

Gender Binary in School Game Cultures

Niall Ng

Ontario Institute for Studies in Education, University of Toronto

CTL7015: Educational Research 2

Dr. Gurpreet Sahmbi

January 28th, 2023

Introduction

Games are an integral part of how we learn, and are a part of every student's experience at school. Games, particularly board games, card games, video games, and sports, are often played as a part of recess, during extra-curricular activities, and for educational purposes during class (Schrier, 2019). Games can offer students meaningful learning experiences by modelling complex concepts, improving social skills, and exploring new perspectives (McGonigal, 2011). As I reflect on my time as a student, the most prevalent memories are of my time playing games. Games helped make school more engaging to me, were fun, and most importantly, helped me make the friends who would become important parts of my school social network. However, in all game cultures, professional, casual, and academic, there exists a male bias (Lopez-Fernandez et al., 2019). Even girls' athletics, a game culture which has made significant progress for female visibility and participation, continue to be less funded, less attended, and less in demand among students compared to boys' athletics (Cooky, 2009). Girls are also less likely to engage in video games, a rapidly expanding industry with connections to math and computer science (Dickey, 2006). The gender gap in game participation is evident, but there is more to be learned about the social reasons girls play less frequently, and about what educators can do to create more equal game cultures.

The aim of this study is to learn about how K-12 teachers perceive game participation across the gender binary in schools. This study is designed to inquire about how educators view the gender gap in game participation, their strategies for promoting mixed-gender play, and their perspectives on gender equity in extracurricular activities. Ultimately, this study seeks to contribute towards creating a more gender-equitable game culture in schools.

The central research question for this study is: In what ways do the selected K-12 educators promote equal gender participation in school game culture, both in the classroom and through extracurricular activities? Research sub-questions include: How do the selected educators perceive gender disparity in their students' gameplay? How do the selected educators facilitate mixed-gender play amongst students? How does the extracurricular game culture lead by selected educators support gender equity?

Reflexive Positionality

As I consider my positionality as a researcher, I recognize that as a heterosexual, cisgender male, I am part of the majority in game culture. Games have always been an essential part of my learning and how I choose to spend my leisure time, both independently and socially. Throughout my acting studies in university, games were integral to the lessons, and it was there that I got to engage in play with female students more than any other time in my life. There was so much educational value to the theatre games we played together, and I wondered why it was that the female presence in my gaming life was diminished compared to the male presence. As I approach the topic of gender binary in game culture, I am aware that I only personally know my experiences as a cisgender male, and can only know intellectually about the experiences of females. I also recognize that my research does not address the experiences of transgender and non-binary students. Because of the wide variety of ways that trans/non-binary people can identify, it is much less common to find identifiable trends compared to cisgender people. I wish to create a game culture which is equally welcoming to people of all genders, but in this study choose to focus on addressing the pervasive female deficit in game culture.

Literature Review

As children grow and play, they are influenced by the gender-specific pressures imposed by their parents, culture, and media exposure. Though they are not always consciously aware, children as young as two years old practice gender roles in their play (Schmalz & Kerstetter, 2006). When considering the gender deficit in game culture, some may claim a lack of interest from women and girls is likely the main reason. However, there is significant evidence that social stigma, socioeconomic accessibility, and prevalent gender perceptions are the major obstacles which prevent female participation in games.

Reduced Female Access to Sports and Games

Traditionally, across cultures and civilizations, playing and participating in sports has been considered a male pastime. Women were routinely barred from playing in formal sporting events, subsequently limiting their presence in sports as a game culture (Dickey, 2006). In the past century, however, women and girls have become encouraged to engage in sports for the social and physical benefits as well as personal empowerment (Schmalz & Kerstetter, 2006). Though girls today may participate in sports much more often than previous generations, the issue of gender discrimination in sports is far from resolved. Lack of funding, undesirable time slots, reduced marketing, and lack of parental support are all cited reasons for the deficit in girls' sports teams compared to adjacent boys' sports teams (Cooky, 2009). Parents significantly influence girls' participation in sports, for if parents are unable to meet the logistical/monetary requirements or disagree culturally with their daughter's engagement in sports, the opportunity to play is lost (Cooky, 2009). To suggest that a mere lack of interest is the primary reason for the deficit in female game participation is to ignore the several prevalent social factors which prevent girls from choosing to engage in sports and from engaging in them consistently (Cooky, 2009).

Female Stigma in Video Games

Athletics is far from the only game culture in which female access is reduced and stigmatized. One of the most rapidly expanding industries and game cultures over the past several decades has been video games (Jensen et al., 2011). Similar to sports, most children report having some engagement with video games, but boys are significantly more likely to play video games consistently, often playing fifteen hours a week or more (Lopez-Fernandez et al., 2019).

Though video games can create positive exploratory environments and larger gaming communities, female video game players often face stigma and marginalization within the video game culture (Kafai et al., 2008). In video game culture, female participation is often tokenized and the skill of female players is often considered inferior to the skill of male players (Lopez-Fernandez et al., 2009). In playing online games, selecting their avatar's gender is often an important decision for female players which affects their engagement with the larger community. Many female players in online games choose male avatars as a strategy to avoid sexual harassment (Lopez-Fernandez et al., 2009). The marginalization, perceived inferiority, and harassment associated with female participation in game culture is what prevents girls and women from engaging with video games and receiving the prosocial and academic benefits.

Competitive Games vs. Non-Competitive Games

While a no individual characteristic can be applied to all members of a particular gender, there are documented trends which show a difference in experiences girls and boys typically look for in a game. For girls playing video games, complex narratives, positive actions, opportunities to customize and design, and use of strategies and skills are all reportedly preferable game

features (Dickey, 2006). Girls may also choose to get involved with sports not with the specific intention to win games, but to be able to socialize with friends and make new ones (Cooky, 2009). For most girls playing games, feeling that they are taking part in positive action is more important than achieving victory in a competition.

Heeter et al. (2009) conducted a study comparing video games created by boys and girls in Grades 5-8 to further determine each gender's specific interests. In the games designed by girls, players achieved success by positively completing a story and helping characters within the game (Heeter et al., 2009). Girls also put much more effort into designing the player's avatar by allowing the player to choose their gender. In contrast, boys' games were much more focused on competitive gameplay and offered either a male avatar only or no visual player representation at all (Heeter et al., 2009). It is unsurprising that boys created games with only male avatars when considering that boys feel a greater risk of being stigmatized when engaging in feminine activities compared to girls engaging in masculine activities (Schmalz & Kerstetter, 2006). These distinctions in game design and perspective offer key insights into how girls and boys consider games differently, and help us predict how different genders may respond to different games. It is worth noting, however, that researcher gender biases may have prevented the consideration of the predominant social perception of female players as novice (Jensen et al., 2011). It is possible that perceptions of female players relate more to their relative novice status in game culture and less to their gender.

By considering how gender stereotypes, stigmas, and limited accessibility create the gender disparity in game culture, I intend to gain further qualitative data from K-12 teachers on what can be done to make game culture more gender-equitable. By creating a more supportive

game culture in schools, students of all genders can enjoy more game opportunities and receive more of the social, physical, and academic benefits of game play.

Methodology

Method of Research

I have conducted three semi-structured interviews to gather data on K-12 teachers' experiences and perspectives on gender and game culture in school. Because of the social nature of games, gathering qualitative data through interviews is necessary to capture information on the subtle social interactions which occur during game play (Agee, 2009). Their perspectives offered essential insights on students' game play habits, conscious decisions, as well as information on what actions have been taken to promote mixed-gender play and improve gender equity. While there is no perfect number of participants in a sample, by having three interviews with separate participants, I was able to ensure that my sample is diverse in background and experience and reduce the likelihood of redundancy in my collected data (Merriam & Tisdell, 2015).

Participant Selection and Criteria

Participants were selected using a purposive sampling method (Merriam & Tisdell, 2015). I inquired regarding participation interest with colleagues of previous teaching connections in both Ontario, Canada and New Jersey, USA. If they were ineligible or unavailable, they were requested to share the research purpose and eligibility criteria with any additional colleagues whom they believed to be suitable participants. After participants were selected, interviews were conducted online via Zoom.

Because the research was focused on the game participation of children and adolescents, the first criteria for participants in the research study was that they must be currently employed as K-12 teachers. Their status as working teachers allowed them to have a keen perception of the behaviours and experiences of K-12 students today. Secondly, at least three years of teaching experience was required for participants to ensure that perspectives were based on repeated observations over a significant period of time with multiple groups of students. Thirdly, study participants were required to utilize the educational benefits of gameplay in the classroom to be able to comment on the effects games have on their students, both socially and academically. Finally, it was important that they lead a game-related extracurricular activity so they could share observations about students' game participation in and out of formal classroom settings. This experience made them knowledgeable about creating supportive game cultures regularly.

Participant Profiles

Roger is a cisgender male middle school teacher in Ontario. He has four years of teaching experience, facilitates a board game club, and is a substitute coach for intramural team sports at his school. Nadine is a cisgender female middle school teacher in Ontario. She has twenty-five years of teaching experience and coaches intramural volleyball and soccer at her school. John is a cisgender male high school science teacher in New Jersey. He has four years of teaching experience and coaches high school cross-country track.

Ethical Consideration and Data Analysis

After informing me of their eligibility and interest in participating, potential participants received a letter of informed consent, detailing the specific research purpose, selection criteria, length of the interview, and intended use of data. They acknowledged that the interview would

be audio-recorded, transcribed, and stored on a password protected computer. Participants were also made aware they would be assigned pseudonyms for anonymity and the names of any identifying schools or students will not be shared. They acknowledged that they may withdraw from the study at any time. Finally, the name and contact information of my supervisor was shared if they had any concerns. To officially become selected participants, they were required to sign a consent form in which they acknowledged their full understanding of the terms.

Research Findings

Male-Dominant Game Culture as a Result of Internalized Gender Perceptions

Participants report that game culture is male-dominated. However, the exclusionary behaviour of male students is not consciously made along gender lines. They report that male students will often consciously create game environments which are intimidating to new and less-experienced players. Male players do not consciously discredit female players, but internalized gender perceptions cause them to assume female players are the less-experienced players they are trying to distance themselves from. Nadine states that:

We were doing grade six girls' tryouts for soccer. We didn't have enough girls to try to play. And so, we played with the boys. And we mixed the boys in with the girls. There was less passing to the girls. The girls said we'd rather play against the boys as a group together than with them... and that was a very clear thing that I saw in an extracurricular.

This demonstrates the male-dominance which is prevalent in game cultures, particularly in sports. While all participants reported instances of exclusionary behaviour by male students, other participants also report that they don't believe gender is a conscious factor in student behaviour. Roger states that:

[Students] will be very vocally in support of trans rights...and then turn around and tease someone for the clothes they're wearing because they're the wrong color. Like, what? That translates into games. They know that it's the right thing to do to pass the ball to whoever is going to be in the best position. And yet they don't pass the ball to the girls.

Despite having an intellectual understanding of inclusivity, male students continue to exclude female students because of internalized gender perceptions. Though this exclusionary behaviour can be construed as overt and intentional, no participants reported experiencing any resistance to promoting mixed-gender play. When assigning partners and groups, participants only reported tension from students who did not want to play with certain individuals, not from students who did not want to play with opposite-gender students. John states: "Students will sometimes say that they don't want to work in a group, but that's not specifically for mixed-gender reasons."

Male players' lack of personal familiarity with female players is a primary factor in their exclusionary behaviour towards them (Cohen et al., 2014). All participants reported that male and female students were both most likely to form same-gender social groupings. When assigning groups in games, participants noted that behaviour would vary depending on the personal relationship between players, regardless of gender. Roger states that: "I hesitate to say that's because of the gender change, because it's the same with a bunch of boys that are playing together that don't hang out. Usually, they're not going to be as silly."

This finding shows us that male students are not consciously gender biased, but because they lack familiarity with most female students, attach internalized gender perceptions to female students, specifically that they are less-skilled game players. It is possible, then, that creating

more opportunities for mixed-gender play would reduce the amount of stigma faced by female players.

Short-Term Teacher Strategies for Gender Equity in Game Spaces

Participants commonly shared short-term teacher strategies which they have used to promote gender equity in classrooms and extracurricular activities. They shared that teachers need to be willing to devote time and attention to create inclusive extracurricular game spaces. These strategies suggest that teachers can directly influence the culture and organization of game spaces, rather than simply leaving it up to the students.

Executive Control to Support Gender Equity

Participants suggest maintaining executive control to promote gender equity in classrooms and game spaces. By making grouping decisions using gender-equitable pedagogy, teachers can put students into game situations where they can experience mixed-gender play. This gives students the opportunity to become more familiar with opposite-gender students, thereby increasing the likelihood that they will engage in mixed-gender play voluntarily (Cohen et al., 2014). Maintaining executive control also includes direct approaches in correcting, reflecting upon, and discussing exclusionary behaviour. Roger states:

I tell this rule in the beginning of every game, the game doesn't decide who wins, I decide who wins. And if they're being bad sports, if there's anything that resembles cheating, they lose the game. They don't get to win.... I have some introverted girls. And I do need to make sure that the games are accessible to those girls, that they're going to feel comfortable participating.

Participants agree that setting a standard for inclusivity is important for teaching in general, but particularly in game spaces which can quickly become competitive. While punitive measures can be taken against exclusionary behaviour, addressing it with reflection and practice can turn the experience from negative to educational for all parties involved.

Not Mentioning Gender Equity as a Decision-Making Factor

Although participants shared that exclusionary behaviour should be directly addressed, participants also shared that when making grouping decisions, it is best to not reveal gender equity as a factor in decision-making. Nadine states:

Sometimes what I'll do with the students is say, "I want you to partner up with somebody of equal ability," and then they get to choose who that equal ability person is, whether it's gendered or not... And I think taking the gender out of those activities helps.

Gender, whether consciously or not, influences how students choose to group themselves, resulting in the majority of play groups being same-gender (Schmalz & Kerstetter, 2006). By not drawing attention to gender as a factor in decision-making, students can play with opposite-gender students without feeling that the activity is constricted or prescribed. Because choice is essential to play (Heeter et al., 2009), it is important that students perceive mixed-gender play as increasing their play choices, not limiting them.

These findings show that teachers play an important role in the gender equity of their game spaces. Teachers foremost need to be willing to devote their time and attention so that schools can create equitable game spaces. Then, by maintaining executive control, they can ensure that the game spaces are thoroughly inclusive. Finally, game spaces should be designed to promote mixed-gender play, but not overtly stated to make students feel that their choices are

removed. These are effective short-term strategies, but there are further strategies and insights to be used to develop gender-equitable game culture long-term.

Restructuring Game Culture for Gender Equity

Because games have been traditionally associated with male gender, adjusting socio-cultural perceptions of games and gender is challenging. To create more gender-equitable game culture, participants suggested methods and modifications which can be made in classrooms and extracurricular settings.

Issues Concerning Co-Ed Sports

There are inherent social flaws in gendered sports, including differences in funding, unequal media presence (Cooky, 2006), and social dilemmas for trans/non-binary students. A non-gendered sports model would seem to eliminate the aforementioned issues while allowing equity for people of all genders. All participants expressed that non-gendered sports and clubs would be ideal, but also that prevailing gender perceptions create other gender-related issues in co-ed sports activities. A non-gendered sports model would succeed in allowing people of all genders to play and compete together, however, they do not mitigate the social, gender-based perceptions which affect behaviour and participation, resulting in male bias (Cohen et al., 2014). Nadine states: “If you're making a mixed-gender team... there are requirements to make sure there are mixed genders on each team. I don't know the numbers, but at least two of each. I think there's way more work that could be done.”

Official rules within non-gendered sports models can be included to promote gender equity, such as requiring a certain ratio of male-female players on a team, or requiring people of certain genders to play specific positions. But such gender-based rules within a model meant to

reduce players' gender-awareness create their own issues concerning gender perceptions vs. player skill (Cohen et al., 2014). This is not to say that co-ed sports are not a solution to creating gender-equitable game cultures, but educators and players need to be aware that they have their own unique social considerations attached and that they do not eliminate internalized gender perceptions.

Creating Low-Stakes Game Environments for Inclusivity

The competitive nature of games can be perceived as a barrier to players. While this is often true for female players, it is also true for novice players regardless of gender (Jensen et al., 2011). Participants all observed that male students, the majority in game culture, often generate greater competitiveness in games. To address competition as barrier, participants suggested creating low-stakes game environments to increase participation for all students. Roger states: "I don't do a whole lot of games where I've got two competitors, and the whole class is watching. I want everyone playing the game on their own so that everyone's not paying attention to everyone else." Some participants also reported that providing less-competitive options resulted in less-competitive boys participating in game play with majority girl groups, subsequently influencing more students to choose mixed-gender play. John states: "One of them starts to break and then they all go. It just takes one person to agree and then they all go like a like a school of fish, which is awesome."

Overly-competitive game cultures can lead to social anxiety for players and exclusionary behaviour, particularly towards girls and novices (Jensen et al., 2011). To create an inclusive game culture, teachers need to ensure that all participants feel safe and comfortable participating.

Low-stakes game environments can provide greater choices for how students want to play while modelling respectful, sportsman-like behaviour.

New and Modified Games to Disrupt Status-Quo

Existing games, such as sports and video games, have traditional gender perceptions attached to them (Schmalz & Kerstetter, 2006) (Dickey, 2006). While one approach to gender-equitable game culture is to influence player perceptions, another approach is to create new or modified games without pre-conceived gender associations. Participants recommended new or modified games to maximize inclusivity and participation. Nadine states: “I often avoid traditional sport games because they often have experienced exposure through external means... And so, I'll play modified versions of the games that allow for inclusion.” Because new games do not have pre-conceived gender associations, students can play the game without feeling that it is for a specific gender or that playing co-ed is somehow less authentic (Cohen et al., 2014).

Because finding or conceptualizing completely new games can be difficult, modifying existing games as a strategy was more commonly shared by participants. It can take time for students to build their game skills before they feel comfortable competing. Modified games can offer the same benefits as their existing counterparts, but create more inclusivity for novice players. This can be done by changing rule structures or win conditions in games. Modified games can do more than promote gender equity, as they can also be more inclusive of neurodivergent students and students with disabilities (Baglieri & Shapiro, 2012).

Discussion

The purpose of this study was to determine what teachers believe can be done to create a more gender-equitable game culture. In many ways, schools model how students should think

and behave later in their lives. Therefore, the way players behave towards each other in games can be directly influenced by their experiences in school. As educators strive to make larger society more equitable, they can begin by guiding their students to be more inclusive in their game play.

This study correlates with previous literature which asserts that game culture in all settings is male-dominated (Cooky, 2006; Heeter et al., 2009; Lopez-Fernandez et al., 2019). Participants shared that same perspective, but all added that they do not believe males are consciously exclusionary towards females. This finding advances the literature by adding to the collective knowledge regarding male-dominant culture and its causes. By understanding that unconscious bias influences players' actions, we know that progress has been made regarding education of inclusive pedagogy, but that internalized gender perceptions continue to perpetuate male-dominance. This suggests that critical thinking skills in students will need to be developed so that they are able to better consider from an inclusive lens their own actions, actions of their peers, and the media which they consume. This finding also suggests that inclusive concepts need to be practiced regularly, and not only dictated as part of lessons in classrooms.

Literature on co-ed sports is limited compared to literature on gendered sports activities, due to gendered sports having a longer history and being more prevalent in culture (Cohen et al., 2014). It is interesting to find that participants all believed in a co-ed sports model ideally, but perceived them to be complicated in practice. This finding shows us that co-ed sports are a potential solution for gender-equitable sports, but that internalized gender perceptions need to be addressed. After all, other types of game cultures are non-gendered in that all genders are allowed to play, but are nonetheless male-dominated because of stigma and other social factors (Kafai et al., 2008). But internalized gender perceptions need to be addressed not only with

players, but with administrators and coaches as well. As we consider co-ed sports as a potential solution, continual critical discussions and reflections need to occur amongst administrators and coaches to ensure that rules are created to promote gender-equity and that such constructs actually function as intended.

Educators need to think creatively to make school game culture more inclusive. Participants shared multiple short-term and long-term strategies for how to best guide students toward inclusive practices and create inclusive game spaces. These findings show us that teachers can directly impact the game culture of their spaces and suggest that teachers can think like game designers themselves. Regardless of medium, game designers must consider multiple functional and aesthetic components to create the experience they intend for their audience (McGonigal, 2011). In lesson planning, teachers also consider multiple components, including timing, groupings, curriculum expectations, and assessment. The findings regarding strategies for inclusivity show that teachers can take the design skills normally used in lesson planning and apply them to designing inclusive games and game spaces. This correlates with studies in literature which suggest that educators need to continue to adapt their games and game spaces to maximize sociocultural relevance and participation for all students (Cohen et al., 2014; Jensen et al., 2011).

Implications & Conclusion

This study focuses specifically on teachers' perspectives on game culture and their strategies to make it more gender-equitable. This study correlates with existing research which asserts that game culture is male-dominated, while contributing specific teacher perspectives that the lack of gender inclusion is not conscious. As conversations in schools continue to develop

regarding gender ethics in sports, this study contributes that participating teachers find co-ed sports to be ideal for inclusion, but that constructs to prevent stigma need to be considered thoroughly. Lastly, this study provides key insights and strategies from teachers which can promote gender equity in classrooms, sports, game clubs, and society at large.

The implications from this study suggest that teachers can directly influence how students play games. This also implies that inclusive concepts may be better learned through practice in games compared to intellectual lessons alone. Further research on the overall effectiveness of the shared teacher strategies, including maintaining executive control, creating low-stakes game environments, and creating new or modified games, is recommended. Further research on the development of co-ed sports programs is also recommended, as our understandings of them are limited compared to traditional, gendered sports models. One limitation of this study is that it focuses on male and female gender, and not on trans/non-binary perspectives. Further research on how trans/non-binary students perceive game culture is also recommended.

Games and play are an integral part of all our childhoods, and for many of us, an important part of how we connect socially in adulthood. Games also exist as a model of specific concepts and relationships in the real world, turning intellectual understandings into tangible, personal ones. This modelling of real-world concepts is what makes them such an engaging tool for education, and is the reason that educators have a duty to make school game culture as inclusive as possible. The games students play at school set a standard for how they should engage socially, and if they can be taught to be inclusive in their games at school, they can use those skills throughout their lives. My research provides few, but rich perspectives on creating gender-equitable game culture, and I support the continual research of gender binary in game culture until all players can feel equally encouraged to take part.

References

- Agee, J. (2009). Developing qualitative research questions: A reflective process. *International Journal of Qualitative Studies in Education*, 22(4), 431-447.
- Baglieri, S., & Shapiro, A. (2012). *Disability studies and the inclusive classroom: critical practices for creating least restrictive attitudes*. Routledge.
<https://doi.org/10.4324/9780203837399>
- Cohen, A., Melton, E. N., & Peachey, J. W. (2014). Investigating a coed sport's ability to encourage inclusion and equality. *Journal of Sport Management*, 28(2), 220-235.
<https://doi.org/10.1123/jsm.2013-0329>
- Cooky, C. (2009). "Girls Just Aren't Interested": The social construction of interest in girls' sport. *Sociological Perspectives*, 52(2), 259-283.
<https://doi.org/10.1525/sop.2009.52.2.259>
- Dickey, M. D. (2006). Girl gamers: The controversy of girl games and the relevance of female oriented game design for instructional design. *British Journal of Educational Technology*, 37(5), 785-793. <https://doi.org/10.1111/j.1467-8535.2006.00561>
- Heeter, C., Egidio, R., Mishra, P., Winn, B., & Winn, J. (2009). Alien games: Do girls prefer games designed by girls? *Games and Culture*, 4(1), 74-100.
<https://doi.org/10.1177/1555412008325481>
- Jenson, J., Fisher, S., & de Castell, S. (2011). Disrupting the gender order: Leveling up and claiming space in an after-school video game club. *International Journal of Gender, Science and Technology*, 3(1). Retrieved from
<https://genderandset.open.ac.uk/index.php/genderandset/article/view/129>

- Kafai, Y. B., Heeter, C., Denner, J., Sun, J. Y., Nyugen, M., Pirno, M., Jenkins, H., Cassell, J., Laurel, B., & Brunner, C. (2008). *Beyond Barbie and Mortal Kombat: New perspectives on gender and gaming*. In MIT Press (BK). MIT Press.
- Lopez-Fernandez, O., Jess Williams, A., Griffiths, M. D., & Kuss, D. J. (2019). Female gaming, gaming addiction, and the role of women within gaming culture: A narrative literature review. *Frontiers in Psychiatry*, 10(JULY), 454–454.
<https://doi.org/10.3389/fpsy.2019.00454>
- McGonigal, J. (2011). *Reality is broken: Why games make us better and how they can change the world*. Penguin Books.
- Merriam, S.B., & Tisdell, E.J. (2015). Sample selection. In *Qualitative research: A guide to design and implementation* (pp. 90-95). San Francisco, CA: John Wiley & Sons.
- Schmalz, D. L., & Kerstetter, D. L. (2006). Girlie girls and manly men: Children's stigma consciousness of gender in sports and physical activities. *Journal of Leisure Research*, 38(4), 536–557. <https://doi.org/10.1080/00222216.2006.11950091>
- Schrier, K. (2019). *Learning, education & games: 100 games to use in the classroom & beyond* (Vol. 3). Carnegie Mellon University: ETC Press.

Appendix A: Letter of Informed Consent

Date:

Dear _____,

My Name is Niall Ng, and I am a student in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on the gender binary in game culture, the culture surrounding how students engage with each other in physical games, social games, and electronic games. I am interested in interviewing teachers who are experienced K-12 teachers, use gameplay regularly in their lessons, and are leaders of a game-related extracurricular activity. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one 45-60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper, as well as informal presentations to my classmates. I may also present my research findings via conference presentations and/or through publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded. The interview data will be stored on my password-protected computer and the only person who will have access to the research data will be my course instructor, Gurpreet Sahmbi. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks to participation, and I will share a copy of the transcript with you shortly after the interview to ensure accuracy.

Please sign this consent form if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,

Niall Ng

+1 973-747-9955

niall.ng@mail.utoronto.ca

Course Instructor's Name: Gurpreet Sahmbi

Contact Info: gurpreet.sahmbi@utoronto.ca

Consent Form

I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw from this research study at any time without penalty.

I have read the letter provided to me by Niall Ng and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: _____

Name: (printed) _____

Date: _____

Appendix B: Semi-Structured Interview Protocol



Introductory Script: Thank you for agreeing to participate in this research study, and for making time to be interviewed today. This research study aims to learn about teachers' perspectives on gender gaps in game participation, strategies to promote mixed-gender play, and perspectives on gendered and non-gendered extra-curricular activities for the purpose of creating a gender equitable game culture in schools. This interview will last approximately 45-60 minutes, and I will ask you a series of questions focused on school game culture in relation to gender binary. I want to remind you that you may refrain from answering any question, and you have the right to withdraw your participation from the study at any time. As I explained in the consent letter, this interview will be audio-recorded. Do you have any questions before we begin?

Background Information:

1. What grade level and/or specific subject do you teach?
2. What excites you about teaching?
3. How long have you been teaching?
4. What game-related extra-curricular activity do you lead? How does it support student development?
5. Why do you include games in your regular teaching practice?

Sub-question 1: How do the selected educators perceive gender disparity in their students' gameplay?

6. What similarities and differences do you notice in the ways that boys and girls engage in play, comparatively?
7. When you are developing lessons, how, if at all, is gender a contributing factor in choosing a game to include? What factors go into your decision-making process?
8. What have you observed about how students' perceptions of gender affect how they form groups to play games?

Sub-question 2: How do the selected educators facilitate mixed-gender play amongst students?

9. What methods have you found to be effective in promoting mixed-gender play? Why were they effective?
10. Have you experienced resistance to measures to create mixed-gender play? If yes, where does the perceived resistance come from?

11. Do you notice any changes in behaviour when students play in mixed-gender groups compared to same-gender groups? What would you attribute this to? Can you provide any examples?

Sub-question 3: How does the extra-curricular game culture lead by selected educators support gender equity?

12. How would you describe the gender politics amongst students participating in your extracurricular activity? How does this compare to the larger community of players beyond your school?
13. What actions have been taken to make your extra-curricular activity more gender equitable?
14. What are your perspectives on gendered and non-gendered extracurricular activities?

Next Steps

15. Is there anything in particular that educators can do to create a more gender equitable game culture in schools?
16. Do you have anything else you'd like to add regarding the topic of gender binary in game culture?

Thank you for your participation in this research study.