Why is there such resistance to playing with learning?

ELYSSEBETH LEIGH

ABSTRACT

Games for change – and learning – are here to stay. But uptake by educators at school and tertiary levels remain lower than it could be.

This article explores a daunting list of inhibiting factors that reduce the chances of games becoming more widely adopted as educational methods. Such factors have been documented since the 1960's and apparently remain as unyielding in their resistance to the notion of playing to learn as when they were first identified.

So, the urgent question for proponents of using concepts of play – including simulation, games and virtual reality as examples – is why this state of affairs has remained static for so long. And there is the consequent question of what such proponents need to do to help educators make the 'seismic' shift from resistance to adoption of games for learning? Existing barriers to playful engagement with learning can be reduced over time and will involve sustained action by individuals and/or organisations to increase playfulness in learning environments.

INTRODUCTION

There is a clear distinction - however unfortunate - to be made between

informal and formal learning environments. While it is acknowledged that children learn through experimenting with their environment, and that play is their chief way of doing so, formal learning environments continue to resist its use. Similarly, the capability of human beings to test out behaviour in the relative safety of 'play' is widely understood, however formal education environments habitually separate 'play' from 'learning' in ways that dismiss the potential of play, and often strenuously resist the idea. And the continuing puzzle is why this is so.

Children use play as experimentation, trial and error, as mimicry to rehearse behaviours they foresee needing to understand, as a means of relieving tension and assist in learning to cope with unfamiliar and even fearful situations. Play can help with exploring and stretching the boundaries of the known and familiar through imitation of social themes and even achieving understanding of what constitutes 'good' and 'bad', which, in themselves are cultural constructs so deeply embedded as to be difficult to reach. The fun of play contributes enjoyment of life, and awareness of self in context – thus the schoolyard is often rather *apparent* confusion than *real* chaos; and, as children, we understand how playful learning helps us to handle mystery and fear, uncertainty and non-replicable events.

However, as adults we somewhat mysteriously lose that insight and move instead to distancing ourselves as 'child' from ourselves as 'adult' as exemplified in a passage from one of Paul's letters to the Corinthians, which is often quoted when people disapprove of levity in learning contexts:

When I was a child I spake as a child, I understood as a child, I thought as a child; but when I became a man I put away childish things.

For now we see through a glass darkly, but then face to face; now I know in part; but then I shall know even as also I am known. (1 Corinthians ch.13 v 1 in OUP, 1996)

Such an approach implies the need for adult seriousness in all things – whatever that may mean to specific individuals. This urgent 'need' for seriousness can readily be identified in the overwhelming reliance on 'teaching' to induce 'learning' in formal educational settings.

Children, having no need for such formality, joyfully create learning environments that integrate acquisition of required knowledge into activities copying aspects of the adult world they know they must enter, but find mysterious and even fearful. Child's play does not attempt to model life in realistic detail, nor does it overtly include 'lessons' to be learned; however, despite children considering only that they are 'playing' and enjoying the moment, the 'lessons' they are learning are subtle and profound. I am strongly in favour of educators looking at children's engagement with learning as they play and then taking the time to figure out all the possible ways of taking that into the ways we arrange our own knowledge-driven environments. Notice I am avoiding use of the term 'teaching' here, as I strongly agree with Professor Jerry Harvey (1999) who agrees with Carl Rogers that nothing of value can be taught but much of value can be learned.

Simulations and games offer both learning and fun in abundance so why are the barriers I am about to discuss still so prevalent, and what can be done about that? One step is to acknowledge that it is time to re-write that message to the Corinthians along the lines of:

When I was a child I spake as a child, I understood as a child, I thought as a child; but when I became an adult I have learned how to put 'childish' things to new, complex and engaging uses.

While play has long been acknowledged as part of early childhood learning it seems that we become concerned by conformity, standards and even motivation to learn. After joyfully describing the adventures of a 16 month old toddler learning about things around her, John Holt noted (1972, p. 17)

It is hard not to feel that there must be something very wrong with much of what we do in school, if we feel the need to worry so much about ...motivation.

I am raising these points on my way to examining a current list of barriers – and their actual or supposed – underlying causes, because I want to be explicit about the fact that opposition to playfulness in formal education contexts is a very old phenomenon. And I am certain that if proponents of the playfulness inherent in games and simulations for learning are going to move the 'learning game' *forward* – meaning away from – endless seriousness then we need a much better awareness of the barriers ahead.

TEACHING AND LEARNING IN THE 1960'S

I am focusing on the period from the 1960's to the present because it spans my own learning experiences, so I can speak personally about them, as well as considering what is – and was – being researched and published about education and the use of games. I am also acutely aware that everything I draw on has antecedents, some of which I may know, while others may prove to be factors you choose to recall for yourselves and may even be recalled differently by you.

I was a wilful child in a small country school where almost everything was taught by rote, because – for the pitifully few teachers – that was the only way of controlling their large classes. At least that is how I thought about those years until much, much later. Through those years I 'learned' to despise rote-memorisation because I was never very good at it. However, I loved learning because I was interested in connections and relationships among ideas. I could not get enough of it and became a high school teacher.

However, I could not in conscience, use those content-driven 'teaching' processes and plunged full tilt into alternative strategies that lessened my 'authority' as a teacher while increasing learner engagement by bringing the real outside world into the classroom. The logic of such a strategy seemed unassailable – but it wasn't. In my second year of teaching I lost my job and began learning about the complexities of society's relationships with education. I battled for three years to overturn that decision but by the time the 'war' was won I knew I would never again teach in a formal schooling environment. So, what did I learn from that unfortunate career beginning? Lesley Wilson has developed a great summary of what I needed know and Table 1 (Leigh & Leveque, 2021) arranges her insightful list of curricula into clusters for easier reference. In the years since that unfortunate – but perhaps most fortunate – beginning I have spent the remainder of my working life learning about, designing and using simulations and games for learning.

(Source is) INSTITUTIONAL		
Overt, explicit, or written curriculum	Written /produced documents chosen to support an institution's intentional instructional agenda.	
Rhetorical curriculum	Ideas offered by policymakers, school officials, administrators, or politicians.	
(Source is) - TEACHER		
Curriculum-in-use	The actual curriculum as delivered and presented by each teacher	
(Source is) - STUDENT		
Received curriculum	Those things that students actually take out of the classroom	
Internal curriculum	Processes, content, knowledge combined with the experiences and realities of the learner to create new knowledge. Educators have little control over the internal curriculum since it is unique to each student.	
(Source is) - INVISIBLE		
The hidden or covert curriculum	It may include both positive or negative messages, depending on models enacted and learner perspectives derived from the very nature and organizational design of the [institution], as well as behaviors and attitudes of teachers and administrators. (Longstreet & Shane, 1993 p46)	
The null curriculum	All that is not taught, thus conveying the message that these elements are not important in their educational experiences or in our society. What students cannot consider they are unable to use, [which has] consequences for the kinds of lives they lead. (Eisner 1993)	
Phantom curriculum	The messages prevalent in and through exposure to any type of media can play a major part in enculturation of students into a predominant metaculture, or narrower or generational subcultures.	
The electronic curriculum	Those lessons learned through searching the Internet for information, or through using e-forms of communication	
(Source is) - COMMU	INITY	
Societal curriculum (or social curricula)	The massive, ongoing, informal curriculum of family, peer groups, neighborhoods, churches, organizations, occupations, mass media, and other socializing forces that "educate" all of us throughout our lives (Cortes, 1981 p24)	
Concomitant curriculum	What is taught, or emphasized at home - may be received at church, in the context of religious expression, lessons on values, ethics or morals, etc. based on the family's preferences	

Table 1: Types of curricula influencing learning (based on Wilson, 2020)

I now know that – in acting as I did and thereby losing my job – I violated the underlying values of several items on Wilson's list. I did work to the overt/written curriculum but violated the rhetorical curriculum by using methods not sanctioned by those 'guarding' it. I (inadvertently I must add) revealed the hidden curriculum as being bounded by the rationalities of a time and place with which I was unfamiliar, and in doing so challenged the beliefs of those guardians about its 'rightness'. I included items from the 'null' curriculum in class work, and in doing so again challenged the 'guardians'. I'm sure you are seeing the picture by now. My focus was ensuring the 'received' and 'internal' curricula as taken away by the learners

would be consistent with their lived experiences beyond the large brick buildings where we congregated each day. In fact, that is still my practice. But wisdom comes with adversity, and I learned enough from those early lessons to understand that all these curricula co-exist and that it is their interplay that determines our daily experiences.

FINITE AND INFINITE GAMES

The philosopher James Carse has helpfully identified the two types of game being played at that school -he calls them Finite games and Infinite games. As a new young teacher, I thought I was free to play the Infinite game wherein I could play with the rules of education to give the learners their best chance of future success. Instead, I was in a context where only Finite games could be played. I was supposed to play by the rules which had been firmly established in that context and was not supposed to upset the status quo - which I did repeatedly albeit unknowingly. Little wonder that my 'three years in the wilderness' were so swiftly mandated. However, the playfulness of the Infinite game has brought me here today - where I can choose to play either game as needed by the context. This framework for understanding the interactions within specific contexts is especially useful for those hoping to encourage other educators to adopt play as a learning tool. We all need to know how to use the framework to analyse immediate contexts when deciding which of the two games is in play at any moment. A summary of the key features of each type of game is in Table 2:

Finite Games	Infinite Games
• plan to win	• play to continue playing
• ends when someone wins	• rules are internally defined
is bounded by defined rules(temporal, spatial, numerical	play with (not within) boundaries of time space, numbers
requires other players, known as opponents	no questions of eligibility about who can play
the player as seeker of titles recognised by society	the player as artist, creator, innovator
there are many finite games to play	there is only one infinite game

Table 2: Key characteristics of Finite and Infinite Games (based on Carse, 2013)

I now know that I did not learn those early lessons as well as I could have, and in the late 1990's I found myself again facing disaster. This time I did not lose my job – but instead took on the even greater challenge of completing a doctoral research program (Leigh, 2003). In effect, this time I chose to play the Infinite Game deliberately – and 'play with' all the knowledge that was available to me as a doctoral student and while – for a period – I was no longer confined by the finite rules of academic progress (while still operating within their enabling constraints). My main focus was on the role of facilitators using simulation as an educational framework in a tertiary environment. Along the way I explored the tangential question of why some people resist, and object, to anything that involves play in formal learning environments. Fear of making a fool of oneself turned out to be a powerful factor.

ANACLITIC DEPRESSION BLUES

Formal education prizes orderly and sequential progression of knowledge acquisition with visible and sustained reliance on regular written/oral assessment of what has been remembered. It relies on hierarchies of

control based on actual or supposed possession of information to create both a sense of authority in those with knowledge, and a consequent sense of dependency in those seeking to acquire it. Unsettling this set of arrangements can disturb taken-for-granted norms and habits. For some individuals it creates what Jerry Harvey (1999) called the 'anaclitic depression blues' whose symptoms in adults can include depression arising from separation from ideas or relationships that are very important to them. In the context of using simulations and games for learning such blues can arise for learners by disturbing the belief that there will always be someone on whom to depend, and therefore they do not have to take responsibility for their own learning.

Conversely it can arise in those higher up the knowledge hierarchy if/when it disturbs their belief that they are the 'knowers' and that their role is to pass on that knowing to those below them, who don't yet 'know'. At some point during preparation for the doctoral work I was advised by an experienced educator that *If the student hasn't learned, then the teacher hasn't taught*. I was horrified by the thought of placing so much pressure on one end of the balance board that is a learning relationship. But this is what formal hierarchies of education seem to imply – and when simulation and games disturb this fragile house of cards, then for some it is too much, and retribution for causing such dislocation can be swift as I learned but did not yield to.

WHO'S ON FIRST?

I am referring here to the famous eight-minute comedy skit by Abbott and Costello where a simple communication task becomes the base for a running joke that has lasted more than 70 years. Visit https://www.youtube.com/watch?v=kTcRRaXV-fg to enjoy the comedy for yourself as you think about this – Being 'in control' of a group of game players is as easy as explaining *Who is on first?* And I trust that it becomes clear that *losing control of participants* creates the energy for comedy and learning – but also has consequences.

When Bud Abbott launches into the routine, he and Lou Costello both know they are totally reliant on each other to keep it going and they did so, flawlessly for years. Designers of simulations and games, educators choosing to use their products, learners entering (willingly or otherwise) into the play 'routine' and administrators overseeing the context are all similarly interdependent in keeping the action going. At any moment even a single player can disrupt the flow and suddenly the educator, the player even the administrator may find themselves in that terror-inducing place of *losing control*. R D Laing showed us these terrors and their framing systems via poetry in his four-line epithet which captures the dilemma of seeing the 'game' but being unable to articulate it in a way that releases all involved from the need for pretence.

They are playing a game. They are playing at not playing a game. If I show them I see they are, I shall break the rules and they will punish me.
I must play their game, of not seeing I see the game.

As an educator using simulations and games, of course you are playing a game and inviting participants to (for example) explore bottlenecks in supply chain management via a one-hour version of the Beer Game (SkillDynamics, 2021) or learn about empathy and environmental awareness via Sky: Children of the Light (thatgamecompany, 2019) a free activity available from Games for Change. You and the participants both know you are all playing a game and that success requires a period of willing suspension of disbelief (Coleridge, 1817). But you also know the boundaries of the game and therefore how to step into - and out of the game. Laing could be interpreted as writing about what happens when those boundaries are violated either by misuse of a game or some unintentional intrusion into personal spaces. Maintaining control in such conditions is not what conventional educators have been trained for so it is little wonder that resistance to using simulations and games can be found to reside in (often unvoiced) concerns about how to maintain control. I have had this resistance paraphrased as my students can't whatever is being proposed, yet the learners have neither been asked to attempt, nor tried and failed, to do whatever is being proposed.

Thus, the question about *Who's on first?* or *who's in control?* is neatly avoided and the fear of losing control remains largely hidden from view –

and so also does the opportunity to invite learners to take up the challenge of getting out of control and into action.

LEARNING FROM DIFFICULT PEOPLE

Difficult people are everywhere – indeed I am one at this moment, overdue as I am with this article. Here - as in other aspects of life the choice for gamers, simulationists and experience-based educators is whether to avoid noticing the game of avoiding difficulty or to decide whether to speak up and name it. A short internet search for comments about difficult people revealed three other possible responses - loosely aggregated as walk away or forgive or learn with/from them. The trouble with difficult people is that they seldom recognise the title as pertaining to themselves. They have valid reasons for their stance and are quite prepared to fight for it - even if/when no battle is needed. Educators, uneasy about doing anything out of the normal that might stir up trouble, resist using simulations and games because - intuitively or from previous experience they are alert to their own inner uncertainties and have no wish to put their (actual or self-perceived) frailties on display. Thus, the idea of learning from difficult people will not appeal to them. And, by association, active learning processes which might uncover difficult people will be equally unappealing.

Conversely, educators who do choose simulation and games as learning vehicles are aware they may be in a for a wild ride and prepare accordingly, often in the spirit of Lailah Gifty Akita's advice that – *The difficulties in life are vital for our personal growth and well-being.* This does not mean they succeed on every occasion, rather they know how to succeed and how to fail and moreover that both are equally good educators.

THAT FLAKY EDUCATOR

Fear of acquiring a label like *flaky* can stop otherwise competent educators in their tracks. It seems such an innocuous word to have such a large impact on otherwise competent and experienced educators. So where is its power? And why does it contribute to resistance to use of simulations and games? To answer this question means returning to that earlier comment about organisational hierarchies of control. You are *not flaky* if you have

behaved properly and climbed that hierarchical ladder cautiously and stayed true to orderliness and formal structure. You may be/become *flaky* if you step aside from the ladder and pursue learning that does not appear to contribute to familiar education structures. In his 1930's classic satire on the limitations of formal education titled The Saber-Tooth Curriculum, Peddiwell (1939) showed how this can play out by imagining a conversation occurring at a time when the once relevant 'sabre-tooth tiger hunting' curriculum became redundant. The tigers were extinct, and people were facing new threats and needs. One particularly radical agent for change demanded –

And why in hell should children try to scare tigers with fire when the tigers are dead and gone?

Only to receive the witheringly logical reply that

If you had any education yourself ... you would know that the essence of true education is timelessness. It .. endures through changing conditions like a solid rock standing squarely and firmly in the middle of a raging torrent. You must know that there are some eternal verities, and the saber-tooth curriculum is one of them!

Read the book yourself and consider where you sit along the continuum of *eternal verities*. Are you *flaky?* By which I mean prepared to change when that is required to stay aligned with what is happening around us, or stuck like *a solid rock* hoping that change does not touch you?

Being *flaky* may well mean taking risks, some of which will fail. It may mean encouraging learners to allow meaning to emerge from action – and inaction. It will mean failure at times. It also suggests enjoyment (who does not enjoy a deliciously buttery flaky pastry!) and a lightness of touch. *Flaky* does not mean delicate or insubstantial – although both those charges may be hurled at educators who make the choice to step aside from convention and orderliness.

REPRIMANDS, PUNISHMENT AND PENANCE

Being reprimanded by colleagues or managers is never pleasant, and seldom actively sought after. And in my opinion, is often used as a way of diverting attention from the problems that simulations and games may have caused to emerge in the broader context. But this is seldom evident in the moment of the reprimand. Again, to draw on my own experience, as I was beginning my doctoral studies I was subjected to a severe reprimand and ordered not use simulation in my practice after a (yes one!) student complained about its adverse impact on her. It took a doctoral research program to identify that as the underlying issue! Her letter of complaint was laden with accusations about my bad practice, the terrible textbook and sundry other grievances.

I took my punishment and then worked frantically to review what had happened and why. Along the way my *punishment* turned into the reward of extensive international travel in pursuit of answers, new friendships and publication of books and articles. If she had not complained so bitterly, and the manager had not blundered so badly, much of that might never have happened. I am not saying do not be afraid of punishment, I am saying it may open up opportunities not previously considered or possible. And as times passes, I sense that the irony is that it is the *fear* of a reprimand that holds individuals back from using simulations and games, and not the reprimand itself.

COMPLICATED, COMPLEX AND CHAOS

One knowledge management tool which can be usefully applied to explaining how to locate simulations in differing contexts is the Cynefin domains of knowledge (Snowden & Boone, 2007) which defines five kinds of contexts. Using this tool different forms of play and games allows effective positioning of different forms of activity making them more likely to be acceptable. The Cynefin framework identifies *Ordered*, *Unordered* and *Confused* as three conditions of human operations. *Ordered* conditions are easily recognisable and quickly responded to, based on routine applications of familiar habits. *Unordered* conditions are unfamiliar, so exploration is essential and may require reflection observation to precede examination. When conditions are *Confused* an essential first step is to determine the domain you are in and then move towards operating according to the relevant heuristic thus: In Ordered conditions the *Clear* domain employs the heuristic of *make sense of conditions to understand*

(categorise) them and respond, (think of a classroom and the engrained habits of behaviour to be seen there). Still in an Ordered condition the Complicated domain requires making sense of conditions, then analysing them to establish how to response. The domains in Unordered conditions require a different approach. The Complex domain must be examined (probed) in order to make sense of events before responding, while the Chaotic domain demands action with some possibility of making sense later.

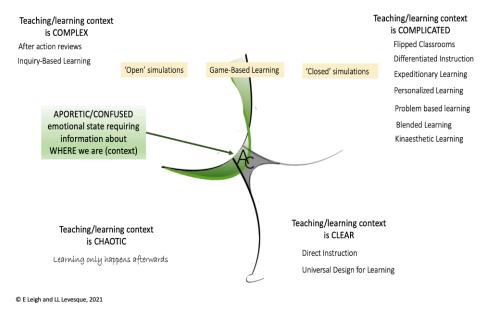


Image 3: Cynefin Domains of knowledge – a framework for locating simulations and games in context

This is a helpful set of rubrics once we understand that the unsettling feelings created by simulations and games push participants, educators and administrators into conditions of *Confusion* where, without quick and effective use of an appropriate rubric, *bewilderment* takes over and everything must revert to *Order* as fast as possible in order to avoid immersion in the *anaclitic depression blues*.

Making visible the alliance of simulations and games with relevant learning goals as anchored within the Cynefin context-based framework enables proponents to be specific when describing why games and simulations

are valid and viable learning strategies. *Open* simulations and games are characteristically found in the Complex knowledge domain, and are more likely to induce fear and confusion than *Closed* designs which reside in Ordered conditions. The latter are puzzles to be solved, with the security of knowing that someone else has previously done so.

A range of literature, aligning education contexts with forms of simulation and application principles allowing the user to gauge their relevance and efficacy for particular learning environments is available at http://www.btwebz.com.au/simulation/framework.htm. While this was created for a healthcare learning environment its principles are applicable in most learning contexts, and well worth exploring.

REVIEWING THE STATE OF PLAY

A review of what is known about playing to learn reveals clashing beliefs and cultural values, misunderstandings, and fear, turning education into battle grounds where quality, logic and reasoning are insufficient to change attitudes. Undertaking a project management-style *After Action Review* of successful projects and ones that have stalled or failed, would provide an interesting list of propositions for enlightening educators and administrators disinclined to consider play as a legitimate learning mode. One spectacular example of well-formed education materials that included simulations and games as part of its overall strategy was the carefully crafted and extensively supported M.A.C.O.S. curriculum which included several board and card games to introduce cultural diversity themes. The defeat of this ambitious project based partly on ill-judged and ill-informed arguments (Gudzial, 2018) remains a salutary reminder that education can become a battle ground on which factors like quality of work, logic and reasoning are not the best or sufficient weapons of defence.

WHAT'S TO DO?

So, what can proponents of simulations and games do to help educators make the 'seismic' shift from resistance to adoption of games for learning? I propose three stratagems. First face up to our foibles and prejudices – we love to play, believe it has no equal when the task is to provide engaging

and memorable learning moments. But – those are beliefs not facts equally relevant to all contexts or settings or goals. So, knowing how our own stance affects our actions is a primary task.

Second understand that educators who do not share our beliefs or passions may be –

- daunted by the amount of change to routines required
- troubled by the 'extra time' that games seem to require
- thinking of games as a whole new language and wondering how they could find time to learn it?
- concerned for their reputation/status
- inclined to think that It's not education if it's play
- focused in providing abstracted formal education
- unable to see games as 'purposeful education'
- worried that games can be considered a cop out avoiding the hard work of learning

– and accept all of these as valid, honourable and reasonable beliefs (just as ours are). To address them we need a variety of approaches too many to be addressed here – but there is a great deal of literature available – and of course Games for Change is a great place to begin your explorations. Where we too often fail, is in not accepting the validity of these beliefs and then pushing ahead with our agenda at the expense of achieving shared understanding. I offer the glorious failure of M.A.C.O.S. as evidence for this.

And finally look closely at all our designs, toys, playthings, programs, apps, participants, learning goals and contextual characteristics and spend the requisite amount of the time to learn how to blend them for the benefit of all involved. Hasten slowly is a useful motto when we aim to influence towards change. Sometimes games and simulations will win, sometimes they will lose – but there will always be learning. Although M.A.C.O.S. has disappeared Jerome Bruner, its educational *godfather* continued to learn and write and contribute concepts and ideas that still influence learning, albeit perhaps not in the ways he'd once thought.

REFERENCES

Abbott, B. & Costello, L. (1951). Who's on First? https://www.youtube.com/watch?v=kTcRRaXV-fg

Akita, L. G. (2021). *The difficulties in life are vital for our personal growth and well-being*. https://www.goodreads.com/quotes/tag/difficult-people

Carse, J. (2013). Finite and Infinite Games. The Free Press.

Coleridge, S. T. (1817). *Suspension of Disbelief*. Available at Wikipedia – https://en.wikipedia.org/wiki/Suspension_of_disbelief

Guzdial, M. (2018). *Computing Education Research Blog.* https://tinyurl.com/8vm6znak

Harvey, J. B. (1999). How come every time Ii get stabbed in the back my fingerprints are on the knife? Jossey-Bass.

Holt, J. (1972). How Children Learn. Penguin.

Leigh, E. (2003). *A Practitioner Researcher Perspective on Facilitating an Open, Infinite, Chaordic Simulation*. (EdD) UTS, Sydney. at https://opus.lib.uts.edu.au/handle/2100/308

OUP (1996). *Oxford Dictionary of Quotations*. Revised edition editor Angela Partington OUP

Peddiwell, J. A. (1939). *The Saber-Tooth Curriculum: Adapted from: Benjamin, H.R.W., Saber-tooth Curriculum.* McGraw-Hill.

Snowden, D. J., & Boone, M. E. (2007). A Leader's Framework for Decision Making. *Harvard Business Review. November 2007*, 69-76. https://hbr.org/2007/11/a-leaders-framework-for-decision-making.

Shepherd, I. (2017). *A Conceptual Framework for Simulation in Healthcare Education*. Victoria University. http://vuir.vu.edu.au/35047/1/SHEPHERD%20Irwyn-Thesis_nosignatures.pdf

Sivasailam 'Thiagi Thiagarajan, P. D., Richter, M. S., & Thiagarajan, R.

(2021). *Facilitator's Toolkit*. http://www.thiagi.com, Workshops by Thiagi, Inc.

SkillDynamics. (2021). *Beat the Bullwhip Effect with our supply chain simulation*. https://skilldynamics.com/supply-chain-beer-game/

thatgamecompany. (2019). *Sky: Children of the Light*. https://www.gamesforchange.org/game/sky-children-of-the-light/

Wilson, L. O. (2020). *Types of Curricula*. https://thesecondprinciple.com/instructional-design/types-of-curriculum/