

PSYCHOLOGY 592/892
LEARNING & DEVELOPMENT THROUGH PLAY & IMAGINATION
Tuesday & Thursday; 12:00-1:15pm
Innovation 205

Instructor: Thalia R. Goldstein, Ph.D.
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Office Hours: Tuesdays/ Thursdays, 1:30-3:00pm Appointments required. It is unlikely that I'll be able to see you for very long via walk in. Zoom appointments also available.

Course Description:

Jean Piaget said "Play is the work of childhood." Mr. Rodgers said "Play is often talked about as if it were a relief from serious learning. But for children, play is serious learning." Dr. Maria Montessori said "First in play and then through work." And L. Frank Baum (Author of The Wizard of Oz) said "The imaginative child will become the imaginative man or woman most apt to create, to invent, and therefore to foster civilization."

But what is play? And what is imagination? And how, when, and for whom does it foster learning and development?

To better understand this play, this work, this learning, this course will examine the psychology of play and imagination. We will focus on whether and how play impacts neurobiological, physical, cognitive, and socio-emotional development, from infancy through the lifespan, in humans and non humans. Topics include who plays and who imagines, what play is, when play and imagination occur in development and in context, why imagination is critical in childhood and adulthood and why play is (or is not) important. Throughout the term, students will gain a foundational understanding of play, imagination, learning, and child development, ability to read a variety of empirical and theoretical articles on play and learning, and create a project that incorporates their personal academic pathway in these topics.

Course Objectives and Questions:

- 1) Be able to read, analyze, critique, and discuss, with depth, peer-reviewed articles from the Developmental Psychology, Education, and Philosophy literature, including theoretical proposals, empirical and experimental studies, literature reviews, meta-analyses, and Handbook chapters.
- 2) Understand the varieties of definitions and types of play and imagination across the developmental literature.
- 3) Conceptualize what is meant by transfer, learning, and development from and through imaginative and playful activities and mindsets.
- 4) Have a breadth of understanding of the state of current scientific thought and knowledge in learning and development through play and imagination across human and non-human species, from infancy to adulthood.
- 5) Based on analysis of the current state of the literature, develop a relevant project to your future career goals on some aspect of learning and development through play and imagination.

Course Materials: There is no textbook for this course. Class is entirely based on articles and videos posted each week on Blackboard.

Assignments/ Requirements: (Please see end of syllabus for full descriptions and rubrics)

- Two weekly “shape up” responses, posted on Blackboard before class (1% each, 25 responses; 25%)
- Class Participation and Engagement (15%)
- Final project planning documents (Feb, March, April; 5% each; 15%)
- Final project (45%)

GENERAL COURSE SCHEDULE

Week	Date	Topic	Notes
1	January 24	What is play, what is imagination?	
	January 26	What is Imagination?	
2	January 31	Evolution of Play	
	February 2	Biological Outcomes of Play	
3	February 7	Object Play	
	February 9	Motor Play	
4	February 14	Play or Learning?	
	February 16	Learning through Guided Play	
5	February 21	Learning Interventions via Games	
	February 23	Learning and Play in ASD	Final Project Planning Document #1
6	February 28	Learning from Fantastical Play	
	March 2	Pretend Play -Transfer Issues	
7	March 7	Pretend Play – It’s actually real	
	March 9	Pretend Play- There’s no Imagination	
<i>Spring Break</i>			
8	March 21	Counterfactuals	
	March 23	<i>No Class, SRCD</i>	
9	March 28	Learning in a Playful Environment	Final Project Planning Document #2
	March 30	Playing in a NonWestern Context	
10	April 4	Television	
	April 6	Characters in Narratives	
11	April 11	Video Games	
	April 13	Play in Adulthood	
12	April 18	Imagination in Adulthood	
	April 20	Play Therapy	
13	April 25	Why Imagination?	Final Project Planning Document #3
	April 27	Why Pretend Play?	
14	May 2	Topic TBD	
	May 4	Topic TBD	
FINAL PROJECT DUE		Thursday May 11, 5pm	

DETAILED COURSE SCHEDULE & READINGS (Subject to change)

January 24. Definitions: What is play? What is imagination? What is learning?
No Readings Assigned. Please read syllabus before the first day of class.

January 26. Definitions: What is play? What is imagination? What is learning?
Introduction to "The Architecture of the Imagination", Nichols.

January 31. Evolution of Play
Smaldino, P. E., Palagi, E., Burghardt, G. M., & Pellis, S. M. (2019). The evolution of two types of play. *Behavioral Ecology*, 30(5), 1388-1397.

February 2. Biological Outcomes of Play
Richards, S., Mychasiuk, R., Kolb, B., & Gibb, R. (2012). Tactile stimulation during development alters behaviour and neuroanatomical organization of normal rats. *Behavioural brain research*, 231(1), 86-91.

February 7. Object Play
Herzberg, O., Fletcher, K. K., Schatz, J. L., Adolph, K. E., & Tamis-LeMonda, C. S. (2022). Infant exuberant object play at home: Immense amounts of time-distributed, variable practice. *Child development*, 93(1), 150-164.

February 9. Motor Play
Hoch, J. E., O'Grady, S. M., & Adolph, K. E. (2019). It's the journey, not the destination: Locomotor exploration in infants. *Developmental science*, 22(2), e12740.

February 14. Play or Learning?
Jensen, H., Kvalsvig, J. D., Taylor, M., Sibisi, S., Whitebread, D., & McLellan, R. (2021). What counts as learning in play? Uncovering patterns in perceptions of South African early educators. *International Journal of Early Years Education*, 29(3), 298-313.

February 16. Guided Play.
Skene, K., O'Farrelly, C. M., Byrne, E. M., Kirby, N., Stevens, E. C., & Ramchandani, P. G. (2022). Can guidance during play enhance children's learning and development in educational contexts? A systematic review and meta-analysis. *Child Development*.

February 21. Games as an intervention.
Developing Children's Creativity and Social-Emotional Competencies through Play: Summary of Twenty Years of Findings of the Evidence-Based Interventions "Game Program"

February 23. Robot Play and ASD
So, W. C., Cheng, C. H., Lam, W. Y., Wong, T., Law, W. W., Huang, Y., ... & Wong, W. (2019). Robot-based play-drama intervention may improve the narrative abilities of Chinese-speaking preschoolers with autism spectrum disorder. *Research in developmental disabilities*, 95, 103515.

February 28. Learning from Fantastical Play

Richert, R. A., & Schlesinger, M. A. (2022). Relations between fantasy and transfer of learning from storybooks. *Journal of Experimental Child Psychology*, 222, 105474.

March 2. Pretend play – Transfer Issues

Lillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D., & Palmquist, C. M. (2013). The impact of pretend play on children's development: a review of the evidence. *Psychological bulletin*, 139(1), 1.

March 7. Pretend play – It's actually real

Harris, P. L. (2021). Early constraints on the imagination: The realism of young children. *Child Development*, 92(2), 466-483.

March 9. Pretend play – There's no imagination.

Rucińska, Z., & Weichold, M. (2022). Pretense and imagination from the perspective of 4E cognitive science: introduction to the special issue. *Phenomenology and the Cognitive Sciences*, 21(5), 989-1001.

SPRING BREAK!

March 21. Counterfactuals

Byrne, R. M. (2016). Counterfactual thought. *Annual review of psychology*, 67, 135-157.

March 23. SRCD Conference, no class.

March 28. Learning in Playful Environment

Bustamante, A. S., Hassinger-Das, B., Hirsh-Pasek, K., & Golinkoff, R. M. (2019). Learning landscapes: Where the science of learning meets architectural design. *Child Development Perspectives*, 13(1), 34-40.

March 30. Playing in non Western Environment

Lancy, D. F. (2016). Playing with knives: The socialization of self-initiated learners. *Child Development*, 87(3), 654-665.

April 4. Television

Mares, M. L., & Pan, Z. (2013). Effects of Sesame Street: A meta-analysis of children's learning in 15 countries. *Journal of Applied Developmental Psychology*, 34(3), 140-151.

April 6. Characters in Narratives

Umscheid, V. A., Smith, C. E., Warneken, F., Gelman, S. A., & Wellman, H. M. (2023). What makes Voldemort tick? Children's and adults' reasoning about the nature of villains. *Cognition*, 233, 105357.

April 11. Video Games

Johannes, N., Vuorre, M., & Przybylski, A. K. (2021). Video game play is positively correlated with well-being. *Royal Society Open Science*, 8(2), 202049.

April 13. Play in adulthood.

Kapitány, R., & Francis, K. (2022). Cognitive Permeation between the real and the imagined: the influence of personal, fictive identities on one's own identity.

April 18. Imagination in adulthood

Barnes, J. L. (2015). Fanfiction as imaginary play: What fan-written stories can tell us about the cognitive science of fiction. *Poetics*, 48, 69-82.

April 20. Play Therapy

Townsend, B. J., Ishman, L., Dion, L., & Carnes-Holt, K. L. (2021). An Examination of Child-Centered Play Therapy and Synergetic Play Therapy. *Journal of Child and Adolescent Counseling*, 7(3), 193-206.

April 25. What is Imagination For?

Kushnir, T. (2022). Imagination and social cognition in childhood. *Wiley Interdisciplinary Reviews: Cognitive Science*, e1603.

April 27. Why do the children Pretend play?

Lillard, A. S. (2017). Why do the children (pretend) play?. *Trends in Cognitive Sciences*, 21(11), 826-834.

May 2. Topics of your choosing. – Pick an interesting article that's come up for you in your lit searches.

May 4. Topics of your choosing. -- Pick an interesting article that's come up for you in your lit searches.

Articles I didn't include, but wanted to are all listed in a separate folder on Blackboard.

ASSIGNMENTS AND RUBRICS

Two weekly "shape up" responses, posted on Blackboard before class

(1% each, 25 responses; 25%)

For every single class, you will post a "shape up" on Blackboard. What is a shape up? So glad you asked that in your own head while reading the syllabus. A shape up (thank you to Dr. Leah Adams for this knowledge and assignment) consists of three parts:

- 1) Triangle – What are three points from the reading that stood out as important to you?
- 2) Square – What did you read or learn that "squared" with knowledge you already had about imagination/ play and its role in the world?
- 3) Circle- What question is still "circling" around your head after your reading that week? How might this week relate or not relate to your final project ideas?

This can be a sentence for each piece of the shape up, and will absolutely guide our discussion for that week. I will even explicitly ask people to read theirs at the beginning of the class discussion sometimes. This won't be graded, just a check/no, with each check mark = 1% of your grade. You'll note there are 26 opportunities for shape ups, and 25% points to be earned. This means you get 1 free day.

In place of two shape ups (optional):

Go play. Once in an imaginary way (e.g. pretend play) and once in a non imaginary way (e.g. building or physical play). Write up the experience and how it related or didn't to your reading for the week.

Class Participation and Engagement (15%)

There is only 1 article assigned per day. There is no real lecture for the class. Therefore the success of the class, and your individual experience of it, will depend almost entirely on everyone's joint participation in the readings and discussion thereof. While you do have a daily assignment to respond, you also will need to bring that daily response to class to engage with the materials.

Class discussions on the readings play a critical role in your success in the course. Effective class comments may integrate material from this and other courses, draw on real-world experiences and observations, address questions raised by others, or pose new questions to the class. High quality participation involves knowing when to speak and when to listen or allow others to speak. Take the time to think about how your comments will be received; comments that are vague, repetitive, unrelated to the current topic, or without sufficient foundation are distracting and do not move forward the discussion. *Those that are insensitive to other students in the class or are framed as personal attacks are unacceptable under any circumstances.*

If for any reason (social anxiety, language difficulties, etc) you feel that you will have problems speaking up in class, I have several methods for engaging in class participation without having to speak in class. Please set up an appointment to see me as soon as possible. This can include handing in a note with ideas and questions at the end of each class, or sending me a copy of your notes with questions or ideas integrated.

Criteria for assessment:

Strong Contributor: Contributions in class reflect thorough preparation. Ideas offered are substantive and provide good insights as well as direction for the class. Challenges are well substantiated and are persuasively presented in a respectful manner. If the strong contributor person were not a member of the class, the quality of discussion would be diminished considerably.

Adequate Contributor: Contributions in class reflect satisfactory preparation. Ideas offered are sometimes substantive, provide generally useful insights but seldom offer a new direction for the discussion. Challenges are sometimes presented, fairly well substantiated and are sometimes persuasive. If the adequate contributor were not a member of the class, the quality of discussion would be somewhat diminished.

Minimal Contributor: Contributions in class reflect minimal preparation. Ideas offered are occasionally but rarely substantive, and offer repetitive or obvious insights. Challenges are rarely presented, or are not persuasive if presented. If the minimal contributor were not a member of the class, the quality of discussion would diminish only slightly.

Non-Participant: The non-participant says little or nothing in class. Hence, there is not an adequate basis for evaluation. If this person were not a member of the class, the quality of discussion would not be changed.

Unsatisfactory Contributor: Contributions in class reflect inadequate preparation. Ideas offered are seldom substantive, provide few if any insights and are often tangential and off track. Comments are insensitive to other students in the class. If this person were not a member of the class, valuable time would be saved and the comfort level of the class would be elevated.

The Final Project.

- Final project planning documents (Feb, March, April; 5% each; 15%)
- Final project (45%)

The final project in this class is unusual, in that I don't particularly want a literature review or a study proposal. Instead, I want a useful project for the world you hope to inhabit after you graduate. What is your post graduate plan? What are you trying to do with your degree? If you are in this course, you are interested in children and development. Make something that will take you to the next idea with your education and career.

If that world is academia, then a publishable scoping review, a *Child Development Perspectives* style paper, an IRB proposal for a study involving play/imagination & learning/development you plan to collect data on, the write up of data already collected in relation to one of these topics, or the beginnings of a meta-analysis, are all welcome.

If your world is policy, a series of policy briefs for teachers, school boards, or lawmakers, or a white paper-style review from the perspective of a research firm, is welcome.

If your world is education, then a kit for the classroom, a curriculum/ series of lesson plans, or a website full of resources, is all welcome. You could make a board game or a card game, too.

You can combine or choose outside of a single goal, but the project will be individualized for your own goals and objectives in your learning. Expect this to take as much or more time as writing out a 20 page literature review style paper or grant proposal.

At three points during the semester (approximately once per month), you will turn in a document of at least 500 words describing what you are currently picturing for your final project. It can be a list of ideas, a single idea with a long explanation, something else. It can be an outline, an annotated bibliography, a preliminary set of measures, or a list of articles for meta analysis, etc etc.

Official Mason Syllabus Information

Official Communications via GMU E-mail: Mason uses electronic mail to provide official information to students. Examples include communications from course instructors, notices from the library, notices about academic standing, financial aid information, class materials, assignments, questions, and instructor feedback. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly.

Class Cancellation Policy: This class will entail frequent use of email, blackboard, PowerPoint, etc. Please check blackboard and your email regularly. If class is cancelled, I will notify you by email/blackboard and how we will make the time up.

Accommodations: Disability Statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Services (DRS) at 703-993-2474.

Honor Code: George Mason University has an Honor Code, which requires all members of this community to maintain the highest standards of academic honesty and integrity. Cheating, plagiarism, lying, and stealing are all prohibited. It is every student's responsibility to familiarize himself or herself with the Honor Code. The Honor Code is available at: <http://oai.gmu.edu/the-mason-honor-code-2/> All violations of the Honor Code will be reported to the Honor Committee.

Grading:

Grade	Percentage	Quality Points	Graduate Courses
A+	98-100	4.00	Satisfactory/Passing
A	93-97.99	4.00	Satisfactory/Passing
A-	90-92.99	3.67	Satisfactory/Passing
B+	87-89.99	3.33	Satisfactory/Passing
B	83-86.99	3.00	Satisfactory/Passing
B-	80-82.99	2.67	Satisfactory*/Passing
C	70-79.99	2.00	Unsatisfactory/Passing
F	Under 70	0.00	Unsatisfactory/Failing

You must do the readings before class (including readings for student presentations) and come prepared to actively discuss. If there is a reason why you cannot attend, please email me in advance. If you cannot participate one day and do not want to be called on, please let me know BEFORE class, and I will avoid calling on you.

How to do well in this class:

- Read every article and make a QALMRI
- Make notes in the article, or list questions you have on a separate piece of paper
- Come to class prepared to discuss and think about the article

Make up/ Extension Policy: I hold a policy of generosity when it comes to late/ make up work. However, I require as much advance notification and planning as possible. I want you to do your best work, and to present to me your best work. However, I also have a very full schedule, and cannot grade to each individual student's schedule. Therefore, you MUST LET ME KNOW when your work is going to be submitted after the grading period begins.

Attendance: Students who miss classes, exams, or other assignments as a consequence of their religious observance or for participation in a university activity will be provided a reasonable alternative opportunity, consistent with class attendance policies stated in the syllabus, to make up the missed work. It is the obligation of students to provide me, within the first two weeks of the semester, with the dates of major religious holidays on which they will be absent, and the dates for which they are requesting an excused absence for participation in any university-sponsored activity scheduled prior to the start of the semester, and as soon as possible otherwise. Students requesting an excused absence for participation in a university-sponsored activity must provide me a letter from a university official stating the dates and times that participation in the activity would result in the student missing class.

Plagiarism: *What is Plagiarism?* **Plagiarism** (v.) is the act of taking undeserved or unwarranted credit for something. **Plagiarism** (n.) is something represented in a plagiaristic fashion.

Severe plagiarism (a.k.a. "copying") is the most overt and deceptive form of plagiarism. This involves deliberately misrepresenting all or part of another person's work as one's own. For example, a student might turn in a paper written by another student in a previous term. Another common example is writing containing chunks of "copy-and-paste" from published articles or internet sources such as Wikipedia. Papers copied from the internet are typically obviously copied, and can be located on the internet with a simple Google search.

Irresponsible plagiarism (a.k.a. "omission") is the act of paraphrasing or quoting from a source, without giving credit to the source. The author does not necessarily explicitly take credit for the idea or

materials (but this is nevertheless implied). Please be aware that not only do ideas need to be cited, but they should also be stated *in your own words*.

Self-plagiarism (a.k.a. “recycling”) is the act of representing one’s own previous ideas or materials as new and original. For example, a student might turn in all or part of the same paper for more than one course. This may not seem as bad as stealing another person’s work, but it is *deceptive*, and therefore unacceptable.

Should I Plagiarize? You should absolutely not plagiarize. You will be caught and there will be severe consequences.

Sometimes students tell me that they do not know what constitutes plagiarism. All students should go to <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml> and read this site carefully. Clear examples are provided about the difference between using a secondary source correctly and plagiarizing from it.

I use “Turn It In” which compares your paper to a large library and database of previously submitted and internet-sourced papers and tells me if there is overlap. I do not have a ‘minimum’ percentage for failure, and instead take each example of plagiarism separately.

General classroom management:

- It goes without saying that we are all adults and behavior that shows respect for yourselves, your classmates, and the educational process is expected.
- Please turn cell phones OFF during class. Not vibrate, off.
- Computers are allowed for note-taking purposes ONLY.
- Courtesy is expected. Come to class on time and stay for the entire session. If you have an emergency and must come in late or early, please do so quietly.
- The instructor reserves the right to change the syllabus if necessary.
- In the event that the instructor wishes to disseminate information to the entire class outside of the classroom, an email will be sent to all students’ Mason email addresses. It is the students’ responsibility to regularly check email at this address. It would be wise to check email the morning of class. There may be announcements regarding assignments or lecture that would be a good idea for you to see.

Important Dates:

Last day to add: Jan 30, 2023

Last day to drop: Feb 6, 2023

Unrestricted withdrawal ends: Feb 27, 2023