improvisational techniques could evolve from this activity? What would happen if this activity was used multiple times in a semester-long course? Would repetition move it from playful to rote? Would it fall prey to over-use and become stale and redundant? Or, would repetition allow a class to hone research skills, in particular the associative brainstorming of topical keywords or the use of database filters?

## Conclusion

We have discussed the theoretical and practical elements that make up this activity, and it is our hope that in doing so it has been made clear that there is a stream of possibilities for library instruction to explore in moving beyond games in and into true play. It is crucial in our practice of teaching and learning in library and information sciences that we do not remain stagnant. The intention behind Research Roulette was to create an

---

<sup>1</sup>A comprehensive list of warm-up activities can be found at <https://www.learnimprov.com/warm-ups/>,

<https://improvwiki.com/en/warm-ups>, or [https://wiki.improvresourcecenter.com/index.php/Category:Warm Ups](https://wiki.improvresourcecenter.com/index.php/Category:Warm_Ups)

activity that married improvisational play and critical library praxis. When we engage with improvisational play, we are able to step outside of some of the preconceived notions of what a library instruction session can look and feel like as well. Improvisational play makes space for the discursive and unproductive research practices essential to the creative exploratory potential of research. Research is not linear, and the research process itself doesn't have to be regulated. Introducing play into the research process opens up new possibilities for new ideas to emerge.

## References

- Anon. (2015). Deep fun and the theater of games: An interview with Bernie Dekoven. *American Journal of Play*, 7(2), 137.
- Beilin, I. (2016). Student success and the neoliberal academic library. *Canadian Journal of Academic Librarianship*, 1(January), 10–23. <https://doi.org/10.33137/cjal-rcbu.v1.24303>
- Berk, R. A., & Trieber, R. H. (2009). Whose classroom is it, anyway? Improvisation as a teaching tool. *Journal on Excellence in College Teaching*, 20(3), 29–60.
- Blas, E. A. (2016). Using a murder mystery to teach evaluation skills: A case study. *Internet Reference Services Quarterly*, 21(3/4), 93–100. <https://doi.org/10.1080/10875301.2016.1169468ht>
- Boss, K., Angell, K., & Tewell, E. (2015). The amazing library race: Tracking student engagement and learning comprehension in library orientations. *Journal of Information Literacy*, 9(1),4. <https://doi.org/10.11645/9.1.1885>
- DeKoven, B. (2014). *A playful path*. ETC Press.
- Drabinski, E.. (2017). A kairos of the critical: Teaching critically in a time of compliance. *Communications in Information Literacy*, 11(1), 76–94. <https://doi.org/10.15760/comminfolit.2017.11.1.35>
- Edwards, J. (2020). Lessons from improv theater applying: improvisational concepts and techniques to LIS. *Texas Library Journal*, 96(2.5), 135–40. [https://txla.org/wp-content/uploads/2018/10/TLJ-SpecialEdition-2020\\_web.pdf](https://txla.org/wp-content/uploads/2018/10/TLJ-SpecialEdition-2020_web.pdf)
- Freire, P. (2018). *Pedagogy of the oppressed : 50th anniversary edition*. 4th edition. Bloomsbury.
- Furay, J. (2014). "Stages of instruction: Theatre, pedagogy and information literacy." *Reference Services Review*, 42(2), 209–28. <https://doi.org/10.1108/RSR-09-2013-0047>
- Giles, K. (2015). "No budget, no experience, no problem: Creating a library orientation game for freshman engineering majors." *The Journal of Academic Librarianship*, 41(2), p. 170–77. <https://doi.org/10.1016/j.acalib.2014.12.005>

- Giles, K., Shuyler, K., Evans, A., & Reed, J. (2019). "Creating a library orientation card game to reach new transfer students." *Public Services Quarterly*, 15(1), 1–12. <https://doi.org/10.1080/15228959.2018.1488643>
- hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. Routledge.
- Jacobs, H. L. M. (2008). Information literacy and reflective pedagogical praxis. *The Journal of Academic Librarianship*, 34(3), 256–62. <https://doi.org/10.1016/j.acalib.2008.03.009>
- Jarvis, P. (2010). *Adult education and lifelong learning: theory and practice* (4th ed.). Routledge.
- Kapp, K. M. (2012). *The gamification of learning and instruction: Game-based methods and strategies for training and education*. Pfeiffer.
- Lowenheim, G. (2018). *Lost in conversation: co-creating classroom communities for meaning-making and discovery*. Paper presented at the Pace University Faculty Institute, May 17, Pleasantville, NY.
- McLay Paterson, A. (2019). Pick a topic, any topic!: Using improvisational comedy techniques to make feminist pedagogy work for library instruction. *Teaching Practices Colloquium 15: Adventures in teaching*. <https://winnspace.uwinnipeg.ca/handle/10680/1676>
- Moreno-Lopez, I. (2005). Sharing power with students: The critical language classroom. *Radical Pedagogy*, 7(2). [https://radicalpedagogy.icaap.org/content/issue7\\_2/moreno.html](https://radicalpedagogy.icaap.org/content/issue7_2/moreno.html)
- Nelson, E. (2017). Re-thinking power in student voice as games of truth: Dealing/playing your hand. *Pedagogy, Culture & Society*, 25(2), 181–94. <https://doi.org/10.1080/14681366.2016.1238839>
- Nicholson, K. P. (2016). 'Taking back' information literacy: Time and the one-shot in the neoliberal university. In N. Pagowsky & K. McElroy (Eds.), *Critical library pedagogy handbook. Volume 1, Essays and workbook activities* (pp. 25–39). ACRL.
- Rosenstein, J. (2017). Ghost hunters in the library: Using an interactive mystery game for freshman library orientation. *College & Research Libraries News*, 74(7), 350-353." <https://doi.org/10.5860/crln.74.7.8975>
- Rossing, J. P., Hoffmann Longtin, K. (2016). Improv(ing) the academy: Applied improvisation as a strategy for educational development. *To Improve the Academy: A Journal of Educational Development*, 35(2). <https://doi.org/10.3998/tia.17063888.0035.206>
- Vardell, E., & Nelson, S. B. (2021). Teaching reference interview skills with improv. *Journal of Education for Library and Information Science*, 63(1), 38-56. <https://doi.org/10.3138/jelis-2020-0098>
- Walsh, A. (2015). Playful information literacy: Play and information literacy in higher education. *Nordic Journal of Information Literacy in Higher Education*, 7(1), 80–94. <https://doi.org/10.15845/noril.v7i1.223>

Whitton, N. (2012). Good game design is good learning design. In A. Moseley & N. Whitton (Eds.), *Using games to enhance learning and teaching: A beginner's guide* (pp. 9-20). Routledge.

Yap, J., & Peñaflor, J. (2020). The amazing library race: Developing students' media and information literacy skills through games. *Journal of Information Literacy*, 14(1), 66–82. <https://doi.org/10.11645/14.1.2708>

Zaunbrecher, N. J. (2011). The elements of improvisation: Structural tools for spontaneous theatre. *Theatre Topics*, 21(1), 49–60. <https://doi.org/10.1353/tt.2011.0015>